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Discharge Against Medical Advice Among Children In Paediatrics Department In A Tertiary Hospital In Kolar

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ABSTRACT

Discharge against medical advice (DAMA) is a serious concern because the patients leave medical facilities too soon and are suspected to suffer from probable adverse consequences. The aim of the study is to identify the reasons of discharge against medical advice in both infants and children. A prospective observational study was performed between January 2022 to June 2022 after obtaining parental consent and institutional ethical committee permission. All the patients between the age group of 1 month to 17 years who are discharged against medical advice were included in the study. Total of 373 cases were discharged during the study period among which 30 were DAMA cases. Data were analysed with IBM SPSS Statistics for Windows, Version 23.0. In this study, out of 373 Children discharged, 30 were discharged against medical advice. The most common reason was financial issue 36% and no health awareness regarding the disease course which was 20%. On comparing the reasons for DAMA with various demographic characteristics, effect of occupation on reason for DAMA was statistically significant with a p value of 0.038. This study concludes that financial issues and unawareness about the health issues were the most common reasons for DAMA though they were not statistically significant. Hence proper counselling and measures to help the patients to overcome the financial burden would reduce the rate of DAMA. Furthermore, studies are required to support the evidence and to decrease the rate of DAMA.

Keywords: complications, discharge, neonatal health

INTRODUCTION

Discharge against medical advice (DAMA) or "self-discharge" ensues when a patient leaves the hospital before the medical team mentions. These patients extant clinical, ethical and legal contests for healthcare providers. [1]

Although leaving the hospital before the treatment may not promote the patient's health, yet there is widespread ethical and legal consensus that patients are entitled to decline recommended treatment. Most the patients refuse the treatment which leads to untimely termination and in some cases, readmission or even death were encountered. Several other factors that influence DAMA are age, gender, hopelessness related to the disease state, limited knowledge of parents, substance abuse and suffering children. Despite of being explained all the side effects of DAMA by physicians, patients, still insist on being discharged and ending the treatment process as it is a patient's right to exit the hospital according to their desire.[2]

All the definitions and consequences of DAMA are well documented in the literature, but the concerns related to paediatric DAMA is lacking.[3] Hence there is a need to find the cause for paediatric DAMA to improve patient care and prevent morbidity and mortality.

MATERIALS & METHODS

This prospective observational study was conducted in pediatric department during January to June 2022. Participants who are going under discharge against medical advice were included in the study and the participants who refused to fill written consent, referred to higher centre and those admitted to paediatrics department were excluded. Informed consent was obtained from all the subjects and patients between the age of 1 month to 17

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years were accepted for admission. Demographic details (name, age, sex, address, clinical diagnosis) were noted. Clinical condition, parent's occupation and education, date of discharge, reasons for requesting DAMA and condition of the child after DAMA were tabled and analyzed. All the results were assessed by SPSS software 23.0 version and the probability value 0.05 is considered as significant.

RESULTS

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	14.364	18	0.705

Table 1: EFFECT OF AGE ON REASON FOR DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Age	< 1 yr	Count	1	1	0	3	2	1	0	8
		%	33.3%	9.1%	0.0%	50.0%	66.7%	50.0%	0.0%	26.7%
	1 - 3 yrs	Count	2	6	2	3	0	1	2	16
		%	66.7%	54.5%	66.7%	50.0%	0.0%	50.0%	100.0%	53.3%
	4 - 5 yrs	Count	0	3	1	0	1	0	0	5
		%	0.0%	27.3%	33.3%	0.0%	33.3%	0.0%	0.0%	16.7%
	> 5 yrs	Count	0	1	0	0	0	0	0	1
		%	0.0%	9.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 1: Distribution of age among DAMA cases

