Assessment of compliance with labour and birth information among Post-Natal Women attending General Hospital, Ilorin

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Abstract
Childbearing is a life threatening event and compliance with labour and birth information can help reduce maternal and infant morbidity and mortality during pregnancy and childbirth. This study therefore, assessed the level of compliance with labour and birth information received; as well as maternal perception and satisfaction with birth information received by pregnant women. A descriptive cross-sectional survey was used for the study. A pre-tested structured questionnaire was administered to 119 postnatal women using purposive sampling technique. Data collected were analyzed using descriptive and inferential statistics at 0.05level of significance. The study revealed that majority of the participants received adequate labour and birth information and nurse-midwives were the major source of information received. Majority of participants received information on signs of labour (93.3%), basic requirement at the time of admission (93.3%), labour process (63%), plan of care and procedure during labour (62.2%) and care of the new born (60.5%). However, less than 40% received information on Pain relief during labour, augmenting and induction of labour, and episiotomy while the remaining claimed that they did not. Also, 109 (91.6%) of participants were satisfied with the information received and more than three quarters of the participants claimed to comply with the birth information given. However, some of the participants did not comply due to inability to cope with labour pain, anxiety and unexpected events. There was significant association between previous birth experience, participants' parity and level of compliance with birth information given (p-value = .005). Therefore, there is need to intensify child birth education during antenatal to ensure compliance during labour.

***Key Words**: Birth information, Compliance, Labour, Postnatal women, Hospital*

Introduction

Pregnancy, labour and childbirth are unique processes and women have different expectations during childbirth based on their knowledge, experiences, belief systems, culture, social and family backgrounds (Iravani, Zarean, Janghorbani, & Bahrami, 2015) These differences should be understood and respected, and care is adapted and organized to meet the individualized needs of women and families. Establishing rapport, trust and successful communication between healthcare providers and expectant mothers is important to a woman's positive childbirth experience (Iravani *et al*, 2015).

Childbirth is described as a multifaceted experience. Sense of security and perceived control, experienced level of labour pain, personal support, midwifery care, experience of earlier deliveries, intrapartum analgesia, information given and involvement in decision making contribute to the childbirth experience (Dencker, Taft, Bergqvist, Lilja, & Berg, 2010; Hodnett, Gates, Hofmeyr, & Sakala, 2013). Childbirth is a life changing event and the care given to women has the potential to affect them both physically and emotionally. There is often a gap between what women expect to receive from their maternity care and the level of services provided by healthcare professionals (Iravani *et al*, 2015).

Labour and birth information are crucial for preparing women for labour and birth as well as for promoting their satisfaction with the care received (Malata & Chirwa, 2011). Meeting labour and birth information needs of women

based on their values, preferences and expectations help healthcare professionals; especially midwives, in providing quality care to expectant mothers during labour and delivery (Iravani *et al.*, 2015; Lowdermilk, Perry, & Cashion, 2013). Information needs of expectant mothers are quite complex because childbearing is a time of great change accompanied with by physical, emotional and social changes. Research studies revealed that childbirth education lead to increased sense of control during labour, a decreased perception of pain, decreased anxiety, decreased use of analgesic, and increased confidence in coping with labour for most women (Creedy & Gould, 2017).

A woman's expectations arose from her social conditioning: her educational status, previous birth experience, stories told by friends and relatives and mass media, all these contribute to her expectation about child bearing and what she expects when she gives birth (Sengane, 2013). Expectant mothers feel valued when the midwives provide them with the expected and needed information and care during period of pregnancy and labour (Sengane, 2013). Expectant mothers need to comply with the birth information given in order to avert complications arising from non-compliance with labour and birth information received by mothers. Similarly, compliance with labour and birth information can help women simplify pregnancy and birth and help reduce maternal and infant morbidity and mortality.

According to the information-motivation-behavioural skills model, the extent to which individuals are well informed, motivated to take actions and possess the required skills for the activities, determines their likelihood of initiating and maintaining behaviour(Fisher, Fisher, & Harman, 2003). This implies that when expectant mothers are given adequate birth information during pregnancy, they will comply with labour instructions. Furthermore, compliance with birth information is also influenced by the way expectant mothers perceived the information received. Health Belief Model also suggests that modifying variables which include knowledge (information received) affect health-related behaviors indirectly by affecting perception of the individual about the benefits and barriers of the issue (Carpenter, 2010).

