A case-finding tool to identify patients with complex healthcare needs in emergency departments: a validation study

Hudon C[1,2], Bisson M[1], Dubois M-F[1], Chiu Y[1], Chouinard M-C[3], Dubuc N[1], Elazhary N[1], Sabourin V[4], Vanasse A[1].

[1]Département de médecine de famille et de médecine d'urgence, Université de Sherbrooke, Québec, Canada; [2]Centre de Recherche du Centre hospitalier universitaire de Sherbrooke, Québec, Canada; [3]Département des sciences de la santé, Université du Québec à Chicoutimi, Québec, Canada; [3]Centre intégré universitaire de santé et de services sociaux du Saguenay-Lac-Saint-Jean, Québec, Canada.

BACKGROUND

- Five percent of emergency department (ED) patients are frequent ED users and account for 30 to 50% of all visits.[1]
- Rapidly Identify frequent users with complex healthcare needs is mandatory to offer them appropriate.[2] interventions, such as case management.
- The INTERMED Self-Assessment (IMSA)[3] questionnaire is the gold standard to evaluate complexity, but its time of completion limits its use as a case-finding tool.
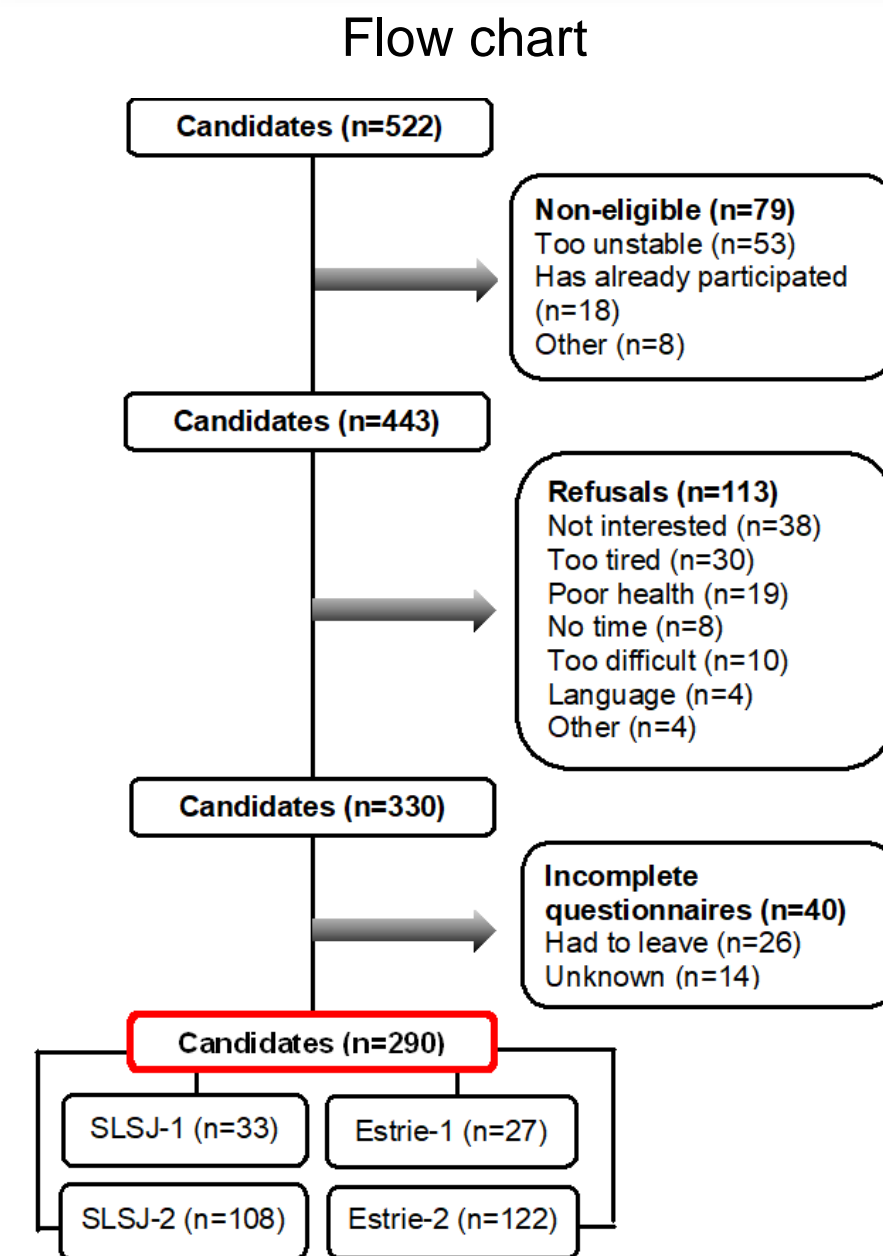
OBJECTIVE

