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Case Study of an Ergonomics Training Program for Nursing Home Workers

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Abstract. This paper describes a case study of a labor-based ergonomics-training program that makes use of some effective worker training methods. The program focus was on ergonomics awareness and back injury prevention for nursing home workers. It was developed and conducted by a not-for-profit organization affiliated with the Service Employees International Union. Training methods included the train-the-trainer model and the small group activity method. The investigation also compared the program components with those identified by the Occupational Safety and Health Administration (OSHA) as being key elements in effective safety training.

BACKGROUND

Many ergonomists and safety professionals spend a significant portion of their time developing and conducting training programs. Their extensive subject-matter expertise may or may not extend to expertise in training methods. This paper is for safety and ergonomics professionals interested in expanding their knowledge of worker training methods. It describes a case study of a labor-based ergonomics-training program that made use of some effective worker training methods.

Personcik (1990) reported that injury rates for nursing homes in the United States tended to be nearly twice that of general industry. This was true for both the overall reportable injury rate and the lost-workday injury rate. Jensen (1999) reported finding that rates of workers' compensation injuries for sprain/strain injuries were three times larger for nursing homes than for general industry. The Service Employees International Union (SEIU) of the AFL-CIO recognized the magnitude of the problem. As part of a broad strategy to make work in nursing homes safer, the SEIU initiated a training project through the Education and Support Fund, a not-for-profit organization affiliated with the SEIU. Support for the project came from two sources. Personnel were provided by the SEIU and the Education and Support Fund. These costs accounted for approximately 62 percent of the project costs. The Occupational Safety and Health Administration (OSHA) provided about 38 percent of the project costs through the Targeted Training grant program. Additional support was provided by SEIU locals by way of providing training facilities and payments to the worker/trainers to make up for wages lost due to their participation in the project. In addition, the expertise of SEIU staff was provided at no cost to the project.

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METHODS

Information for this case study was obtained from several sources. The grant application submitted to OSHA provided considerable detail on the need for training, the approach for development and delivery of the training, and evaluation methods. The workbook developed for the program, *Back Facts*, was used to gain a better understanding of the training material. Two training sessions were attended to see first hand how the small group activity method works for nursing home workers. These primary sources were supplemented by discussions with the Project Coordinator and by personal knowledge of efforts by SEIU to make nursing homes safer for those who work in them.

FINDINGS

Findings are presented in subsections corresponding to the basic components of an effective training program according to OSHA (1992). These components are: training needs, training objectives, training development, training delivery, training evaluation, and program improvement.

Training Needs

The needs assessment process involved consideration of experiences of the rank-and-file members, injury patterns, risk factors for the common injuries, and the nature of typical safety programs in the nursing home industry. At the end of the process, the SEIU Health and Safety Department staff concluded that the workers in the nursing home industry needed expanded knowledge about ergonomics and back injury prevention. This knowledge was expected to undo some of the "blame the victim mentality" in the nursing home industry. It would also provide a means for encouraging employers to establish joint labor-management ergonomics committees or to incorporate ergonomics into existing or new of joint labor-management safety and health committees.

Training Objectives

The goal statement was "to train nursing home workers how to recognize job risk factors that cause back and other musculoskeletal injuries and to understand the components of a comprehensive ergonomic program to reduce and eliminate job risk factors." In addition, objectives for the grant were:

1. To research, develop and publish an ergonomic training curriculum and workbook (in English and Spanish) for nursing home workers;
2. To train 70 nursing home workers in five states as trainers to train 500 of their coworkers;
3. To distribute an additional 17,000 training workbooks to nursing home workers represented by the Service Employees International Union; and
4. Through the worker/trainers, initiate discussions with joint labor-management health and safety committees regarding implementation of comprehensive back injury prevention programs.

Training Development

Prior experiences of the SEIU with the train-the-trainer model were so positive that the same approach was chosen for this project. In essence, the national union trains a number of members from different nursing homes. Each of these then trains their fellow employees at their nursing home. This approach results in many workers being trained.

The small group activity method was also chosen. It avoids the lecture format of traditional education and training programs. Instead, trainees are organized into small groups and given a series of short assignments based on course material and real life work experiences. For the SEIU programs, each assignment is presented in a workbook together with a set of facts. Trainees use their work experiences plus the facts to answer the questions or solve the assigned problem. After the groups complete an assignment, there is a discussion period led by a facilitator. This method keeps all trainees actively involved throughout the training, and they have the opportunity to learn from fellow workers.

The curriculum development process started with a focus group. This group identified topics to cover and developed summary points for each topic. This was a two-day activity.

Following the focus group meeting, a writer/researcher developed a draft of the workbook. Workbooks were organized so that each topic was covered as a unit. The units were called *Activities*. Each *Activity* unit in the workbook had four elements:

1. A purpose statement,
2. Tasks or exercises for small groups,
3. Pages called *factsheets* which provide information to help answer the questions, and
4. A summary of the main points.

The draft workbook was reviewed by the expert on nursing home ergonomics, project staff, members of the advisory committee, and the OSHA grant monitor. Revisions were made. Graphics were completed by an illustrator. The workbook was then pilot tested in the first two train-the-trainer programs. Several changes were made as a result of experiences with the *Activities* in these sessions. During the next three train-the-trainer programs the workbook improvement process continued, with changes becoming less and less significant. The final workbook was packaged in a three-ring binder and given the title *Back Facts*. A Spanish version was developed after the English version was in near final form.

