

Discharge Against Medical Advice in Emergency Department: Literature Review

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ABSTRACT: Discharge against medical advice (DAMA) can lead to death or morbidity. This study was conducted to examine research papers on discharge against medical advice in the emergency department. Method: The articles published between January 1, 2012, and January 31, 2022, from Scopus, Pubmed database, and Google Scholar were studied using literature review, data visualization tools, and sophisticated text analysis. As a result, 17 of the 20.095 scientific articles found were authored using the keywords discharge against medical advice AND emergency. This review occupied VOSviewer programs for creating a visualization of large sets of data to uncover keyword clusters and theme structures in titles, keywords, and abstracts. In the field of nursing, studies on DAMA are rather rare. The analyses showed three main themes namely overview DAMA, the impact, and the reason for DAMA. As a result, the findings can aid present and future research on this topic by providing information about the networks, trends, and contents of the literature.

Keywords: discharge against medical advice, emergency department

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INTRODUCTION

Hospital emergency rooms (EDs) serve a critical role in saving people's lives. For most of the patients in ED, as well as the most critical ones, the quality of medical care offered in the ED, might reflect the overall quality of medical care provided by a hospital. Discharge Against Medical Advice (DAMA) is defined as patients who are discharged from a hospital or other health care facility before their treating doctor allows them to go home. Another definition mentions a condition in which the patient insists on leaving the hospital without medical approval (Abuzeyad et al., 2017). The worldwide reported prevalence of DAMA for general medical admissions ranges from 0.7% to 2.2%, 6% to 54% for psychiatric hospitalizations, 0.07% to 20% in the ED, and 0.9% for hospitalizations. emergency hospitalization (Abuzeyad et al., 2021). Whereas in Indonesia, DAMA cases based on data from hospitals throughout Indonesia as many as 8% of patients enter for various reasons and can cause a lot of losses (Wati, Fadhilah, and Hastuti, 2021)

DAMA events can result in mortality or morbidity. Patients are also at risk for medical problems that are not treated efficiently and can easily lead to re-admission (Abuzeyad et al., 2021). A study (Ashrafi et al., 2017) found that of the DAMA patients, 32% were readmitted within 30 days, while only 12% of patients who underwent discharge with the permission of the responsible physician were readmitted within 30 days. Moreover, patients with DAMA were 28% more likely to be readmitted for the same or related illness in the following month and 8% had a longer hospital stay for each readmission which resulted in additional medical costs for the patient or even up to at the point of death.

The choice of DAMA decisions is related to demographic characteristics (age, gender, socioeconomic status, and remoteness of residence) and clinical characteristics (distance to health services, urgency level at admission, diagnosis, and previous DAMA) (Sealy et al., 2019). These factors are not the direct cause of the patient's forced discharge but can be a risk factor that triggers the forced discharge (Nofiyanto et al., 2014). In a study of the characteristics of patients who were forced to return home, it was concluded that there were factors related to the incidence of forced discharge including matters of insurance ownership, dissatisfaction with the services they received, wanting personal care, family affairs, patients feeling better, patients feeling no progress and feel that the care of doctors and nurses is inadequate (Ashrafi et al., 2017). The high number of forced discharge cases shows the patient's distrust of the services provided by the hospital or the patient's dissatisfaction with the hospital as a service provider (Atmiroseva and Nurwahyuni, 2017). Therefore, this study aimed to assess peer-reviewed literature in DAMA and present the results in tables and maps. Research in DAMA is an essential component in knowing an overview of the hospital's services and policymakers should take steps to reduce DAMA.

METHODOLOGY

We searched for relevant papers between January 1, 2012, and January 31, 2022, in Scopus, Pubmed, and Google Scholar. The following are the basic requirements for participation: (1) included both adult and pediatric DAMA

patients, and (2) obtained sufficient data to assess DAMA. In pertinent documents, the use of the English language was restricted. The precise search strategies, as well as the inclusion and exclusion criteria, are listed in Figure 1.

