

Factors predicting frequent use of emergency department services among geriatric population: A systematic review

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BACKGROUND

- Seniors are consistently overrepresented in emergency department (ED).¹⁻²
- A subgroup of these patients is considered frequent users³
 - A minority of patient using a great proportion of ED
- Frequent ED use brings up challenges
 - Health status and implementation of interventions⁴⁻⁵
- No recent synthesis on geriatric frequent use of ED

OBJECTIVE

Review variables predicting frequent use of ED among an elderly population

METHODS

Design: Systematic review

Joanna Briggs Institute (JBI) guide for prevalence and incidence studies handbook⁶

Search strategy: Publication searched through MEDLINE, CINAHL, HealthStar and PsycINFO

Inclusion criteria: Population over 65 year old

Report frequent use of ED

Multivariate or logistic regression analysis

Study selection: Endnote supported the entire work

Titles and abstract screened by 1 reviewer

Full texts screened and data extracted by 2 reviewers

Quality assessment: JBI Critical Appraisal Checklist for Studies Reporting Prevalence Data⁶

Performed independently by 2 reviewers

Data synthesis: Narrative synthesis

PRELIMINARY RESULTS

Figure 1. PRISMA flow diagram of search results⁷

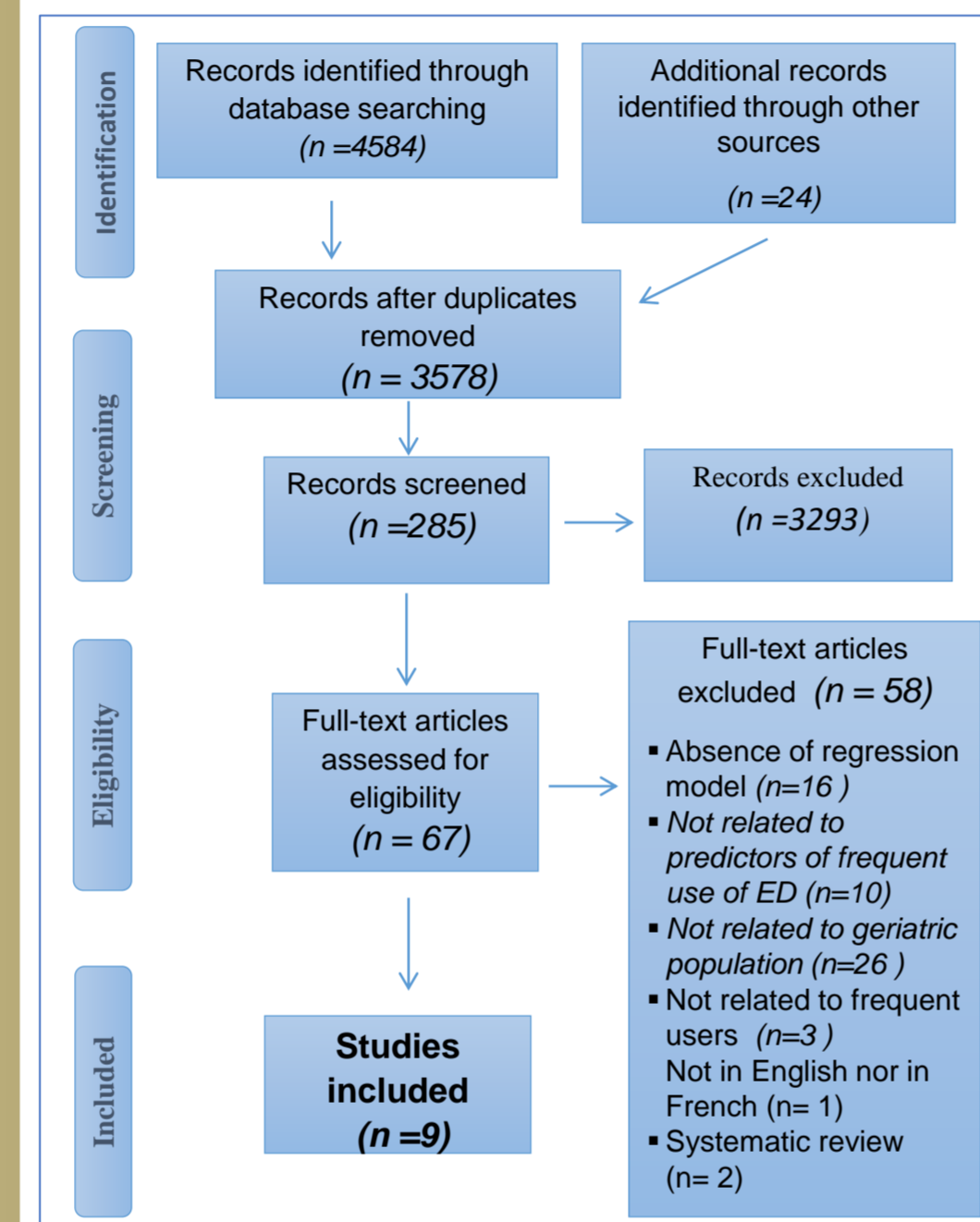


Table 1. Characteristics of included studies

	Authors	Study design	Sample size	Datasource
1	Franchi et al. (2016) ⁸ Italy	Observational	1,949, 020	Administrative database
2	Hastings et al. (2013) ⁹ USA	Retrospective cohort study	31 206	Administrative database
3	Lishner et al. (2000) ¹⁰ USA	Cross-sectional	354 782	Administrative database
4	McCusker et al. (2000) ¹¹ Canada	Observational cohort study	1 122	Administrative database
5	McCusker et al. (1997) ¹² Canada	Prospective study	113	Administrative database
6	Naughton et al. (2010) ¹³ Ireland	Observational	306	Questionnaire
7	Parboosing et al. (1987) ¹⁴ Canada	Cross-sectional	75	Questionnaire
8	Rosenblatt et al. (2000) ¹⁵ USA	Cross-sectionnal	354 782	Administrative database
9	Sona et al. (2012) ¹⁶ Italy	Prospective study	1632	Questionnaire

Table 2. Predictive factors most strongly associated with frequent ED visits among seniors

Predictive factors of frequent ED visits	Details	Number of studies using this variable	Number of studies where the variable was significant	References
Healthcare services use				
Emergency department	Previous ED visit	5	3	1-2-4
Hospital admission	In previous months	9	7	1, 2, 3, 4, 6, 7, 8
Socioeconomic and medical				
Social support	Lack of support	5	4	2-4-5-6
Physical and mental illness	Drug and alcohol disorder	2	2	2-4
Physical diseases	Heart disease	2	2	2-9
	History of diabetes	2	1	4
	Respiratory disorder	2	1	4
	Pulmonary neoplasm	2	1	9
Prescribed drugs	Number of drugs prescribed	3	2	1-9

DISCUSSION

Among identified predictors

- Some were more strongly associated with frequent use of ED by seniors
- Preliminary results are mostly validated by literature¹⁷

The variables taken into account in the regression model varied greatly among the studies

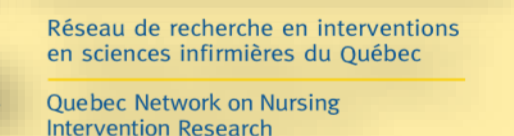
- Imputable to method and sample characteristics

Conclusion

Multiple factors are related to frequent ED use by senior

If some predictors are clearly identified in the literature, other research needs to be done to further develop our comprehension and appropriate interventions

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