

Discharge Against Medical Advice at the Benue State University Teaching Hospital Makurdi, North Central Nigeria

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ABSTRACT

Discharge against medical advice (DAMA) is defined as a patient choosing to leave the hospital against the advice of the managing physician. It is a common practice encountered by health care providers in resource limited settings. This has become a major problem in health care delivery in Nigeria and in most instances, children are the victims because most of the times they are not the ones taking the decision, and may not understand or contribute to it. Hence this study sought to determine the prevalence of DAMA and the associated factors at the Benue State University Teaching Hospital Makurdi, Benue State. A 5-year (2018-2022) retrospective study was carried out at the Department of Pediatrics, Benue State University Teaching Hospital. Records of children admitted into the department during the period under review and who were discharged against medical advice were retrieved and reviewed using SPSS version 23. Out of 3417 admissions, 144 were discharged against medical advice giving a prevalence of 4.2%. Majority of the children that DAMA were aged 1-5 years (77.8%), mostly from social class 4 and 5 combined (85%) and had spent about 1-7 days on admission (77.5%). The most common reasons for DAMA were financial constraint (29.1%) and family request (26.6%). Most of the parents/relatives were counseled against DAMA (97%), mostly by a nurse (68.9%), DAMA was signed mostly by fathers (61.8%) and only 15.3% returned for follow-up. Financial constraint remains the most important reason why children are discharged against medical advice.

Keywords: DAMA, hospital, medical advice, North-central

INTRODUCTION

Discharge against medical advice (DAMA) is defined as a patient choosing to leave the hospital against the advice of the managing physician.¹ Discharge against medical advice is a common practice encountered by health care providers in resource limited settings.²

The prevalence of DAMA is high in our environment and it is commoner in the younger age group, those from less privileged families, as well as those with life threatening emergencies.² Prevalence of DAMA

among the Pediatric age group in Nigeria has been reported to range from 0.1% to 44.6%.^{3,4} Discharge against medical advice has become a major problem in health care delivery in Nigeria and in most instances, children are the victims because most of the times they are not the ones taking the decision, and may not understand or contribute to it.⁵

Reasons commonly advanced for DAMA include; financial constraint, unsatisfactory response to treatment, to seek for alternative treatment or patients' improvement among others.^{3,4,6,7}

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Several reports however, have identified financial constraint as the leading cause of discharge against medical advice in Nigeria.^{2,5,8,9} This is not far-fetched because, there is an over-reliance on out-of-pocket payments for health care services in Nigeria despite about 83 million Nigerians living in poverty.^{10,11} Out of pocket payments can make households and individuals incur catastrophic health expenditure and this can exacerbate the level of poverty.¹¹

Health insurance is an important mechanism to prevent hardship in the process of accessing health care.¹² Since the launch of Nigeria's National Health Insurance Scheme (NHIS) in 2005, only 5% of Nigerians have health insurance while more than 90% of the Nigerian population is uninsured.^{11,12} Out-of-pocket payments affect the ability of households and individuals to meet basic needs and push many below the poverty line, hence DAMA becomes a plausible option when they can't afford care.^{11,13} Discharge against medical advice is a global public health problem that needs to be addressed and it is worse when the decision is taken by a parent, guardian or relative/caregiver on behalf of a patient that cannot make a decision.¹⁴

Among patients who were discharged against medical advice, some recovered with disability, while others died, however, some of these patients are mismanaged and have to be readmitted with increased morbidity and cost of treatment.^{4,7} Hence, this study sought to determine the prevalence of DAMA among children seen at the Benue State University Teaching Hospital Makurdi, as well as evaluating the factors responsible for such practice.

MATERIAL AND METHODS

This was a 5 year (Jan 2018- Dec 2022) retrospective study carried out at the Department of Pediatrics, Benue State University Teaching Hospital Makurdi. The Benue State University Teaching Hospital provides general care and specialist services for patients within the State and its surrounding communities as well as serving as a referral center. The Department of Pediatrics has many units such as the Emergency Pediatrics unit (EPU) which attends to children presenting to the hospital from home, or following referrals from other hospitals and those

referred from the General Outpatient Department (GOPD) of the hospital. Other units include the Pediatric medical ward, the Special Care Baby Unit, and several specialist outpatient clinics.

Children seen in the Department include newborns and those between the ages of 1 month to 16 years. Records of all children admitted into the Department during the period under review and who discharged against medical advice were retrieved and assessed using the study proforma.

The socio-demographic details of the children including age, sex, address, tribe, religion of parents was documented and the socioeconomic classification was based on the Ogunlesi classification.¹⁵ Data was analyzed using IBM SPSS Statistic software version 23. Chi-squared test and Fisher's exact test were used to test for associations and the level of significance was set at $P < 0.05$. Ethical clearance was obtained from the BSUTH Health Research Ethics Committee.

