

AN EFFORT TO REDUCE DISABILITY IN REMOTE DISTRICTS OF NEPAL, A PERSONAL EXPERIENCE

K.C. Govinda¹

ABSTRACT

With the sole objective of preventing and reducing the incidence of disability in remote districts of Nepal resulting from lack of proper treatment due to lack of skill and knowledge in trauma and orthopaedic in the part of treating health workers, altogether, 25 workshops were conducted in 18 remote districts to educate the doctors and health workers working in those districts. Till date 437 different level health workers underwent basic training in this field. Workshops were conducted in district health office, and health workers from health post and sub health posts were the participants. Slides, transparencies, handouts, lectures, demonstration, splints, Plaster of Paris (POP) etc had been the backbone of the teaching.

Written pre and post workshop test were taken and evaluation on practical knowledge were conducted at the end of each workshop. Time constraints, accessibility, communication and financial aspect had been the challenges for successful conduction of the workshop.

Key Words: *Remote Districts, Disability, Trauma, Health Workers.*

INTRODUCTION

People of remote district of Nepal because of geographical setting and activities related to living and life style are more vulnerable to injuries than their counterpart in town, cities and less remote

areas of Nepal. The health workers working in those area lack even basic skills and knowledge required for the management of injuries. It is not only the lack of knowledge and skill in the part of health worker but also lack of basic things to treat the injuries. Moreover the people of that area are

1. TU Teaching Hospital, Maharajgunj, Kathmandu, Nepal.

Address for correspondence : Dr. Govinda K.C., Associate Professor
Dept. of Orthopaedics, T. U. Teaching Hospital
Maharajgunj, Kathmandu, Nepal
Phone: 422637

so poor that they cannot afford to go to better centers for the treatment, which is very far away and cost money. So that deformity due to lack of proper treatment of injuries and infections of bone and joint is not uncommon. Many of the patients have to lose their limb and some time their life due to maltreatment.

If the health worker of those remote districts are being given training on (basic knowledge and skill) very basics of trauma and orthopaedics in their own local work setup even for short period of time the morale of those health workers will be boosted, people of those areas will be benefited, moreover incidence of death and deformity to certain extent resulting from trauma will be reduced and prevented. Considering this fact I together with some other doctor colleagues of different disciplines together, decided to start educating doctors working in remote districts hospital in different specialty of surgery from 1996. But in the mean time I felt necessary of including all health workers working in different health post and sub health posts of remote districts in this training program. So I decided to go alone on my own. Till date I have organized 25 training programs in 18 different remote districts of Nepal.

OBJECTIVE OF THE WORKSHOP

General objective of the workshop is to prevent or reduce the incidence of disability and death in remote districts of Nepal due to lack of proper treatment of trauma and orthopaedic cases due to lack of basic knowledge and skill in the part of health workers.

Specific objective of the workshop is to make those health workers able to:

- ? Diagnose common cases of joint and bone injuries without radiological aids.
- ? Diagnose bone and joint infections in earliest

stage and treat them early, adequately/refer them to better center.

- ? Treat the simple common bone and joint injuries with the available resources.
- ? Provide primary care to serious injuries and refer them to proper place.
- ? Identify, act upon accordingly of complications of tight traditional splint (KAPRO), cast, splints, bandages etc.
- ? To teach school children about the safety and first aid.

PARTICIPANTS

Doctors, Health assistant, Staff nurse, Auxiliary Health worker working in the remote districts participated in the workshop. Till date 437 health workers had been trained which includes doctors 31, AHW 308, HA/SAHW 47 and Nurses 51. Fifty paramedic students of Jiri Technical School and few (not in the record) AHW student deputed in each district hospital had been taught also.

DURATION OF THE WORKSHOP

The workshop was conducted for 3 - 5 days.

TEACHING METHODS AND MATERIALS

- ? Lectures, Slides, Transparencies, X-rays, Casting Materials, Splints etc.
- ? Discussion-Local problem based.
- ? Demonstrations.
- ? Hand on clinical training and practices.
- ? Handouts (partly in simple English and mainly in Nepali).

DISTRICTS VISITED

The workshop has already been conducted in 18 remote districts. The district includes Darchula, Baitadi, Humla, Mugu, Jumla, Dolpa, Surkhet,

Gulmi, Pyuthan, Rasuwa, Sindhupalchok, Dolkha, Ramechhap, Sindhuli, Khotang, Sankhuwasabha, Panchthar and Taplejung.

EVALUATION OF PARTICIPANTS

Written pre and post workshop evaluation was conducted during the training. Objective and short answer type questions were used. At the end of the workshop practical evaluation was also carried out.

Very basic question about bone and joint injuries, plaster, splint, traction and bone and joint infections were asked in the pre and post evaluation test. Same questions were being asked in both pre and post test without the knowledge of the participants to prevent error in evaluation data. A column for participant's impression and suggestions were added in the post workshop evaluation test. Answers were categorized into correct, partly correct, wrong answers and no answers group and tabled accordingly.

Below are some examples of results of evaluation test.

DOLPA

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MUGU BATCH II

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I have started taking pre and post test since last eleven workshops. I am still trying to find what short of question to be include in my next visit.