Among the 30 DAMA cases studied, 8(26.7%) children were <1 year,16(53.3%) were between 1-3 years, 5(16.7%) were between 4-5 years and 1(3.3%) was >5 years. On studying the effect of age on reason for DAMA, facilities unsatisfactory were 1(33.3%) child in < 1year and 2(66.7%) in 1-3 years, Financial problem were 1(9.1%) in <1 year, 6(54.5%) in 1-3 years,3(27.3%)in 4-5 years and 1(9.1%) in >5years, long hospital stay were 2(66.7%) in 1-3 years and 1(33.3%) in 4-5 years, no health awareness regarding disease course were 3(50%) in <1 year and 3(50%) in 1-3 years, No noticeable improvement were 2(66.7%) in <1 year and 1(33.3%) in 4-5 years, parents want to take the child believing that the child had improved and no need of further hospital stay were 1(50%)in <1 year and 1(50%) in 1-3 years, unsatisfactory treatment and care were 2(100%) in 1-3 years. Effect of Age on reason for DAMA was insignificant with a p value of 0.705.

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	7.652	6	0.265

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Table 2: EFFECT OF GENDER ON REASON FOR DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Gender	F	Count	0	1	2	2	1	0	0	6
		%	0.0%	9.1%	66.7%	33.3%	33.3%	0.0%	0.0%	20.0%
	M	Count	3	10	1	4	2	2	2	24
		%	100.0%	90.9%	33.3%	66.7%	66.7%	100.0%	100.0%	80.0%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2: **Distribution of gender among DAMA cases**

Table 3: EFFECT OF CLINICAL CONDITION OF THE CHILD ON REASON FOR DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Clinical condition of child	IMPROVED	Count	3	11	2	6	2	2	2	28
		%	100.0%	100.0%	66.7%	100.0%	66.7%	100.0%	100.0%	93.3%
	NO IMPROVEMENT	Count	0	0	1	0	1	0	0	2
		%	0.0%	0.0%	33.3%	0.0%	33.3%	0.0%	0.0%	6.7%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Among the 30 DAMA cases studied, 6(20%) children were female and 24(80%) were males. On studying the effect of gender on reason for DAMA, facilities unsatisfactory were 3(100%) in males, Financial problem were 1(9.1%) in females and10(90.9%) in males, Long hospital stay were 2(66.7%) in females and 1(33.3%) in males, No health awareness regarding disease course were2(33.3%) in females and 4(66.7%) in males, No noticeable improvement were 1(33.3%) in females and 2 (66.7%) in males, Parents want to take the child believing that the child had improved and no need of further hospital stay were 2(100%) in males, unsatisfactory treatment and care were 2 (100%) in males. Effect of gender on reason for DAMA was insignificant with a p value of 0.265.

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	8.571	6	0.199

Table 3: Distribution of clinical condition of child among DAMA cases

Among the 30 DAMA cases studied, 28(93.3%) children had improved and 2(6.7%) children had not improved. On studying the effect of clinical condition of the child on reason for DAMA, facilities unsatisfactory were 3(100%) with improved clinical condition, financial problem were 11(100%) with improved clinical condition, Long hospital stay were 2(66.7%) with improved clinical condition and 1(33.3%) with no improvement in clinical condition, No health awareness regarding disease course were 6(100%)with improved clinical condition, No noticeable improvement were 2(66.7%) with improved clinical condition and 1(33.3%) with no improvement in

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clinical condition, Parents want to take the child believing that the child had improved and no need of further hospital stay were 2(100%)with improved clinical condition, unsatisfactory treatment and care were 2(100%) with improved clinical condition. Effect of Clinical condition of the child on reason for DAMA was insignificant with a p value of 0.199.

