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## CC –BY Determinants of discharge against medical advice amongst neonates admitted at Federal Teaching Hospital Gombe, Nigeria

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**Abstract:** *Objective:* Discharge Against Medical Advice (DAMA) is a major problem in health care delivery in Nigeria. Children, especially neonates, who can neither understand nor contribute to decision concerning their own health, are the most commonly affected. The objective of this study was to identify the reasons proffered for DAMA in neonates and persons involved in making such decisions.

*Materials and methods:* A descriptive study of consecutive neonates who were discharged against medical advice from the Special Care Baby Unit at Federal Teaching Hospital (FTH), Gombe from January 2016 to December 2017. Patients' Biodata, Diagnosis, Socio demographic characteristics of both parents, relationship

of the person signing DAMA with the patient and the reason (s) for signing DAMA were recorded in a proforma.

*Results:* Out of the 1,110 neonates admitted during the study period, 103 were discharged against medical advice giving a DAMA rate of 9.3%: Male 50(48.5%) and Female 53(51.5%). Majority 98(95.1%) of DAMA cases were signed by the father and the main reason stated for DAMA was financial constraint 62(60.2%).

*Conclusion:* Financial constraint was the main stated reason for DAMA and the father was the signatory to DAMA in majority of newborn in FTH, Gombe.

**Key Word:** Determinants, DAMA, Neonates

### Introduction

Discharge against Medical Advice (DAMA) is a major problem in health care delivery in Nigeria.<sup>1-3</sup> The prevalence rates of DAMA range between 0.002% to 5.7% depending on the population studied and region<sup>4</sup>. Rates ranging from 1% to 2% have been reported in the United States of America<sup>5</sup>, while 1.3%, 5.7% and 1.2% were reported from Port Hacourt<sup>3</sup>, Benin<sup>7</sup> and Lagos<sup>8</sup> respectively. Children, especially neonates, who can neither understand nor contribute to decision concerning their own health are the most commonly affected.<sup>1,5</sup>

According to World Health Organization estimates, out of 130 million babies born each year about 4 million die during the neonatal period<sup>9</sup>. Studies have shown that patients discharged against medical advice have high mortality rates therefore, contributing significantly to neonatal mortality.<sup>5,9</sup>

The conflict between the professional values (beneficence) of the physician and autonomy (self determination) of the patient is the most prominent ethical dilemma in discharge against medical advise<sup>10</sup>.

The issue of discharge against medical advice is more complicated in the case of newborn not only that he lacks capacity for consent but by the extended family

model of decision making in our community. In Africa and other developing countries, the concept of autonomy is still very controversial and not wholly acceptable mainly because of the communal way of life in these communities<sup>10</sup>. An individual is considered as part of a family or clan and important decisions concerning them must be taken by elders of the community or head of the family.<sup>10,11</sup>

Discharge against medical advice can be frustrating for the physician because it interrupts Patient – Physician relationship often jeopardizing favorable outcome for the patient<sup>5</sup>. The objective of this study is to identify the persons involved in making decisions and reasons proffered for neonates discharged against medical advice in Federal Teaching Hospital Gombe. It is hoped that findings from this study will help in shaping policies that will address this frustrating practice.

### Subject and Method

The study was conducted at the Special Care Baby Unit (SCBU) of Federal Teaching Hospital (FTH) Gombe, which is a 450-bed capacity tertiary health institution

located in Gombe metropolis. The Hospital serves as a referral centre for private hospitals in the state, twelve (12) secondary health institutions within Gombe State and other health care facilities in neighboring states of Bauchi, Yobe, Borno and Adamawa. The SCBU is divided into inborn unit with capacity to admit 10 to 15 babies and out born units with 8 to 10 bed capacity. Staff complement includes one consultant, two senior registrars, three registrars, interns and 24 hours nursing coverage.

