

Identify the learning needs for physiotherapist to work in cardiac sector in context of Bangladesh.

Md. Zahid Hossain, Mohammad Anwar Hossain

Abstract

Aims: The aim of the study is to explore learning needs for physiotherapist to work in cardiac sector. **Objectives:** To discover the current physiotherapy practice in cardiac sector, to find out the barriers during working in the cardiac sector and to identify the possible ways of improving physiotherapy service in cardiac sector. **Study design:** The design of this study was qualitative. A questionnaire used for data collection. There was nine question set up for this questionnaire. Questionnaire was prepared by pilot study. A face to face interview was set up. Data was recorded by tape recorder. **Sampling:** Graduate Physiotherapist who had at least three months experience of working in cardiac sector **Setting:** The study site was the hospitals of Dhaka city which have physiotherapist who are work in cardiac sector. **Result & discussion:** At the end of research seven themes is established. There should be need special training for cardiac physiotherapist. There is no enough opportunity to work as a cardiac physiotherapist in government level. Should be recruit qualified physiotherapist. Possible way of improve cardiac physiotherapy service is find out. What is patient's opinion and interaction of other health professionals is found out. **Conclusion:** The study found that our physiotherapist's has less competence to work as a cardiac physiotherapist due the curriculum is not sufficient. For this, they need to be trained. Health professionals also need to aware about the areas of physiotherapy service. For this, awareness is needed to improve the service in our country, as most people do not know about this profession. It is urgent to give essential opportunities for physiotherapists to give this specialized service to the patients. If the physiotherapists can provide appropriate service for patients it will help the profession to develop.

Key words: Cardiac physiotherapist, Learning needs.

Clinical Physiotherapist, Centre for the Rehabilitation of the Paralyzed (CRP)
Associate Professor and Head, Department of Physiotherapy, CRP, Savar, Dhaka-1343

Introduction

Physiotherapy is a recognized autonomous health care profession that works in an open and equal professional partnership with other medical practitioners in the care of clients (WCPT declaration 1995). The practice of physiotherapy includes a variety of clinical specialties to meet the unique needs of different client groups. Physiotherapy gives services to a wide variety of areas such as health organizations, private practice, school and community, sports and workplace settings (The Chartered Society of Physiotherapy 2004). Physiotherapists work in the areas of Outpatients, cardio pulmonary sector, Intensive Care Units (ICU), Women's Health, Care of Elderly, Neurology, Orthopedics and Trauma, Mental Illness, People with Learning Difficulties, Occupational Health, Terminally Ill (Palliative Care), Pediatrics, Community, Private Sector, Education and Health Promotion, Sports clinics, Voluntary Organizations etc. (Stiller, 2000). Among the different areas, cardiac care is very challenging and need to work as a team member. In every country in hospitals there must be a coronary care unit (CCU), intensive care unit (ICU). There a lot of cardiac patient who are treated in a hospitals via indoor or outdoor service. Physiotherapy can play an important role among of this patient. The other team members include: Doctor, Nurse, Pharmacist, Radiographer, Speech Pathologist, Dietitian Social Worker, Wards person (coronary Care Unit Team 2003). Every team members has their specific role for the care of the critically ill patients. Physiotherapists have also some glorious functions.

The Coronary Care Unit or CCU concerned with patients who have heart disease and occasionally other medical or

surgical problems. A patient generally admits into the CCU with conditions such as myocardial infarction (heart attack), angina (chest pain), congestive heart failure (CCF) and arrhythmias (abnormal heart beats) Patients. Patients also come to this unit after cardiac angioplasty or the placement of stents in their coronary blood vessels (Jennifer 2002).

