ORIGINAL RESEARCH ARTICLE

Maternal satisfaction with postnatal home visitation services by community health nurses in Ashanti Region, Ghana: A cross-sectional correlational study

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Abstract

Efforts have been made to improve maternal and child health care globally, with a focus on promoting postnatal home visitation care. Despite the known significance of postnatal home visits, concerns still exist regarding mothers' satisfaction with home visitation care. This study examined maternal satisfaction with postnatal home visitation care in the Ashanti Region. A cross-sectional correlational study design was used to gather data from the study participants using the Jipi's questionnaire to assess maternal satisfaction with healthcare. Ten (10) district hospitals were randomly selected from 27 district hospitals in the region. A sample size of 170 postnatal mothers were then selected randomly from the 10 districts hospitals according to proportion of mothers at each facility. SPSS version 25 was used to analyse the data using descriptive statistics and Chi-square at a p-value = 0.05. The results indicated that the mothers were satisfied with the overall home visitation services, yet, showed dissatisfaction towards some specific postnatal care, including the quality of information on maternal care and support rendered by the CHNs regarding the care of the newborn during their visit. The satisfaction levels of mothers with these services are high, yet there are still opportunities for improving them by addressing specific challenges and tailoring these services to the diverse needs of postnatal mothers. In conclusion, CHNs' work during postnatal period is essential in promoting the health of both the baby and the mother. *(Afr J Reprod Health 2024; 28 [5]: 13-21).*

Keywords: Community health nurse, home visitation, maternal satisfaction, postnatal care

Résumé

Des efforts ont été déployés pour améliorer les soins de santé maternelle et infantile à l'échelle mondiale, en mettant l'accent sur la promotion des soins postnatals à domicile. Malgré l'importance connue des visites postnatales à domicile, des inquiétudes subsistent quant à la satisfaction des mères à l'égard des soins de visite à domicile. Cette étude a examiné la satisfaction des mères à l'égard des soins postnatals à domicile dans la région d'Ashanti. Un plan d'étude corrélationnelle transversale a été utilisé pour recueillir des données auprès des participantes à l'étude à l'aide du questionnaire Jipi afin d'évaluer la satisfaction des mères à l'égard des soins de santé. Dix (10) hôpitaux de district ont été sélectionnés au hasard parmi 27 hôpitaux de district de la région. Un échantillon de 170 mères postnatales a ensuite été sélectionné au hasard dans les 10 hôpitaux de district en fonction de la proportion de mères dans chaque établissement. SPSS version 25 a été utilisé pour analyser les données à l'aide de statistiques descriptives et du chi carré à une valeur p = 0,05. Les résultats ont indiqué que les mères étaient satisfaites de l'ensemble des services de visites à domicile, mais qu'elles montraient une insatisfaction à l'égard de certains soins postnatals spécifiques, notamment de la qualité des informations sur les soins maternels et du soutien apporté par les CHN concernant les soins du nouveau-né lors de leur visite. Les niveaux de satisfaction des mères à l'égard de ces services sont élevés, mais il existe encore des possibilités de les améliorer en relevant des défis spécifiques et en adaptant ces services aux divers besoins des mères postnatales. En conclusion, le travail des RCS pendant la période postnatale est essentiel pour promouvoir la santé du bébé et de la mère. *(Afr J Reprod Health 2024; 28 [5]: 13-21).*

Mots-clés: Infirmière en santé communautaire, visites à domicile, satisfaction maternelle, soins postnatals

Introduction

Maternal health is a global priority due to the significant disparities in the well-being of mothers between high-income and low-middle-income countries[1]. Despite numerous campaigns focusing on the utilisation of maternal healthcare services to improve the health of women and children, the desired impact has not been achieved in certain parts of the world, including Africa and Asia[2-4].

The World Health Organization maintains that the postpartum period is as strenuous for the

mother as it is for the newborn[6]. Many women and children die in sub-Sahara Africa each year including Ghana due to postpartum bleeding[5] and infections and other complications related to prematurity[6] respectively. Every year, approximately 2.6 million babies die in their first month of life. Up to half of all deaths take place within the initial 24 hours of life, with 75% occurring during the first week[6]. Similarly, in the Ashanti Region of Ghana, 53.9% of babies died within 1-4 days, 31.3% within 5-14 days, and 14.8% within 15–28 days, with causes ranging from asphyxia, low birth weight, infections and congenital anomalies, to respiratory distress syndrome[7].

