

Impact of Health Care Provider's Training on Patients' Communication During Labor at Omdurman Maternity Hospital, Sudan 2011

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ABSTRACT

Background: Comprehensive patient's health care provider's (HCP) communication usually increases patients' participation in their health management on childbirth.

Objective: This is a quasi interventional study for assessing impact of health care providers (HCP) training on patient- provider's communication during childbirth in the labour ward at Omdurman Maternity Hospital during 2011.

Material and Methods: A situation analysis was done before training to assess existing practice of providers' communication skills and patient's satisfaction. All care providers in labour ward were trained and their practice was assessed before and after training. A ten percent sample of patients delivered in hospital before and after training was used to assess providers' practice. Results were analyzed using SPSS version 18.

Results: Health care providers, included were 225 (120/ 105) and interviewed women were, 4469 (2000/ 2469) before and after training respectively. Before training, patients were informed on onset of labour (76.8%), requested investigations (54.9%), permission for vaginal examination (60.3%) and when given antibiotics (85.1%), which improved significantly after training. No improvement in information on adverse effect of drugs and procedures or taking of an informed consent. Patient's opinion on health care providers' behavior after delivery in labour ward, were supportive, friendly and respectful (89.7%) and (94.6%) with improved satisfaction (89.8%) and (95.7%) before and after training respectively.

Conclusion: The study showed that training of health care providers on communication skills has effective improvement on HCP knowledge and practice towards communication with patients in many areas during labour with resulting good patient's satisfaction. However, improvement in communication skills need sustained in-service training.

Key words: patients- providers' communication, satisfaction, Sudan.

Pregnancy and childbirth may be a normal phenomenon to some couples or families; however, others may face an exciting change, leading to anxiety, depression or even fear. Health care providers

are expected to respond to the consequences of such change and to offer the utmost help. Women have appreciated the importance of having an appropriate service provided by experts and emphasized the importance of health care provider's communication skills. When women attend antenatal care (ANC), they should be confident to ask questions about necessary information regarding pregnancy, diet, sex, travels, vaccination, preparation for birth, drugs, breast feeding, delivery, birth assistance and care providers during birth. Although hospital delivery is safer than home delivery, in Sudan, due to many socio- economic barriers, it is only at 19.4% ¹.

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Communication is a meaningful connection with one or more for exchange of information, formulation of ideas, feeling or influence and transmitting sympathy or empathy². A comprehensive communication increases patients' participation in their health management with respect to choice, dignity and humanity³. Effects of communication on childbirth is a complicated issue, particularly on outcome, however, continuous empathy and physical support is associated with shorter duration of labor, need for analgesia and operative delivery⁴. Poor patient-provider's communication may result from provider's lack of knowledge, exhaustion, over work, weaker patient's condition or poor collaboration on medical interviews⁴.

To our knowledge, no previous studies or records on patient-provider's communication and satisfaction in this hospital or in Sudan have been done, necessitating the need for such research. This study is to assess whether training on communication skills is effective to increase health care providers (HCP) knowledge and practice on patient-provider's communications during labour.

MATERIALS AND METHODS:

This is a quasi study for improving patient-provider's communication in the labour ward at Omdurman maternity hospital. Ten percent

sample of hospital deliveries and all HCP during study period were included before and after training. Socio-demographic characteristics were studied, information given to patients on admission to labour ward, permission and consent for procedures, post natal follow up and patient's satisfaction were assessed before and after training. Two structured questionnaires were used for women and health care providers. Data collected by trained staff and health care providers were interviewed by the investigators. An informed consent was obtained from each woman with the right to refuse without affecting service she received. Training included registrars, house officers, midwives and data collectors; on communication skills, support during childbirth, providing information and empathy. Data was analyzed (using a microcomputer SPSS program, version 18), for comparable variables, chi square was used and P value of < 0.05 was considered significant.

RESULTS:

Total number of health care providers, included were 225 (120/ 105), women interviewed were 4469 (2000/ 2469) before and after training respectively. Of HCP, 69 (30.7%) were registrars, 81 (36.0%) house

Table (1):Patient's opinion on information given to them on admission to labour ward, in OMH 2011 before & after training

variable	Pre-intervention No= 2000		Post-intervention No= 2469		Chi square	P value
Labour starting	1535	76.8%	2390	96.8%	415.495	0.001
Investigation to be done	1097	54.9%	2334	94.5%	975.741	0.0001
Condition of the fetus	0309	15.3%	2274	92.1%	2661.602	0.0001
To move or to stay in bed	0236	11.8%	0323	13.1%	NS	
Progress of labour	0199	09.9%	2219	89.9%	2842.480	0.0001
Expected duration of lab.	0178	08.9%	2346	95.0%	3333.824	0.0001
Exam. & procedure done	0150	07.5%	1429	57.9%	1227.320	0.001
What to eat or to drink	0129	06.5%	0065	02.6%	NS	
Expected difficulties	0109	05.5%	0054	02.2%	NS	
Sharing decision & treat.	0069	03.5%	0003	00.1%	NS	

