Gac Sanit. 2013;27(3):207–213

Original article

Factors associated to experienced continuity of care between primary and outpatient secondary care in the Catalan public healthcare system

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ARTICLE INFO

Article history:
Received 5 April 2012
Accepted 26 June 2012
Available online 14 September 2012

Keywords:
Continuity of patient care
Quality of healthcare
Healthcare levels
Healthcare surveys

ABSTRACT

Objective: To analyze patient's reported elements of relational, informational and managerial (dis)continuity between primary and outpatient secondary care and to identify associated factors.
Methods: Cross-sectional study by means of a survey of a random sample of 1500 patients attended in primary and secondary care for the same condition. The study settings consisted of three health areas of the Catalan health system. Data were collected in 2010 using the CCAENA© questionnaire, which identifies patients' experiences of continuity of care. Descriptive analyses and multivariable logistic regression models were carried out.
Results: Elements of continuity of care were experienced by most patients. However, elements of discontinuity were also identified: 20% and 15% were seen by more than one primary or secondary care physician, respectively. Their secondary care physician or both professionals were identified as responsible for their care by 40% and 45% of users, respectively. Approximately 20% reported a lack of information transfer. Finally, 72% of secondary care consultations were due to primary care referral, whilst only 36% reported a referral back to primary care. Associated factors were healthcare setting, age, sex, perceived health status and disease duration.
Conclusion: Users generally reported continuity of care, although elements of discontinuity were also identified, which can be partially explained by the healthcare setting and some individual factors. Elements of discontinuity should be addressed to better adapt care to patients' needs.

Factores asociados a la continuidad asistencial entre atención primaria y atención secundaria ambulatoria experimentada por los usuarios en el sistema de salud catalán

Palabras clave:
Continuidad asistencial
Calidad de la atención
Niveles asistenciales
Encuestas de salud

RESUMEN

Objetivos: Analizar los elementos de (dis)continuidad de relación, información y gestión, entre atención primaria y secundaria ambulatoria, reportada por los pacientes e identificar los factores asociados.
Métodos: Estudio transversal, mediante encuesta a usuarios de los servicios de salud atendidos en atención primaria y secundaria por un mismo motivo. Se realizó en tres áreas del sistema de salud de Cataluña. Se seleccionó una muestra aleatoria de 1500 pacientes. Los datos fueron recogidos en 2010 aplicando el cuestionario CCAENA©, que mide la experiencia y la percepción de la continuidad asistencial. Se realizaron análisis descriptivos y modelos de regresión logística múltiple.
Resultados: Los usuarios percibieron mayoritariamente elementos de continuidad asistencial. Sin embargo, también identificaron elementos de discontinuidad: un 20% y un 15%, respectivamente, fueron atendidos por más de un médico de atención primaria o secundaria. Un 40% identificó como responsable de su atención al médico de atención secundaria y un 45% a ambos profesionales. Aproximadamente el 20% percibió una falta de transferencia de información. Finalmente, el 72% de las consultas a médicos de atención secundaria fue por derivación de atención primaria, y sólo el 36% señaló una contraderivación a la atención primaria. Los factores asociados fueron el área de salud, las características sociodemográficas, el estado de salud percibida y la duración de la enfermedad.

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0213-9111/$ – see front matter
http://dx.doi.org/10.1016/j.gaceta.2012.06.011

Conclusión: Los usuarios perciben una continuidad asistencial, aunque identifican elementos de discontinuidad, explicados parcialmente por el área de salud y por algunos factores individuales. Su abordaje contribuiría a adecuar la atención a las necesidades de los pacientes.

Introduction

The achievement of continuity of care (CC) poses one of the greatest challenges for all healthcare systems due to rapid technological advances, new treatments, high specialisation, and shifts in care from institutional to outpatient and home settings. Patients therefore see an ever-expanding array of different providers in a variety of places, which makes the coordination of their care difficult and jeopardizes care continuity.[1–3] Following Reid et al.,[1] CC is here defined as the degree to which patients experience care over time as coherent and linked[1]. Three types of continuity are identified[1,4]:

- Relational: the patients' perceptions of an ongoing, therapeutic relationship with one or more providers.
- Informational: patients' perceptions of the availability, use and interpretation of information on past events in order to provide care which is appropriate to their current circumstances.
- Managerial: the patients' perceptions that they are receiving the different services in a coordinated, complementary and unduplicated way.

