

Telephone Consultations for General Practice's Systematic Review

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ABSTRACT

Background: The use of information technology, such as internet- and telephone-based resources, is becoming an alternative and supplementary approach for offering numerous types of services in the healthcare and health management setting. Telephone consultations offer a viable substitute and supplementary service for in-person general practise care. The purpose of this systematic review is to compile evidence about the use of telephone consultation as an alternative to in-person general practise appointments.

Methods and Methods: We conducted a systematic search of MEDLINE, CINAHL, The Cochrane Library, and the International Clinical Trials Registry Platform utilising the search criteria for the intervention (telephone consultation) and the comparison group (general practice). This review comprised systematic reviews and randomised controlled studies that compared telephone consultation to face-to-face consultation in general practise. The papers were examined, assessed for quality (using the "Risk of bias" tool of the Cochrane Collaboration), and data were retrieved and analysed. Two systematic reviews and one randomised controlled trial were discovered and included in the study.

Results: Patients requesting same-day appointments from two general practises were assigned to either a same-day face-to-face visit or a telephone call back consultation in the randomised controlled trial (N = 388). There was a decrease in the amount of time spent on consultations in the telephone group (1.5 min (0.6 to 2.4)), and patients in the telephone arm had 0.2% (0 to 0.3%) more follow-up consultations than those in the face-to-face group. One systematic review focused on telephone consultation and triage on healthcare utilisation and included one randomised controlled trial and one other observational study examining telephone consultations. The other systematic review investigated patient access and included one randomised controlled trial and four observational studies examining telephone consultations. Both systematic evaluations offered narrative interpretations of the evidence and concluded that telephone consultations were a suitable alternative to in-person consultations and reduced practise workload.

Conclusions: There is a dearth of high-level evidence for telephone consultations in a GP environment; nonetheless, existing evidence suggests that telephone consultations as an

alternative to in-person general practise consultations may be an appropriate option in certain settings.

Keywords: Telemedicine, Telehealth, General practice, Teleconsult

1. INTRODUCTION

Background

Telephone consultation is a promising alternative to general practitioner (GP) care in person [1]. This is especially crucial in rural and remote settings, where low populations make it difficult to deliver primary care without travelling great distances [2, 3]. Despite the fact that published evidence has proven that telemedicine is likely to be helpful, the existing data is inconsistent [1].

In a number of nations, telemedicine and telephone consultations are available for general practitioner consultations, expert consultations, and illness management. In countries such as the United Kingdom (UK), the United States of America (US), Denmark, and Switzerland, GP telephone consultations are currently used as an alternative to face-to-face GP consultations, and it has been proposed that they provide timely, conveniently accessible care [4–6]. The National Health Service (NHS) in the United Kingdom enables general practitioners to offer telephone consultations for continuous patient care [5]. Several Medicare Benefits Schedule items currently cover telemedicine in Australia for specialist services and disease management, including videoconferencing by a specialist, consultant physician, telepsychiatry, consultant occupational physician, pain medicine physician, palliative care physician, or neurosurgeon [7]. In addition to teleradiology, behaviour management support (smoking cessation), and remote monitoring for cardiovascular illness, telemedicine is currently available internationally for other services such as teleradiology and remote monitoring for cardiovascular disease [1].

A preliminary scoping search was undertaken to determine the vocabulary for the search terms and the anticipated types of accessible studies. This protocol conforms to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols (PRISMA-P) [9] (Additional file 1) criteria and is registered with PROSPERO (CRD42015025225). There is a full discussion of the analysis in Downes et al. [10]

On September 9, 2015, relevant systematic reviews and randomised controlled trials were identified by searching MEDLINE, CINAHL, The Cochrane Library, the International Clinical Trials Registry Platform, and the citation lists of included studies and pertinent reviews. The searches utilised keywords and subject headings related to telephone consultations in general practise. (Telemedicine OR Teleconsult OR "Tele* Consult*" or "*phone* Consult*" OR Telephone Consultation* OR Telehealth OR ehealth OR tele-health OR telemedicine) AND (General Practice OR Family Practi* OR primary health care OR family physician) AND (systematic review OR meta-analysis OR Randomized Controlled Trial OR RCT*) WERE USED TO SEARCH CINAHL Plus. Then, the selection of research was conducted by three authors: CM, JB, and MD. When CM and JB picked studies differently, MD evaluated those documents, and the decision was finalised by consensus. A PRISMA research flowchart depicts the process of inclusion and exclusion.

