

## PERCEPTION TOWARDS MULTIDISCIPLINARY TEAM APPROACH IN STROKE REHABILITATION: A QUALITATIVE STUDY

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### ABSTRACT

**Objective:** To determine perception of rehabilitation professionals working as multidisciplinary team members with stroke patients.

**Study Design:** Qualitative study design.

**Place and Duration of Study:** Isra Institute of Rehabilitation Sciences (IIRS), Isra University, Islamabad Campus from Nov 2015 to Feb 2016.

**Material and Methods:** This qualitative study utilized focus group discussion with sample of six rehabilitation professionals. These professionals included physiotherapist, rehabilitation specialist, nurses, speech and language therapist, psychologist and occupational therapist with minimum two year work experience in multidisciplinary team. Two focus group were conducted which were audio & video recorded. Data was transcribed and thematic analyzed were drawn manually. Data verification was done with the help of two separate coders.

**Results:** Attitude of professional was very much important while developing multidisciplinary team approach for quality Care. Team skills of each member of multidisciplinary team must be very much evident. Inter professional and interdepartmental communication and collaboration is needed while developing multidisciplinary team approach. Appropriate resources and procedures. Skill mix in team, Climate of the team, Individual personal characteristics, Clear vision, Quality and outcome of care, Understanding of the roles, proper communication, respect and dignity are the key characteristics emerged from focus group discussion.

**Conclusion:** Attitude of professional was categorized very important while developing multidisciplinary team approach for quality Care. Inter professional and interdepartmental communication and collaboration was highlighted for developing multidisciplinary team approach. Appropriate resources and procedures, Skill mix in team, Climate of the team, Individual personal characteristics, Clear vision, Quality and outcome of care, Understanding of the roles, proper communication and respect and dignity was the key characteristics emerged from focus group discussion.

**Keywords:** Interdisciplinary setup, Multidisciplinary approach, Stroke rehabilitation.

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## INTRODUCTION

There has been a lot of literature available on MDT approach and its outcome benefits. But very little is known about what could be the assessment criteria for the best MDT work approach. A scarce of some evidence is available on one or two of the key component of the team work like leadership, climate, goals but these all resource shown the work on one or two of the key component of the team work addressed properly but not taking consideration of

evaluating about all the influences which can enhance or interrupt the team work. Stroke is one of the leading cause of death and disability globally. Each year 5.7 million people die from stroke. It is the second most common reason of mortality worldwide (9.7% of all deaths)<sup>1</sup>. In United States it is about 200 patients per 100,000 populations. In India it is between 250-350 per 100,000 population. In Pakistan the incidence of stroke is close to 250 per 100,000 populations, projecting to 350,000 new cases of stroke patients per year<sup>2</sup>. Stroke is acute loss of focal and at times global cerebral function, the symptoms lasting for more than 24 hours or leading to death with no apparent cause other than vascular origin. It is not a diagnosis but a clinical syndrome with

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numerous causes. Determining the type of stroke is important for effective treatment and for clear prognosis. Computed tomography (CT) and magnetic resonance imaging (MRI) are useful diagnostic tools for identifying types of stroke<sup>3</sup>. The prevalence of stroke in Pakistan has been shown to be twice the highest reported prevalence in the world<sup>2</sup>. A Community based study conducted in Karachi, Pakistan on

focus groups carried out with sample of six rehabilitation professionals having more than two years of experience working in multidisciplinary team. Members of the group were physiotherapist, rehabilitation specialist, rehab nurse, speech and language therapist, psychologist and occupational therapist. This study conducted to evaluate the perception towards multidisciplinary approach in stroke

**Table: Themes and characteristics emerged from data synthesis.**

S#	Themes	Characteristics
Theme 1	Attitude towards health care as multidisciplinary team	Climate of the team, Appropriate resources & procedure, clear vision, respect and dignity
Theme 2	Team skills as multidisciplinary team member	Skill mix in team, quality and outcome of care
Theme 3	Interprofessional collaboration and communication	Individual personal characteristics, understanding the roles, interdepartmental and interprofessional communication

Pashtuns showed that 30% of all strokes occurred at the age of less than 45 years. An effective resource optimization starts from primary prevention and treatment of vascular risk factors, adherence to guidelines for the acute phase management, early rehabilitation and availability of acute phase treatments<sup>4</sup>. Since stroke is a clinical syndrome with variety of symptoms, a multidisciplinary approach is needed to cover all aspects in stroke rehabilitation. The neurology department of Agha Khan Hospital started a stroke unit which includes multidisciplinary team. This team consisted of radiologist, physiotherapist, speech language pathologists, nutritionist and vascular surgeon<sup>5</sup>. Benefits of multidisciplinary team in health care setups cannot be denied. If effectively developed and implemented patients and team members both gets immense advantage from it. Unfortunately in developing countries due to other constraints this part of health care is still neglected.

**METHODOLOGY**

This qualitative study conducted from November 2015 to February 2016 at Isra Institute of Rehabilitation Sciences (IIRS), Isra University Islamabad and audio & video recorded. Two

rehabilitation, an increasing burden in developing countries like Pakistan. In depth discussion was conducted between focus group members and the resulting supportive and argumentative dynamics add to the richness of data set. Data was transcribed and thematic analyzed were drawn manually. Data was transcribed and thematic analyses along with characteristics were drawn manually (table) . Data verification was done with the help of two separate coders which helped in developing qualitative narrative in the form of discussion.

**RESULTS**

**Attitude Towards Health Care As Multidisciplinary Team In Stroke Rehabilitation:**

Focus group participants direct their discussion towards development of multidisciplinary team and its use in rehabilitative setups especially in stroke care.