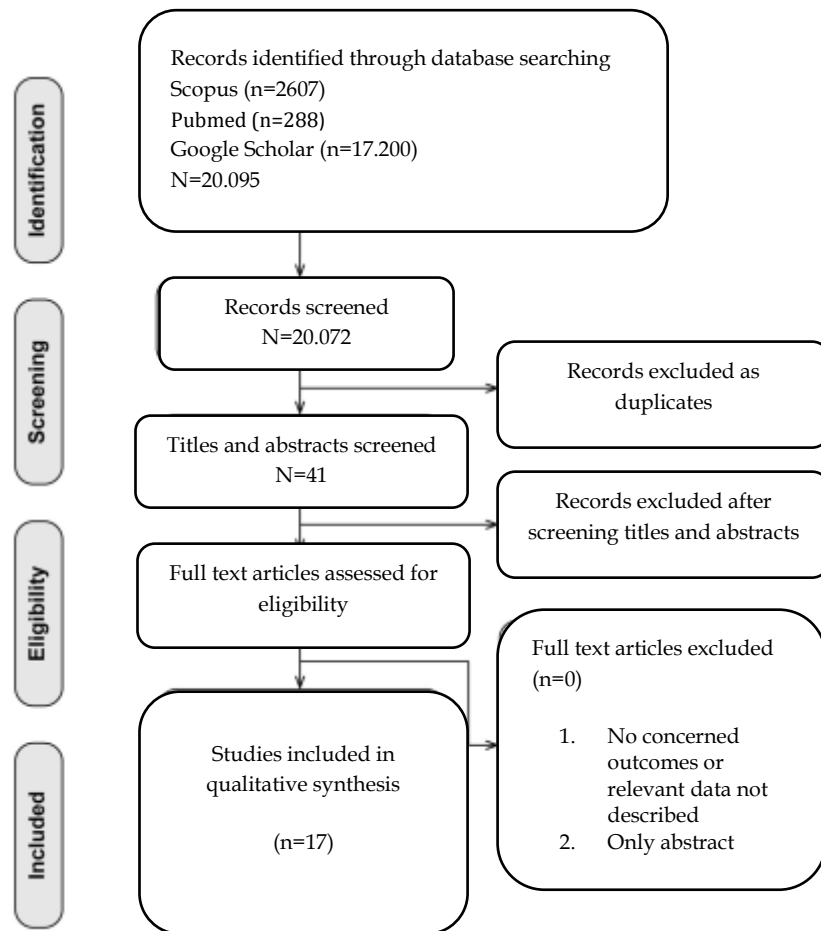


Figure 1. Flow Diagram of Study Inclusion

We assessed the risk of bias and applicability concerns of the publications that were included using the JBI's critical appraisal tool. VOSviewer program was occupied for creating a visualizing vast amount of data to find keyword clusters and theme patterns in titles, keywords, and abstracts.

RESULTS

Study Selection and Characteristics

A total of 20,095 published studies were discovered at first. After removing duplicate papers and reading the abstracts, we discovered 41 research. Finally, we looked at 17 studies (Figure 1). Table 1 shows the basic information and features of the studies that were included.

Table 1. Characteristics of the Included Studies.

Country, Author (year)	Study design	Adult or pediatric patient?	Sample	DAMA Cases % (cases)	Outcome
Iran Noohi et al., 2013	Cross- sectional study	N/A	2161	5.6% (121)	The main reason for AMA discharges was related to patient factors in 43.9% of cases, while two other factors (i.e., hospital environment and medical staff) constituted 41.2% and 35.2% of cases, respectively. The majority of patients 65.9% (80 cases) were either uninformed or less informed of the entailing side effects and outcomes of their decision to DAMA.
Muthusamy et al., 2015	Cross- sectional study	N/A	11,966	170	Two parameters statistically significantly affected the rate of leaving AMA. First, patients aged 19-44 years were significantly more likely to leave AMA ($P=0.001$, odds ratio (OR)=1.67; 95%-CI: 1.21-2.32) whereas patients aged >65 years were less likely to leave AMA with upper GI bleeding or abdominal pain ($P=0.01$; OR=0.49; 95%-CI: 0.27-0.87). Second, patients with 1-5 prior ED visits were significantly more likely to leave AMA than other patients ($P=0.009$; OR=1.85; 95% CI: 1.15-2.97). Patients with psychiatric illness tended to have a greater risk of leaving AMA,

