



Factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care

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Factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care



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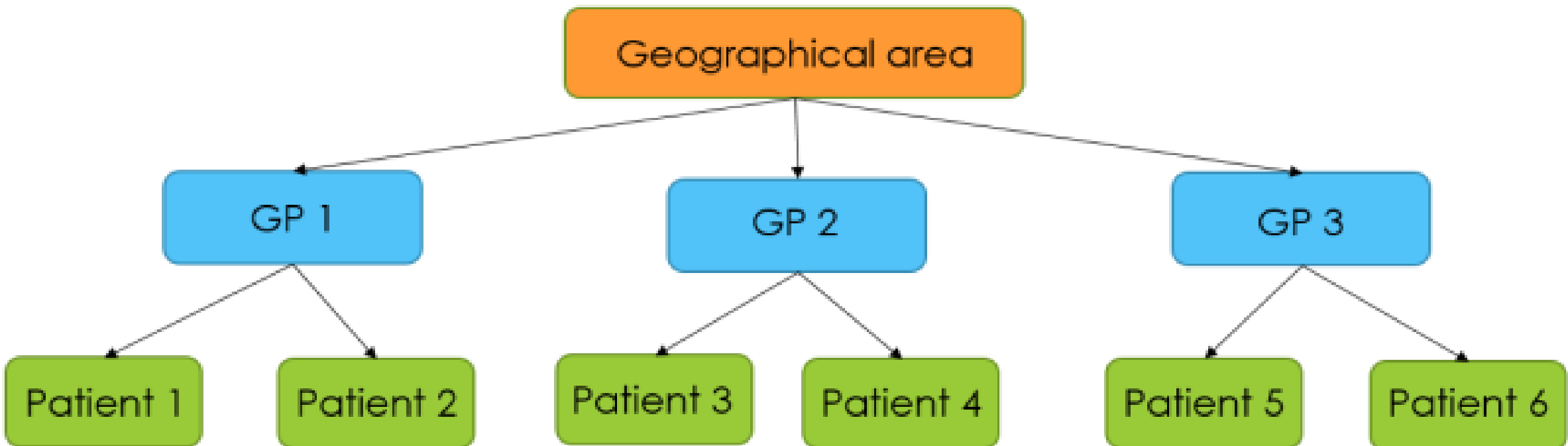


Introduction

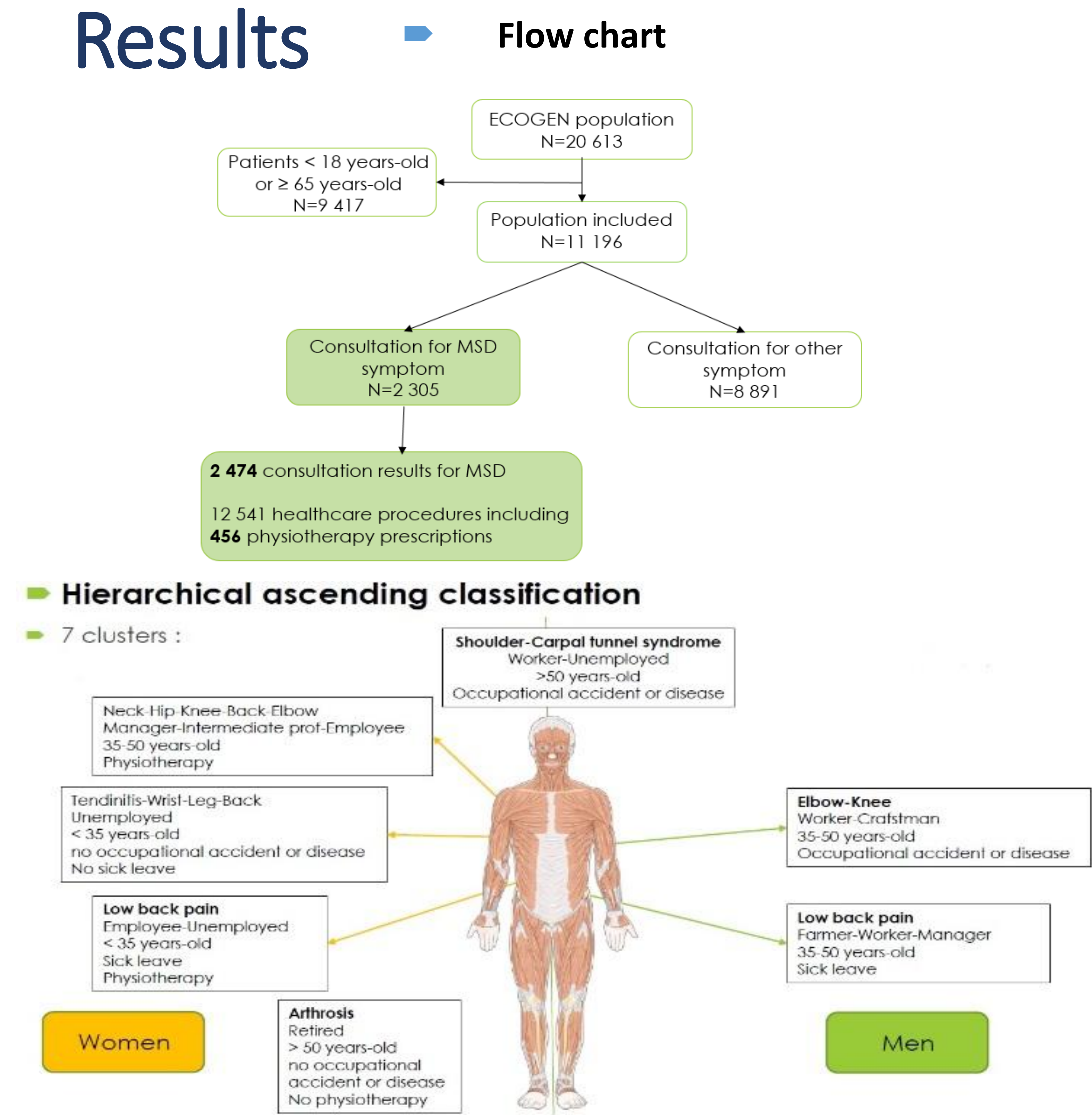
- Musculoskeletal disorders : a public health issue**
- 50 % of European workers, 12.6% of General Practitioners (GP's) consultations (2014)
 - 50 % of occupational accidents, 87% of occupational diseases
 - 3 % of french GDP (care costs, absenteeism...)
- Bio-psycho-social management**
- Physiotherapy prescription
 - 8.5 % of the whole GP's prescriptions
 - Initiated mainly by GPs (76.1 %)