RESULTS

Out of 3417 admissions, 144 were discharged against medical advice giving a prevalence of 4.2%. Majority of the children were less than 5 years ($n=112$, 77.8%), there were more males ($n=79$, 54.9%) and they were mostly from social class four and five (85%) as shown in table 1.

The commonest reason for admission among those that DAMA were sepsis ($n=26$, 18.7%) followed by severe acute malnutrition ($n=16$, 11.5%), Malignancies ($n=12$, 8.6%), Neonatal jaundice ($n=10$, 7.2%), Preterm birth ($n=7$, 5%), and severe malaria ($n=7$, 5%) as shown in table 2.

Most children who were discharged against medical advice had stayed on admission for 1-7 days ($n=107$, 77.5%), followed by those who stayed for 8-14 days ($n=21$, 15.2%). A greater percentage had no prior hospital admission ($n=92$, 68.7%) but had prior treatments before admission at the hospital. ($n=87$, 64.9%) as shown in table 3.

Majority of the patients who were discharged against medical advice received counselling ($n=120$, 97.6%) but it was mostly by a nurse ($n=62$, 68.9%). The most occurring reason for DAMA was financial

constraint (n=46, 29.1%) followed by family request (n=42, 26.6%) as shown in table 4.

Outcomes for patients who were discharged against medical advice were mostly not known (n=82, 56.9) followed by those who were readmitted (n=39, 27.1%) as shown in table 5.

Table 1: Socio-demographic characteristics (n=144)

Variables	Frequency	Percentage
Age (in years)		
1 - 5	112	77.8
6 - 10	19	13.2
11 - 15	12	8.3
≥16	1	0.7
Median=1.00		
Sex		
Male	79	54.9
Female	65	45.1
Religion		
Christian	129	89.6
Muslim	15	10.4
Tribe		
Tiv	97	67.4
Idoma	14	9.7
Igede	2	1.4
Others	31	21.5
Socio economic class		
Social class 2	4	3.3
Social class 3	14	11.7
Social class 4	57	47.5
Social class 5	45	37.5
Family Setting		
Monogamous	95	79.8
Polygamous	22	18.5
Single parent	2	1.7
Number of children in the family		
1 - 4	83	69.2
5 - 8	36	30.0
≥9	1	0.8

Table 5: DAMA Outcomes (n=144)

Variables	Frequency	Percentage
Outcome		
Not known	82	56.9
Readmitted	39	27.1
Returned for follow up (fully recovered)	22	15.3
Recovered with disability	1	0.7

Table 2: Admitting Diagnosis (n=139)

Variables	Frequency	Percentage
Diagnosis		
Sepsis	26	18.7
Severe Acute Malnutrition	16	11.5
Malignancy/Cancers	12	8.6
Neonatal Jaundice/ kernicterus	10	7.2
Prematurity /Preterm birth.	7	5.0
Severe malaria	7	5.0
Perinatal asphyxia	6	4.3
Meningitis	6	4.3
Acute diarrheal disease	6	4.3
Bronchopneumonia	4	2.9
Intraabdominal abscess	4	2.9
Congestive cardiac failure (CEF) 2° CHD	3	2.2
Sickle cell crises	3	2.2
HIV/ AIDS/ RVD exposed	3	2.2
Tuberculosis	3	2.2
Congenital Anomalies	3	2.2
Upper respiratory tract infections (URTI)	3	2.2
Bone fractures	3	2.2
febrile convulsions	2	1.4
Urinary tract infections /pyelonephritis	2	1.4
Osteomyelitis	2	1.4
Others*	1	0.7

*Others (Acute gastroenteritis, typhoid/enteric fever, bleeding disorders, severe acute asthma, Intussusception, Acute Appendicitis, eases, Acute hepatitis)

Table 3: Admission characteristics

Variables	Frequency	Percentage
Duration of hospital stay (n=138)		
1 - 7 days	107	77.5
8 - 14 days	21	15.2
15 - 21 days	7	5.1
>21 days	3	2.2
Previous hospital admission (n=134)		
Yes	42	31.3
No	92	68.7
Previous treatment before presentation (n=134)		
Yes	87	64.9
No	47	35.1
If yes, where was it treated (n=86)		
Hospital	50	58.1
Patent medicine store	27	31.4
Traditional	5	5.8
Others	4	4.7

Table 4: DAMA characteristics

Variables	Frequency	Percentage
Was patient counselled against DAMA (n=123)		
Yes	120	97.6
No	3	2.4
If yes, counselled by who (n=90)		
Nurse	62	68.9
House Officer	14	15.6
Registrar	14	15.6
Reason for DAMA (n=158) multiple response		
Financial constraint	46	29.1
To seek alternative care	3	1.9
Long stay with no improvement	3	1.9
Family request	42	26.6
Patient's Condition has improved	7	4.4
Reason Not stated	28	17.7
Others	29	18.4
DAMA signatory (n=144)		
Father	89	61.8
Mother	39	27.1
Aunt/Uncle	4	2.8
Grandparent	4	2.8
Others	8	5.6