Only few studies have so far analysed patients' experiences of CC in a comprehensive manner, i.e. taking into account the three types of CC, a wide range of medical conditions or different care levels[1]; studies have generally focused on a single pathology,[5,6] or one care level,[7,8] or encompassed a small sample size.[5,6] Regarding associated factors, only one study has associated patients' CC reports with healthcare elements: the existence of specific care coordination mechanisms between organizations (healthcare protocols and mechanisms to facilitate referral or sharing of information).[9] Most available studies have concentrated on the influence of individual factors, with diverse results: while sex does not seem to be related to CC perceptions,[5,6,10,11] the influence of age is inconclusive[5,6,10,11] and there appears to be an inverse relationship with educational level.[10,12] Ethnic minorities give a worse assessment of primary care (PC) elements related to relational continuity[13-15]; but the influence of immigrant status on relational continuity remains unexplored, and the impact of morbidity is inconclusive.[16,17] Patients with increased morbidity seem to be more likely to experience low levels of informational and managerial continuity.[16,18]

CC has also become a priority of the Catalan National Health System, in which primary care is the gatekeeper, and secondary care (SC) is responsible for the treatment of severe conditions.[19] In order to ensure CC, citizens are assigned to a PC team that coordinates their care along the care continuum.[20,21] This means that access to outpatient SC requires referral from PC.[21] In the Catalonian health system, care is provided by a number of contracted providers: on the one hand, a public company, the Catalan Health Institute (ICS), and on the other, consortia, municipal foundations and private foundations (mainly non-profit but also for-profit).[22] This diversity has given rise to various management models under both public and private law, including the independent or joint management of both PC and SC in the different healthcare areas into which the system is divided.[23] How these different management models may influence CC has so far not been explored. The aim of this article, part of a wider study,[24,25] is to analyse patient-reported elements of relational, informational and managerial (dis)continuity between PC and outpatient SC and to identify context and individual associated factors.

Methods

Study design and setting

A cross-sectional study was carried out by means of a survey of users of the Catalan public healthcare system in three selected areas: Baix Empordà, the city of Girona and the Ciutat Vella district of Barcelona. Healthcare areas were selected to explore the potential influence of healthcare factors on CC experiences, specifically the different management models for PC and SC levels: in Baix Empordà and Girona both PC and SC are managed by a single entity, under private law in the former case and under public law in the latter. In Ciutat Vella, PC and SC are managed by independent entities under public and private law. The population served by these organizations in the study areas is 74,144 in Baix Empordà, 83,312 in Girona and 99,093 in Ciutat Vella. All three areas have introduced some coordination mechanisms between care levels, such as shared clinical guidelines and protocols. In terms of information systems, in Baix Empordà, patients have a single electronic medical record for both care levels, whilst in the other two areas electronic records are shared but different.

Study population and sample

The study population consisted of patients of 18 years of age or over who had received PC and SC for the same condition in the three months prior to the survey and were assigned to the selected healthcare areas.

Sample size was calculated to analyse the association model between variables at 95% confidence level, to fulfil the de Moivre theorem of expected frequency greater than five as well as to express the fit and likelihood statistics as a chi-square distribution. The sample size required was approximately 400 patients per healthcare area. The final sample size was 1500 and the sample was distributed across the three areas according to the size of served population.

A simple random sample without replacement was selected from the records provided by the study area PC centres and hospitals which permitted the identification of the patients that had used both PC and SC in the three months prior to the interview for the same condition. A list of substitutes which included individuals of the same sex and age group was used to replace any refusals. Patients who had not been attended to by medical professionals or who could not understand or communicate effectively in Spanish or Catalan were excluded.

Questionnaire

The CCAENA questionnaire was applied, which is designed to comprehensively evaluate patients' experiences of CC between care levels. This tool, previously validated,[25] is divided into two sections. The first reconstructs the care trajectory for a specific condition in the previous year for relational continuity and the last three months for informational and managerial continuity; and identifies the elements of (dis)continuity experienced in the transition between PC and outpatient, hospital and emergency SC.