

Information system in occupational health health essay

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INFORMATION SYSTEM INDIVIDUAL ASSIGNMENT" Information System in
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INTRODUCTION

In recent times, ergonomics issues arise repeatedly and it is vital aspects specifically for the safety and health of all workers. However, it is frequently unnoticed or overlooked. For example, Occupational Safety and health Act (OSHA) conducted 4500 ergonomics assessments and gave out 640 hazard alert mails on ergonomics matters only. Ergonomics comprises design, placement, height and adjustment of keyboards, monitors, mouse and other related equipment for the maximization of comfort, safety and productivity and also wrist, palm or foot supports (Trinkoff et al., 2003). Therefore, this report will look into the ergonomics aspects in the health care industry and office working industry. The health care industry has move in slowly and implementing ergonomics features into its day-to-day operations and processes as this is also proven by the below studies which focuses on the betterment on implementing ergonomics program and trainings.

DISCUSSIONS

No.

Authors

Journal Name / Publisher, Volume (Year)

Issues / Problem Statement

Findings / Solutions

1 Alan Hedge, Tamara James & Sonja Pavlovic-Veselinovic Ergonomics concerns and the impact of healthcare information technology. International Journal of Industrial Ergonomics, 41 (2011) Health Information Technologies routines in current times may possibly upsurge threats of work-related musculoskeletal disorders (MSDs). In-room computer wall station Computers in every patient rooms in order to access to the hospitals' electronic medical record system Access towards patient information and medication status Electronically observe patient Assist patient consultations with doctors and nurses on health issues Issues: Flexibility of arranging screens and input devices Offer appropriate series of adjustability for various users Establishment of power and cabling In-room computer wall station Solutions: Vertical track mounted wall stations Offer HIT support surfaces in patient rooms Height and reach adaptable to accommodate up to 99% of users in seated or standing positions Provide changeable input devices such as keyboard and mouse platform which can be bend flat for well-organized storage Permit easy, fast, intuitive and fingertip adjustability for repeated alterations to accommodate various users and chores Incorporate power management and communications wiring Remove sharp edges

2 G. P. Y Szeto, T. K. T Wong, R. K. Y Law, E. W. C Lee, T. Lau, B. <https://assignbuster.com/information-system-in-occupational-health-health-essay/>

C. L. So & S. W. Law: The impact of a multifaceted ergonomic intervention program on promoting occupational health in community nurses. *Applied Ergonomics*, 44 (2013). Community nurses are wide-open to high physical demands at work which may effect in musculoskeletal disorder. This study observes the short term and long term influence of multifaceted intervention program which comprises of five mechanisms: Ergonomic fundamentals and safe practices group training. Trainings are held at take part hospitals. Cover basic ergonomic fundamentals and intervention mechanisms. Alteration on work postures and equipment. Teach nurses on in what way to alter working postures in different conditions. Nurses were recommended on how to select an appropriate backpack for useful needs. Administered onsite ergonomic training. Observe participating nurses for half day at work. Observe work posture and propose recommendations spontaneously. Capture working postures by camera as reference and evaluation. Two onsite visits within 8 weeks intervention period. Regular exercise program. Coach to carry out particularly designed 18 stretching and strengthening exercise program everyday. Monitor frequently whether exercise compliance during the intervention period. Typing training and workstation, assessment and assistance. Typing training package and time to practice are conducted. Computer workplace are assessed and accustomed. Outcome measures: Perceived rate of exertion (RPE) for major work tasks. Self-reported musculoskeletal signs. Perceived physical risk features that might contribute to musculoskeletal signs. Perceived psychosocial risk features – questions adopted from Work style Short Form, Northwick Park Neck Pain Questionnaire (NPQ), Chinese Oswestry Disability Score Index (CODI), International Knee

Documentation Committee Subjective Knee Form (IKDC) Disability for Arm, Shoulder and Hand Questionnaire (DASH) Findings: Pain score, NPQ, CODI & DASH had significant decline after intervention program. IKDC had significantly improved and greater scores point out that there is improvement in pain and body functions. There is a significant decline in both physical and psychosocial risk factors that means participants perceived declining in physical and psychosocial occupational risk aspects. Intervention program still supported progressive values for participants even after a year. Nurses were fairly satisfied with the intervention program.

3 Arun Garg and Jay M. Kapellusch Long-Term Efficacy Of An Ergonomics Program That Includes Patient-Handling Devices On Reducing Musculoskeletal Injuries To Nursing Personnel. Human Factors: The Journal Of The Human Factors And Ergonomics Society, 54 (2012) MSDs particularly back and shoulder injuries is a main issues for nursing employees in all situations of patient care Manual lifting is correlated with growing incidence of low-back pain. Thus, patient handling devices with a comprehensive ergonomics program was implemented in 6 long-term care facilities (LTC) and 1 chronic care hospital (CCH) and this paper assess long term effectiveness of the program. Substantial reductions in amount of injuries, lost working days, modified duty days and workers compensation costs. Post intervention lost workday's amount were lesser in all nursing facilities. Post intervention patient handling injuries amount were significantly lesser in 6 out of 7 nursing facilities. In post intervention also indicates that nurses evaluated and perceived burdens towards low back and shoulders in the range of very light and light. Application of patient handling devices as well