DISCUSSION

The results of this study revealed a DAMA prevalence of 4.2% which was similar to the report by Olasinde *et al*,¹⁶ in Ogbomoso (4.1%) but lower than the rate reported from Abuja (7.4%),² and Gombe (9.3%).¹⁷ This rate was however higher than the rate reported by Ibekwe *et al*,⁵ in Abakaliki (1.5%), Babatola *et al*,⁷ in Ado-Ekiti (3.8%), Eze *et al*,³ in Enugu (0.1%) and West *et al* (3.9%) in Bayelsa.¹⁸ Most of the children who were discharged against medical advice were between ages 1-5 years (77.8%) in keeping with the report of Olasinde *et al*.¹⁶ Majority of these children were from lower socioeconomic backgrounds as they were mostly from class 4, and class 5 (85% combined) and this was consistent with the report by Olasinde *et al*,¹⁶ Ibekwe *et al*,⁵ and West *et al*.¹⁸ This reflects the significant role that family finances affect child health. The family set up showed that most were from single parents, and from families with family size of 1-4 (69.2%) and family size 5-8 (30%).

The commonest reasons for admission amongst children who were discharged against medical advice were sepsis followed by severe acute malnutrition, malignancies Neonatal Jaundice, Preterm birth, and severe malaria. Infections were also reported to be the commonest condition amongst those that signed against medical advice by Jimoh *et al* in Abuja.⁴ Severe Malaria was also found to be a common condition among children who were discharged against medical advice in previous reports by Okechukwu in Abuja,² Babatola *et al*,⁷ in Ado-Ekiti, and Ibekwe *et al*,⁵ in Abakaliki. This is an indication that severe malaria continues to be a significant cause of morbidity and mortality among Nigerian children.

Most children who were discharged against medical advice had spent 1-7 days on admission (77.5%) which was consistent with the report by West *et al*.¹⁸ Duration on admission plays a significant role in the decision to DAMA as parents could become tired as was also reported by Odigie *et al*,¹⁹ in Port-Harcourt. However, most of these children had been to other places such as another hospital or patent medicine

store for treatment before presentation to this facility. This could have contributed in depleting their finances before presentation which could explain the reason for DAMA Before DAMA, 97.6% of them were counseled but counseling was mostly by a nurse (68.9%), house officer (15.6%) and registrar (15.6%). This study revealed that counseling for DAMA was not done by senior team members, as this could have reduced the numbers of DAMA.

Financial constraint (29.1%) was the most important reason for DAMA which was consistent with previous studies from Gombe,¹⁷ Ado-ekiti,^{6,20} Ogbomoso,¹⁶ Enugu,^{3,21} Abuja,⁴ Bayelsa,¹⁸ Port-harcourt,¹⁹ followed by family request (26.6%). This could be explained by the fact that payment for healthcare is largely by out-of-pocket payments as only few people benefit from health insurance and in keeping with a previous report which noted that people with health insurance were less likely to DAMA.^{9,11}

Signing of DAMA was mostly done by fathers (61.8%) which was lower than the rate reported by Jalo *et al*,¹⁷ Olasinde *et al*,¹⁶ Onankpa *et al*,¹³ and West *et al*,¹⁸ but higher than the report by Babatola *et al*,⁷ in Ado-Ekiti (55%). Mothers were found to be the next parent that signed for DAMA (27.1%) and this may be due to single parentage or where the father is not available. This showed that decisions for discharge against medical advice is actually carried out by the parents and the children have no role in the decision and this is consistent with a previous report from Port-harcourt.¹⁴ Fathers' decisions could also influence DAMA since they are the decision makers concerning issues of health and the main providers in most Nigerian homes.

The outcomes of children who were discharged against medical advice showed that 27.1% were readmitted in keeping with the report of Yusuf *et al*,²² while (56.7%) had unknown outcomes which was less than the report of 76.7% by Olasinde *et al*.¹⁶ Discharge against medical advice is not in the best interest of the child and cases of readmission have shown that such decisions could have poor outcomes and hence necessitating representation to the hospital.

CONCLUSION

Discharge against medical advice continues to be a major concern in Paediatric care due to the large dependence on out-of-pocket payments for Health services.

Recommendations

1. Paediatric care should be subsidized to reduce prevalence of DAMA.
2. Health Insurance cover should be improved to reduce the dependence on out-of-pocket payment for health care.

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Conflict of interest

We declare No conflict of interest.