

Clinical coordination between care levels and influencing factors: an exploratory analysis in 41 areas in Catalonia, Spain (ID 84)

Franco Amigo¹, Ingrid Vargas Lorenzo², María Luisa Vázquez Navarrete², Elvira Sánchez³, Alex Escosa⁴, Montserrat Oliveras⁵, Francesc Cots⁶, Pere Plaja⁷, Antonio Sánchez Hidalgo⁸

¹Department of Population Health Sciences, Duke University School of Medicine, USA. ²Health Policy and Health Services Research Group. Consorci de Salut i Social de Catalunya, Spain. ³Serveis de Salut Integrats Baix Empordà, Spain. ⁴Badalona Serveis Assistencials, Spain. ⁵Institut Català de la Salut, Spain. ⁶Parc de Salut Mar, Spain. ⁷Fundació Salut Empordà, Spain. ⁸Consorci Sanitari de Terrassa, Spain

Context: Clinical coordination between primary care (PC) and secondary care (SC) is essential for improving quality of care and efficiency. Little is known about how factors related to the organization of services, the interaction between professionals at different levels, and the use of coordination mechanisms affect the different type of clinical coordination – informational and clinical management– and their dimensions. The aim of this study is to analyze these relationships across different areas of the Catalan national health system.

Methods: Cross-sectional study (May 2022–April 2023) based on an online survey of PC and SC doctors using the COORDENA-TICs questionnaire. Outcome variables included representative items for each dimension of the coordination experience – transfer of patient information between levels (coordination of information), agreement with the treatment prescribed by the other level and definitions of joint care plans (consistency of care), consulting doubts in the follow-up of patients by the PC doctor and sending recommendations by the SC doctor (adequate follow-up between levels), waiting times for referral (accessibility between levels), and general perception of coordination. Explanatory variables included organizational support, knowing doctors of the other care level and frequent use of ICT-based coordination mechanisms (shared EMR of Catalonia, center-specific shared EMR, and virtual consultations through EMR). Responses were aggregated at the healthcare area level to represent the percentage of doctors who agreed with the statement. Pearson correlation analyses explored associations.

Results: 2,277 responses (17.5% response rate) were collected from 41 areas comprising primary healthcare areas and their referral acute hospital. Shared information on patient care was significantly associated with organizational support for coordination ($r=0.51$, $p<0.01$). Agreement on treatment plans correlated with organizational support ($r=0.23$, $p=0.01$), doctors knowing each other ($r=0.32$, $p=0.04$), and virtual consultations through EMR ($r=0.44$, $p<0.01$). Joint care plan definitions were linked to knowledge between doctors ($r=0.34$, $p=0.03$), the center's Shared EMR ($r=0.31$, $p=0.05$), and virtual consultations through EMR ($r=0.33$, $p=0.03$). Recommendations from hospital doctors were negatively associated with Catalonia's Shared EMR ($r=-0.31$, $p=0.05$), while primary care queries showed a positive correlation with it ($r=0.39$, $p=0.01$). Waiting times for hospital referrals were linked to organizational support ($r=0.42$, $p=0.01$) and Catalonia's Shared EMR ($r=0.43$, $p=0.01$). Lastly, overall coordination perception was positively associated with organizational support ($r=0.53$, $p<0.01$), doctors knowing each other ($r=0.35$, $p=0.02$), and virtual consultations through EMR ($r=0.43$, $p=0.01$).

Discussion: The study highlights the critical role of organizational support and inter-professional knowledge in improving care coordination between PC and SC. Organizational support was a consistent factor, associated to better shared patient information, treatment agreement, and overall perception of coordination. Mutual knowledge is associated with items of consistency of care – joint care planning and agreeing on treatment– suggesting the importance of fostering direct communication to strengthen collaboration, especially in the care of patients with complex needs. Virtual consultations and shared EMRs facilitated information exchange, yet also highlighted potential challenges, such as negative correlations with hospital doctors' recommendations. Implementing these coordination mechanisms based on ICT requires a better understanding of their impact on workflows and effective integration strategies. Future research in progress will focus on evaluating associations while adjusting for organizational and sociodemographic characteristics of both doctors and patients within each healthcare area.