Participant's comment of 'very useful' workshop and request for more such workshop in future has been the driving force for me to continue such workshops.

FINDINGS

In the initial workshop I used to focus my attention on consolidating the knowledge and skill on trauma and orthopaedics of medical officer working in the district hospital. At the same time I used to perform minor surgery of needy patients with the instruments available in the district hospital (dental, ENT, Gynae and some general surgical instruments). Orthopaedic instrument were not available in the district hospital. The commonest orthopaedic problem in the remote district as I observed are chronic osteomyelitis (due to failure of recognition and treatment of acute osteomyelitis), cubitus varus (due to mal union of supra condylar fracture of humerus, even though functionally satisfactory the youth with cubitus varus deformity are rejected from employment in army and police which they usually opt for), Volkmann's Ischaemic contracture, cubitus valgus in children, malunited colles fracture, old unreduced dislocation, chronic ankle injuries and other malunited fracture. Almost all of them are due to failure of recognition and



Fig. 1: Health Assistant Practising application of cast, Jiri Hospital, Dolkha.



Fig. 2: Participants practicing & closed reduction of anterior dislocation shoulder on volunteer. Dunai, Dolpa.

lack of proper treatment due to lack of knowledge in part of treating health workers.

In the later workshop (Health Assistant, Auxillary Health Worker also included) I emphasised on local problem based learning e.g. how do the commonly seen deformities develop? How to recognise it even without radiological aids and how to best deal with it? So that health workers in the health posts and sub health posts treat simple injuries and infection with the available resources and give primary treatment and refer moderate and serious injuries to district hospital. Similarly the district medical officer could treat majority of the cases (by closed means) by himself referring only serious cases to tertiary centres.

Trauma and orthopaedics patients who attended district hospital during the workshop were taken



Fig. 3: A case of Volmann's Ischaemic Contracture (following high cast) being demonstrated, Mugu.



Fig. 4: Participants applying cast after closed reduction of Colles' type fracture, District Hospital, Jumla.

as teaching materials. I still do minor operative procedure for the needy patients not for the teaching purpose but as a service to public.

So far I have enjoyed conducting these workshop, some of the difficulties I faced are fixing date of workshop, collecting all the health workers to district centres and their allowances. I usually consult district health office chief and organise the workshop immediately after some government run workshop.

As the present workshop is based solely on observation based need assessment formal indicators of the impact study had not been developed. It would take some time before the results of the workshop can be appreciable (visible). Pre and post workshop tests and practical assessment of the participants at the end of the workshop has been the only indicator to see the immediate impact of the workshop. Till date it has been highly satisfactory.

LIMITATIONS OF THE WORKSHOP

- ? Accessibility: Due to lack of proper transport facilities in the remote district it is difficult to reach in time and also longer time is consumed in reaching the site than the duration of workshop.

- ? Time constraint: Some time it is difficult to find out time due to busy schedule in the work place. Participants do not get official leave to attend the workshop.
- ? Communication: Sometime the turnover of the participants in the workshop is low, as they did not get information in time.
- ? Financial: No external financial help is available for this program. This is run solely on personal expenses of resource person. Till date the participants are attending the workshop at their own expenses and no travel and daily allowance is being paid.

SUGGESTIONS

As other ongoing training program, government and non-government organization should come forward with this short of training program in trauma and orthopaedic. This can be divided into two separate programs for doctors and health workers.

Even though health workers (HA, AHW) working in the health posts and sub health post are only for preventive health services. But in fact they are the primary health service deliverers in the country. Majority of the people from rural areas are fully dependant on them for health care. This will remain true for another few decades to come in Nepal. So until and unless we train them at least in very basics of common health problems prevalent in Nepal we can not expect to improve the quality of health of people of Nepal. Disabilities from deformities due to lack of primary treatment of injuries and infection of bones and joints will continue to rob the resource poor societies of their active manpower. Government should undertake this

short of training program as a national program as an ongoing process. For the sake of convenience this program can be broken into two separate programs, one for the doctors and other for the health workers (paramedics). Doctors working in different district of a development region be called to the regional headquarter (hospital) and be given refresher training in different specialty for a period of 2 weeks or so routinely.

And health workers from health post and sub health post be called upon to district health office and be given training in the similar way (a trained medical Officer can train them efficiently). The district hospital and primary health centers in Nepal are well equipped with instruments required for different kind of surgery except orthopaedics. I have never found any orthopaedic instruments in the district hospital I visited. So they need to be equipped with basic orthopaedic instruments. Commonly used basic material in bone and joint injuries and orthopaedic condition is plaster of paris. Proprietary preparation of Plaster of Paris (POP) bandage is very expensive and majority of Nepali can not afford it. Since simple POP powder is very cheap, Health Ministry should supply it to every level of health care centre in district. Training program is not fruitful unless trainee are provided in their work place with basic materials required to practice what they have learned in the training.

If the Ministry of Health carries out this sort of workshops on regular basis as a national program, which will certainly help to reduce disability in the remote districts where lack of basics knowledge (about trauma & orthopaedic) on the part of health workers still exists.

