Abstract:

Over the last two decades, the number of studies on electronic symptom reporting has increased greatly. However, the field is very heterogeneous: the choices of patient groups, health service innovations, and research targets seem to involve a broad range of foci. To move the field forward, it is necessary to build on work that has been done and direct further research to the areas holding most promise. Therefore, we conducted a comprehensive review of randomized controlled trials (RCTs) focusing on electronic communication between patient and provider to improve health care service quality, presented in two parts. Part 2 investigates the methodological quality and effects of the RCTs, and demonstrates some promising benefits of electronic symptom reporting. To give a comprehensive overview of the most mature part of this emerging field regarding (1) patient groups, (2) health service innovations, and (3) research targets relevant to electronic symptom reporting. We searched Medline, EMBASE, PsycINFO, Cochrane Central Register of Controlled Trials, and IEEE Xplore for original studies presented in English-language articles published from 1990 to November 2011. Inclusion criteria were RCTs of interventions where patients or parents reported health information electronically to the health care
system for health care purposes and were given feedback. Of 642 records identified, we included 32 articles representing 29 studies. The included articles were published from 2002, with 24 published during the last 5 years. The following five patient groups were represented: respiratory and lung diseases (12 studies), cancer (6), psychiatry (6), cardiovascular (3), and diabetes (1). In addition to these, 1 study had a mix of three groups. All included studies, except 1, focused on long-term conditions. We identified four categories of health service innovations: consultation support (7 studies), monitoring with clinician support (12), self-management with clinician support (9), and therapy (1). Most of the research (21/29, 72%) was conducted within four combinations: consultation support innovation in the cancer group (5/29, 17%), monitoring innovation in the respiratory and lung diseases group (8/29, 28%), and self-management innovations in psychiatry (4/29, 14%) and in the respiratory and lung diseases group (4/29, 14%). Research targets in the consultation support studies focused on increased patient centeredness, while monitoring and self-management mainly aimed at documenting health benefits. All except 1 study aiming for reduced health care costs were in the monitoring group. RCT-based research on electronic symptom reporting has developed enormously since 2002. Research including additional patient groups or new combinations of patient groups with the four identified health service innovations can be expected in the near future. We suggest that developing a generic model (not diagnosis specific) for electronic patient symptom reporting for long-term conditions may benefit the field.

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