The impact of team science collaborations in health care: a synopsis and comment on “Interprofessional collaboration: effects of practice-based interventions on professional practice and healthcare outcomes”

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ABSTRACT

The eighth column on evidence-based behavioral medicine is a synthesis of the study of Zwarenstein et al. (1), which examines the effects of practice-based interventions to improve interprofessional collaboration. Poor interprofessional collaboration may have deleterious effects on quality of care. The purpose of the systematic review was to investigate whether interventions aimed at improving interprofessional collaboration affect patient satisfaction and/or the effectiveness and efficiency of care. Five randomized controlled trials were reviewed, examining studies that differed across setting, interventions, and outcomes. Of the five studies reviewed, three showed improvements in patient care, one found no effect, and one had mixed findings. Findings indicate that interventions aimed at improving interprofessional care may improve outcomes, but interpretation of these findings is limited due to the small sample size and heterogeneity across studies reviewed.

KEYWORDS

Team science, Interprofessional collaboration, Practice-based Interventions

INTRODUCTION

Current healthcare practice environments require effective interprofessional collaboration between health care providers from different professions to improve quality of care. Interprofessional collaboration is most effective when members of diverse disciplines value each others' opinions and communicate well with other professionals. Ineffective communication among professionals can result in negative health care outcomes (e.g., patient safety [2] and infant death [3]). Interprofessional practice interventions may hold promise for improving interprofessional collaboration. Such interventions involve the health care teams using tools or changing routines to ensure that roles are understood and appropriate care is being provided. Examples of specific intervention components are training professionals on communication tools,

Implications

Researchers: Researchers should conduct more RCTs with larger sample sizes that test the efficacy of interventions targeting interprofessional collaborations.

Practitioners: Integrating communication skills training into team meetings could improve interprofessional collaborations.

Policy Makers: Making care more interprofessional and collaborative may improve care quality.

holding meetings that include all professionals, and using checklists to ensure that each team member is completing the tasks required of their specific discipline. The current systematic review updates the 2000 review conducted by Zwarenstein [4] which focused only on two studies involving the nurse/physician relationship. The current review expands the search to all professions and investigates whether interventions aimed at improving interprofessional collaboration affect patient satisfaction and/or the effectiveness and efficiency of care.

KEY QUESTION

How do practice-based interprofessional collaboration interventions impact patient satisfaction, effectiveness and efficiency of the provided health care, and the degree of achieved interprofessional collaboration?

SEARCH STRATEGY

The authors searched the Cochrane Effective Practice and Organisation of Care Group Specialised Register (2000–2007), MEDLINE (1950–2007), and CINAHL (1982–2007). They also hand-searched the Journal of Interprofessional Care (1999–2007),

as well as reference lists of included studies. Search criteria included all types of health and social care professionals and RCTs. Example keywords included “randomized controlled trial”, “patient care team” and various “collaborations” including “multi-professional”, “multidisciplinary”, “transdisciplinary”, “interprofessional”, and “multioccupation.” No language limits were implemented.

RESULTS

Five studies met eligibility criteria and varied across settings. Two of the interventions took place during interprofessional rounds, two during interprofessional meetings, and one in the context of an externally facilitated interprofessional audit. While setting differed across studies, all interventions involved the addition of some form of interprofessional meeting to discuss patients to improve outcomes.

Daily interprofessional rounds

Curley and colleagues [5] compared length of hospital stay and cost for patients at an acute care hospital who were treated by a team of professionals who met as a team daily versus control group patients whose treatment team did not meet. There were significant differences between the intervention and control groups on length of hospital stay and cost. Patients treated by the interprofessional team who met daily had shorter hospital stays and lower health care costs associated with their hospital visit.

Wild et al [6] implemented a similar intervention in a telemetry unit of a community hospital. However, results showed no between-group differences in length of hospital stay between patients treated by a team that met daily and routine care.

Interprofessional meetings

Schmidt and colleagues [7] conducted an intervention in 15 nursing homes to investigate the impact of monthly interprofessional meetings on drug prescription rates. The experimental group had significantly fewer drugs prescribed and less use of nonrecommended hypnotics, anxiolytics, and antidepressants compared to a no-treatment control.

Wilson and collaborators [8] compared two forms of interprofessional care communication: audioconferences and videoconferences. Findings regarding which type of meeting was better in terms of time, number, and length of patient treatment were mixed. Number of interprofessional meetings held per patient did not differ by group.

Externally facilitated interprofessional audit

Cheater and colleagues [9] investigated the effect of interprofessional meetings lead by a trained, outside group leader on internal audit results. Teams who

had five meetings over a 6-month period with trained leader reported a higher quality audit. More specifically, they reported improved quality of care versus the team with no outside facilitator.

CONCLUSIONS

Of the five studies identified, three studies found benefits of an intervention targeting improved interprofessional collaboration, one had mixed findings, and one found no differences between groups on length of hospital stay.

COMMENT

These findings highlight the importance of the improvement of interprofessional collaboration given its association with lower health care costs for both patient and provider, reduced usage of non-recommended drugs, and shorter hospital stays. Given the heterogeneity of the few studies selected in terms of setting, interventions used, and outcome variables, this review also points to the need for future research in this area to guide the development of future efficacious interventions for interprofessional collaboration. Future research should increase sample sizes to improve power. Authors also suggest that more work be done in the area of measuring and quantifying perceived improvements in collaboration, as well as interventions aimed at making organizational changes (e.g., policy and staffing changes).

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