

Development of an indoor air quality checklist for risk assessment of indoor air pollutants by semiquantitative score in nonindustrial workplaces

Abstract

Background: To meet the current diversified health needs in workplaces, especially in nonindustrial workplaces in developing countries, an indoor air quality (IAQ) component of a participatory occupational safety and health survey should be included. **Objectives:** The purpose of this study was to evaluate and suggest a multidisciplinary, integrated IAQ checklist for evaluating the health risk of building occupants. This IAQ checklist proposed to support employers, workers, and assessors in understanding a wide range of important elements in the indoor air environment to promote awareness in nonindustrial workplaces. **Methods:** The general structure of and specific items in the IAQ checklist were discussed in a focus group meeting with IAQ assessors based upon the result of a literature review, previous industrial code of practice, and previous interviews with company employers and workers. **Results:** For practicality and validity, several sessions were held to elicit the opinions of company members, and, as a result, modifications were made. The newly developed IAQ checklist was finally formulated, consisting of seven core areas, nine technical areas, and 71 essential items. Each item was linked to a suitable section in the Industry Code of Practice on Indoor Air Quality published by the Department of Occupational Safety and Health. **Conclusion:** Combined usage of an IAQ checklist with the information from the Industry Code of Practice on Indoor Air Quality would provide easily comprehensible information and practical support. Intervention and evaluation studies using this newly developed IAQ checklist will clarify the effectiveness of a new approach in evaluating the risk of indoor air pollutants in the workplace.