- To develop and validate a short self-administered questionnaire (case-finding tool) to identify frequent users with complex needs in ED.
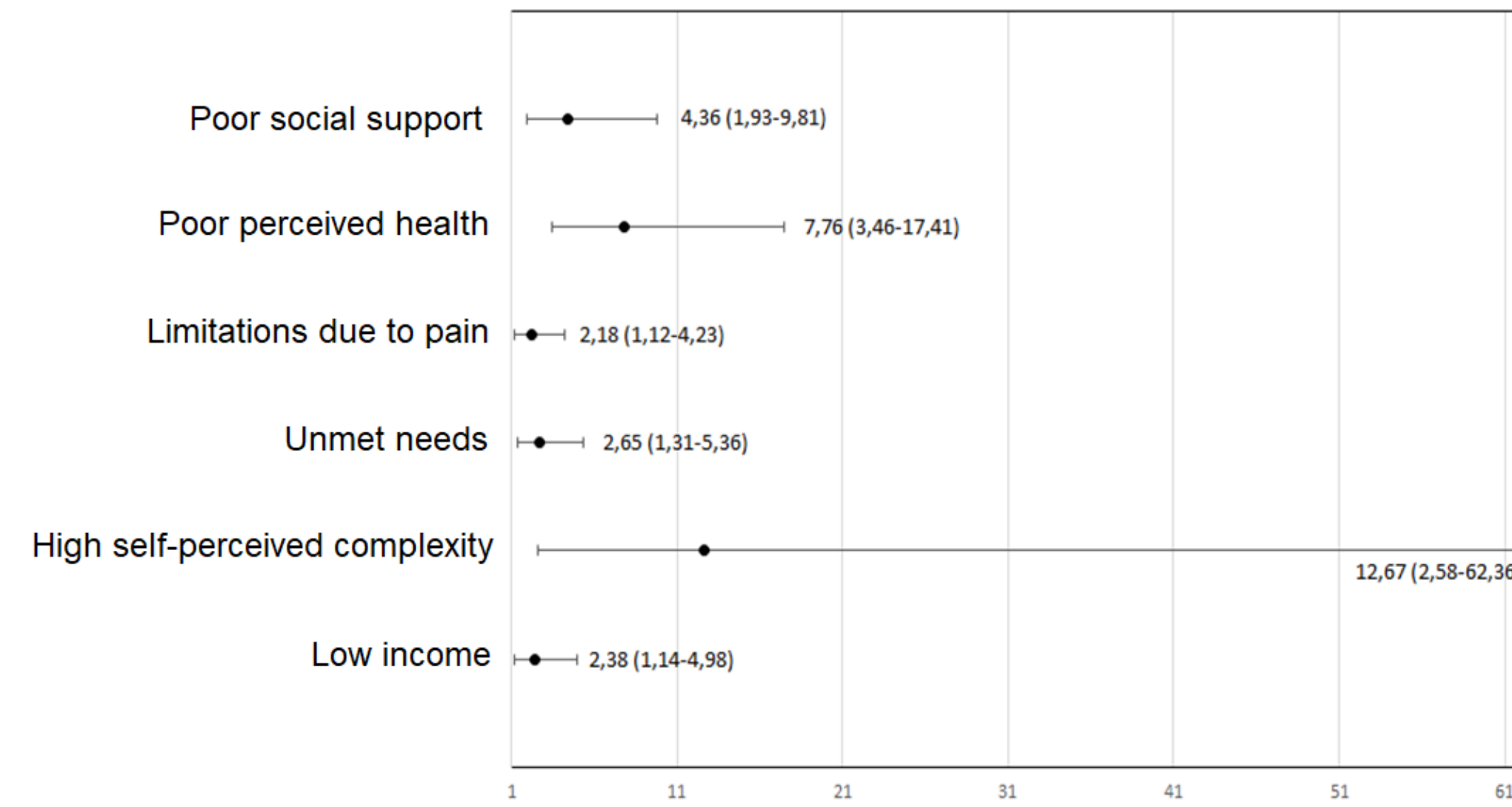
METHODS