In cardiac sector physiotherapists are involved in the prevention and treatment of circulatory, musculoskeletal system and integumentary complications, by regular chest physiotherapy, graded mobilization and proper positioning of patients. Generally physiotherapists role in the cardiac sector are positioning, mobilization, manual hyperinflation, percussion, vibration, coughing, suctioning, various breathing exercises and limb exercises (Stiller 2000). There are 25 big hospitals in Dhaka city. Most of them have CCU for special care of their patients. Among them six are specialized for cardiac surgery (Statistical Pocket Book of Bangladesh 2007). But there is no available literature about the physiotherapy treatment in those hospitals and about their current practices and experience.

Background of the study:

Physiotherapy is an integral part of a healthcare service delivery system, distributed in a variety of settings ranging from intensive care units to community healthcare centers. The scope of service includes health promotion, impairment prevention, disability restoration and interventions which maintain body system integrity (WCPT 1995).

Studies of chest physical therapy did not start until the 1950s when Palmer and Sellick and Thoren (Ciesla, ND

1996) did a study. They showed that postural drainage, percussion and vibration, breathing exercises, and coughing were more effective at reducing postoperative pulmonary complications including atelectasis and pneumonia than either no treatment or breathing exercises alone (Ciesla 1996). Downs (1996) showed the physiotherapy role for the lung transplant patients. Al-Alaiyan (1996) has found no effect of chest physiotherapy for atelectasis patients after extubation. It is found that patients are prone to pulmonary complications after thoracic surgery; up to 65% of patients may have an atelectasis, and 3% may develop pneumonia. Secondly, the prevalence of cardiac surgery is high; around 110 per 100 000 population annually in the Western countries (Walder et al. 2003). One study found benefits from incentive spirometry and deep breathing exercises after upper abdominal surgery (Tramer et al. 2003). One of the studies by Hohenberg et al (2006) found that physiotherapists are facing problems in their practice due to their educational preparation.

In foreign countries to be a chest physiotherapist or working in cardiac sector there should be essential some criteria. In Australia to be a cardiopulmonary physiotherapist these criteria should be needed:

- Tertiary qualification in physiotherapy with current registration.
- Extensive experiences in clinical physiotherapy in acute setting.
- ICU and acute ward experiences in a teaching hospital
- APA membership.
- Post graduation qualification in cardiopulmonary physiotherapy or education (or working towards)
- Experiences with the administrative duties involved in management of a clinical area within a department of physiotherapy. (RNSH, Australia, 2007)

All UK qualified physiotherapists are trained in chest physiotherapy. (This is different from the USA where there are special respiratory therapists who are not necessarily physiotherapists.)

It should be noted that in Bangladesh there is no scope to any post graduation degree related to this subject. There are no masters of physiotherapy degree in our country.

In Bangladesh might be lack of post graduation degree in cardiopulmonary area, lack of clinical experiences. Some students perform their clinical placement on that area when they were 2nd year student (CRP, course curriculum, October, 1998)

Study design:

The design of this study is qualitative. Identify the learning needs for physiotherapist to work in cardiac sector. Bailey (1997) claimed that Qualitative data place emphasis on people's lived experience and thus well

sued for identifying and locating the meanings people place on the events, processes, and structures of their lives. So, the researcher has chosen qualitative method as his study design.

Study site:

The study site was the hospitals of Dhaka city which have physiotherapist who are work in cardiac sector.

Sampling:

For this Study, population was the Physiotherapists working in the cardiac sector in Dhaka city. Purposive sampling was selected for this study because in almost all-qualitative research the sampling was purposive (Bailey 1999). Purposive sampling is different from convenience sampling in that researchers do not simply study whoever is available, but use their judgment to select a sample that they believe, based on prior information and will provide the data they need (Fraenkel and Wallen 2000).

Inclusion criteria:

- Physiotherapists who are graduate. (At least graduate level physiotherapist can easily find out the learning needs for physiotherapist to work in cardiac sector. The preferred entry-level educational qualification for Canadian physiotherapists, to practice physiotherapy, is a professional master's degree. (Physiotherapy entry level 2001))
- Physiotherapist who had at least three months experience of working in cardiac sector in the hospitals of Dhaka city. (If there is no any experience as a cardiac physiotherapist, some information can't be provided the participant like patients opinion about cardiac physiotherapist, interaction with other health professionals. etc Experience refers to the nature of the events someone or something has undergone. Experience is what is happening to us all the time - as we long we exist. (Experience 2004))
- Physiotherapists who are interested to take part in the study.