Methods

- **Design and database**
 - **ECOGEN** (Elements of Consultation in GENeral practice)
 - Cross-sectionnal multicenter French national study in November 2011 / April 2012
 - 128 GPs
 - **Hierarchical data collection**
 - Reason for encounter, consultation results and healthcare procedures coded with **ICPC-2** (WONCA, 1998)
 - Data about patients, GPs et consultation context
- **Inclusion criteria**
 - 18 / 65 years-old
 - Consulting for MSDs without traumatic, infection, inflammatory or tumoral issues
 - Codes ICPC-2 :
 - 26 codes L (Locomotor)
 - 3 codes N (Neurological)
- **Statistical analyses**
 - **Multidimensional exploratory analyses**
 - Multiple correspondance analysis (MCA) and hierarchical ascending classification (HAC)
 - Only using patients' variables
 - **Multilevel logistical Regression** (128 GPs et 62 geographical areas)
 - Marginal model or population-average : Generalized Estimating Equations (GEE)
 - Sensitivity analyses with fixed-effect and random-effect mixed models
- **Contextual variables calculation** with postal patients codes
 - **Geographical area « Bassins de vie »** (1 666 in France, 2012)
 - 16 equipments/31 among public, health, education and occupational services
 - **Potential localized accessibility** (PLA) for GP and physiotherapist (2012)
 - PLA = 1 → 1 full-time healthcare professional in a 15 min distance perimeter
 - **French Deprivation index** (FDep, Rey *et al.* 2009)
 - % of unemployed
 - % of workers
 - % of bachelor
 - monthly median incomes



Results



Multilevel ajusted logistic regression

	OR (CI 95%)	p-value
Patient's variables		
Age		
35-50 years-old	0.78 (0.58-1.04)	0.084
>50 years-old	0.69 (0.52-0.91)	0.008
Gender female	1.28 (1.03-1.59)	0.024
Number of healthcare procedures		
4-6	0.73 (0.57-0.93)	0.013
>6	0.68 (0.50-0.94)	0.018
GP's variables		
Age > 50 years-old	0.50 (0.39-0.63)	<0.001
Practice location		
Semi-urban	0.62 (0.42-0.90)	0.013
Urban	0.84 (0.58-1.21)	0.344
Type of exercise		
Group	0.98 (0.74-1.30)	0.902
Multidisciplinary team	0.62 (0.43-0.90)	0.011
Number of consultations >5000 by year	0.79 (0.63-0.99)	0.038
Geographical variables		
French Deprivation index		
Q2	0.73 (0.52-1.00)	0.053
Q3	0.61 (0.41-0.90)	0.013
Q4	0.60 (0.40-0.90)	0.013
Spine symptoms	1.47 (1.18-1.83)	<0.001
Shoulder symptoms	1.66 (1.20-2.29)	0.002

- **Mixed models** : Similar results
- **Spine model** : Similar results, with low physiotherapist accessibility as contextual factor associated with less physiotherapy prescription