

Emergency First Aid Training Awareness in Occupational Health at Mol Pakistan Oil and Gas Company

Sharafat Ali

Post RN BScN (Aga Khan University Karachi Pakistan), RN. BA(Sociology). RN Officer in Saidu Group of Teaching Hospital (SGTH) Saidu Sharif Swat KPK, Pakistan

ABSTRACT

There are a number of issues and risk factors which can affect the health of workers in every occupation. As an employee and occupational health nurse, I also observed some issues in my organization. I was assigned a project to be conducted as a part of my course, I selected the "Emergency First Aid Training Awareness in occupational health" for my project. During my assessment I observed that there are many issues related to occupational health, like physical health hazards, chemical health hazards and biological health hazards. But foremost of them was lack of knowledge of occupational workers regarding emergency first aid care. I assessed the knowledge of workers by developing a questionnaire. Most of them were unaware about first aid at a work place. I arranged different sessions for the workers to train them regarding first aid provision in their work place. I used different teaching aids like poster presentations, showing video clips and demonstration. I also used the concept of "Orem's self-care theory" in my project. The results of my implementation of sessions and demonstration were effective. The employees demonstrated good skills of first aid at the end of my project.

*Corresponding author

Sharafat Ali, Post RN BScN (Aga Khan University Karachi Pakistan), RN. BA(Sociology). RN Officer in Saidu Group of Teaching Hospital (SGTH) Saidu Sharif Swat KPK, Pakistan.. Email:sharafat0501@gmail.com

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Introduction

On August 17th, 2015 my senior electives course rotation was started in Occupational Health Management at MOL Pakistan Oil and Gas Company. It provided me opportunity to work in my focused field. Where I have selected Senior Occupational Health Nurse as a preceptor and chosen Occupational Health Management for evidence based practice. From the very beginning I had my personal objectives along with project to cover in this senior electives course rotation. For being healthy we should aware about the promotion of health and prevention from disease and injuries along with doing jobs. As well as we should also aware about the emergency first aid care, because any type of medical emergency can occur to any one at any time. According to "Bystanders can play a vital role in delivering help in case of a sudden injury or illness, before professional help arrives, and first aid training is a way to improve this initial response by laypeople"[1]. Occupational Health Nurse has responsibility to give awareness about emergency first aid training to the occupational health workers. Awareness about first aid training is very important to the occupational workers because Occupational injuries are the second leading cause of trauma. According to "Global Estimates of the health burden from these injuries showed that 10% of the attributable fraction of global disease and injury is due to occupational risk factors"[2].

The topic which I selected for my project was "Emergency First Aid Training Awareness in occupational health". I selected this topic for my research because I have observed so many issues

related to occupational health. It is important for the Occupational Health Nurses to focus on employee knowledge and practice regarding emergency first aid care. Knowledge about first aid care is very important for workers, because injuries and any other medical emergency can occur at any time, so those occupational workers who have knowledge about first aid care may provide proper care to the casualty at their door step and may prevent the causality from further complication and even from death. According to A "The real change in occupational health will occur when workers are aware of the need to know and follow the preventive measures of occupational risks in legislation, and the way to do it is training"[3]. Furthermore employees health training is important in various areas of health, like first aid, CPR, back school, stress management, manual handling load etc[3]. The purpose of this project was to highlight the knowledge and practice of occupational health workers regarding emergency first aid care and how to augment their knowledge and practice. Encourage the occupational health workers to learn, improve their knowledge and demonstrate proper practice is very important for workers as well as for maintaining good standard and quality of the company.

Data collection

During my assessment I observed that there are many issues related to occupational health, like physical health hazards, chemical health hazards and biological health hazards. But major of them were lack of knowledge of occupational workers regarding emergency first aid care which may lead to increase mortality rate and complications of occupational injuries. Secondly there is a department that is Health, Safety and Environment (HSE) which is accountable for physical, chemical and biological occupational health hazards. HSE department didn't allow us to interfere in

its work. This was also one of the reason of selecting Emergency First Aid Training Awareness topic for the project instead of other topics.

Most of the time I have observed that occupational workers don't use the emergency first aid boxes, which we provided to each department for use in case of any emergency. Emergency first aid box we equipped from all emergency first equipment's which are normally using at most of the emergencies. Most of the patient came to clinic for first aid care, but not receiving any care at the time of injury or accident from other workers till arriving to occupational health clinic. Which is one of the reason of increase occupational mortality rate and also may complicate the injury and other disease due to delay availing first aid care. On the other hand occupational workers have lack of knowledge regarding emergency first aid care. They have no idea about proper care of a person who has snake bite, a person lying unconscious and also have no concept that how to control minor and major external bleeding with aseptic techniques. I listen from one of the occupational workers that "whenever we got injury and have minor bleeding, we are applying tobacco on the effected side when we are away from first aid clinic and unable to come to clinic for first aid at that time. After applying tobacco within few minutes the bleeding becomes stop". There are so many issues I observed, one of the key issue was lack of knowledge of occupational workers regarding emergency first aid care. I have discussed all these issues with my preceptor and facilitator. Then we finalized to start work on emergency first aid training awareness to the occupational workers in the company.

