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"Minimizing Injuries Resulting from Patient Handling In Nursing Home Staff" - A Hazard Control Plan

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Minimizing Injuries Resulting from Patient Handling In Nursing Home Staff

Hazard Control Plan for Life Care Nursing Home

Environmental and Occupational Health

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BACKGROUND OF ERGONOMIC HAZARD IN NURSING HOMES:

Work Related Musculoskeletal Disorders (WMSD)

NIOSH defines WMSD as:

- “Musculoskeletal disorders to which the work environment and the performance of work contributes significantly”,
- “Musculoskeletal disorders that are made worse or longer lasting due by working conditions”

Extent of Problem

WSMD are one of the leading causes of lost time due to work related injuries or illnesses. In 1993, incidence of non-fatal injury and illnesses was 17 out of 100 for nursing home employees, whereas for mining and construction it was 6.8% and 12.2% respectively (BLS)\(^1,9\) and only one third of such injuries are reported.

With ageing of the population, earlier discharge of the patients from hospitals to nursing facilities for sub-acute care and higher case mix of the facility cases, number of injuries and related expenses (monetary, physical and psychological), would increase tremendously, unless we implement innovative techniques.
Nursing Home Jobs Having Most Injuries/Illness with Days Away From Work

Source: 1994 BLS Survey of Occupational Injuries and Illnesses (Taken from OSHA training resources)²

Nature and Sources of Injuries in Nursing Homes and Personal Care Facilities:

Three universally recognized major risk factors for acquiring injuries in nursing home workers are:

- **Force**: amount of force required in performing work duties, like lifting of the patients from bed, repositioning, lifting or movement of equipments, etc.

- **Repetition**: of the work at frequency higher than what the body can tolerate this includes, assisting with ADL’s and IADL’s of residents, performing bed side interventions, etc.

- **Awkward posture**: that means performing tasks and duties using non-ergonomic postures or posture that leads to injuries to joints, muscles, tendons and body tissues because of the stress involved.

In nursing home employees, all these risk factors frequently occur together because of the nature of the job involved, for example:

- Lifting of the patients
- Transferring of patients
- Repositioning of the patients in bed on a repeated basis
- Providing in bed medical care
- Abrupt forceful motions
- Assisting with ADL’s and IADL’s

| Percent of nonfatal injuries and illnesses involving days away from work by selected events for nursing, psychiatric, and home health aides and for all workers, 2004 |
|-----------------|-----------------|-----------------|
| **Event**       | **All workers** | **Nursing, psychiatric, and home health aides** |
| Contact with equipment | 25.15%          | 10.80%          |
| Falls           | 20.30%          | 13.34%          |
| Overexertion    | 25.15%          | 52.72%          |
Costs Associated with Lack of, and Benefits to Be Accrued from Implementing Hazard Control Plan:

**Costs Associated:**
- High workers compensation costs
- Medical Treatment
- Vocational Rehabilitation
- Cost of insurance
- High employee turnover and associated cost of hiring and training new ones, which includes, separation, vacancy, replacement and training cost.\(^3\)
- Decreased productivity and increased absenteeism
- Loss of business because of patient dissatisfaction

**Benefits to be Accrued**
- Decreased costs because of the reasons cited above
- Increased job satisfaction and employee morale
- Quality of care and increased patient satisfaction
HAZARD CONTROL PLAN

It becomes apparent from foregoing discussion to implement to bring about significant savings in the cost and efficiency, increase employee morale and for compliance with various regulations. We will adopt and apply the universally accepted seven step process recommended by OSHA\textsuperscript{4} and NIOSH\textsuperscript{5}, for our facility, discussion of which is presented in the subsequent sections.

I. Provide management support
II. Involve employees
III. Identify problems
IV. Implement solutions
V. Address reports of injuries
VI. Provide training
VII. Evaluate ergonomic efforts

I) Provide Management Support

One of an essential requirement for the success of any program in an organization is the support and commitment of the top management, which sets up policies, goals and responsibilities, allocates resources, provides guidance and ensures compliance.

Plan of Action:

First of all, top management needs to communicate to all the managers, supervisors and employees, the importance of the issue and its commitment to pursue it as top priority, through meetings, work groups and newsletters. Then issue policy statements, emphasizing hazard control plan and ergonomic effort as a part of the mission, vision and goals of the organization and expectation of total cooperation from all the stakeholders. Involve managers and supervisors, safety and hygiene, risk management, housekeeping and maintenance, and human resources personnel, along with providers and ergonomic specialist or consultant in work group.
II) Involve Employees

Involvement of the employees not only leads to more efficient interventions and designs, but also greater acceptance from them of the ongoing and future changes. They bring in multiple viewpoints, enhance problem solving capacity, make them more motivated and improve work environment and job satisfaction.

Plan of Action:

- Distribute surveys to employees seeking input about hazard existence, current work conditions and what changes they want to make.
- Ask work group, managers and supervisors to interview them about their work place hazards and correlate it with job description.
- Free access to portals, management and workgroup for submission of suggestions or any existing concerns.

III) Identify Problems

Identifying problems involves current incidence and prevalence of WMSD, patient and service characteristics, facility design and engineering controls, physical factors and staffing ratio and so on.