The workbook development process resulted in seven *Activities* and six Appendices. Appendices to the workbook consisted of: four basic exercises for good back care; an evaluation sheet; a directory of equipment manufacturers; a list of OSHA Regional Offices; a list of SEIU Regional Health and Safety Offices; and a list of Coalitions on Occupational Safety and Health. The purpose statements for the seven *Activities* are listed in Table 1.

Table 1. Purpose statements for seven *Activities* in the workbook

Activity	Purpose Statement
1	To understand why nursing home work can be hazardous to your health.
2	To help understand how your body works and why nursing home workers get back injuries.
3	To learn how to identify which job tasks and body movements you do every day on your job that might be hurting your back.
4	To learn about the different kinds of equipment, devices and work practices that help protect workers from back injuries.
5	To understand how a written policy can help workers get better and get back to work.
6	To identify the parts of a good injury prevention program for your nursing home.
7	To understand how to make joint labor/management safety and health committees better at solving and preventing back injury problems.

Training Delivery

Train-the-trainer sessions were conducted at five sites in five states. The individuals selected for this training were SEIU members who worked for a nursing home. Most were nursing assistants, a minority were in food service, linen services, and housekeeping. A total of 70 workers from 35 nursing homes received this training. They came in pairs from the same nursing home. Their local union provided the trainees with funds to make up for lost wages on one of the training days. Funds from the OSHA grant were used to cover the other day. The small group activity method was used. An expert in nursing home ergonomics demonstrated how to evaluate patient handling equipment using checklists included in the workbook. Also demonstrated were several commercial devices for transferring nursing home residents. These demonstrations were part of *Activities* in the workbook. Each small group *Activity* was led by one of the worker/trainees. The role of the project staff was to assist these facilitators with their preparation to serve as leader during their respective turn leading an *Activity*.

The day before the first training session by a pair of worker/trainers, project staff spent a full day with the person reviewing the procedures they would be using the next day and going through a complete dry run. The training sessions were not exclusively for union members. Management personnel (e.g., administrators, RNs, and LPNs) were invited to participate provided that management people make up less than one-third of trainees in a session.

Training Evaluation

Four forms were used for evaluation. These are summarized in the rows of Table 2. Columns indicate who was the evaluator and what was evaluated.

Table 2. Overview of program evaluations

Evaluator	What Was Evaluated
Trainee	Each <i>Activity</i>
Trainee	Full course
Worker/Trainer	<ul style="list-style-type: none"> • Trainee concerns • Improvement suggestions • Workbook improvements
SEIU staff	Impact at nursing home

Program Improvement

Due to the nature of the small group activity method, it is easy for an observer to recognize when an *Activity* is functioning the way it was intended. If it is functioning properly the groups of trainees will find correct answers to most questions, keep their discussion on the subject, and nearly all trainees will actively participate. In contrast, indications that an activity is not functioning well include groups having difficulty finding answers, drifting off the subject, conversation dominated by a few individuals, and excessive disagreement. Additionally, the nature of this type of training creates an environment in which the trainees are not shy about pointing out things they disagree with or consider to be mistakes or misstatements. In order to obtain this type of feedback, the Project Coordinator attended the five train-the-trainer programs along with other project staff, the expert on nursing home ergonomics, and the writer/researcher.

In addition to direct observation, feedback was provided by the trainees and their worker/trainer using the evaluation forms. Project staff reviewed the evaluation forms and looked for common patterns in the suggestions for improvement. This response information combined with direct observation of training session was used to identify aspects of the program needing improvement, and obtain ideas for making the improvements. They would implement improvements by modifying selected pages of the workbook, and by providing different instructions to the worker/trainer the day before the training begins.

DISCUSSION AND CONCLUSIONS

The ergonomics-awareness training program described in this article illustrates a labor-based approach. It was initiated by a union to address a clear need. The union obtained financial assistance from OSHA.

A train-the-trainer model was used. One advantage of this approach is it allows the international union to reach many more employees than would be the case if the international union staff tried to provide all the training directly. Another advantage is that the worker/trainers will be in a position to help bridge the gap between training material intended for all nursing homes and the unique needs of his/her specific nursing home. A third advantage is that the worker/trainers are expected to not only lead the training sessions for co-workers, but also to continue being a resource person for ergonomics information within the nursing home. If the nursing home decides to implement an ergonomics program, the worker/trainer would be an obvious candidate to serve as one of the worker representative on an ergonomics committee or existing health and safety committee.

The small group activity method was used for training both the worker/trainers and the nursing home workers. With this learning method, the trainees are active throughout the training session. Their activities combine thinking, reading, and discussing issues within their small group and between groups. During the two training programs observed, it was apparent that the workers were very involved in the process and enthusiastic about the subject. After the training they were required to return to work so there was no opportunity to systematically interview them regarding their opinions about the program. However, several made comments during or after the training to the effect that they liked this method better than the lecture format used in most of their other in-service training.

This labor based training program illustrates the successful implementation of a program with the seven elements considered by OSHA to be part of an effective safety and health training program (OSHA, 1992).

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