

SKILL DEVELOPMENT TRAINING
AND
EMPLOYMENT GENERATION
IN
HEALTHCARE
(PARA-MEDICAL COURSES)

Acknowledgment

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SKILL DEVELOPMENT TRAINING IN HEALTH SECTOR

BACKGROUND

India is passing through the phase of epidemiological transition, i.e. along with communicable diseases the non-communicable diseases are also showing an increasing trend over the past few years which will become the leading cause of disability. The number of people aged 80 years or more will almost quadruple between now and 2050 (World Health Day 2012 - Toolkit for events organisers. World Health Organization). It will lead to unprecedented and universal growth in the need for long-term care. In developed countries, there is a shift from hospital-based care to home and community-based care for economic reasons. Therefore, various health-related courses e.g. nursing assistant, home based health care attendant, ambulance attendant and operation theatre attendant are being conducted, globally. The persons trained in these courses provide support to medical and para-medical professionals for delivering quality health care services at right time and at right place.

Against this background, the Government of Punjab constituted a Committee under the Chairmanship of Dr. K. K. Talwar, Chairman, Task Group on Health and Medical Education and Member, Punjab Governance Reforms Commission, to propose Skill-Based Courses that could be initiated in the state of Punjab with a view to provide better health care to the population as well as to generate employment for the educated youth of the State. The Committee after studying the needs of the community, healthcare system and courses being conducted elsewhere, proposed to start courses with the objective of preparing a skilled workforce to provide pre-hospital care services during referral to hospital; assist medical and para-medical personnel for patient care during hospital stay; and provide care at home after discharge from hospital or during chronic progressive illnesses and in old age.

After discussion, several courses were short listed which were reviewed threadbare, and finally, four certificate courses were selected by the Committee namely, Hospital Care Attendant; Home-Based Health Care Attendant; Emergency-cum-Ambulance Attendant; and Operation Theatre Attendant. Course modules developed by faculty at GGSMC Faridkot were get reviewed by concerned departments in PGIMER Chandigarh.

Initiation of these courses will go a long way in addressing the imbalance between demand and supply for trained health work-force. These trained personnel would be of great help in reducing the work load on the over-burdened health professionals in the hospitals and in extending the provision of health care at the domestic/ community level.

PARA-MEDICAL COURSES

The committee has further discussed various para-medical courses in Punjab with the representatives from different medical colleges in State and from concerned faculty members at PGIMER Chandigarh. After extensive discussions among members of groups and with key departments in respective colleges, the paramedical courses requirement was categorized under five broad headings:

- I. Certificate courses;**
- II. Diploma courses;**
- III. Bachelor level (B. Sc.) courses;**
- IV. Master level (M. Sc.) courses; and**
- V. PG certificate/Diploma courses.**

CERTIFICATE COURSES

The Certificate Courses have been designed with the overall aim to create a manpower suitable for assisting health care workers in various set ups. In addition to earlier approved four certificate courses namely, Hospital Care Attendant; Home-Based Health Care Attendant; Emergency-cum-Ambulance Attendant; and Operation Theatre Attendant, the following certificate courses were agreed upon unanimously:

- 1. Certificate Course in Medical Transcription**
- 2. Certificate Course in Plaster Techniques**
- 3. Certificate Course in Dental Chair Technician**

Eligibility criteria: The eligibility criteria for certificate courses shall be 10th passed except for Certificate Course in Medical Transcription (12th passed).

Duration of Course: These courses shall be of six months duration.

Number of seats per session: The number of seats for certificate courses shall be 15-20 seats per session. The number of seats shall be revised after assessment every three years.

The candidates after successful completion of certificate course shall be given opportunity for higher education. It was discussed that these successful candidates after working for certain years say five years or more shall become eligible for higher courses. This will give them satisfaction and opportunity to further enhances their knowledge and skills.

DIPLOMA COURSES

The Diploma Courses have been designed with the overall aim to create a skilled manpower for assisting health professionals in various set ups. In institutes like PGIMER Chandigarh, there are no diploma courses. However, group decided that there was need of such courses in Punjab. The following diploma courses were agreed upon unanimously:

- 1. Diploma in Physiotherapy and Occupational Therapy**
- 2. Diploma in Ophthalmic Technology**
- 3. Diploma in OT Technician**
- 4. Diploma in Dental Mechanics**
- 5. Diploma in Radioimaging**
- 6. Diploma in Medical Lab Technology**

Eligibility criteria: The eligibility criteria for diploma courses shall be 12th passed, preferably in science stream.

