Interventions to improve decision making and reduce racial and ethnic disparities in the management of prostate cancer: a systematic review

Sajid S, Kotwal AA, Dale W

CRD summary
The review concluded that educational programs were the most effective intervention for improving knowledge among screening-eligible minority men. Cognitive behavioural strategies improved quality of life for minority men treated for localized prostate cancer. The evidence base had several limitations, which reduces the reliability of the authors’ conclusions.

Authors' objectives
To evaluate interventions to improve decision making and reduce racial and ethnic disparities in the management of prostate cancer.

Searching
Six databases including MEDLINE and PsycINFO were searched from 1985 to 2010 for articles in English. Search terms were reported. The reference lists of retrieved studies were searched for additional studies.

Study selection
Studies of community based interventions aimed at improving decision making and reducing racial and ethnic disparities in the management of prostate cancer in the USA were eligible for inclusion. Studies had to include at least one ethnic minority group, which consisted of more than 50% of the study population or if less than 50% then the data for the ethnic minority had to be presented separately. Data on quality of life and informed decision making had to be reported.

The included studies considered a variety of interventions, such as educational programmes, printed material, telephone/videotape/DVD, web-based interventions and symptom management for self-efficacy. Most studies were conducted in African American minorities, although some studies included Hispanic patients. The proportion of ethnic minorities in studies ranged from 28.5% to 100%. Studies were conducted between 1995 and 2010. The type of study included randomised control trial, pre- post-test study and cohort study.

Two reviewers independently undertook study selection; disagreements were resolved by discussion or adjudication by a third reviewer, if necessary.

Assessment of study quality
Quality assessment was undertaken using a modified Downs and Black criteria, which appraised external validity, bias, confounding and power to give a maximum score out of 29. Studies were scored as: very good (20 points or more), good (15 to 19), fair (11 to 14) or poor quality (10 or less).

The authors did not state how many reviewers undertook quality assessment.

Data extraction
Data were extracted on quality of life, symptom management, knowledge and self-efficacy.

The authors did not state how many reviewers extracted the data.

Methods of synthesis
A narrative synthesis was presented, grouping studies by screening and survivor studies, and subsequently by intervention.

Results of the review
Nineteen studies were included in the review (5,820 patients): 14 screening studies and five survivor studies. The study
sample size ranged from 40 to 1,105 patients. The Downs and Black scores ranged from 14 to 25, with most studies rated as good or very good quality. The duration of follow-up ranged from same day to one year.

Knowledge scores were statistically significantly increased in 12 out of 13 screening studies. Effects varied across intervention types: educational programs (13% to 48% increase; seven studies); printed material (11% to 18%; two studies); web-based (7% to 20%; two studies); and videotape/DVD (16%; one study).

Five cognitive-behavioural interventions improved quality of life in minority men being treated for localized prostate cancer through enhanced problem solving and coping skills.

Other results were presented in the review.

Authors' conclusions
Educational programs were the most effective intervention for improving knowledge among screening-eligible minority men. Cognitive behavioural strategies improved quality of life for minority men treated for localized prostate cancer.

CRD commentary
Inclusion criteria for the review were broadly defined and several relevant databases were searched. There may have been the potential for language bias as only English language articles were included. Publication bias was not assessed and could not be ruled out. Attempts were made to reduce reviewer error and bias during study selection, but it was unclear if the same methods were used for data extraction and quality assessment. Quality assessment indicated that the quality of the evidence base was generally good to very good. There were differences across the trials in terms of intervention, proportion of ethnic minority participants and outcomes. The authors noted that most studies assessed outcomes on the same day, so it was not clear whether knowledge would be retained over longer periods. Studies were narratively synthesised, which seemed appropriate given the type of evidence. The study population was limited to the USA, which may have limited the generalisability of results.

Overall, the evidence base had several limitations, which reduces the reliability of the authors’ conclusions. The authors call for further research seems appropriate.

Implications of the review for practice and research
Practice: The authors did not state any implications for practice.

Research: The authors stated that it was essential to create a much stronger evidence base for the use of such interventions to improve informed decision making across the clinical spectrum for prostate cancer.

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