Factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care
Matthieu PEUROIS, Aline Ramond-Roquin, Najia Adjeroud, Mélanie Bertin, Natacha Fouquet, Yves Roquelaure

To cite this version:
Matthieu PEUROIS, Aline Ramond-Roquin, Najia Adjeroud, Mélanie Bertin, Natacha Fouquet, et al.. Factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care. 47th North American Primary Care Research Group (NAPCRG) annual meeting, Nov 2019, Toronto, Canada. hal-02480823

HAL Id: hal-02480823
https://univ-angers.hal.science/hal-02480823
Submitted on 17 Feb 2020

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
Factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care

Peurois M1,2, Bertin M1, Adjeroud N2, Fouquet N2, Roquelaure Y3, Ramond-Roquin A1,2,4

Introduction
Musculoskeletal disorders : a public health issue
- 50 % of European workers, 12.6% of General Practitionners (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 %)

Objectives
To explore factors associated with physiotherapy prescription among adult patients consulting for musculoskeletal disorders in primary care at the patient’s, GP’s and contextual levels

Take home messages
- Physiotherapy prescription is associated with patient’s, GP’s and contextual factors
- Pertinence of contextual approach using healthcare professional accessibilities and deprivation markers in general practice setting
- Use of multilevel analyses in primary care for other healthcare professional or contextual issues
  ➔ Health inequalities reduction approach

Methods

⇒ Design and database
- ECOGEN (Elements of Consultation in GENERAL practice)
  ➔ Cross-sectional 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, GP’s et consultation context

⇒ Statistical analyses
- Multidimensional exploratory analyses
  ➔ Multiple correspondence 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

Results

⇒ Flow chart

⇒ Hierarchical ascending classification
  ➔ 7 clusters :
    - Neck/shoulder/hip/wrist syndrome
    - Tendinopathy of the shoulder/hip/wrist/ankle
    - Low back pain
    - Hip pain
    - Osteoarthritis
    - Upper arm nerve compression syndrome
    - Lower arm nerve compression syndrome

⇒ Multilevel adjusted logistic regression

<table>
<thead>
<tr>
<th>Patient’s variables</th>
<th>OR (CI 95%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 35-50 years-old</td>
<td>0.78 (0.58-1.04)</td>
<td>0.084</td>
</tr>
<tr>
<td>&gt;50 years-old</td>
<td>0.69 (0.52-0.91)</td>
<td>0.008</td>
</tr>
<tr>
<td>Gender female</td>
<td>1.28 (1.03-1.59)</td>
<td>0.024</td>
</tr>
<tr>
<td>Number of healthcare procedures</td>
<td>0.73 (0.57-0.93)</td>
<td>0.013</td>
</tr>
<tr>
<td>4-6</td>
<td>0.68 (0.50-0.94)</td>
<td>0.018</td>
</tr>
<tr>
<td>&gt;6</td>
<td>0.90 (0.63-1.29)</td>
<td>0.388</td>
</tr>
<tr>
<td>GP’s variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age &gt;50 years-old</td>
<td>0.50 (0.39-0.63)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Practice location</td>
<td>0.62 (0.42-0.90)</td>
<td>0.013</td>
</tr>
<tr>
<td>Urban</td>
<td>0.84 (0.58-1.21)</td>
<td>0.344</td>
</tr>
<tr>
<td>Type of exercise</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>0.98 (0.74-1.30)</td>
<td>0.902</td>
</tr>
<tr>
<td>Multidisciplinary team</td>
<td>0.62 (0.43-0.90)</td>
<td>0.011</td>
</tr>
<tr>
<td>Number of consultations</td>
<td>0.79 (0.63-0.99)</td>
<td>0.038</td>
</tr>
<tr>
<td>Geographical variables</td>
<td></td>
<td></td>
</tr>
<tr>
<td>French Deprivation Index</td>
<td>0.73 (0.52-1.00)</td>
<td>0.053</td>
</tr>
<tr>
<td>Q2</td>
<td>0.61 (0.41-0.90)</td>
<td>0.013</td>
</tr>
<tr>
<td>Q4</td>
<td>0.60 (0.40-0.90)</td>
<td>0.013</td>
</tr>
<tr>
<td>Spine symptoms</td>
<td>1.47 (1.18-1.83)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Shoulder symptoms</td>
<td>1.66 (1.20-2.29)</td>
<td>0.002</td>
</tr>
</tbody>
</table>

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