Analysis

The evidence was evaluated using the Grading of Recommendations Assessment, Development (GRADE) system and Evaluation (GRADE) guidelines to facilitate the analysis of current evidence and the presentation of recommendations for practise and future research [12].

2. RESULTS

The results of the combined database searches yielded 551 records. The merged dataset contained 53 duplicate records, leaving 479 papers for consideration. Following a review of the paper's title, abstract, and full text, three relevant studies were selected and included in the study (Fig. 1). Two publications that required evaluation by a third reviewer during full-text screening were omitted from the analysis.

Included research

One of the three discovered studies was a randomised controlled trial (RCT), while the other two were systematic reviews that included the found RCT along with other observational studies [13–15].

Outcomes

McKinstry et al. [15] conducted a randomised controlled experiment with 388 individuals who requested same-day appointments from two general practises in a suburb of Edinburgh, United Kingdom. Patients were randomly assigned either a same-day face-to-face appointment or a telephone call back for a consultation over the phone. When a patient requested an appointment, they were provided either a telephone or a face-to-face appointment for later that same day. The most important consequence of the study was resource use. McKinstry et al. [15] discovered that there was a 1.5-minute reduction in consultation time in the telephone group (0.6 to 2.4). Secondary outcomes revealed that patients in the telephone consult group had 0.2 (0 to 0.3) more follow-up consultations and were less likely to have their blood pressure monitored than those in the face-to-face group (Table 1). No other noteworthy differences existed between the groups (Additional file 2). In Additional file 2, McKinstry et al.'s risk of bias is outlined.

The systematic review by Bunn et al. examined multiple levels of scientific evidence with a specific emphasis on use. In the systematic review, McKinstry et al. [15] were included. Bunn et al. identified one other observational study [16] that estimated a 39% reduction in the number of patients requiring a face-to-face consultation; this estimate was based on the number of patients who received a face-to-face consultation after the telephone consultation and was not based on comparisons.

3. DISCUSSION

This systematic review sought to examine the efficacy of telephone consultations as an alternative to face-to-face consultations in general practise. Only a single random Two

systematic reviews and one controlled trial were identified. The included trial and additional observational studies were uncovered by two systematic reviews.

Overall, the included studies revealed that telephone consultations are an acceptable substitute for in-person consultations. Despite the fact that telephone consultations increased the number of repeat visits, overall time spent with patients decreased.

Due to the variety of GP consultations and the comprehensive lists of typical presentations [21], it is challenging to define efficacy outcomes to compare consultation delivery types. [13, 14] Most studies of the GP consultation focus on patient satisfaction as their primary outcome of interest. Diagnostic agreement has been employed as a measure of the efficacy of alternative consultation delivery formats in a GP environment [22]; however, using this outcome necessitates a crossover trial design with inherent biases. Dixon and Stahl [22] observed that the amount of agreement was comparable across face-to-face GP visits and virtual visits (84%), compared to face-to-face visits with the same doctor and a different doctor (80%). Given the variability of a GP visit, diagnostic agreement is particularly difficult to quantify, as a diagnosis is not always accessible. Other studies have employed service use (repeat GP visits, subsequent use of other services, and doctors' consultation time) as surrogate metrics for consultation efficacy or outcome [15, 20]. This may be owing to the ease with which these may be measured, as well as the fact that they provide a meaningful quantitative measure of outcome.

The purpose of this study is to find the highest level of evidence for general practise telephone consultations. A meta-analysis of many studies, which might have lent credibility to the review's findings, was not possible because just one randomised controlled trial addressing the question was located during the searches. Nonetheless, certain lower-level evidence studies were found to be consistent with the discovered randomised controlled trial.

4. CONCLUSION

Given the limited research on telephone GP consultations as an alternative to face-to-face GP consultations, it is impossible to determine the usefulness of these consultations. Such programmes, particularly in a novel environment like Australia. Based on the available information, it is likely that GP telephone consultations provide a suitable alternative in some settings. Future study must investigate the feasibility of telephone consultations integrated with a triage approach and the resulting influence on service utilisation and health outcomes.

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