Following algorithm is useful not only for assessment but also for implementation, monitoring and institution of change functions.
Plan of Action:

Incidence and prevalence reports, work analysis, employee assessment

- Collection of information from reports and logs: all previous workers compensation claims, OSHA 300 and 301 Reports and logs, employee reports, management investigation reports, and insurance company reports.
- Workplace condition analysis: by using employee surveys and interviews, observation and examination of the performance of work, workplace itself and sometimes video surveillance, if it is feasible.
- Analysis of job description and job requirements, staffing ratio, work shifts, etc
- Physical examination
Patient Profiling

- Review patient demographics
- Case mix index of residents and extent of assistance with ADL’s and IADL’s needed

Facility Analysis

- Facility design
- Equipments availability, capability and use

Alternatives

1. **Hire an outside consultant to perform this function:** outside consultants are specialists, have a thorough knowledge and experience to deal with the subject matter, have no time constraints to work on it, and give a thorough and unbiased report and recommendations. However, they may be expensive, interfere with the privacy of patient or the workspace, may lack dedication and have the limitation of less knowledge of organizational design and culture. It also frequently results in less employee buy-in for obvious reasons and once the consultants have done their job and the program has been implemented, there arises the problem of continuous monitoring and evaluation.

2. **In-House Program Design, Development and Implementation:** This alternative draws upon the knowledge and experience of the organizational members. A work group is formed from key knowledgeable and affected people in the organization to address this hazard. Typically, it involves key management, safety and risk management personnel, human resources personnel, nursing staff and aides and orderlies, and an ergonomic specialist. One of the greatest advantages of this alternative is opening up of the communication channels during the process and consequent greater employee buy-in. It is less expensive, they are more committed, no issue of intrusion of privacy and the work group and members are available throughout to follow up with changes or additional surveillance and analysis. They also know better about the organization and its work conditions and do not miss any subtleties and infuse enthusiasm and awareness among employees.
However it is time consuming, requires involved persons to free up time from their work schedule, and sometimes may involve conflict of interest of the members. Also, the workgroup has less in-depth knowledge of ergonomic interventions to start with.

Based on the above mentioned pros and cons, I would recommend option 2 to the Board.

IV) Implement Solutions

After we have identified problems and prioritized it based upon the characteristics of our nursing home, we need to find effective and viable solutions and implement the same. An important consideration in implementing solution is taking into account our workforce and resident peculiarities, privacy issues of our residents and their medical condition. Our choices of the solutions will depend on these factors.

Implementation of solutions should not be abrupt, as it may lead to anxiety and stress within employees. It should be phased in approach, the essential components of which are:

- Communication of the issue and the management initiative to deal with it, to prime them for upcoming changes
- Solution trial at a small scale to measure effectiveness and acceptance
- Incorporation of the changes form insights gained
- Full scale implementation
- Ongoing control and evaluation

Implementing solutions usually falls in two domains:

- Engineering controls and workplace modification
- Human factors and work environment modification
V) Address Reports of Injuries

Proper reporting mechanisms should be in place for employees to report injuries and voice their concerns and suggestions. It leads to early recognition of problems and thus early intervention. Safety and Risk Management department is responsible for and should institute a process for the same. For reporting concerns, they should enable anonymous reporting’s. Above all, most important part of this section is prompt action and follow-up.

VI) Provide Training

Training is not only important for recognizing injuries (existent and potential) but also for devising effective strategies to deal with it, measures that are available within the organization to address them, roles and responsibilities of management and employees, reporting mechanisms and so on. According to Kourinka and Fourcier, “For ergonomics, the overall goal of training is to enable managers, supervisors, and employees to identify aspects of job tasks that may increase a worker’s risk of developing WMSD’s, recognize the signs and symptoms of the disorders, and participate in the development of strategies to control or prevent them”. 8

**Plan of Action:**

- Training about ergonomics during employee induction and orientation
- Training of managers, supervisors and employees on an ongoing basis every 6 months
- Training to handle new equipment and changed procedures and protocol
- Continuing education for acquiring new skills
Following checklist from NIOSH guidelines is a nice tool to monitor training requirements and compliance.

<table>
<thead>
<tr>
<th></th>
<th>All employees</th>
<th>Every employee in suspect problem jobs</th>
<th>Every supervisor of jobs with suspect problems</th>
<th>Every employee involved in job analysis and control development</th>
<th>Ergonomics team or work group members¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>General ergonomics awareness information²</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Formal awareness instruction and job specific training</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Training in job analysis and controlling risk factors</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Training in problem solving and the team approach</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

¹If ergonomics teams are formed, added instruction is needed in team-building and consensus development processes, apart from application of ergonomics techniques.

²General ergonomics awareness information for all employees need not require class instruction; it can be disseminated via handouts and all-hands meetings.

Source: Elements of Ergonomics Programs, NIOSH publication No 97-117³

**Ergonomics Training for Various Categories of Employees**

VII) Evaluate Ergonomics Efforts

No program or plan is complete without the feedback loop, which identifies changes and modifications needed and aims for continuous improvement. As the resources of the organization are limited, workplace conditions are constantly changing and so is the worker and residents profile, we can never say that there nothing left to improve or work upon in our hazard control plan.

Work group formulated for this plan and safety and risk management department personnel are responsible for the evaluation and continuous monitoring of the ergonomics efforts and for suggestions to work upon new issues.
CONCLUSION

It is quite apparent that nursing home personnel are fraught with possibilities to acquire work related musculo-skeletal disorders while performing their duties. It leads to injury and illness and significant direct and indirect expenses to the organization and the society, which could be used elsewhere. It also leads to decreased employer morale and job satisfaction along with decreased patient satisfaction.

With the implementation of this hazard control plan we hope to deal in an effective way with these issues and improve the quality of services rendered by us, as well as lower the disease burden and distress in our employees, in recognition of our duties and their commendable work.
REFERENCES


WEB SOURCES:

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www.cdc.gov

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http://www.patientsafetycenter.com/