Table 4: EFFECT OF OCCUPATION ON REASON FOR DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Occupation	ENTREPRENEUR	Count	0	1	0	1	2	0	1	5
		%	0.0%	9.1%	0.0%	16.7%	66.7%	0.0%	50.0%	16.7%
	LABOURER	Count	1	10	3	4	1	2	1	22
		%	33.3%	90.9%	100.0%	66.7%	33.3%	100.0%	50.0%	73.3%
	PRIVATE EMPLOYEE	Count	2	0	0	1	0	0	0	3
		%	66.7%	0.0%	0.0%	16.7%	0.0%	0.0%	0.0%	10.0%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	21.988	12	0.038

Table 4: Distribution of occupation of parents among DAMA cases

Among the 30 DAMA cases studied, parents of 5(16.7%) children were in entrepreneur group, 22(73.3%) children were labourer in group, 3(10%) children were in private employee group. On studying the effect of occupation of parents on reason for DAMA, facilities unsatisfactory were 1(33.3%) in labourer group and 2(66.7%) in private employee group, Financial problem were 1(9.1%) in entrepreneur group and 10(90.9%) in labourer group, Long hospital stay were 3(100%) in labourer group, no health awareness regarding disease course were 1(16.7%) in entrepreneur group, 4(66.7%) in labourer group, 1(16.7%) in private employee group, No noticeable improvement were 2(66.7%) in entrepreneur group and 1(33.3%) in labourer group, Parents want to take the child believing that the child had improved and no need of further hospital stay were 2(100%) in labourer group, unsatisfactory treatment and care were 1(50%) in entrepreneur group and 1(50%) in labourer group. Effect of occupation on reason for DAMA was significant with a p value of 0.038.

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Table 5: EFFECT OF PARENTS EDUCATION ON REASON FOR DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Parents education	EDUCATED	Count	3	10	2	6	3	2	2	28
		%	100.0%	90.9%	66.7%	100.0%	100.0%	100.0%	100.0%	93.3%
	UNEDUCATED	Count	0	1	1	0	0	0	0	2
		%	0.0%	9.1%	33.3%	0.0%	0.0%	0.0%	0.0%	6.7%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0 %

Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	4.675	6	0.586

Table 5: **Distribution of parent's education among DAMA cases**

Among the 30 DAMA cases studied, parents of 28(93.3%) children were educated and 2(6.7%) children were uneducated. On studying the effect of parents education on reason for DAMA, facilities unsatisfactory were 3(100%) in educated group, financial problem were 10(90.9%) in educated group and 1(9.1%) in uneducated group, Long hospital stay were 2(66.7%) in educated group and 1(33.3%) in uneducated group, No health awareness regarding disease course were 6(100%) in educated group, No noticeable improvement were 3(100%) in educated group, Parents want to take the child believing that the child had improved and no need of further hospital stay were 2(100%) in educated group, unsatisfactory treatment and care were 2(100%) in educated group. Effect of parent's education on reason for DAMA was insignificant with a p value of 0.586.

Table 6: CONDITION OF CHILD AFTER DAMA (n=30)

			Reason for DAMA							
			FACILITIES UNSATISFACTORY	FINANCIAL PROBLEM	LONG HOSPITAL STAY	NO HEALTH AWARENESS REGARDING DISEASE COURSE	NO NOTICEABLE IMPROVEMENT	PARENTS WANT TO TAKE THE CHILD BELIEVING THAT THE CHILD HAD IMPROVED AND NO NEED OF FURTHER HOSPITAL STAY	UNSATISFACTORY TREATMENT AND CARE	Total
Condition of child after DAMA	ALIVE	Count	3	8	2	5	1	2	2	23
		%	100.0%	72.7%	66.7%	83.3%	33.3%	100.0%	100.0%	76.7%
	DEATH	Count	0	3	1	1	2	0	0	7
		%	0.0%	27.3%	33.3%	16.7%	66.7%	0.0%	0.0%	23.3%
Total		Count	3	11	3	6	3	2	2	30
		%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Chi-Square Tests			
	Value	df	p-value
Pearson Chi-Square	5.692	6	0.459

Table 6: **Distribution of condition of child after DAMA**

Among the 30 DAMA cases studied, 23(76.7%) were alive and 7(23.3%) were dead. On studying condition of the child after DAMA with reason for DAMA, facilities unsatisfactory were 3(100%) in alive, Financial problem were 8(72.7%) in alive group and 3(27.3%) in dead group, Long hospital stay were 2(66.7%) in alive group and 1(33.3%) in dead group, No health awareness regarding disease course were 5(83.3%) in alive group and 1(16.7%) in dead group, No noticeable improvement were 1(33.3%) in alive group and 2(66.7%) in dead group, Parents want to take the child believing that the child had improved and no need of further hospital stay were 2(100%) in alive group, unsatisfactory treatment and care were 2(100%) in alive group. Effect of parent's education on reason for DAMA was insignificant with a p value of 0.459.