08 participants were chosen for the study. They were 08 in number because in one hospital not more than two or three therapists were present and also not all of them fulfilled the inclusion criteria. A qualitative methodology is also appropriate when there is only a small number of a potential study participant (Key 1997).

Data collection method:

A face to face, semi structured in-depth interviews was used as the method of data collection. Semi-structured schedules permit the interviewer to ask the questions out of order at appropriate opportunities during the interview" (Bowling 1998, p.228).

The interview was taken from the qualified physiotherapists who are working in the cardiac sector.

The interview consisted of asking questions very politely and in a simple way. The interview covered the main topic. Time for it was approximately a ½ hour.

Pilot study:

Pilot study was conducted by some physiotherapist who are working in cardiac sector or normal physiotherapist. Before setup the questionnaire it was very helpful to set up research question which is necessary or which is not more important.

Field Test:

A field test was conducted with one participant. Before beginning the final data collection, it was necessary to carry out a field test that helped the researcher to refine the data collection plan. During the interview, participants were informed about the aim and objectives of the study.

Data analysis:

The purpose of the data analysis is to find out the actual meaning of information, which was collected. By using data analysis process it is easy to arrange and present information in order to search for ideas (Minichiello 1997).

In data analysis section the researcher firstly read the information several times from the tape recorder. At the same time the researcher took help from the field note of the interviews which are very important to remember the non verbal languages of the participant and the interviews situations. At the same time, the researcher tried to remember the interview as a story which is very crucial to remember the non verbal language of the participants and also encompassed the field notes.

After completing the whole transcripts, the researcher read the transcripts several times. Then the researcher fined out actual meaning that the participants actually wanted to say and arranged the information according to the interviews questions.

Results and discussion:

The Result and discussion were carried out at the same time and combined. Results and discussion are presented together for easy visualization of the participants. The result and discussion were presented together in this section because this is common practice in reporting on qualitative studies (Bailey, 1997, p. 197).

In this result and discussion part it would be easy to know about the participants understanding, competence, views, and the ways to improve the physiotherapy service in the cardiac sector. Here the participants were the working physiotherapist of the cardiac sector. After the data analysis the following categories were found:

- Competence to work in cardiac sector.
- Special training to work in cardiac sector.
- Possible barriers of working in the cardiac sector.

- Interaction with other health professionals.
- Patients view about physiotherapy treatment in the cardiac sector.
- Cardiac physiotherapy service in context of Bangladesh.
- Way of developed physiotherapy service in the cardiac sector

Most of the participant mentioned that the field of cardiac physiotherapist is really good. Should be ensure qualified physiotherapist. Improve the quality of service. From the above discussions and participants understanding it is clear that the field of cardiac physiotherapy is good. There is lack of well furnished structure and qualified physiotherapist. There is lack of opportunity to work as a cardiac physiotherapist in our government level. The hospital of our country is not well organized to provide cardiac physiotherapy.

All the participants expressed different opinions for the improvement of physiotherapy service in the cardiac sector. Therefore, from all of the participants' recommendation and form the discussions; it is clear that as physiotherapy is a new profession and cardiac sector is the most challenging for our physiotherapists'. To work as a cardiac physiotherapist, therapist should be competence. For this case need special training, awareness programme about physiotherapy role, well structured hospital, stronger and detail curriculum, qualified teacher.

