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Roles of occupational health teams in facilitating participatory risk management in small-scale workplaces

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Key word:

Occupational health teams, participatory risk management, book-binding industry, dental care industry, hair-dressing industry, small-scale workplaces

Abstract:

Background: Roles of occupational health teams comprising occupational health professionals and key persons among employers and workers in participatory risk assessment in small-scale workplaces in manufacturing and services were examined. **Method:** Participatory workshops for implementing occupational risk management were organized in small-sized workplaces in bookbinding, dental care and hairdressing. In each type of workplaces, an occupational health team (OH team) including key persons of relevant trade associations developed action-oriented toolkits, including action checklists and improvement guides, and supported group work steps in the workshops. Each team emphasized local good practices in each work situation. The effectiveness of the toolkits and the support functions of the OH teams were assessed. **Results:** Case 1: Bookbinding industry: The OH team at the Central Tokyo Regional Occupational Health Services Center evaluated working conditions and collected good examples to reduce occupational health and injury risks at five small-scale bookbinding enterprises in downtown Tokyo. The OH team developed practical training materials for occupational physicians in collaboration with the bookbinding trade association. The focus on low-cost ideas applying ergonomic rules was useful in facilitating improvement actions in these enterprises. Information materials on good practices and practical advice to be given are effective for direct use by the occupational physicians. Case 2: Dental clinics: The Regional Dentist Association organized a participatory training workshop for improving working conditions and health for workers working at dental clinics. This workshop made use of good practices for reducing health risks among dentists, dental technicians and other staff members at three local dental clinics. A 30-item checklist was developed and used for risk management in dental care work. Case 3: Hairdressing trade association: The secretariat of the administrative section of the Tokyo Hairdressing Trade Association planned to evaluate working condition and risks of low back pain and skin eczema among hairdressing shops. The OH team including occupational health experts and the representatives of the Association investigated three shops and their workers using conventional hair shampoo tables and back-style shampoo tables. The OH team developed a manual including good examples collected at hairdressing shops and risk assessment checkpoints. A participatory workshop organized by the OH team was useful for sharing good practices. **Conclusion:** It is suggested to develop and use participatory action-oriented toolkits for facilitating risk management with the active participation of employers and workers. It is important to adjust the toolkits to each local situation on the basis of existing good practices. Collaboration through OH teams involving trade associations is useful for developing these training toolkits and organizing participatory workshops effectively.

Background

The use of action-oriented toolkits comprising low-cost action checklists and group work guides is commonly helpful in small-scale workplaces¹⁻². These toolkits for applying corresponding participatory steps are more successfully utilized when the trainers supported (a) building on local good practice, (b) focusing on a range of basic ergonomics principles, and (c) stepwise progress through feedback of achievements. Experiences in using these toolkits demonstrate that a local network of trainers trained in the use of locally adjusted toolkits is vital for facilitating effective improvements in different small workplaces¹. Keys to the sustainable action in small-scale industries are to mobilize the industry-wise network by trade associations, to take an output-oriented strategy based on interactive group work and to facilitate the effective use of support tools such as low-cost action checklists and group work methods².

Employers' awareness of the relationship between good management and occupational health is essential to the implementation of occupational health and safety practices in small-scale enterprises³. A recent review of occupational health services for small-scaled enterprises show that this awareness is facilitated by emphasizing simple and low-cost solutions and by sharing the achievements by local workplaces. It is thus important to develop intervention strategies for small enterprises that can encourage the stepwise progress towards effective risk management involving many intermediaries⁴. It is needed to clarify the roles of occupational health teams in facilitating participatory risk management in small-scale workplaces.

Thus, this study examined roles of occupational health teams comprising occupational health professionals and key persons among employers and workers in participatory risk assessment in small-scale workplaces. The study reviewed three recent participatory workplace improvement programs for small-sized workplaces in manufacturing and services in Japan.

Methods

Participatory workshops for implementing occupational risk management were organized for small-sized workplaces in bookbinding, dental care and hairdressing. In each type of workplaces, an occupational health team (OH team) including key persons of relevant trade associations developed action-oriented toolkits, including action checklists and improvement guides, and supported group work steps in the workshops. Each team emphasized local good practices in each work situation. The effectiveness of the toolkits and the support functions of the OH teams were assessed.

Results

Case 1: Bookbinding industry:

The OH team at the Central Tokyo Regional Occupational Health Services Center evaluated working conditions and collected good examples to reduce occupational health and injury risks at five small-scale bookbinding enterprises in downtown Tokyo.

The purpose of our collaborative research in bookbinding enterprises were: to evaluate working conditions and health of workers at small-scale enterprises (SSEs) in Tokyo; to develop practical training materials for occupational physicians engaged in occupational health services for small enterprises employing less than 50 workers at the Central Tokyo Regional Occupational Health Services Center (CTROHCC) in collaboration with book binding small-scale enterprises. These training materials were designed: to strengthen the CTROHCC advisory functions: to provide information materials for facilitating health-related workplace improvements in SSEs.