It was finalized after discussion with my preceptor that knowledge and practice of occupational workers need to be analyzed regarding Emergency First Aid care and then can be justified with their own insight. To assess the knowledge and practice of emergency first aid care a questioner (Appendix 1) were developed for occupational workers that gave a base to project or bring change in the knowledge and practice. Different questions regarding emergency first aid care includes questions about minor/major bleeding control, snake bite and CPR were added in the questioner.

Data Analysis

Analysis showed that 16% of occupational workers was aware about emergency first aid care and 84% of workers were unaware about emergency first aid care, where 8% of workers have already provides first aid care to someone and 92% of workers his didn't provide any care in emergency situation. 32% workers has familiar that for external bleeding we should apply direct pressure first, and 68% workers his unfamiliar about applying direct pressure first on the wound. 16% have information that dressing and bandages are used to control bleeding and prevent infection but 84% of workers have no as such information. 100% of workers was unaware about emergency first aid care of snake bite and also didn't provide any care to someone who have got snake bite injury. 12% of occupational workers are aware about CPR and 88% of workers are unaware about CPR and even didn't heard about CPR. 100% of workers are understand and have insight that we should aware and have knowledge about emergency first aid care and 100% of workers also showed interest to learn about emergency first aid care and willing to provide emergency first aid care to someone who got any type of health injury (Appendix 2).

Discussion

After data analysis we come off with this, that we need to more focus on occupational workers to learn about emergency first aid care and have to train the workers to provide first aid care to somebody in case of emergency. Also have to create good

environment for the workers inside in the company. The topmost areas which we needs to work, that was train the workers for CPR, first aid care of snake bite and proper techniques to apply on minor/major wound., to control external bleeding and prevent the wound from infection.

Other many issues I encountered regarding occupational health that is physical health hazards, chemical health hazards, biological health hazards and occupational workers have also noncompliance to use Personal Protective Equipment's (PPE). But reason for not work on that problems was, there is a department Health Safety Environment (HSE) which already working on these problems. The solutions of the mentioned problems come under their dominos, we also not allow for interfering in the activity of other department. On the other hand for physical health hazards and reinforce for the use of PPE, different session have already been conducted and further implementation is going on from the respective department. Verbal warning and feedback his also been given to concerned occupational workers.

First of all it's very important to know the significance of emergency first aid trained occupational workers at Oil and Gas Company because occupational workers are mostly present at field side and works together. If any medical emergency happened at field side to someone the other trained workers will be able to provide proper care to the injured at that spot and will be prevent from further complication and injuries. Especially for CPR and external sever bleeding. If the workers control the patient external bleeding at that spot with proper application of pressure which may prevent the patient from hypovolemic shock and even save patient life. According to "Immediate control of acute external hemorrhage in the trauma victim is the most basic of life-saving procedures" [4]. First aid care of snake bite is also important because snake bite is also one of the medical emergency which may prone the patient to death. According to "Snake bites are an environmental hazard with significant morbidity and mortalities"[5]. So first aid care of snake bite is also important to know because it is one of the cause of death. Secondly poor education regarding first aid care of snake bite may also trigger the rate of death of snake bite victims. According to "comparatively less education concerning preventive precautions and proper first aid measures making the consequences of snake bites more severe"[6]. Trained occupational workers can create good professional environment and their proper training may decrease occupational mortality and morbidity rate. The more emergency first aid trainer will provide the more effective care to the causality till arriving medical team. That have a very positive response on health outcome of the occupational health workers.

The health of occupational workers is based on their attitude, knowledge, practice and their willingness to change in order to sustain their health and wellness. Furthermore, this is the responsibility of occupational health nurse and occupational health doctor to recognize and evaluate the risk factors that can alter the health status of occupational health workers. It is essential to plan and appliance a change in the company and maintain its sustainability.

In my project, I focused on Emergency First Aid Training awareness to occupational workers. I implemented the Orem's self-care theory. According to Orem's self-care theory community contribution towards their own and how health workers and organizations can promote the health of the public. With this relationship, public can be promoted and to certain extent which can shrink morbidity rate. Health workforces works according to the needs of their public. These models focus on self-care

requisites and approached behaviors; therefore it was feasible to use them and assimilate in my practices. The concept of this models was clear and explicit, for which I strongly felt that it's applicable in my project. The aim of my project was to help occupational public by training the occupational workers and give them awareness which will bring affirmative change in their knowledge, attitude and practice. For the sustainability of project ppt, handouts and video clips are provided. In addition first aid skills will be observed in practice while occupational workers provides first aid care to the casualties.