With increasing skilled birth attendance in most hospitals, coupled with the demand for the few hospital beds, women who deliver in the various hospitals of Ghana and other low- and middle-income countries are being discharged home within the first 6 hours after spontaneous vaginal delivery[8]. The Ghana Newborn Strategy and Action Plan (GNSAP) seeks to encourage facility deliveries but goes on further to state that, even if facility deliveries are encouraged, mothers and babies may return home shortly after birth, some after just a few hours and as such, care must be continued at community level and home[9]. Timely intervention during the postpartum period can potentially avert health issues from progressing into chronic conditions, which could have lasting consequences on women, infants, and their families[10].

CHNs have been at the forefront of delivering postnatal care through home visits since 2014 in Ghana[11]. However, both CHNs and postnatal mothers encounter challenges that hinder the effectiveness of postnatal care delivery[12,13]. Previous studies have demonstrated poor satisfaction of mothers with their postpartum care providers either at the facility or in their homes. Some authors have cited lack of continuity with care[14], concerns with education and information delivery by care providers on maternal and newborn care practices[15] and concerns with communication[16,17]. Some mothers have as well expressed concerns about availability of resources[18].

Available studies conducted in Ghana looked at the determinants of utilisation of maternal health services at the facility level[19], with none focusing on maternal satisfaction with postnatal home visits to improve maternal and child health care. The study therefore aimed to examine maternal satisfaction of postnatal home visitation care provided by CHNs in selected districts in the Ashanti Region of Ghana. It also sought to examine the relationship between demographic features of the postnatal mothers and their level of satisfaction with the current postnatal visitation strategy.

Methods

This study employed a cross-sectional correlational study design to obtain information about the satisfaction of postnatal mothers with postnatal home visitation services given in a single point in time.

Study setting

The study was conducted in the Ashanti Region of Ghana. The population of the Ashanti Region is estimated at 5,440,463, making it the second-largest region in the country[20]. The region is divided into 30 administrative and health districts, with 530 health facilities, of which 325 are public health institutions. The Ashanti Region was chosen for the study due to the fact that maternal and neonatal mortality has increased, postnatal care (PNC) coverage has decreased [21]. The selected districts were chosen because they had hospitals that are well-equipped with more skilled and competent public health staff including CHNs who are required to conduct frequent home visits in and around the communities[22].

Population, sampling and recruitment

The population for this study constituted 300 mothers who had completed the six-week postnatal period in the last two weeks before the study and had had a CHN visit them in their home at least once. Cochran's formula for sampling estimation was used to calculate the sample size from the total study population[23] . The respondents were recruited through a simple random sampling technique from the list at the postnatal unit of the hospitals with a probability proportionate to size (PPS). The names of the 27 district hospitals were listed, followed by a simple random selection (i.e. the lottery method) of 10 district hospitals. A random sample of 170 respondents was drawn from all 10 district hospitals as sub-samples. The researcher calculated the

proportion of mothers at each hospital by dividing the number of mothers at each hospital (x) by the total number of postnatal mothers (N=300) for the 10 hospitals. This proportion (x/300) was then multiplied by the calculated total sample size (N) to compute sub-samples (x/300*N) for each hospital.

Data collection

Data were collected with self-administered questionnaires on current practices of postnatal home care provision related to maternal satisfaction. Jipi's Postnatal Satisfaction with Nursing Care Questionnaire (JPSNQ) was adapted for evaluating postnatal mother's satisfaction following nursing care and was used as a guide to assess maternal satisfaction with postnatal home visitation. The questionnaire was divided into two parts: the demographic information and the maternal satisfaction scale. A total of 37 items on a 4-point Likert scale (1=very dissatisfied to 4=very satisfied) measuring satisfaction with information, communication, comfort and care, assisting with specific postnatal care and values and preference for postnatal mothers. The four-point Likert scale was adopted with anchors: 'very dissatisfied' (1), 'dissatisfied' (2) 'satisfied' (3) and 'very satisfied' (4). The minimum mean response value acceptable to show agreement with a measuring item was therefore calculated as: [1+2+3+4] ÷ 4 = 2.5. A composite mean score was then obtained from all the components of post-natal home visitation services. The mean scores in either case were categorized as 3.51-4.0 = very satisfied, 2.52-3.50 = satisfied, 1.51-2.50 = dissatisfied and 1.00-1.50= very dissatisfied. Higher mean score therefore denoted higher satisfaction and vice versa. There were also 9 items measuring demographic variables of respondents. The Cronbach's alpha (ά) for the scale after pre-testing was 0.84.