Consecutive neonates who were discharged against medical advice while on admission and receiving treated at both inborn and out born units of the SCBU from January 2016 to December 2017(two years) were recruited for the study. Patients' Biodata, Anthropometry, Diagnosis, Socio demographic characteristics of both parents, relationship of the person signing DAMA with the patient and the reason (s) for signing DAMA were recorded in a proforma.

Data was analyzed using SPSS version 23. Results were presented in tables of simple percentages, graphs and Chi square was used to compare means of variables. Relation was significant if the P – Value is less than 0.05

Ethical clearance was obtained from the Research and Ethics Committee of Federal Teaching Hospital Gombe.

## Result

Out of the 1,110 neonates admitted during the study period, 103 were discharged against medical advice (DAMA) giving a DAMA rate of 9.3%. Those discharged against medical advice consisted of 53(51.5%) male and 50 (48.5%) female with M: F ratio of 1.1:1. Most 82(79.6%) of the mothers had antenatal and 70 (68.0%) delivered in the hospital. Pre admission counseling was given to 83.5% of mothers. Table 1.

Patients with severe birth asphyxia constituted the highest 32(31.1%) number of cases that were discharged against medical advice. Other cases include Respiratory distress syndrome 24(23.3%) and sepsis 21(20.4%) Table 2. The father was the signatory in 89% of DAMA. Out of the parents that signed and were discharged against medical advice, 37(35.9%) were civil servants and 42(40.7%) of them had tertiary education Table 3. The main stated reason for DAMA in this study was financial constraint Fig 1.

The mean age at admission was  $2.36 \pm 3.96$  days and the average duration of hospitalization was  $5.54 \pm 3.42$  days. At the time of signing discharge against medical advice by parents 36% of patients were assessed be improving clinically, 32% deteriorating while the remaining 32% had no change in their clinical condition.

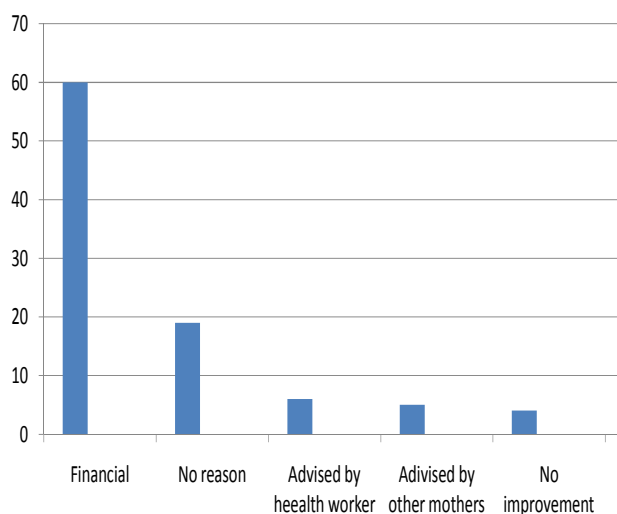
**Table 1:** Demographic characteristics of study subjects

Characteristic	Frequency	Percent
<i>Gender</i>		
Male	50	51.5
Female	53	48.5
<i>Place of Delivery</i>		
Inborn	70	68.0
Outborn	33	32.0
<i>Antenatal care</i>		
Booked	82	79.6
Unbooked	21	20.4
<i>Mode of Delivery</i>		
SVD	71	68.9
Emergency C/S	27	26.2
Elective C/S	5	4.9
<i>Counseled before Admission</i>		
Yes	86	83.5
No	17	16.5

**Table 2:** Diagnoses of Subjects that were DAMA in FTH, Gombe

Diagnosis	Frequency	Percent
Severe perinatal asphyxia	32	31.1
Respiratory distress syndrome	24	23.3
Sepsis	21	20.4
Congenital malformation	18	17.5
Meconium aspirationsyndrome	5	4.9
Others	3	2.9
Total	103	100

