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Conference Abstract

The influence of redesigning care processes on quality of care: a systematic review

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Abstract

Introduction: The need for changes in healthcare processes in order to improve quality of care is widely acknowledged, however the evidence of process redesign interventions regarding their ability to improve quality of care is limited and fragmented. This review seeks to establish through available literature, what is known about the impact of process redesign on the quality of care delivered.

Methods: Pubmed, CINAHL, Web of Science and Business Premier Source were searched for relevant studies published in the last ten years (2004-2014). Studies were included when it concerned original research, published in English, using before and after study design, and focused on changes in healthcare processes and quality of care. Identified studies that met the inclusion criteria were independently assessed for reporting quality by three reviewers prior to inclusion in the review, using the SQUIRE checklist. Data was extracted from the results and

discussion/conclusion sections of the included studies with help of a standard framework that was developed for the purpose of this review. Meta-analysis techniques could not be applied due to the differences in outcome measures used in the included studies.

Results: The search strategy resulted in 478 articles at first stage and 24 additional articles through reference screening. In total, 18 studies were included for data extraction and synthesis. Reporting quality varied between the included studies. A variety of process redesign interventions was applied, half of which were characterized as Lean Thinking. Other redesign interventions applied were Patient Centered Medical homes, general forms of process redesign, appreciative inquiry and a co-management model. None of the studies described the effects of the redesign implementation on all dimensions of quality of care as described by the Institute of Medicine. Most studies reported on effectiveness and efficiency gains, and also patient safety was reported on in more than half of the studies. Patient-centeredness, timeliness and equity of care were minimally reported on, if at all.

Conclusion: The impact of process redesign on quality of care could not be defined in this review, as none of the articles reported on all aspects of quality of care. Outcome measures used showed great variety and research methods used were limited. Despite the limitations found, all studies reported positive outcomes of redesign implementation on aspects of quality of care.

Lessons learned: The results of this review underline the need for to further the knowledge on the impact of redesign interventions on the quality of care delivered. In addition, the development of a more uniform and comprehensive methodology to assess the impact of redesign interventions would strengthen the evidence underlying process redesign interventions.

Limitations: Publication bias might be present, since most of the studies report on positive findings and there is a general tendency in scientific literature to over present positive results. Limiting the inclusion of articles by only including studies that used before and after measurement might have led to some selection bias. Finally, since the terminology used to describe process redesign interventions shows great variation, we might have missed relevant studies.

Keywords

process redesign; quality of care; healthcare processes; systematic review

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