The questionnaires were administered to the mothers after they had received their care at the facility by four well trained research assistants. It took about 30 minutes to complete them. Mothers who could not read either "English" or "Twi" were allowed to select their preferred interpreters who interpreted the questionnaires to them. With two research assistants at each facility at a given time, the process continued until the required sample size was reached before moving to another facility. Data collection took an average of 3 weeks at each facility, and a total of 7 months to complete. Data was collection from July, 2020 to January, 2021.

Data analysis

Data from the study were cleaned and checked for its accuracy before entered into SPSS statistical software (version 25). Descriptive statistics were used to describe the general characteristics of respondents in terms of demographics and maternal satisfaction. Categorical variables were summarised using frequencies and percentages while continuous variables were also summarised using means and standard deviations. A chi-square analysis was conducted to determine associations between demographic features and maternal satisfaction with postnatal home visitations at a significance level of p=0.05.

Ethics

Ethics approval for the study was obtained from the Biomedical Ethics Committee of the University of the Western Cape (BM19/5/8) and the Ethics Review Committee of Ghana Health Services (GHS-ERC002/12/19). The researcher gained entry into the selected hospitals after permission had been granted by the hospital administrators. Respondents were asked for verbal and written informed consent. They were informed about the purpose of the study and that their participation was completely voluntary. Respondents were taken to a quiet, serene place further from the postnatal clinic to prevent any form of pressure in answering the questionnaire. Anonymity of respondents was maintained throughout the process of the study by giving codes to questionnaires.

Results

The age distribution of mothers who were respondents in the study shows that a majority (88.2%, n=150) of the respondents were younger than 40 years. A response rate of 93.4% for mother respondents was obtained. Marital status indicated that 61.8% (n=105) respondents were married. The majority of respondents (88.2%, n=150) were Christians. Almost half of the respondents had basic education (43.5%, n=74), and the majority (79.4%,

Table 1: Respondents' demographic features

Variables	Categories	N	%
Age (years)	Less than 25	28	16.5
	25-29	41	24.1
	30-34	64	37.6
	35-39	24	14.1
	40-44	10	5.9
	45+	3	1.8
Marital status	Single	59	34.7
	Married	105	61.8
	Widowed	6	3.5
Religion	Christians	150	88.2
	Muslims	16	9.4
	Traditionalist	4	2.4
Educational background	No formal education	33	19.4
	Basic	74	43.5
	Secondary/Vocational	47	27.7
	Tertiary	16	9.4
Occupation	Farming	83	48.8
	Trading	52	30.6
	Employees on salary	16	9.4
	Unemployed	19	20.6
Average monthly income	< Gh₵450	95	55.9
	Gh₵450-900	52	30.6
	>Gh₵900	23	13.5
Number of children	1	13	7.6
	2	64	37.7
	3	49	28.8
	4	33	19.4
	5 or more	11	6.5

Table 2: Maternal satisfaction with the current postnatal home visitation services

Statements	Mean	SD
Communication with mothers	3.14	0.65
Orientation of mothers	3.20	0.71
Information to mothers	2.70	0.58
Comfort and care of mothers	2.76	0.90
Specific postnatal care for mothers	2.53	0.58
Respecting the values and preferences of mothers	2.25	0.69
Total satisfaction	2.76	0.69

n=135) of the respondents were self-employed in trading and farming. More than half (55.9%, n=95) of the respondents receive an average monthly income of less than Gh₵ 450. Majority (93.5%, n=159) of the respondents had a maximum of four (4) children. Details of the participants' demographic features are presented in Table 1.

Maternal satisfaction with the current postnatal home visitation services

The mother's satisfaction (Table 2) of postnatal home visitation services was determined using the composite mean scores of the scales measuring each component of maternal satisfaction..

The postnatal mothers were satisfied with CHNs' communication services (M=3.14, SD=0.65), orientation of mothers (M=3.20, SD=0.71), information delivered to mothers (M=2.70, SD=0.58), comfort and care to mothers (M=2.76, SD=0.90), specific postnatal care to mothers (M=2.53, SD=0.58) but were dissatisfied with respecting the values and preference of mothers during postnatal home visitation (M=2.25, SD=0.69).

