Are long physician working hours harmful to patient safety?

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CRD summary
This review found that decrease of physician work hours was not harmful but favourable to patient safety. As there were a number of methodological shortcomings these conclusions should be interpreted with caution.

Authors' objectives
To investigate the effect of long physician working hours on patient safety.

Searching
MEDLINE and EMBASE were searched from 1966 to August 2005 for English- and Japanese-language studies. Search terms were reported.

Study selection
Studies that described the relationship between physician work hours and patient safety and reported outcomes directly related to patient safety (such as rates of complications, medical errors and misdiagnosis) were eligible for inclusion.

The number of hours worked by physicians varied between included studies. Outcomes reported were: complications, malpractice, post-partum haemorrhage, neonatal resuscitations, accidents/injuries and misdiagnosis.

The author did not state how many reviewers selected studies for inclusion.

Assessment of study quality
Methodological quality was broadly assessed. Criteria for assessment and number of reviewers performing validity assessment were not reported.

Data extraction
Data were extracted for patient safety outcomes. The number of reviewers that extracted data was not reported.

Methods of synthesis
The studies were synthesised narratively.

Results of the review
Seven studies were included in the review (n not reported): one prospective randomised study; one prospective self-controlled trial; two prospective cohort studies; two retrospective cohort studies; and one was a descriptive study.

Four studies reported that residents with shorter hours made fewer medical errors. Three studies found that reducing hours did not decrease the occurrence of unfavourable outcomes. None of the studies reported that shorter working hours were harmful to patient safety.

Authors' conclusions
Decrease of physician work hours is not harmful but favourable to patient safety.

CRD commentary
The review question was defined in terms of intervention, outcomes and participants. Only two databases were searched in two languages and unpublished studies were not sought, so language and publication biases could not be ruled out. The review process was not described, so any steps taken to minimise reviewer error and bias were unknown. It did not appear that study quality was assessed in a systematic way; therefore, this was difficult to interpret. Narrative synthesis appeared appropriate given the differences between studies.
As there were a number of methodological shortcomings the author's conclusions should be interpreted with caution.

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

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

**Research:** The author stated that there should be further investigation to find the best balance of physician workload and continuity of patient care.

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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.