Patient-provider race-concordance: does it matter in improving minority patients' health outcomes?
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CRD summary
This review found that evidence was inconclusive to support that patient-provider race-concordance was associated with positive health outcomes for minorities in USA. Heterogeneity between included studies, potential for missed studies, uncertain significance of positive results and uncertain quality of evidence made the reliability of the authors’ conclusions unclear.

Authors’ objectives
To evaluate whether patient-provider race-concordance was associated with improved health outcomes for minorities in USA.

Searching
MEDLINE (from 1980), HealthSTAR (from 1980) and CINAHL (from 1982) were searched to 2008 for publications with an abstract in English; search terms were reported.

Study selection
Studies which had at least one question examined the effect of patient-provider race-concordance on health outcomes that pertained to actual or hypothetical minority patients in USA were eligible for inclusion. Study designs and settings were very varied. Many outcomes were derived from surveys of patients or physicians or from patient records (which included billing records) and included telephone interviews and use of audio or videotapes. Race-concordance outcomes were grouped into six major categories: provision of healthcare; utilisation of healthcare; patient-provider communication; patient satisfaction with provider of same race; patient preference for provider of same race; and perception of respect in race-concordant relationships. Studies with other outcomes were excluded as they were too diverse. Included patients were White/Caucasian (37.6%), Black/African American (31.5%), Hispanic/Latino (13.3%), Asian/Pacific Islander (4.3%) and others (13.3%). Race details of providers, where reported, were White/Caucasian (78.6%), Black/African American (10.9%), Asian/Pacific Islander (8.9%), Hispanic/Latino (1.2%) and others (0.4%).

Two independent reviewers performed the selection.

Assessment of study quality
Methodological quality was assessed based on guidelines of the Agency for Healthcare Research and Quality and used five criteria: appropriateness of study question and design; study sample; participant comparability; outcome measurement; and appropriateness of study conclusions. Limitations of each study were reported.

Two reviewers independently performed quality assessment. Discrepancies were resolved by re-review and discussion.

Data extraction
Major findings of each study were assigned as having positive, negative or mixed findings (definitions used for these types of finding were reported).

Two reviewers independently extracted data. Discrepancies were resolved by re-review and discussion.

Methods of synthesis
Results were summarised in tables with a narrative synthesis due to the heterogeneity in the methods and outcomes across the included studies.
Results of the review
Twenty-seven relevant studies were identified (n=56,276 patients and 1,756 providers): 15 retrospective studies or that employed a secondary analysis (n=46,936, range 116 to 13,681); four qualitative studies (n=234, range 10 to 137); three cross-sectional surveys (n=16,056, range 358 to 13,882); one study that collected data from actual patient-provider interactions (n=389); one prospective study (n=252); and three experimental studies (n=1,229, range 120 to 981).

Patient-provider race-concordance was associated with positive health outcomes for minorities in nine studies, no association in eight studies and mixed findings in 10 studies.

Positive health outcomes identified were: timely receipt of treatment (one study); provision of more aggressive treatment (one study); greater use of medical services (one study) and preventive care (two studies); improved communication and participatory decision making (two studies); and preference for (one study) and greater satisfaction with (three studies) provider and healthcare.

Limitations described for the nine studies with positive outcomes were: data based on patient self-report (six studies); small physician sample (or minority physician sample) (five studies); small patient sample (two studies); possible data errors (two studies); limited statistical power (one study); unrealistic service pattern (one study); and no correction for confounders (one study).

When studies were grouped according to race-concordance outcome, numbers of studies with positive findings were: two of eight studies for provision of healthcare; two of seven studies for utilisation of healthcare and three studies with mixed findings; two of five studies of patient-provider communication and two studies with mixed findings; three of five studies of patient satisfaction with provider of same race and one study with mixed findings; one of four studies of patient preference for provider of same race and the other studies with mixed results; and one of three studies of perception of respect in race-concordant relationships and the other studies with mixed results.

Factors other than race-concordance in the included studies that appeared to be more important predictors of patient outcomes were reported. Details of studies where race-concordance was associated with worse outcomes for minorities were given.

Authors' conclusions
The evidence was inconclusive to support that patient-provider race-concordance was associated with positive health outcomes for minorities. Analysis suggested that having a provider of the same race did not improve receipt of services for minorities.

CRD commentary
The review addressed a well-defined question in terms of participants, interventions, study design and relevant outcomes. Relevant databases were searched. The search was restricted to published studies in English and so some relevant studies may have been missed. Publication bias was not assessed. Study quality was assessed with suitable criteria, but only some results were tabulated. Quality assessment results were little used in differentiating between studies and in interpretation of the results of the review. Generally, efforts were made to reduce error and bias in the review process. Some relevant study details were reported, but details of study design were unclear. It was unclear how the total number of participants was calculated (six of the included studies resulted from the same survey). Significant heterogeneity in outcome and study design made a narrative synthesis appropriate. However, the synthesis classified the findings as positive, negative and mixed, which took no account of effect size, sample size and study quality. The authors noted that most studies only used four racial categories (which may have been too simplistic) and that much data in the included studies was based on patient self report. Not all eligible studies were included in the synthesis (see study selection), so the review was not a reflection of all available evidence. Heterogeneity between included studies, potential for missed studies, uncertain significance of positive results and uncertain quality of evidence made the reliability of the authors' conclusions unclear.

Implications of the review for practice and research
The authors did not state any implications for practice.
Research: The authors recommended that future studies considered the interactions of race-concordance with other patient, provider and setting-level variables. Future studies should also address health providers other than physician providers and the serious shortage of minority health providers in USA. Future studies may chose to exclude qualitative studies or use a suitable synthesis for qualitative data.

Funding
Not stated.

Bibliographic details

PubMedID
19012091

DOI
10.1080/13557850802227031

Original Paper URL
http://www.informaworld.com/smpp/content~db=all~content=a905567383~tab=content~order=page

Indexing Status
Subject indexing assigned by NLM

MeSH
Attitude to Health /ethnology; Health Status Disparities; Humans; Minority Health; Professional-Patient Relations; Social Perception

AccessionNumber
12009104018

Date bibliographic record published
15/07/2009

Date abstract record published
01/09/2010

Record Status
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.