Table 3: Association between demographic variables and mothers' satisfaction with postnatal home visitation services provided by CHNs

Variables	Satisfied with information delivery N=89 (52.4%)	Not satisfied with information delivery N=81 (47.6%)	Chi-square value (χ^2)	P-value
Age (years):			104.50	.000
Less than 25	28 (16.5)	0 (0)		
25-29	2 (1.2)	39 (22.9)		
30-34	22 (12.9)	42 (24.7)		
35+	37 (14.1)	0 (0)		
Marital status:			5.67	.06
Single	30 (17.6)	29 (17.1)		
Married	53 (31.2)	52 (30.6)		
Widowed	6 (3.5)	0 (0)		
Religion:			20.67	.000
Christians	69 (40.6)	81 (47.6)		
Muslims	16 (9.4)	0 (0)		
Traditionalists	4 (2.4)	0 (0)		
Highest education:			118.05	.000
No formal education	26 (15.3)	7 (4.1)		
Basic level	4 (2.4)	70 (41.2)		
Second cycle	43 (25.3)	4 (2.4)		
Tertiary	16 (9.4)	0 (0)		
Main occupation:			126.05	.000
Farming	70 (41.2)	13 (7.6)		
Trading	0 (0)	52 (30.6)		
Salaried worker	0 (0)	16 (9.4)		
Unemployed	19 (11.2)	0 (0)		
Average monthly income:			43.31	.000
<Gh₵450	30 (31.6)	65 (68.4)		
Gh₵450-900	36 (69.2)	16 (30.8)		
>Gh₵900	23 (10.0)	0 (0)		
Number of children:			88.43	.000
1	13 (7.6)	0 (0)		
2	38 (22.4)	26 (15.3)		
3	0 (0)	49 (28.9)		
4	27 (15.9)	6 (3.5)		
5 or more	11 (6.5)	0 (0)		

Socio-demographic factors that influence mothers' satisfaction with postnatal home visitation services

Table 3 provides the association between the socio-demographic characteristics of mothers and their satisfaction with the postnatal home visitation services. All mothers younger than 25 years, and those from age 35 years and above reported being satisfied with the information delivered to them by the CHNs. On the other hand, for those between the ages of 25 years and 34 years, 47.6% (n=81) expressed dissatisfaction with the postnatal services provided by the CHNs. The result shows significant association (χ^2=104.50, p<0.001) between mothers' age and their satisfaction with postnatal home visitation services provided by the CHNs. It was also established that all the Muslims and traditionalists expressed satisfaction towards postnatal home visitation by the CHNs. However, 47.6%, (n=81) of Christian mothers were not satisfied with CHNs for their home visitation services. The Chi-square result (χ^2=20.67, p<0.001) indicates a positive association between mothers' religion and their satisfaction with CHNs' home visitation services. The level of education of the mothers demonstrated an

association (χ^2=118.05, p<0.001) with their satisfaction with home visitation services by the CHNs. For mothers who had attained basic education, 41.2%, (n=70), a tertiary-level education (n=19, 9.4%), farmers, 41.2%, (n=70) and unemployed mothers (11.2%) reported that they were satisfied with the postnatal home visitation services respectively. Conversely, all mothers who were salaried workers (9.4%) and traders (30.6%) expressed dissatisfaction with the postnatal home visitation by the CHNs. Occupation was then seen to have a significant association (126.05, p < 0.001) with CHNs' home visitation services.

Moreover, mothers' income level had a significant association (χ^2=43.31, p<0.001) with the service delivery by the CHNs. Mothers who earned more than Gh₵900, mothers with only one child, mothers with five or more children affirmed being satisfied with CHNs' home visitation services. Inversely, mothers with three children (n=49, 28.9%) were not satisfied with the postnatal home visitation services. There was significant association between mothers with specific number of children and postnatal home visitation satisfaction with a chi-square value of 88.43 (p<0.001).

Discussion

The study assessed the satisfaction of postnatal mothers with home visitation care provided by CHNs. The findings of the study dwelt on the expectations of the mothers towards specific activities performed by the CHNs, including how they should communicate with them, assist them and educate them, among others. Though the work of these CHNs is very critical in the provision of healthcare in rural settings, their work may be misunderstood or devalued[15,24]. Thus, most clients are not privy to the duties expected of the CHN during postnatal visitation. This notwithstanding, every patient's most important right is to be satisfied with the services given by health facilities[25,26]. Over the years, satisfaction with maternal health care services has been recognised as an essential outcome for the health care delivery system[27,28].

Generally, the mothers were satisfied with postnatal home visitation services provided by the CHNs. The finding is similar and corroborates other studies previously done in Ghana and other LMICs[29-31] which have reported that generally, mothers were satisfied with the services and care provided by the CHNs. More specifically, mothers were satisfied with the aspects of communication, specific information and assistance offered by CHNs. It has been argued that communication plays the most important role between care providers and the recipients of care[31,32] and the importance of professional communication between care providers with their clients and families is unblemished in their satisfaction with care received[33,34]. Accordingly, maternal satisfaction with communication, if positive will significantly impact the implementation of the postnatal home visitation programme and its quality and subsequently, the outcome of the process[35-37]. There are, however, relative differences between the findings of the current study and the others, and this may stem from the fact that this study elicited responses from clients receiving services from nurses in their homes, as compared to most other studies that assessed level of satisfaction with communication in the hospital environment. This notwithstanding, other similar studies done on postnatal maternal health services also suggest that mothers are not very satisfied with the communication skills used by nurses in conducting patient-centred care[38,39].