					with borderline statistical significance (P=0.04) Gender, race/ethnicity, geographic region, type of insurance, urban status, and waiting-time >60 minutes did not significantly affect AMA discharge rates.
Iran Hadi et al.,2016	Cross-sectional study	N/A	N/A	12,8	Dissatisfaction with being observed in the ED, having a feeling of recovery, and hospital personnel encouraging patients to leave the hospital were the main reasons for leaving the hospital AMA.
Lebanon El Sayed et al.,2016	Retrospective review study	N/A	N/A	1213	A total of 1213 ED patients have discharged AMA during the study period. The mean age was 46.9 years (± 20.9). There were 654 men (53.9%), 737 married (60.8%). The majority (1059 patients (87.3%)) had an emergency severity index of 3 or less (1 or 2). ED average length of stay was 3.8 hours (± 6.8). Self-payers accounted for 53.9%.
Saudi Arabia El Metwally et al., 2019	Cross-sectional study	N/A	11513	1%	In a multivariable analysis, after adjusting for the other covariates, we observed a significant interaction between age and gender. It was observed that the odds of DAMA for ≤ 40 -year-old males were 3.12 times higher than those of a ≤ 40 -year-old female (<i>p-value</i> < 0.1). To further

investigate this interaction, men and women were modeled separately in multivariable models using the same covariates

Results of the Synthesis
Table 2 shows the synthesis of research articles.

Table 2. The Synthesis of Research Articles	
Theme	Description
Overview DAMA	Prevalence, predictor, risk factor
The Impact of DAMA	Hospital readmission, mortality, intervention
The Reason of Patient who has DAMA decision	Treatment, Decision maker

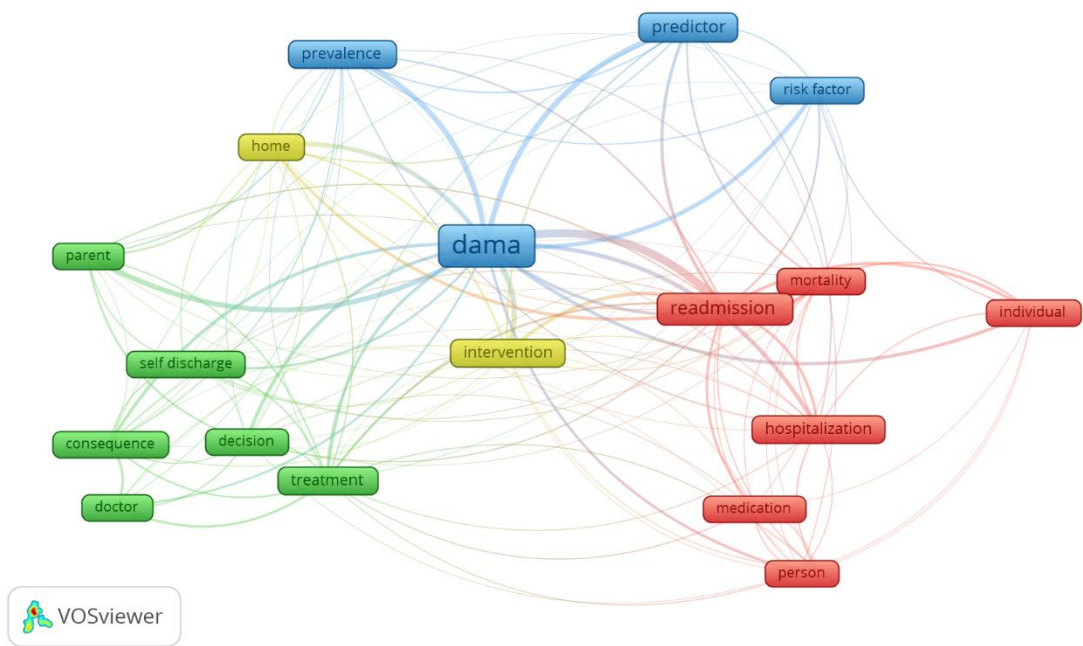


Figure 2. Network visualization Map of Keyword Clusters and Theme Structures in DAMA (2012–2022).