Research Questions

This study was designed to answer the following research questions;

- What are the labour and birth information received during pregnancy among postnatal women attending General Hospital, Ilorin?
- What is/are the source(s) of labour and birth information received during pregnancy?
- What is the perception of postnatal women about labour and birth information received during pregnancy?
- What is the level of compliance with labour and birth information received during pregnancy among postnatal women attending General Hospital, Ilorin?
- What is post-natal women's level of satisfaction with labour and birth information received?

Research Hypothesis

- There is no significant relationship between parity of the women and compliance with birth information.

Methodology

A descriptive cross-sectional design was used for the study. The study was carried out at the post-natal unit of General Hospital Ilorin, Kwara State, Nigeriawhich is a secondary institution, located at Taiwo-Oke Roundabout, opposite Queen Elizabeth Secondary School, Ilorin, in Ilorin West Local Government Area of Kwara State, Nigeria.

The study was carried out among postnatal women. A sample size was calculated using fisher's formula: n= N/1+ $(e)^2$ where 'n' = required sample size; N = the total population size; e = error of tolerance which is 0.05. Purposive sampling technique was used to select 130 participants. Inclusion criteria include willingness to participate in the study, women who gave birth within 8 weeks and attended post-natal unit of General Hospital, Ilorin, while

the exclusion criteria include: primigravida; women who baby sit for the mother or relative who helped the mother to bring the child to the post-natal ward.

The instrument for data collection was a self-administered structured questionnaire tagged "compliance with labour and birth information questionnaire (CLBIQ)". The instrument was divided into four sections; Section A collected information about the socio-demographic data of participants; Section B was designed to collect information on perception of labour and birth information of postnatal women; Section C on compliance with labour and birth information, Section D on level of satisfaction with the labour and birth information received. Face and content validity of the instrument was done by colleagues and experts in the field of study, while the reliability of the instrument was determined using Split half reliability test and reliability coefficient of 0.78 was obtained, which showed that the instrument was reliable. Out of the 130 questionnaires administered to participants, 119 were properly filled and suitable for data analysis. Thus, the response rate was 91.5%.

Ethical approval for the study was obtained from ethical review committee of the hospital. Information about the research was discussed in details with the participants, informed consent was obtained from each participant; privacy and confidentiality were ensured as name was not required from the participants. Participants were granted the freedom to withdraw at any point. The questionnaires were administered over a period of four weeks anddata analysis was done using both descriptive (frequency/percent counts), and inferential (Chi-square) statistics.

Results

Table 1: Socio-demographic profile (n=119)

Variables		**Frequency**	**Percentage**
Age (years) Mean= 2 8.03 SD= 5.9	16-20	10	8.4
	21-25	35	29.4
	26-30	32	26.9
	31-35	19	15.9
	36-40	23	19.3
Religion	Islam	79	66.4
	Christianity	40	33.6
Ethnicity	Yoruba	103	86.6
	Hausa	8	6.7
	Igbo	2	1.7
	Others	6	5.0
Highest level of education	Primary	1	8
	Secondar **y**	20	16.8
	Tertiary	94	79.0
	Others	4	3.4
Parity	1	15	15.9.
	2	39	32.8
	3	46	38.7
	4	19	12.6

Table 1 shows that majority 35 (29.4) of the participants are within 21 – 25 years of age, with mean age of 28years. Majority 79 (66.4%) of the participants were Muslims and more than two-third 94 (79.0%) had tertiary education. Majority 103 (86.6%) were Yoruba, with more than 104 (84.1%) having 2-4 children which is within the acceptable number nationally.

Table 2: Labour and birth information received by participants **(n=119)**

Variables		Frequency	Percentage
Information and signs of labour	Yes	111	93.3
Information about labour ward environment	Yes	72	60.5
Information about plan of care and procedure during labour	Yes	74	62.2
Pain relief during labour	Yes	38	31.9
Basic requirement at the time of admission for childbirth	Yes	111	93.3
Emergency caesarean section in case of any complication	Yes	59	49.6
Information about episiotomy	Yes	44	37.0
Augmenting and induction of labour	Yes	42	36.0
Care of the new born	Yes	72	60.5
Possible complications of labour	Yes	63	52.9
Clear and simple explanation about labour process	Yes	75	63.0

Table 2 reveals that majority 111 (93.3%) of postnatal women received information on signs of labour, 72 (60.5%) received information about labour ward environment, 74 (62.2%) received information about plan of care and procedure during labour, 38 (31.9%) received information on pain relief during labour, 111 (93.3%) received information on basic requirement at the time of admission for childbirth, 59 (49.6%) received information on emergency caesarean section in case of any complication, 44 (37.0%) received information about episiotomy, 72 (60.5%) received information on care of the new born, 63 (52.9%) received information on possible complication of labour while 75 (63.0%) was given clear and simple explanation about labour & birth process. However, majority 71 (59.7%) claimed not to receive information on augmenting and induction of labour.