DISCUSSION

In this study a total 373 cases were assessed out of which 30 were DAMA cases out of which 80% were male and 20% were female. 53.3% of them were between the age group of 1 to 3, 26.7% were of below 1 year age, 16.7% from 4 to 5 years of age and 3.3% were more than 5 years of age. Among the DAMA patients 76.7% were alive and 23.3% were dead after DAMA and the most common reason for DAMA was found to be financial issues (36.7%), labourer parents (73.3%) which is significant with P value of 0.038 followed by nonappearance of health awareness (20%). 73.3% DAMA cases had extended hospital stay. A study by Sealy L et al, concluded that, the hospital site 1 positions as the strongest predictor of DAMA i.e., 5 times more likely to DAMA than a patient admitted to hospital site 2 ($p < 0.01$). Planned admissions were less to DAMA than emergency admissions ($p < 0.01$). Patients who had DAMA previously within the study time frame were also more likely to DAMA ($p = 0.05$).

Another study by Khalili M et al, found that the key reasons for DAMA were lack of satisfaction with physicians, family disturbance, inadequate economic situation and being away from home. Liu H et al studied the treatment withdrawal of children from PICU, in his observation all guardians (96.1%) of children who experienced medical withdrawal self-reported the reason as "illness is too severe"; a few guardians (3.9%) self-reported as the "condition has been improved". For guardians of children who experienced premature withdrawal, these two reasons accounted for 46.7% and 32.0% respectively.[4]

Al-Mohammadi E and his co-investigators identified the top three reasons for DAMA which were parent's false assumption that their child's condition had improved (43.8 percent), dissatisfaction with managing team (16.2 percent) and difficulties arranging care for patient's siblings at home (7.7 percent).[5]

In a study by AL Wallan NS et al, a significant interaction between age and gender was noticed and the odds of DAMA for a 5-year-old female child were 4.43 times higher than those of a 5-year-old male child with significant p value ($P < 0.1$). [6,7] Kavanagh A et al in his observations quoted that, paediatric discharge against medical advice (DAMA) requests can be best managed when clinicians ensure the patient's best interests are met, understand and act upon their professional obligations. [8] Olasinde YT et al conducted his study in a tertiary mission private hospital, and concluded that prevalence of DAMA was 4.1%. Financial constraint was the commonest reason 13(30.2%) given for DAMA and none of the children whose parent's signed DAMA was enrolled on the National Health Insurance Scheme (NHIS). [9,10].

The main limitation of the study is the number of DAMA cases who are less among the total discharges. Because of the protesting nature of DAMA for parents, difficulty of their cooperation in participating in the study was another limitation of this study.

CONCLUSION

This study concludes that financial issues and unawareness about the health condition of the child were the most common reasons for DAMA though they were not statistically significant. Providing family-centered care through respectful behaviour with family members, support parents mainly informational support and involve them in the care of hospitalized children can help parents to make the best and appropriate decision regarding continuity of care and treatment of their child. Each healthcare professional can play a vital role in preventing DAMA, starting with proper DAMA case documentation, including reasons. This documentation should not only

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be used for legal purposes but also used for the interventions aimed at reducing DAMA. More effective communication and counselling are required between parents and the treating physicians which may help avoid early discharge and prevent potential damages to the children health. Hence proper counselling and measures to help the patients to overcome the financial burden would reduce the rate of DAMA. Furthermore, studies are required to support the evidence and to decrease the rate of DAMA.

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CONFLICT OF INTEREST

None

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