The impact of medical interpreter services on the quality of health care: a systematic review
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CRD summary
This review assessed the impact of interpreter services on the quality of health care. The author concluded that trained professional interpreters and bilingual health care providers appear to improve communication, patient satisfaction and outcomes, and reduce errors. The poor reporting of review methods and the inadequate quality assessment of the included studies make commenting on the reliability of the conclusions difficult.

Authors' objectives
To assess the impact of interpreter services on the quality of health care.

Searching

Study selection
Study designs of evaluations included in the review
Reviews were excluded but no other inclusion criteria were defined for study design.

Specific interventions included in the review
Studies of interpreter services (defined as any intervention involving any type of medical interpreter that aimed to increase language access and including telephone interpreters) were eligible for inclusion. Studies of sign language and interpreter services for the deaf were excluded. The included studies used a variety of different types of interpreters, including trained professional interpreters, bilingual health care providers, lay interpreters such as family members and friends, and untrained medical and other health care staff.

Participants included in the review
It was clear that people with limited English language proficiency (LEP) were to be included in the review. The included studies were predominantly in Spanish-speaking populations.

Outcomes assessed in the review
Studies were eligible if they directly assessed the quality of health care, including processes, outcomes, patient satisfaction, costs, adherence, medical errors and patient understanding of medical information. The review classified outcomes as: communication issues; patient satisfaction with care; and processes, outcomes, complications and use of health services.

How were decisions on the relevance of primary studies made?
The author did not state how the studies were selected for the review, or how many reviewers performed the selection.

Assessment of study quality
No formal assessment of validity was reported, although some aspects of validity were discussed in the text.

Data extraction
The author did not state how the data were extracted for the review, or how many reviewers performed the data extraction. The extracted data included details of the sample size and principal findings.
Methods of synthesis
How were the studies combined?
The studies were grouped according to the type of outcome and combined in a narrative. Each study was described in the text and the reviewer summarised findings from the 'most methodologically rigorous' studies.

How were differences between studies investigated?
Differences between the studies were discussed in the text.

Results of the review
Thirty-six studies were included, of which one was a randomised controlled trial (RCT; 49 families). The design of the other studies was not always explicitly reported.

Methodological flaws of the studies included: small sample sizes; no power calculations; lack of an appropriate control group; lack of statistical tests; lack of an adjustment for confounding factors; low response rates to surveys; lack of a description of the training of interpreters; and failure to analyse results for different types of interpreters separately.

Communication issues (19 studies, n at least 1,656).
The studies found that people who need but do not get interpreters have poor self-reported understanding of their diagnosis and planned treatment and often wished for better explanations. Ad hoc interpreters misinterpret or omit up to 50% of questions asked by physicians and are more likely to make mistakes that result in adverse clinical outcomes, omit-side effects of drugs, and ignore embarrassing issues when children are acting as interpreters. Finally, the quality of psychiatric consultations can be affected by interpreter services with bilingual health care providers having a positive effect and ad hoc or no interpreters having a negative effect.

Patient satisfaction with care (8 studies, n=2,077).
The studies found that the highest levels of satisfaction are obtained when using bilingual and telephone interpreters, while the lowest satisfaction is associated with ad hoc interpreters. Patients who need but do not get interpreters have the lowest satisfaction levels of all.

Health processes, outcomes, complications and use of health services (17 studies, n=12,715).
The studies found that interpreter services increase preventive screening rates. Results for the effect of use of interpreters on the duration of consultations were mixed. The use of trained interpreters increases office visits and the number of prescriptions being written and filled. LEP patients who are not provided with an interpreter or have use of an ad hoc interpreter have more medical tests, higher test costs, more often receive intravenous hydration and are more often hospitalised. Finally, diabetic LEP patients provided with trained interpreters are more likely than English proficient patients to receive higher care for certain selected measures.

Authors' conclusions
Trained professional interpreters and bilingual health care providers appear to improve communication, patient satisfaction and outcomes, and reduce interpreter errors with potential clinical consequences.

CRD commentary
The review addressed a clear question that was defined in terms of the participants, intervention and outcome; inclusion criteria were not defined for study design. Several relevant databases were searched but there were no specific attempts to locate unpublished studies, thus raising the possibility of publication bias. The methods used to select studies, assess validity and extract the data were not described, so it is not known whether any efforts were made to reduce reviewer errors and bias. Although some methodological problems were discussed for some studies, the validity of the studies was not formally assessed; this makes it difficult to assess the reliability of the results from all of the individual studies. In addition, study design was not explicitly reported for all studies.
The studies were appropriately grouped by outcome and combined in a narrative, with a clear summary of findings from the highest quality studies for each category of outcome. However, the reviewer did not describe the criteria used to classify studies as highest quality and did not provide specific references to support each summary statement. The lack of reporting of review methods and the lack of an adequate quality assessment of the included studies make commenting on the reliability of the conclusions difficult.

**Implications of the review for practice and research**

**Practice:** The author did not state any implications for practice.

**Research:** The author stated that further RCTs are required to determine the most effective and most cost-effective way of providing interpreter services to LEP patients. The author stated that areas requiring further examination include interpreter services in non-Spanish speaking populations, the mediating role of cultural issues in the acceptability of interpreters, clinical training for working with interpreters, and the content and duration of training for interpreters.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.