These figures were created using the VOSViewer program which is available for free download from Leiden University [42, 43]

It can be seen that the Network visualization map of keyword clusters and theme structures in DAMA (Figure 2)

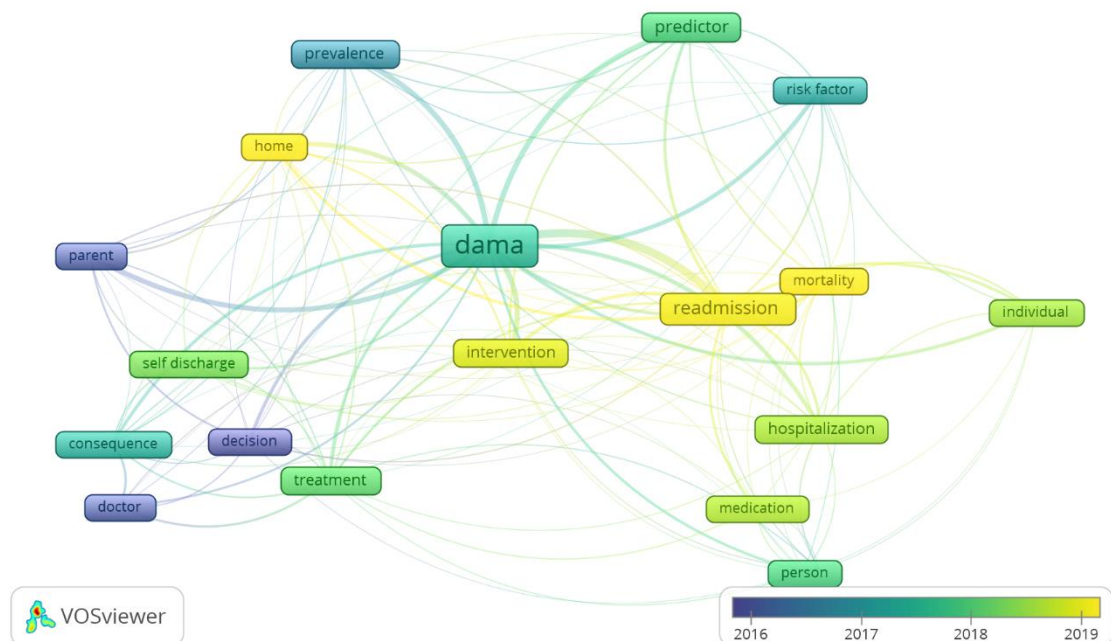


Figure 3. Overlay Visualization of Keyword Clusters and Theme Structures in DAMA (2012–2022).

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Figure 3 shows about Overlay visualization of keyword clusters and theme structures in DAMA