The members had discussion about deciding eligible criteria for diploma courses whether to keep it 10th passed or 12th passed. It had been seen that few candidates with science stream opt for diploma courses, so it was decided to open the course for all 12th passed candidates.

Duration of Course: These courses shall be of two years duration.

Number of seats per session: The number of seats for certificate courses shall be 20-40 seats per session. The number of seats shall be revised after assessment every three years.

Initially it was proposed to keep Certificate Course on Dental Chair Technician and Diploma-Dental Mechanics & Hygienist, as separate courses since they were under different council. Finally, it was decided to keep courses on Dental Chair Technician and Dental Mechanics, since these were in demand while course on Dental Hygienist was proposed to be removed from the suggested list.

BACHELOR of SCIENCE (B. Sc.)
COURSES

There are number of B. Sc. courses already being taught in various government and private institutions in State. The Task Group was needed to review all these courses and came up with list of courses which found to be necessary. The following B. Sc. courses were agreed upon unanimously:

1. **B. Sc. Ophthalmic Technician**
2. **B. Sc. Medical Lab Technology**
3. **B. Sc. Radiodiagnosis**
4. **B. Sc. Radiotherapy**
5. **B. Pharmacy**
6. **B. Sc. Physiotherapy and Occupational Therapy**
7. **B. Sc. Audiology & Speech Therapy**
8. **B. Sc. Operation Theatre Technician**
9. **B. Sc. Hospital Documentation & Record Keeping**

Eligibility criteria: The eligibility criteria for B. Sc. courses shall be 12th passed in science stream.

Since these courses required scientific background, so candidates with science stream only passed in 12th class were considered eligible.

Duration of Course: These courses shall be of three years duration except B. Physiotherapy & Occupational Therapy (4 years). However, those who have already done diploma in concerned subject shall get benefit of one year in B. Sc. courses.

Number of seats per session: The number of seats for certificate courses shall be 15-20 seats per session. The number of seats shall be revised after assessment every three years.

Two courses i.e. B. Sc. Audiology & Speech Therapy; and B. Physiotherapy & Occupational Therapy needs approval from Rehabilitation Council of India.

MASTER in SCIENCE (M. Sc.)
COURSES

There are various M. Sc. courses already being taught in government and private institutions in State. Here also, the Task Group was needed to review all these courses and came up with list of courses which found to be necessary. The following M. Sc. courses were agreed upon unanimously:

1. **M. Pharmacy**
2. **M. Sc. Audiology & Speech Therapy**
3. **M. Sc. Physiotherapy**
4. **M. Sc. Anatomy & Physiology**
5. **M. Sc. Biochemistry**
6. **M. Sc. Pharmacology**
7. **M. Sc. Radiotherapy**
8. **M. Sc. Radiodiagnosis**
9. **M. Sc. Histopathology**
10. **M. Sc. Nuclear Medicine**
11. **M. Sc. Hospital Management/Administration**
12. **M. Sc. Nutrition & Dietetics**

Eligibility criteria: The eligibility criteria shall be B. Sc. in concerned subject.

Duration of Course: The course duration of M.Sc. courses shall be 2 years. The first one and half years shall consist of course syllabus and last six months shall be given for specialization in concerned field for dissertation e.g. students doing M. Sc. Histopathology shall be posted in immunopathology, cytopathology or hematology during last six months; and those students doing M. Physiotherapy shall be posted in orthopaedics, sports or neurology departments.

Number of seats per session: The number of seats for certificate courses shall be 3-10 seats per session.

The feasibility to start M.Sc. Nuclear Medicine course was discussed. The institution requires collaboration with Department of Physics and approval from Bhabha Atomic Research Centre, Mumbai for initiation of course.

M. Sc. Medical Instrument Technology course was also discussed. Later it was decided to remove it since medical equipments now days are very sophisticated and the supplier companies themselves take responsibility of the repair and service of equipments.

POST GRADUATE (PG)
CERTIFICATE/DIPLOMA COURSES

The PG Certificate/Diploma Courses have been designed with the overall aim to create a skilled manpower for assisting health professionals in various super specialities. The following PG Certificate/Diploma courses were agreed upon unanimously:

- 1. Perfusionist**
- 2. Dialysis**
- 3. Cath Lab**
- 4. Respiratory Therapy**
- 5. Neurophysiology**
- 6. Medical Transcription**
- 7. Health Promotion/Education**

Eligibility criteria: Graduates in concerned subject shall be eligible for PG certificate/Diploma courses while graduate in Information Technology can apply for Medical transcription and graduate in any discipline can apply for Health Promotion.