- Design: Multicenter validation study of a self-administered questionnaire
- Setting : 4 EDs in the Estrie and Saguenay–Lac-St-Jean regions (QC, CAN)
- Inclusion criteria: 18 years old and over, at least one ambulatory care sensitive conditions (ACSC) and 3 or more ED visits in the previous year
- Exclusion criteria: have already participate, too unstable
- Independent variables: those theoretically associated with complexity
- Dependent variable : complexity (IMSA score ≥19 vs <19)
- Independent variables were dichotomized and introduced in a multivariable logistic regression analysis
- A ROC curve was constructed and sensitivity/specificity were examined to identify the optimal cut-off scores for case finding
- AUC, sensitivity, specificity and positive and negative predictive values are reported for the optimal of cut-off score
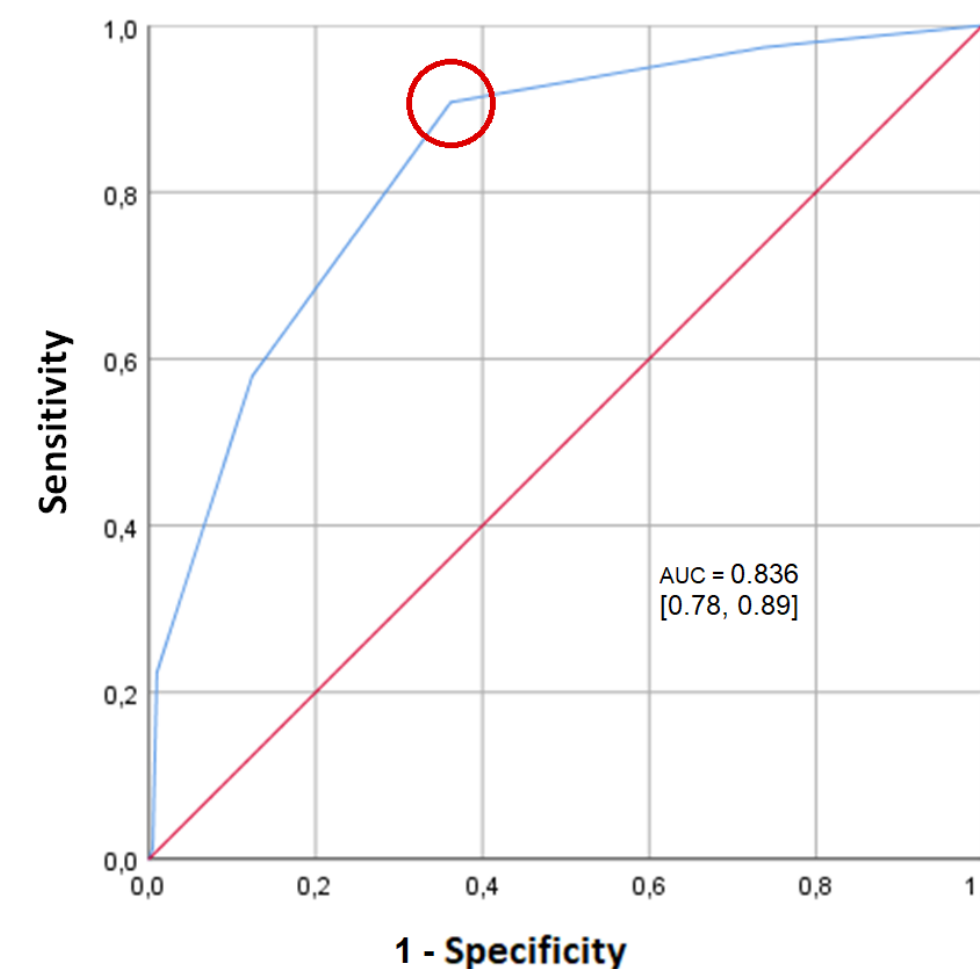
RESULTS

Flow chart

Odds ratios and 95% confidence intervals for corelates of complexity

Roc curve

For a threshold of 2 or more questions with an answer 'YES'

Sensitivity	91%
Specificity	64%
Positive predictive value	47%
Negative predictive value	95%

FURTHER STEPS

- The 6-item questionnaire will be designed in a "Yes or No" format.
- It could be used to identify frequent ED users (3 ore more visits in the previous year) with complex healthcare needs.

ACKNOWLEDGMENTS

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For information :
Catherine.Hudon@USherbrooke.ca