Maternal satisfaction increases when mothers receive adequate information on what to do whenever they encounter health problems[39]. The findings from the current study suggest that mothers were generally satisfied with the information provided by the CHNs on postnatal care based on the general satisfaction score for information. This corroborates other studies that have reported that mothers are generally satisfied with the information and education given by care providers during postnatal services[41,42]. However, mothers' satisfaction with the information given by the CHNs on specific health issues such as nutrition, vaginal care, family planning and the importance of follow-up visits were average. This suggests a higher expectation of the mothers from the CHNs regarding the depth and quality of information they give on these specific postnatal activities. This supports an earlier study in Ghana that suggested that women were not satisfied with the information on postnatal follow-up visit and the danger signs of the postnatal period[43].

Moreover, the study indicated that mothers were dissatisfied with the education provided concerning their health and care. Although CHNs

are mandated to educate the mothers on how to care for the baby and provide some specified care at some specified periods during the postnatal period to the mother[3,6], the current study suggests the CHNs with less concerned about the latter.

Furthermore, the study revealed a significant association between the demographic variables of respondents and their satisfaction/dissatisfaction with the postnatal care provided by the CHNs. The study identified age, income level, educational background, religion, parity and occupation as some key demographic variables that can determine satisfaction with service delivery.

Concerning variables that were associated with dissatisfaction, mothers aged from 25 years to 35 years, Christians, low-income earners (below GhȻ 450), and low education level were the very particular categories among the various demographic groupings that were not very satisfied with aspects of the CHNs service delivery. Satisfaction with postnatal home visitation services was found to be significantly associated with all demographic variables of the mothers. For age, all mothers below age 25 years, and all mothers above age 35 years were satisfied with postnatal home visitation services by the CHNs. For mothers within 25 years and 34 years, more than two-thirds (77.1%) expressed dissatisfaction with the services received from the CHNs. This may be due to the exposure and experience of the mothers and their respective expectations of services from the CHNs[44].

Mothers within the ages of 25 and 34 may be mostly multiparous; has received care severally and can clearly compare and evaluate care from previous services. They may expect to be given more information about activities undertaken at the postnatal stage than they received during their previous delivery. These mothers, if literate will mostly require postnatal home visitation in respect of the experience they had with their previous pregnancy, labour and postnatal. They will therefore expect the CHNs to provide more services than what they already know. Parity and maternal age are believed to significantly relate to satisfaction with maternal care[45]. However, those above 34 years may as well be multiparous, but are believed to perceive both optimal information and connection from care providers and for that matter may become satisfied with care[46]. This however contradicts the findings of Panth and Kafle[47] who averred that those mothers above 25 years of age are more likely to be satisfied with maternal care services than those younger than 25 years. However, the culture and demographic background in the latter study (Nepal) may greatly be related to this variation.

The results of the study indicate that just like specific information, lower educational level, low-income status and younger age (25 to 34 years) are associated with dissatisfaction with specific education by the CHNs. These findings on socio-demographic variables and their relationships with maternal satisfaction/dissatisfaction support other findings in earlier research works[48-50].

Limitation

The study did not determine causality and assess changes in satisfaction over time. Furthermore, the study relied solely on self-reported data, which are susceptible to response bias. Postnatal mothers' experiences and expectations can be explored in depth through qualitative research.

Conclusion

Postnatal home visitation services in Ghana are generally well received by mothers, indicating the importance of this healthcare intervention in the postpartum period. There are, however, challenges especially in respecting mothers' values and preferences regarding services delivered, appropriate health education on specific baby care and information on dangerous signs of postnatal period. Therefore, streamlining service delivery processes and being culturally sensitive to service delivery are vital to improving maternal satisfaction and, ultimately, maternal and infant health outcomes. As a result of these findings, existing policies and programs can be improved in Ghana to enhance postnatal care services and improve the overall healthcare experience for mothers. Thus, taking careful steps to improve communication between the CHNs and mothers, their information delivery and education on vital maternal and child care practices.

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Authors contribution

YA: Conceived and designed the study, conducted data collection, data analysis, and interpretation of the results, and prepared the manuscript. MB: Supervised the study methodology, data analysis, reviewed and edited the manuscript.

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