Duration of Course: The duration for PG certificate/diploma courses shall be one year except Medical Transcription (course duration: 40 hours).

Number of seats per session: The number of seats for certificate courses shall be 3-10 seats per session.

RECOMMENDATIONS

1. There must be qualified staff in position to teach the courses otherwise it would be not fruitful to introduce various courses.
2. There must be adequate infrastructure for the students to learn various skills e.g. for Diploma - Medical Lab Technician course, there must be adequate practical exposure before certification by any institution.
3. All the courses especially newer ones, need to be assessed after certain duration say every three years. This will guide to revise the number of seats; promote or close the course based upon the response among students.
4. The candidates after successful completion of certificate course shall be given opportunity for higher education.
5. BFUHS Faridkot shall prepare course curriculum for all the new suggested courses with the help of Head of the concerned departments from all three Govt. Medical Colleges keeping in view the available human resources and logistics.

COURSES WHICH WERE NOT CONSIDERED

Following courses are being run in various government and private institutions in Punjab. However, the group decided that following courses may not be required in present situation and needed to be closed down. BFUHS will consider only recommended courses for affiliation. Since some of the courses are under technical education department, so the same will be requested to review with concerned institutions.

- Diploma- OT Technology
- B.Sc. MLT - Introductory Biology
- B.Sc. MLT- Communication and Soft skills
- B.Sc. MLT (Practical)
- B.Sc. MLT – Microbiology
- B.Sc. MLT- Anatomy and Histopathology
- B.Sc. MLT-Biochemistry
- B.Sc. Orthopedic Assistant & Plaster Techniques
- B.Sc. Dialysis Technician
- B.Sc. Anesthesia Technology
- B.Sc. Emergency Responder
- Nursing Assistant
- Urology Technician
- First Aid & Emergency Nursing Technician
- Neurosurgery Technician
- Physician Assistant in Hemato-oncology
- Anesthesia Technician

- Endoscopy Technician
- Cardiovascular and Thoracic Surgery Technician
- Neurophysiology Technician
- Burns and Plastic Surgery Technicians
- Pharmacy Assistant
- Intensive Care Unit Technician
- Blood Bank Technician
- Multipurpose Health Worker
- B.Sc. Perfusionist

Annexure 1A

Members of Committee on Initiation of Skill Based Short Term Courses in the field of Healthcare, in the State of Punjab.

Dr. K.K. Talwar, Chairman MCI	Chairman
Dr. K.S. Chugh, Retired, Professor, PGIMER, Chandigarh	Member
Dr. Ajmer Singh, Retired, DRME, Punjab	Member
Dr. Baldev Aulakh, DMCH, Ludhiana	Member
Dr. G.S. Wander, Professor, DMCH, Ludhiana	Member
Dr. G.S. Gill, President, NHA, Punjab	Member
Dr. M.L. Chawla, Fortis Healthcare	Member
Dr. Kapil Chib, Dy. Director, Medical Services, SPS Apollo Hospitals, Ludhiana	Member

Annexure 1B

A committee of the following members was constituted to prepare the curriculum, protocols, identify institutions to run Skill Based Short Term Courses in the field of Healthcare:

- Dr. Rajesh Kumar, Prof & Head, School of Public Health, PGIMER, Chandigarh
- Dr. Gurpreet Singh Wander, Professor, DMCH, Ludhiana
- Dr. Sanjay Gupta, Prof & Head, Deptt of Community Medicine, GGS Medical College, Faridkot
- Dr. Gurinder Bir Singh, Assistant Director (Immunization & Training), Department of Health & Family Welfare - Co-ordinator

A committee of the following members was constituted to identify Paramedical Courses in the State of Punjab:

- Dr. J. S. Thakur, Additional Professor, School of Public Health, PGIMER Chandigarh.
- Dr. Karan Sharma, Prof & Head, Department of E.N.T., GMC Amritsar.
- Dr. Baldev Singh, Prof & Head, Department of E.N.T., GMC Patiala.
- Dr. Chittaranjan Vij, Associate Professor, Department of Biochemistry, GMC Amritsar.