Implementation is the fourth step of planning cycle in which I have to take action and implement my program. Before implementation of project literature review done in depth regarding to my project topic. At the beginning I didn't get any proper literature support who strongly support my topic, but latter on after continues searching and struggle I found some literature which was clear in terms of concepts and supporting my project.

A complete action plan (Appendix 4) was developed to help to lead the implementation of the project. The dates of the session were planned and discussed with my preceptor, field doctor, Administration and security supervisor. I have also discussed my objectives regarding training session with my preceptor. Preceptor suggested for adding some more slides in ppt. three days before from the session date a flyer (Appendix 5) was made and pasted on the notice board of administration department, security forces camp, field Doctor Office and on the notice board of occupational health clinic. The soft copy of flyer was also sent to the field manager via email for information and official record. My target population were security forces who are working in MOL Pakistan Oil and Gas Company. I have arranged total three sessions. One sessions for CPR includes presentation, showing videos clips on CPR and demonstration of CPR for the participants, Second session were arranged on first aid care of snake bite and minor/major bleeding control and third session were arranged for practice and sign off for CPR and first aid care of snake bite and minor/major bleeding control. 28 number of occupational workers became the part of my project. The session was arranged in the TV Lounge of Security Forces Campus. Frist session was conducted on September 13th, 2015 from 1800 to 2230 hours, second session was conducted on September 19th, 2015 from 1600 to 1800 hours and third session was conducted on September 20th, 2015 from 1400 to 1700 hours.

The main purpose of teaching were to share the finding and observation of collected data, bring awareness in the occupational health workers allied to Emergency First Aid Training in industrial area. Teaching session was conducted through power point presentation and other different strategies were used during the session like, vodcast, discussion, explanation, demonstration and asking questions. For the evaluation of occupational workers knowledge regarding Emergency First Aid Training one more session were arranged. On September 23nd, 2015 from 2100 to 2130 hours, the same questioner were applied which I already applied in data collection, to see the variance in occupational knowledge and practice of occupational workers after the sessions. Change in practice were observed from first aid boxes and also observed the casualties in occupational first aid clinic. They have start the practice of using first aid boxes for emergency handling and application of providing first aid care to the casualties'. My outcome indicator for the project implementation were seen, that was the use of first aid boxes which we provided to each department. Secondly the casualties when comes to the clinic they have already taken first aid care for some while.

Project Sustainability is the capacity of a project to continue to be delivered its intended benefits over a long period of time. The continued use of program components and activities for the continued achievement of desirable program and population outcome. To ensure the project sustainability module was developed which was based on the first Aid Training Awareness. PPT, video clips were handed over to my preceptor and field doctor. My preceptor delegate the responsibility to the other occupational health nurses and first aid team to assess the practice of train occupational workers while providing care to the casualties. And share findings with the field doctors.

Formative evaluation done via questioner after conducting the sessions. The questioner analysis showed that 100% of occupational workers are now aware about emergency first aid care, 100% workers are familiar that for external bleeding we should apply direct pressure first, 100% have information that dressing and bandages are used to control bleeding and prevent infection, 100% of workers are aware about emergency first aid care of snake bites and 100% of occupational workers are aware about CPR (Appendix 3). The variance were calculated between pre and post sessions to observe the improvement in the knowledge and practices of the target population.

Bring any change at any organization, institute, in community and even in a single person is not essay, there must be some challenges and difficulties. When I was running my project as a student, I have faced many problems and challenges throughout the project like, time management problems due to target group availability, faced problems while collecting data, difficult to answer to each participants when asking very irrelevant questions because the participants was not related to medical and nursing profession, control the audience during presentation when they are interrupting unnecessary. But with the great support of my preceptor and field doctor I managed the time and faced other challenges confidently. On the other hand the time duration of the project is too short. Because proper evaluation must take too much time, we cannot properly evaluate the outcome of our project within weeks.

Although I have successful implemented my project with the help of my preceptor and field doctor, but I have come across with few constrains while implementing my project. Some of the limitation which I faced that was lack of resources. We don't have any dummy for proper demonstration of CPR. Secondly limited time has given to me to cover my session on the given time.

Recommendations

In future I recommend that these session should be arranged frequently at least every alternate month for occupational workers. Which will be helpful for proper application of practical skills while providing care to the causality and will enhance their learnt concepts. Furthermore in frequent sessions there are some quarries from audience side, resolving their quarries may also can improve their knowledge regarding Emergency First Aid training. Mock Drills should be arrange in each month to improve their practical skills and give them feedback for further improvement. There should be rewards and appreciations for those workers who create a positive professional environment, showing interest and demonstrate proper practices.

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