Table (2): Patient's opinion on provider's permission for examination or procedures & service received in labour ward, in OMH 2011 before & after training

Variable	Pre-intervention No= 2000		Post-intervention No= 2469		Chi square	P value
Vaginal examination	1205	60.3%	2336	94.6%	793.000	0.001
Doing an ARM	0646	32.3%	2036	82.5%	1158.608	0.005
Doing an enema	0457	22.9%	0367	14.9%	NS	
Hearing of FHS	0240	12.0%	2270	91.9%	2868.020	0.0001
Inserting a cannula	0202	10.2%	1610	65.2%	1392.035	0.001
Setting an I/V line	0173	08.7%	1580	64.0%	1419.657	0.001
Fixing a catheter	0148	07.4%	0674	27.3%	NS	
Fixing a CTG machine	0110	05.5%	1204	48.8%	996.400	0.001
Given antibiotics	1701	85.1%	2384	96.6%	186.288	0.05
Need for post natal visit	1607	80.4%	2384	96.6%	303.860	0.05
Uterotonics	1117	55.9%	1890	76.5%	215.074	0.01
Info. For baby vaccine.	0236	11.8%	2035	82.4%	2204.941	0.0001
breast feeding information	0216	10.8%	1428	57.8%	1051.293	0.001
Pain relief	0188	09.4%	1262	51.1%	877.182	0.005
Information on FP	0184	09.2%	0251	10.2%	NS	
What to eat or to drink	0177	08.9%	0288	11.7%	NS	

officers and 75 (33.3%) were midwives, 148 (65.8%) were untrained on communication skills. One hundred ninety six (87.1%) would like to be trained. Among interviewed women, 1282 (28.7%) were illiterate and 3187 (71.3%) were educated, with no difference in socio-demographic characteristics between the two groups before and after training. Patient's opinion about health care providers' behavior in labour ward, were supportive, friendly and respectful, 1793 (89.7%) and 2338 (94.7%) before and after training. They were satisfied and would like to deliver next time in this hospital and will advise relatives and friends to deliver here, 1797 (89.9%) and 2362 (95.7%) before and after training.

When women admitted to labour ward, there was significant improvement after training on information given on onset of labour 96.8%, requested investigations 94.5%, condition of the fetus 92.1%, progress of labour 89.9%, expected duration of labour 95.0%, examination and procedure to be done 57.9%. No improvement on other variables, including mobility, food intake, expected difficulties and decision making (Table1). Provider's

permission for examination or procedures in labour ward, improved significantly after training for vaginal examination 94.6%, doing an artificial rupture of membranes (ARM) 82.5%, hearing of fetal heart sound (FHS) 91.9%, inserting a cannula 65.2%, securing I/V line 64.0%, fixing a catheter 27.3% and fixing a cardio-tocogram (CTG) 48.8% (Tables 2 and 4). Providers' knowledge and practice after training, improved significantly on fetal condition 96.2%, expected duration of labour 81.9%, examination and procedures 81.0%. No significant difference in other variables and no change on knowledge and information provided on patient mobility (Table 3).

When starting oxytocin, there was significant improvement after training in information on drug action 93.3% and benefits of its use 68.9%. Providers' practice was not improved on expected risks of the drug, benefits of not using it or taking an informed consent. There was significant improvement on information on the importance of ARM 73.2% and the color of liquor 94.1%. No improvement in information on its expected hazards, benefits of not doing it or taking an informed consent.

Table (3): Provider's practice on patients' communications on admission to labour ward, in OMH 2011 before & after training

variable	Pre-intervention No= 120		Post-intervention No=105		Chi square	P value
Labour starting	102	85.0%	097	92.4%	386.453	0.01
Investigation to be done	077	64.2%	100	95.2%	962.641	0.05
Condition of the fetus	079	65.8%	101	96.2%	287.436	0.001
To move or to stay in bed	056	46.7%	066	62.9%	NS	
Progress of labour	059	49.2%	093	88.6%	401.563	0.005
Expected duration of labour	027	22.5%	086	81.9%	20.40	0.001
Exam. & procedure done	024	20.0%	085	81.0%	23.355	0.001
What to eat or to drink	047	39.2%	075	71.4%	284.961	0.01
Expected difficulties	025	20.8%	089	84.8%	796.324	0.01
Sharing decision & treat.	011	09.2%	043	40.9%	853.327	0.01

Providers' practice improved significantly on need for post natal visit 92.4%, baby vaccination 92.4%, breast feeding 94.3%, pain relief 97.1% and family planning 91.4%.

