Title: Quality of studies on the prevalence of cardiovascular diseases' risk factors among Iranians: findings of a systematic review

Authors: Shaghaghi, Abdolreza 1; Bhopal, Raj S. 2; Sheikh, Aziz 3; Namdaran, Farshid 4

Abstract: Introduction: Expanding urbanisation and alteration in life style of Iranians have had substantial impacts on the occurrence of some major diseases among them cardiovascular disease (CVD) is leading. Qualities of research evidence to base our knowledge about CVD health status of Iranians have a crucial importance.

Methods: All studies that have measured the prevalence of CVD risk factors among Iranians were considered eligible. Nine databases that were considered to be most relevant in terms of objectives of this systematic review were searched. References of relevant articles also were checked and studies recognised through serendipitous discovery were included.

Results: Search of the proposed databases yielded 1470 articles. From 104 articles, which met our initial criteria, 63 were multiple publications of the 5 main studies in Iran and in 13 articles usable information was not provided or format of the provided data was not applicable. Eligible studies were classified based on a quality assessment procedure adopted from methods developed by Siegfried N et al. From the included studies indirect method (self report) of observation to measure a quantitative variable was used in two studies. Only in 16 publications participation rate as a criterion of external validity was reported. Only in nine articles prevalence rate estimates of CVD risk factors were given with their precision. Adjusted prevalence rates for major confounding factors were provided in 11 articles. Thus only in four studies all intended criteria for internal and external validity were met.

Conclusion: The overall quality of included studies was highly variable. Different methods, instruments or cut-off points were used in the most of the retrieved articles. Due to the considerable amount of heterogeneity in the applied methodology and differences in the study location or field work date, the calculation of the pooled estimates of the prevalence rates for some of the CVD risk factors among Iranian is burdensome. We strongly recommend using of standard methodologies in CVD related health studies in Iran.

Quality, Prevalence, Cardiovascular disease, Study

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