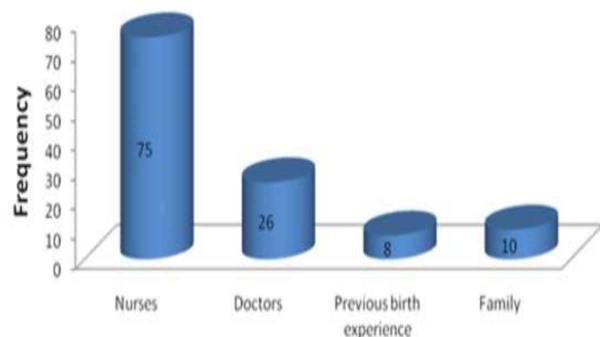

Figure 1 Source of labour and birth information

Figure 1 shows that 75 (63.0%) of the participants mentioned nurses as the source of information about labour and birth.

Variables	Agreed	Disagreed	Un decided
Most of the information given was very useful to me	106 (89.1%)	13(10.9%)	0 (0.0)
Most of the information given was not necessary	20 (16.8%)	81 (68.1%)	18 (15.1)
The information helped me to cope better with pregnancy and childbirth	101 (84.9%)	12 (10.1%)	6 (5.0%)
Opportunity was given to me to make informed decisions about my care	70 (58.8%)	36(30.2%)	13 (10.9%)
The experience during labour, is the same as the information given	57 (47.9%)	50 (42.0%)	12 (10.1%)
Information given was not adequate	38 (31.9%)	69 (58.0%)	12 (10.1%)
I was given consistent information	67 (56.3%)	34 (28.6%)	18 (15.1%)
My opinions and preferences regarding my labour and birth care were considered	74 (62.2%)	45 (37.8%)	0 (0.0%)
I was satisfied with labour and birth information given	109 (91.6%)	0 (0.0%)	10 (8.4%)

Table 3 shows that majority 106 (89.1%) of the participants agreed that most of the information given was very useful to them. 81 (68.1%) disagreed that most of the information given was not necessary. Majority 101 (84.9%) said that the information helped them to cope better with pregnancy and childbirth, 70 (58.8%) agreed that opportunity was given to them to make informed decisions about their care, 57 (47.9%) agreed that the experience during labour, is the same as the information given, most 69 (58.8%) maintained that the information given was adequate, majority 67 (56.3%) agreed that they were given consistent information while majority 74 (62.2%) also agreed that their opinions and preferences regarding their labour and birth care were considered. Most of the participants 109 (91.6%) were satisfied with labour and birth information received.

Table 4: Compliance with labour and birth information (n=119)

Item	Responses	Frequency	Percentage
Did you completely obey all labour and birth information given to you?	Yes	93	78.1
	No	26	21.9
Did you bear down (push) on instruction?	Yes	97	81.5
	No	22	18.5
Did you maintain the position the midwife asked you to assume during labour?	Yes	100	84.0
	No	11	9.3
	No response	8	6.7
Did you cooperate with the midwife during suturing of episiotomy	Yes	68	57.1
	No	19	16.0
	Not given	32	26.9
Reasons for non compliance with midwife instructions (n=26)	Pain	8	6.7
	Staff shouting at me	2	1.7
	Unexpected event	4	3.4
	not convenient	3	2.5
	My first time	2	1.7
	Fear/anxiety	5	4.2
	No response	2	1.7

Table 4 shows that majority 93 (78.1%) said that they complied with the labour and birth information given while 26 (21.9%) did not. Of the 26 (21.9%) who did not comply, 8 (6.7%) cited pain, 5(4.2%) cited fear/anxiety and (3.4%) cited unexpected events as the major reasons for non compliance.

Table 5: Statistical illustration of relationship between parity and compliance with birth information (n=119)

Responses		**Compliance with birth information**		**Total**	**Chi-Square X^2**	**df**	**P-Value**	**Remark**
		Yes	**No**					
	1	5	10	15	21.443^a	**3**	0.005	Significant
Parity	2	29	10	39				H_o Rejected
	3	42	4	46				
	4	17	2	19				
	Total	93	26	119				

Table 5 illustrates a significant relationship between parity of the women and compliance with birth information ($p < .05$).Hence, the null hypothesis was rejected.