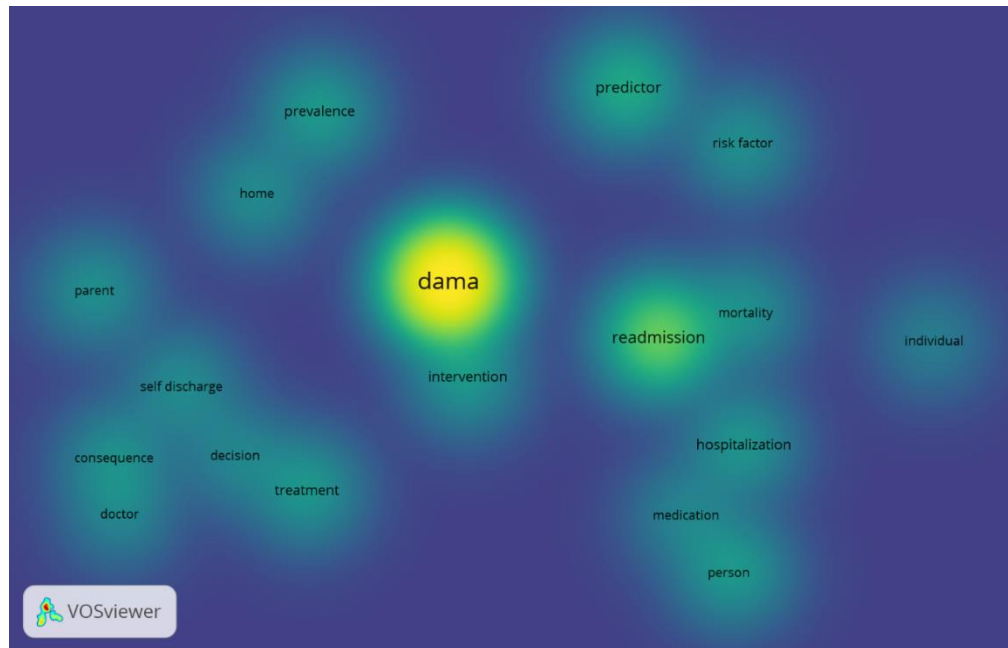


Figure 4. Density Visualization of Keyword Clusters and Theme Structures in DAMA (2012–2022).

These figures were created using the VOSViewer program which is available for free download from Leiden University [42, 43]

Figure 4 shows about Density visualization map of keyword clusters and theme structures in DAMA, which shows the relationship between DAMA and patient readmission.

DISCUSSION

Discharge Against Medical Advice (DAMA) is defined as patients who are discharged from the hospital before the doctor's responsibility to allow them to go home. DAMA events can result in mortality or morbidity. The choice of DAMA decisions is related to patient characteristics, one of which is demographic factors, namely age, gender, gender, distance of health services and insurance ownership. The global prevalence of DAMA in the Emergency Room (ER) ranges from 0.07 to 20% but contrary to research (Hoyer et al., 2019) namely the results of his research that there are 1-3% occurrences of DAMA in the ER, this is also supported by research (Bidgoli et al., 2018) which is 0.4 - 4.4% in the United States ICU, and 0.3 - 7% in trauma patients (Jasperse et al., 2020). For pediatric hospitalization, DAMA occurs from 1.5% to more than 6% (Sealy et al., 2019).

A study (Ashrafi et al., 2017) found that of the DAMA patients, 32% were readmitted within 30 days, while only 12% of patients who underwent discharge with the permission of the responsible physician were readmitted within 30 days. Moreover, patients with DAMA were 28% more likely to be readmitted for the same or related illness in the following month and 8% had a longer hospital stay for each readmission which resulted in additional medical costs for the patient or even up to at the point of death. DAMA events can result in mortality or morbidity. Patients are also at risk for medical problems that are not treated efficiently and can easily lead to re-admission (Abuzeyad et al., 2021). A study (Ashrafi et al.,

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There are several reasons for patients who have DAMA decisions. Patient dissatisfaction with hospital services can cause patients to be forced to go home or be reluctant to use the hospital services again. This is certainly detrimental to both parties, the hospital will lose because of reduced income and the patient or family feels disadvantaged because the treatment has not been completed so they seek other alternative treatments that may increase losses such as disability and even death. Therefore, hospitals are required to continue to provide quality, effective and efficient health services so that public trust in hospitals increases (Lubis and Simanjorang, 2018)

CONCLUSIONS AND RECOMMENDATIONS

This research adds to our understanding of DAMA trend publication. There are several reasons why this study is important and interesting. Furthermore, knowledge of the DAMA in Indonesian ED is required. Scholars or researchers and policymakers who are interested in this topic will benefit from this study.

FURTHER STUDY

The authors recommend including keywords to ensure that the results of the study are widely disseminated. Thus, further investigations can be more comprehensive.

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