as a comprehensive program can be an effective way to minimize MSDs among nurses. 4Michelle M. Robertson, Vincent M. Ciriello & Angela M. GarabetOffice Ergonomics Training And Sit-Stand Workstation; Effect On Musculoskeletal And Visual Symptoms And Performance Of Office Workers. Applied Ergonomics, 44 (2013)Computer and office based workers are raising professions which relate with growth in work related MSDs of upper body and neck. Computer personnel report suffering visual uneasiness and indications such as eyestrain, blurriness, dryness and troubles in concentrating. Intensive office ergonomics training program over 15 days and related information of musculoskeletal and visual uneasiness are predicted to effect working postures, rest breaks ranges and routine of adjustable features in office work station. Ergonomics training (ET) participants have a lesser amount of symptoms such as no pain or discomfort reports for 7 substantial body regionsMinimally trained (MT) participants have greater amount of indications across hours and days. MT participants reported more visual symptoms across hours and days that vary with ET participants who reported less of those symptoms. In conclusion, participants who received ET had least musculoskeletal and visual discomfort over the work days as compared to MT participants. 5Alireza Choobineh, Majid Motamedzade, Maryam kazemi, Abbas Moghimbeigi, Ahmad Heidari PahlavianThe Impact Of Ergonomics Intervention On Psychosocial Factors And Musculoskeletal Symptoms Among Office Workers. International Journal Of Industrial Ergonomics, 41 (2011)MSDs are correlated to physical and psychological perceived job demands in work environment. Train and coach computer users on office ergonomics by means of educational involvements,

posters, emails and pictures of stretching and stress relief activities, workshops and information booklets

Top management supported by:

- Purchasing foot rests
- Purchasing wrist support
- Refining some used chairs
- Individual height modifying for keyboard and monitor
- Individual adjusting of chairs
- Purchasing ergonomics chairs for workspaces
- Individual adjusting of pointers
- Individual adjusting of telephone

After ergonomics training, employees turn out to be more skillful on methods to examine and assess working environment and recommend top management for better development of work space. After intervention, MSDs mainly upper back, lower back and feet regions reduced. Conducive environment such as the management's support and trained employees involved were significant contributing aspects for success. Suggested that at least a year interval period will be considered to carry out such examination so that employees can exercise all trainings and implement ergonomics knowledge and can act against their effects in final outcomes.

RECOMMENDATIONS

Management support

The success of ergonomics implementation programs is essential to have support from both the employees and also management. Both parties must have the awareness, knowledge and spirit to have better working environment by conducting and applying ergonomics in their daily routine and operations. This is also support by NIOSH (1997) that recommends the below foundations to be included in ergonomics programs:

- Commitment from management
- Participation of employees
- Risk aspects identification
- Improvement of solutions of risk aspects
- Assessment of control effectiveness
- Employees' training and education
- Appropriate medical

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managementImplement ergonomics trainingFrom the above studies, it is recommended that every organization implements and provides ergonomics training for every employee. This is to educate and provide sufficient information for employees to have knowledge of know-how to correctly use equipment. It is recognized that knowledgeable ergonomics employees have less significant amount of physical discomfort, visual discomfort and faced least musculoskeletal symptoms (Robertson, Ciriello & Garabet, 2013).

Appropriate equipmentIt is recommended that organizations acquire appropriate equipment for employees' usage. Appropriate equipment such as adjustable chairs, arm rests, foot rests, computer devices for example, keyboards, mouse and screen monitors. This may enable users to comply with the neutral postures of individuals in both seat or stand positions.

ANSI/HFES (2007) specifies optimal posture for seated computer workers as follows: Sit in a marginally reclined posture and sustain an open angle at elbow, hips and kneesUse chair back to support upper and lower backThighs parallel with floorPlace feet on foot support or on the floorAvoid density at back of kneesAlter armrestChange seating posture during the dayHence, by having suitable equipment, it may ease and support employees' tasks and daily operations.

CONCLUSION

Ergonomics conveyed positive effects and benefits towards the betterment and health of employees not only for short term but also for long term.

Positive benefits of ergonomics are such as: Reduce MSDsAs identified by Robertson, Ciriello & Garabet (2013), knowledgeable and well trained ergonomics employees faced minimal MSDs and discomfort and this is also

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agreed by the study done by Garg & Kapellusch (2012) that indicates implementation of ergonomics program along with technological devices can efficiently decrease MSDs. Improve work efficiencyThe effectiveness of the program not only decreases the MSDs indicators but also increase work efficiency amongst health care providers (Szeto, Wong, Law, Lee, Lau, So & Law, 2013) as also indicated by Hedge, James and Pavlovic-Veselinovic (2011) that design and implementation of ergonomics systems are used to safeguard wellbeing as well as to encourage efficient and effective performance of employees and incorporating ergonomics can make certain that the working surroundings are ideally safe, efficient and effective. Thus, it is suggested that management and employees aware, implement, support and emphasis on the ergonomics aspects.