**Fig 1:** Reason for DAMA



**Table 3:** Education and occupation of father

Educational Status	Frequency	Percent
No formal Education	30	29.1
Primary School	8	7.8
Secondary School	23	22.3
Tertiary (below university)	26	25.2
University	16	15.5
Total	103	100
<i>Occupation</i>		
Civil Servants	37	35.9
Businessmen	33	32.0
Farmer	21	20.4
Artisans	5	4.9
Unemployed	2	1.9
Others	5	4.9
Total	103	100

## Discussion

The DAMA rate of 9.3% in this study is higher than previous reports which range from 1.3% to 5.7% from Abakaliki<sup>1</sup>, Port Harcourt<sup>3</sup> and Binin<sup>7</sup>. The high prevalence in this study may be due to poverty which is endemic in the North east sub region and made worse by the current insurgency. This may be supported by the finding that 58.3% of the parents cited financial constraint as the main reason for DAMA. There were more males than females which is in agreement with previous reports from Nigeria.<sup>1,3,7</sup> Most parents that signed for their neonates to be discharged against medical advice did so within the first 7 days of admission with mean hospital stay of 5.5 ± 3.2 days, this is similar to report by Opara<sup>8</sup> from Port Harcourt and Onankpa<sup>11</sup> from Sokoto, the period coincides with the time of naming ceremony which raises concerns about the role of cultural factors and the need to take the baby home for naming ceremony as the main driving force.

Majority of the patients who were discharged against medical advice were inborn, this might be a reflection of the high numbers of inborn patients in the study. Most of the parents who signed DAMA were those whose babies were delivered by mothers who had antenatal care. This calls to question the focus of our antenatal care and the quality of information that these mothers receive. Those babies delivered by spontaneous vertex delivery (Normal delivery) were more likely to sign DAMA compared to those born through caesarean section. Possibly because mothers who had normal delivery are discharged early by the obstetrician compared with those who had Caesarean Section. Since these mothers are usually forced to surrender their hospital beds they do not have alternative place to stay in the hospital. This results in the parents exerting pressure on the Paediatrician, leading to decision to sign to be discharged against medical advice. Although 83.5% of the mothers of babies who were DAMA were counselled before admission, this high rate might be because the decision was taken by the father who is often not present during counselling at admission. Also this is reflected by the finding that the father who is usually the head of the family was the signatory in 89% of cases of discharge against medical advice in this study.

The common morbidities for which babies were DAMA were sepsis, severe birth asphyxia, respiratory distress syndrome and congenital malformation, this is similar to earlier reports.<sup>3,7</sup> and reflect the common neonatal morbidities in the subregion<sup>8,11,14</sup>. The clinical status of the patient at the time of DAMA might not be a critical factor in taking the decision as the number of those improving, deteriorating and those whose condition has not changed at the time of DAMA are not significantly different. The child's father was the signatory in 89%, similar to the report by Abdullahi<sup>13</sup> from Birnin Kebbi, this could be explained by the practice in the north where women are not allowed to take major decision due to cultural/religious factors. Majority of the parents who signed DAMA have either secondary or tertiary level education. This finding is similar to report by Woldehanna<sup>14</sup> and is not consistent with the popular link of such action and decisions with illiteracy. Many (35.9%) of the parents who signed DAMA are civil servants and businessmen (32.0%). This may be explained by the dwindling purchasing power of the civil servant occasioned by the prevailing economic situation in Nigeria.

The main reason advanced for signing DAMA was financial constraint which is in agreement with most reports.<sup>8,14</sup>. The finding that some parents were advised by staff of the SCBU to sign DAMA raises a lot of concern about the level of confidence health workers have on the system. Other parents were advised by mothers who had earlier signed against medical advice. This new trend of health workers and mothers who have been DAMA encouraging other mothers to sign DAMA has not been reported by other workers. Further critical review of this finding is required because it has potential of affecting care of the newborn.

### Authors contributions

Jalo I: Conception and designed of study, analyses and manuscript writing.

Isaac EW: Statistical analyses, manuscript development

Alkali YS: Study design and manuscript development

Nduibisi V: Data collection, statistical analysis and manuscript development

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