Polypharmacy and Adherence: Key Components of Integrated Care, The case of Catalonia.

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**Introduction:** Polypharmacy and medication adherence in the older population are significant public health issues throughout the European Union (EU), and are an important component of integrated care. SIMPATHY (Stimulating Innovation Management of Polypharmacy and Adherence in The Elderly) is a consortium of 10 organizations representing 8 EU countries and is working to address these issues by developing change management tools to facilitate EU policy makers in integrating polypharmacy and adherence into existing health care systems.

**Objectives:** 1) Map existing components of polypharmacy and adherence programme in Catalonia and; 2) describe change management and implementation strategies used in the development, implementation, and scale up of the programme.

**Methods:** We conducted a mixed-methods case study in Catalonia, Spain. Policies and practices of the Catalan Health Department and two clusters of healthcare institutions (one urban, one rural) including a teaching hospital, primary care centre, and long-term care facility were included for analysis. The study consisted of three phases: I) desk review of the polypharmacy and adherence policies at the government, regional and institutional level; II) key informant interviews with policymakers, managers, and clinicians responsible for developing and implementing the programme and; III) focus group of clinicians and managers familiar with the programme to validate preliminary results. Polypharmacy management involves multiple care providers and practice settings, so can be categorized as a complex intervention. Therefore, multiple theories and frameworks were used in the study design and analysis. Change management was assessed using Kotter’s 8 principles of leading change while the four main constructs of normalization process theory (NPT) were used to evaluate integration of the programme into daily practice (coherence, cognitive participation, collective action, and reflexive monitoring).

**Preliminary results:** Two distinct programme types emerged in the analysis: a government sponsored programme lead by the Department of Health and targeted at primary care physicians, and an institutional sponsored programme lead by geriatrician clinicians and supported by department heads and hospital administrators. Participants in both programme types recognized the importance of polypharmacy in the older population and the need to take
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action on the issue, and both were guided by the regional health plan. The government programme utilized a top down or vertical approach to implementation with the primary focus on patient safety (preventing drug interactions, therapeutic duplications, or avoiding contraindicated drugs), individual physician prescribing, and had a goal of implementation throughout the entire healthcare system. The programme was supported by an extensive information technology system of electronic medical records and a pay for performance contract. A limited number of change management principles were identified, and implementation was limited by restricted personnel resources and lack of attention to integrating the new practice into daily work flow, as exemplified by the NPT analysis. The institutional programme employed a middle out, or horizontal implementation strategy with a global patient-centred focus, of which polypharmacy management was one component. It was driven by a small multidisciplinary team of physicians and pharmacists with the initial goal of creating a well-developed pilot that would be scaled up at a later point. Many change management principles and NPT constructs were identified. Key facilitators included a “culture of geriatrics” that supported the use of multidisciplinary teams and a culture of innovation within the hospital.

Conclusion and future work: Catalonia has two examples of well-developed polypharmacy management programmes. The government sponsored approach had a narrower focus on patient safety and less use of multidisciplinary teams, but was able to be implemented throughout the healthcare system. Use of a more robust change management approach in the institutional setting facilitated the implementation, including the use of multidisciplinary teams. Both provide lessons for other health systems wanting to integrate management of polypharmacy into existing care models.

Keywords: polypharmacy; adherence; policy; change management