DISCUSSION:

Good communication between HCP and clients is essential for the delivery of high quality of care during labour. Research

evidence indicates that willingness to listen and explain are essential factors for health care providers⁵. This study showed that the majority of patients had a good impression concerning their opinion towards delivery in maternity hospital. This could be attributed to the good outcome in addition to good available resources and hospital setting. This is supported by many studies, where

Table (4): Provider's practice on patients' communications during examination or procedures & service provided to patients in labour ward, in OMH 2011 before & after training

variable	Pre-intervention No= 120		Post-intervention No= 105		Chi square	P value
Vaginal examination	92	76.7%	102	97.1%	94.827	0.001
Doing an ARM	55	45.8%	082	78.1%	18.850	0.01
Doing an enema	40	33.3%	027	25.7%	NS	
Hearing of FHS	30	25.0%	099	94.3%	24.827	0.001
Inserting a cannula	37	30.8%	094	89.5%	14.875	0.001
Setting an I/V line	29	24.2%	068	64.8%	8.850	0.01
Fixing a catheter	41	34.2%	098	93.3%	13.5.5	0.001
Fixing a CTG machine	29	24.2%	097	92.4%	24.777	0.001
Given antibiotics	073	60.8%	100	95.2%	9.475	0.01
Need for post natal visit	103	85.8%	097	92.4%	13.855	0.005
Uterotonics	064	53.3%	089	84.8%	8.775	0.05
baby vaccination	051	42.5%	097	92.3%	31.651	0.001
breast feeding	055	45.8%	099	94.3%	49.213	0.001
Pain relief	057	47.5%	102	97.1%	94.084	0.001
Information on FP.	050	41.7%	096	91.4%	68.475	0.001
What to eat or to drink	045	37.5%	068	64.8%	2.863	0.05

patients with good outcome are more satisfied with their care⁶. In a patient follow up study for three weeks after delivery, most of the symptomatic patients were found to be worried, had unmet expectations and lower satisfaction⁶. A similar study in Bangladesh, found that negative perceptions about the quality of services, including inattentive staff behavior, lack of cooperation and privacy were widely considered to explain the underutilization of rural public health facilities⁷. Patients during their treatment were usually concerned with their doctor and his working team, as physician's care and staff compassion do influence patients' satisfaction⁸.

The Study showed that the majority of patients were received nicely, and most of them had a good impression and were satisfied concerning doctors and midwives' services, behaviors, and attitude. There was significant improvement in communication during reception of patients in labour ward after training. This was documented on patients' review and observation of HCP. It was particularly increased regarding; starting of labour (20% increase, $P < 0.001$), investigations to be done (39.6%, $P < 0.0001$), condition of the fetus (76.8% increase, $P < 0.0001$), progress of labour (80% increase, $P < 0.0001$), expected duration of labour (86.1% increase, $P < 0.0001$) and examination and procedures done (40.4% increase, $P < 0.001$). The evidence has shown that good communication in the reception or during labour can affect rate of patients' satisfaction⁹. Deficient practice on communication skills before training on the condition of the fetus, progress of labour and expected duration of labour may reflect poor providers' knowledge and lack of training, which is consistent with that found by the Institute of Medicine¹⁰. Patients' opinion on decision making was not taken properly in this study (table 1), which may be due to lack of knowledge, practice, over work or patients' in-co-operation during communication. This is similar to a study sponsored by the Agency for Healthcare Research and Quality (AHRQ), where they found that physicians

were not doing enough to help their patients make informed decisions¹¹⁻¹³. In a survey of 236 patients, assessing their doctors skills, better communication were linked to higher patient's satisfaction; while technical expertise and clinical skills alone were not^{14,15}. Complaints made by patients or their relatives against HCP are not always focusing on clinical competence alone, but on failure of communication and inability to adequately convey the outcome of health care⁵. Training of health care providers (HCP) had good impact on performance on communication with patients particularly on issues related to process of labour and its outcome. Indirect behavioral issues, including; what to eat or to drink, expected difficulties during and decision making by clients were not improved consistently and need to be strengthened and sustained. The immediate post partum hours often carry great risk to patients if not managed properly¹⁰. The study showed significant improvement in HCP performance in issues related to post natal visit (16.6% increase, $P < 0.05$), breast feeding (40.0% increase, $P < 0.001$), vaccination of newborn baby (70.6% increase, $P < 0.0001$) and family planning (40.3% increase, $P < 0.001$) after training.

CONCLUSION:

The study showed that training of health care providers on communication skills has effective improvement in HCP knowledge and practice towards communication with patients in many areas during labour with resulting good patient's satisfaction. However, improvement in communication skills need sustained in-service training.

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