Deploying New Perspectives of Network Organizations for Chronic Diseases’ Integrated Management

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ABSTRACT

The social frame of healthcare organizations in Europe (and in particular in the Italian Public Sector), as a combination of relational, formal and informal aspects, is one of their most relevant sources of complexity, which leads to different approaches about decisional, clinical and organizational processes (Cicchetti, 2004). These issues have been enlightened as well by the increasing social incidence of chronic-degenerative pathologies, such as Diabetes Mellitus type 2. In this regard, the Italian national e-government strategy has first pointed out the need for paths of integration and interoperability among information systems to ensure a safe exchange of information (CNIPA, 2008). The activity of “integrated design” of information flows between doctors and patients allows the creation and development of reticular organizational forms in which many non contiguous actors work at the same time on the diagnosis and care process. This paper shows how the adoption of the Social Network Analysis (SNA), as theoretical and methodological perspective that emphasizes the social reality as reticular framework (Moreno, 1987), can provide an innovative approach for the study of the “pathology networks” and the “integrated management” of Diabetes Mellitus type 2, where ICT solutions are (or are about to be) currently involved.

Keywords: Chronic Diseases’ Integrated Management, Information & Communication Technologies, Information Flow, Network Organizations, Social Network Analysis

INTRODUCTION

HealthCare Organizations (HCOs) can be defined as “[...] social entities guided by specific objectives and involved in the processes through which health assistance services are produced and provided to healthy (e.g., prevention) or diseased subjects” (Mapelli, 1999).

Health assistance services spread over a health–disease–health continuum, since the gap between health and disease can be only reduced, so that a disease subject produces another disease subject with different needs (Ruta, 1993). Many levels of assistance complexity...
and intensity are so covered, comprised within a wider corpus of organizational forms that, with its many professional subgroups, complex work processes and power structures, represents a fluid and dynamic context with fewer formalized control mechanisms (Helmreich & Merritt, 1998) and suggests indefinite possible solutions of coordination and work assigning. Issues come from the difficulties to assess the alternative organizational forms proposed for the healthcare sector, in terms of efficacy, efficiency and equity (Grandori, 1999), as well as the different methodological approaches introduced for the study of its complexity: different levels of complexity can be detected in fact, from the agreement degree (among those working in the inside environment) to the uncertainty degree (how the inside environment connects to the outside environment), related in any case to three main different fields: culture and values; technological–formal issues; social legacies (Cicchetti, 2004).

In this dynamic context the emerging organisational form is the network organisation: the development of a reticular organizational structure rises from the need of a higher degree of organizational analysis than what requested for a single company (Martinez, 1997), and from the importance to deal with an interconnected organizations set as a higher ranking actor (Keen, 1990; Rockart & Short, 1991; Bonacci & Tamburis, 2007). The network appears therefore as the solution to the issues of integration between separated and specialized units (Cicchetti & Mascia, 2007); nonetheless, an accomplished sharing of values, social legacies and formal languages becomes possible in particular only within an “information and communication network”, where the knowledge framework that gives origin to the government of the technological system (Cosmi, 2003) – meant as pattern of analysis and management of coded information and data flows – takes the name of Information and Communication Technology.

THE IMPACT OF ICTS VS. THE LOGICS OF NETWORK

After the First Stage of Discovery of the “Health ICT world” (1989-1999), the Second Stage of Acceptance (1999-2009) began with recognition that nothing was going to happen by osmosis or just because of the enthusiasm of that community alone. The challenges were evident – there was no main stream credibility for health ICT within the technology sector or indeed within healthcare itself; there was no voice for innovation and new ideas; few who were aware or listening to the health telematics community (EHTEL, 2009). Opportunities have been beginning to open up during years. New technologies have been maturing which had relevance to healthcare. The growing pressures of demography, medical advances and patient empowerment were all in sharp contrast with finite resources available to address a growing demand from citizens and patients for more health attention.

The impact of increasing incidence of chronic disease, evidence based medicine, and early glimpses of personalized care, information based management and control, economics of transformation through technology support and development of strategic ideas from worldwide markets have been changing perceptions, priorities and the choice of health business models. In addition, as opportunities emerged, stakeholders began to be more aware of the opportunities and threats associated with ongoing change. There is therefore evidence that, when combined with proper organization, leadership and skills, innovative Information and Communication Technologies (ICTs) can help to address some of the societal challenges to (not only) Europe’s healthcare systems, first of all the achievement of the logics of “healthcare network” through which realize a level of technological integration capable of increase synergies between HCOs, and between them and the patients: a network of interconnected HCOs and healthcare operators.
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