Discussion of Findings

The study revealed that majority of the participants received adequate information regarding labour and birth during antenatal period and their major source of the information received were from nurse-midwives. This is not surprising since provision of health information especially pregnancy and labour information is a fundamental responsibility of the midwives in Nigeria to give group health education to pregnant women before the routine check-up during every antenatal visit. This finding is in agreement with Grimes, Forster, Newton (2014) where 67% of the participants claimed that they received adequate health information during pregnancy and their major source of information was the midwives. However, this finding is at variance with the study conducted in Gambia by Isatou, Yiing-Jenq, Tsai-Ling, and Nicole (2012), where majority of women did not receive sufficient information regarding childbirth.

More than half of postnatal women received adequate information on the following: the basic requirement at the time of admission for childbirth, labour ward environment, signs of labour, labour and birth process, plan of care and procedure during labour, possible complications of labour, and care of the new born. However, less than 40% received information on pain relief during labour, episiotomy and augmenting/induction of labour. This therefore constitutes a serious issue as it may lead to lack of patients' cooperation during labour and childbirth which may eventually affect patient's satisfaction and delivery outcome. According to Ojewole and Oludipe (2017), adequate evidenc-based information assist women in decision-making process concerning pregnancy, labour and childbirth, thus empowering them to overcome labour and delivery challenges.

The study also showed that most of the participants agreed that the information given were very useful to them and helped them to cope better with pregnancy and childbi**rth.** This is in agreement with Iravani, Zarean, Janghorbani, and Bahrami (2015), who conducted a study on Women's needs and expectations during normal labour and delivery in Isfahan, Iran. It was found that childbirth information received by mothers during antenatal period influenced their sense of control and empowerment during labour and delivery.

Most of the participants were satisfied with labour and birth information received. This also coincides with the findings of Iravani *et al* (2015), where majority of their participants were satisfied with childbirth information received. Childbirth information received by mothers during the antenatal period affect their satisfaction of the care during intrapartum care (Iravani *et al*, 2015). Therefore, it is germane that midwives provide adequate information that will ensure clients' satisfaction with care receive during pregnancy, labour and childbirth.

The findings of this study also revealed that majority of the participants claimed they complied with given information on labour and birth. Haines, Rubertsson, Pallant, and Hildingsson (2012), argued that evidence based information shapes beliefs and can lead to attitude changes and compliance. Furthermore, various studies have shown that the higher the compliance with labour and birth information, the better is the maternal and child outcomes (Hidalgo-Lopezosa, Rodríguez-Borrego, & Muñoz-Villanueva, 2013; Hidalgo-Lopezosa, Hidalgo-Maestre, & Rodríguez-Borrego, 2017; Ojewole & Oludipe, 2017; Saleh & Lasisi, 2011). However, less than one quarter (21.9%) of the participants did not comply with birth information received and the major reasons for non compliance were: inability to cope with labour pain, fear/anxiety of outcome of labour and unexpected events.

Implication of the study for clinical practice

The quality of information pregnant women receives empower them to make informed choices about care received and overcome pregnancy and labour-related challenges. Therefore, health care providers especially nurses/midwives have a vital role in educating women through specially designed learning programs in the health care settings during antenatal and labour as well as through

community outreach approaches that suit the social cultural settings. There is need to provide evidence based information among pregnant women to ensure compliance with labour and birth information, thus reduce maternal and child morbidity and mortality rate. The quality of information an individual receives enhances her rightful choice of health care.

Conclusion

Information needs of expectant mothers are quite complex and this study examined the compliance with labour and birth information as well as maternal perception and satisfaction with the birth information received. The study revealed that majority of the participants received adequate information regarding labour and birth during antenatal period and their major source of the information received were from nurse-midwives. Most of the participants were satisfied with labour and birth information received. The study also revealed that majority of the participants complied with labour and birth information given. However, some of the participants did not comply due to inability to cope with labour pain, anxiety and unexpected events. Therefore, there is need to intensify childbirth education during antenatal to ensure compliance during labour.

Recommendations

Nurses/midwives and other health workers need to adjust the content of health education given during antenatal to cover all areas of pregnancy, labour and puerperium. Furthermore, there is need to intensify health education given to expectant mothers in order to improve and motivate compliance to labour and birth information. This in turn will improve patients' satisfaction and birth outcome.

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