Conclusion:

The aim of the study was to explore identify the learning needs for physiotherapist to work in cardiac sector. The study found that our physiotherapists' has less competence to work as a cardiac physiotherapist due the curriculum is not sufficient. For this, they need to be trained. Health professionals also need to aware about the areas of physiotherapy service. For this, awareness is needed to improve the service in our country, as most people do not know about this profession. It is urgent to give essential opportunities for physiotherapists to give this specialized service to the patients. If the physiotherapists can provide appropriate service for patients it will help the profession to develop. As there are many specialized hospitals in our country, so the hospital administrations should be considered about the necessity of physiotherapy treatment in the specialized care of the patients. So attention should be paid to recruit more physiotherapists through all over the country from both the professionals and government aspects.

Reference list:

- Bailey, DM 1997, 'Research for the health Professional: A practical guide' 2nd edn, Philadelphia, F. A. Davis Company
- Downs, MA 1996, 'Physical Therapy in Lung Transplantation', Physical Therapy, vol. 76, no. 6, pp.626-642., retrieved 14 January 2009, from <http://www.pubmedcentral.nih.gov>.

- Walder, B, Pasquina, P & Tramer, R M 2003, 'Prophylactic respiratory physiotherapy after cardiac surgery: systematic review', *British Medical Journal*, vol. 327, p.1.
- Tramer, R M, Pasquina, P & Walder, B 2003, 'Prophylactic respiratory physiotherapy after cardiac surgery: systematic review', *British Medical Journal*, vol. 327, p.1, retrieved 6 February 2009, from <http://bmj.com>.
- Hollenberg, D 2006, *Uncharted ground: Patterns of professional interaction among Hospital Care And The Coronary Care Unit (CCU) 2004*, online, retrieved 25 December 2008, from <http://www.ehealthmd.com>.
- Frankel, RJ and Wallen, NE 2000, *How to design and evaluate research in education*, 4th edn, Me Grow -Hill Higher Education, a division of the MC Graw-Hill companies, U. S. A.
- World Confederation for Physical Therapy 1995, Declarations of Principle and Position Statements, online, retrieved 25 January 2009, from <http://74.125.39.104/search?q=cache:hEBOMot21J:w/vw.display.tuc.g> I.
- The Chartered Society of Physiotherapy 2004, The Scope of Practice of Physiotherapy, online, retrieved 2 February 2009, from <http://www.csp.org.uk>.
- Stiller, .K 2000, 'Physiotherapy in Intensive Care-Towards an Evidence-Based Practice', *Chest*, vol. 118, no. 6, retrieved 14 January 2009, from <http://www.chestjournal.org/cgi/reprint>
- Jeninnfer, AP 2001, *physiotherapy for respiratory and cardiac problem*, 2nd edn, churchil, livingstone.
- Statistical Pocket Book of Bangladesh 2007, *Bangladesh Beuro of Statistics*, Dhaka, Bangladesh
- RNSH, *statement of duties & responsibility*, online, retrieved 20 December 2008, from <http://www.csp.org.uk>.
- Professional development 2008, online, retrieved 12 January 2009, from <http://www.csp.org.uk>
- Ciesla, ND 1996, 'Chest Physical Therapy for Patients in the coronary Care Unit' *Physical Therapy*, vol.76, no.6, retrieved 4 October, from <http://www.physicaltherapyonline.Org>.
- Al-Alaiyan, S, Dyer, D & Khan, B 1996, 'Chest Physiotherapy and Post-Extubation Atelectasis in Infants', *Pediatric Pulmonology*, vol. 21, pp. 227-230.
- Entry level of physiotherapy 2005, online, retrieved 25 December 2008, from <http://www.nhslanarkshire.co4ik/Services/entry+physiotherapy>
- Experience, definition of experience', *British Medica lictionary*, vol. 327, p.l.
- Minichiello, N 1997, *Techniques for doing qualitative data analysis, In-depth interviewing: Principal, Technique and Analysis*, 2nd edn, Longman Pty Ltd, Australia
- Key, PJ 1997, 'Research Design in Occupational Education: Qualitative Research' online, retrieved 25 January, from <http://www.okstate.edu>.