The association between health-related quality of life and physical activity level among the general adult population: a systematic review

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European Journal of Public Health, Vol. 16, Supplement 1, 2006

Background
Little is known regarding health-related quality of life (HRQL) and its relation with physical activity (PA) level in the general population. Improvement in HRQL with increased level of PA could be a good motivational argument to promote PA among apparently healthy people.

Methods
We systematically searched MEDLINE, EMBASE, CINAHL, and PsycINFO for HRQL and PA-related keywords in titles, abstracts, or indexing fields. We additionally searched reference linkages through the Web of Science Database. All references were screened by two independent assessors on the basis of title and abstract, for possible inclusion. Studies were assessed in full text for inclusion if they were retained by at least one of the reviewers.

Results
From 1426 retrieved references, 35 citations were initially judged to require further evaluation. References linkage provided 18 additional potentially relevant papers. Of these 53 papers, 13 studies were retained for data extraction and analysis. Seven were cross-sectional studies, five were longitudinal, and one combined both approaches. Thirteen different types of PA assessments were used; only one explicitly validated the selfreport PA measure. Most HRQL instruments were related to the Medical Outcome Study (MOS) SF-36 questionnaire. Cross-sectional studies showed a consistent positive correlation between self-reported PA and HRQL. The largest cross-sectional study reported an adjusted odds ratio of ‘having 14 or more unhealthy days (physical or mental)’ during the previous month to be 0.40 (95% CI ¼ 0.36–0.45) for those meeting recommended levels of PA compared with inactive subjects. Longitudinal studies tended to show a positive association, but were of limited methodological quality.

Conclusions
Cross-sectional data showed a consistently positive correlation between self-reported PA level and HRQL, although limited evidence of validity of PA measures is a concern. Limited evidence from longitudinal studies precludes a definitive statement about the nature of this association.