A questionnaire survey about safety and health book binding small-scale enterprises was conducted for workers who participated in health promotion workshops organized by CTROHCC in 2003. Of 106 workers, valid replies were collected from sixty-nine workers (male 56, female 9, unknown 1). The average age was 57.4 ± 7.4 . The size of the enterprises was generally small: 1-9 workers 63, 10-49 workers 4, over 50 workers 2. About working conditions, the frequently mentioned items included long standing postures (82.6%), time pressure (73.9%), handling heavy materials (63.9%) and monotonous work (75.8%). Other frequently mentioned



Figure 1. Selecting good example photo in book binding enterprises by the OH team

items were overtime work (53.6%), noisy work environment (53.6%), unsafe machine operations (34.5%), unnatural working postures (33.3%), etc. Individual assessment results about needs requiring immediate actions were inserting short breaks (71.4%), control of dust and tobacco smoke (72.1%), reducing noise at the workplace (67.5%), improving time pressure at work (58.3%), providing resting corners (58.3%), etc. Next step was to collect good examples. The OH team collected good practices that could contribute to securing safety and health at the book-binding industry. More than 200 good examples were collected. Finally, the OH team developed practical training materials for occupational physicians in collaboration with the bookbinding trade association. Figure 1 shows a scene for selecting good example photos by the OH team including an occupational physician contracting with the bookbinding enterprises. The focus on low-cost ideas applying ergonomic rules was useful in facilitating improvement actions in these enterprises. Information materials on good practices and practical advice to be given are effective for direct use by the occupational physicians.

Case 2: Dental clinics:

The Regional Dentist Association organized a participatory training workshop for improving working conditions and health of workers working at dental clinics. This workshop made use of good practices for reducing health risks among dentists, dental technicians and other staff members at three local dental clinics. Representative members of the Regional Dentist Association mutually visited their clinics, and collected good practices in occupational safety and health of the staff members of the dental clinics. These visits had the role of exchanging good practices even though they had a competitive situation among the clinic managements. Finally, a 30-item checklist was developed (Table 1) and used for risk management in dental care work.



Figure 2: participatory training workshop for improving working conditions and health for workers working at dental clinics.

Table 1. Five categories and a 30-item checklist for risk management in dental care work.

Areas	Examples
A. Materials handling and storage	Layout for stock yard, multi-shelves, small containers, labels, supply carts, clear mark., etc.
B. Workstations and work methods	Better workstations, adjustable chair both for patient and dental care worker, clear display, avoiding mistakes, etc.
C. Work environment	lighting, dust control, amenity, standard precaution in infection control, maintenance for personal protective equipment, etc.
D. Welfare facilities and infection control	Wheelchair sites, railings, resting/napping rooms, securing leaves, breaks, communication of staff members, consultation room, etc.
E. Work organization and career development	Individual schedules, task review, short conferences, communication, confirmation tags, No-overtime day, shift schedule, days off, etc.

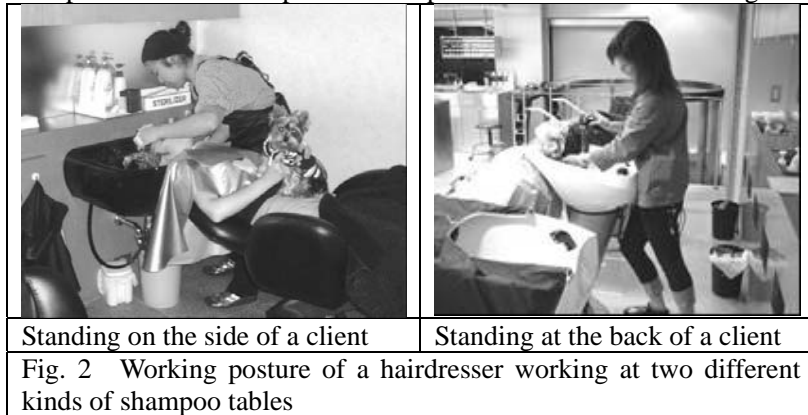
Case 3: Hairdressing trade association:

The secretariat of the administrative section of the Tokyo Hairdressing Trade Association planned to evaluate working conditions and risks of low back pain and skin eczema among hairdressing shops. The OH team including occupational health experts and the representatives of the Association investigated three shops and their workers using conventional hair shampoo tables and back-style shampoo tables. The joint investment results suggested that the use of a new hair-washing stand allowing the hairdressers to stand at the back of a client could reduce the workload remarkably, thus reducing the risk of musculoskeletal disorders at shampooing work. Figure 2 shows pictures that could facilitate good working postures depending on shampoo tables.

According to the results, the OH team developed a manual including good examples collected at hairdressing shops and risk assessment checkpoints. A participatory workshop organized by the OH team was useful for sharing good practices.

Discussion:

This study examined roles of occupational health teams how they developed toolkits in participatory risk assessment in small-scale workplaces. Three examples showed practical means of facilitating the participatory steps taken in workplace improvement programs in the small workplaces. These examples represented three features of good practices found in SSEs; (a) strengthening initiative for team building steps, (b) building on local good practice learning from them, (c) focusing on developing practical tools such as action-checklists and locally adjusted group work methods.



These programs commonly organized by partners of a local industry network for small enterprises. The OH team included an occupational physician, an occupational health nurse, a health secretary, as well as managers and worker representatives who acted as key persons for developing these tools. Building the network among stake holders who wanted to support workers in SSEs was seen in the three cases. Case 3 showed that focusing on effectiveness of workload reduction depending on the type of shampoo table was clearly useful for starting improvement actions by the hairdressing industry and contributed much to raising awareness of the control of low back pain for hair dressers.

The process of developing action-oriented toolkits comprising low-cost action checklists and group work guides was common in all these examples. Each case collected good examples and developed action check lists according to these good examples. The results also suggested that a local network of OH team members in the use of locally adjusted toolkits was vital for facilitating effective improvements in different small workplaces.

Conclusion

This study suggested the effectiveness of developing and using participatory action-oriented toolkits for facilitating risk management in small-scale workplaces with the active participation of employers and workers. It is important to adjust the toolkits to each local situation on the basis of existing good practices. Collaboration through OH teams involving trade associations is useful for developing these training toolkits and organizing participatory workshops effectively.

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