“It’s any intervention given by two or more disciplines working in a coordinated effort to more specified objectives and I think important thing here is whatever the condition in this case we are talking about stroke patients, whatever the immediate and rehabilitative care, that has to

be coordinated. It's not the case that each individual profession dropping in and just doing their work and walking away. Because we all overlap and that continuation of care and that coordinated approach is absolutely critical" (RP2).

Another focus group participant further insisted on multidisciplinary approach

"Obviously the need of multidisciplinary team can never be underestimated. If we treat the patient in parts we will be treating our part very good but neglecting a lot of complications that are pertaining to other specialties. So if work as a team best result can come" (RP3)

#### **Team Skills As Multidisciplinary Team Member:**

Participants elucidated roles of rehabilitation professional in multidisciplinary team. Participants tried to define the responsibility of every team member and focused on working as a team in stroke.

"In the more developed areas where there is a stroke perception unit, you have stroke neurologist, acute care nurses and neuro radiologist, so that forms the part of the multidisciplinary team. So in the first hour of stroke the patient will rush to the hospital, the neurologist will assess the patient, will quickly CT scan and if the scan does not show any bleeding or only have infarct with no contraindication for thrombolytic to be given, which is a medication that resolves a clot, they will take them to the interventional radiology, catheterize the patient and give the thrombolytic. That's the early stroke care team and stroke care" (RP2).

Focus group participant 1 tried to briefly explain the role of every possible member in the team.

"Early rehabilitation includes very strict swallow assessment & care. So speech therapy is very important, early assessment of cognitive & functional deficits like perceptive deficits, so we have got occupational therapy. Very early

assessment of pain & other problems that are required to be handled so physiatrist gets to be involved, good stroke care nursing for the 24 hour case to handle secondary complication, so the nursing gets involved. Early mobilization has shown that the muscle mass and osteoporosis, a secondary complication can be reduced so physiotherapy gets involved and advanced neuropsychological testing again for perceptive deficits and disorientation and cognitive problems and mood disturbances, so psychologist gets involved. So we have got a full spectrum of people who gets involved very early in the care of a stroke patient" (RP1).

Rehabilitation professional 3 emphasized on early assessments and management of stroke by multidisciplinary team members in order to prevent secondary complications.

"I would suggest you acute cases there are always medical complications which they need to prevent. If the patient is not positioned well so he might get contractures, he might get a shoulder subluxation, chronic shoulder pains, he might get contractures at the hip, if we teach the position you are going to prevent a lot of complications. So one thing is positioning. Number 2 is very simple range of motion exercises initially just to keep the joint moving around or simple electrical muscle stimulation. Then the third thing is that prevention of deep vein thrombosis, the earlier you mobilize the patient, earlier you get the patient out of the bed and are lesser chances of deep vein thrombosis and pneumonia. Physiotherapist are trained in physiological standing which can improve the spasticity of the patient, it can improve the renal functioning, the bowel movements.

Then coming to assessment about dysphagia & speech problems, the patient should be NPO unit assessed by the expert nurse or by the neurologist or by the physician for a possible aspiration. As if the patient aspirates in the first 2, 3 days going to die of pneumonia not of stroke. So you need to be careful about the swallowing,

speech difficulties, positioning in the acute phase" (RP3).

One of the rehabilitation professional shows association between limitations or disabilities regarding stroke and mental illnesses

"I just want to add a perspective of mental health & wellbeing in context of the early rehabilitation of individuals who have experienced these conditions, so lots of dynamics change would need to be incorporated alongside in context of Multidisciplinary team work whether our staff nurses are trained enough to deal with the psychological issues which emerge along with time e.g. distress or depression ultimately. So I think that also needs to be incorporated" (RP5).

#### **Interprofessional Collaboration And Communication:**

Taking into consideration lack of resources for multidisciplinary setup, rehabilitation professionals share their views on interdisciplinary setup, their effectiveness and the limitations associated with it.

"Ideally who should do the swallowing assessment is the speech therapist. But in settings where specialized personal are not available you need to upgrade your skills, but that is not multidisciplinary setup that is interdisciplinary setup. So if a nurse is doing something that should be done rather by speech therapist ideally there they are practicing: up the role for the person who is not there but that should not be permanent setup" (RP1).

"Just adding on to what we are talking about I believe we need to move on from interdisciplinary team to multi but at the moment we doubt have the resources for that but we have to have it as a goal and even if you are in an environment where you do not have a team you can always go and research in another department you will find someone or the others who is also interested in multidisciplinary approach" (RP1).

"I have two views about it that if it's done in an adhoc way without proper training is not appropriate that people should not be pushed into roles that are not equipped, it's alright on the temporary basis, on the other hand I think some time it's possible to train & educate people so that skills can overlap so that in circumstances one person has to cover for another person but they need to have proper training and the team should be prepared for that and I think if you have a good multidisciplinary team you can get progress. Physiotherapist comes sometimes do what your OTs can do, as it's not their specialty but you learn enough skills to retain the continuity of care" (RP2).

"Early intervention and early referral can improve the patient quality and it should be towards the interdisciplinary and multidisciplinary team and I think in Pakistan there is no specialized center for multidisciplinary team approach" (RP4).

#### **DISCUSSION**

Focus group participants put light on making proper rehabilitation units as it leads to earlier diagnosis, management and thus decrease time for rehabilitation. Post-acute rehabilitative care is given in hospital or community setting with collaboration of team consisting of physician, nurses, PTs, OTs and speech and language therapist. Evidence supported the benefits of focused stroke rehabilitation rather than general medical ward rehabilitation in terms of survival, ADLs and dependency etc. A systematic review of interdisciplinary inpatient geriatric rehabilitation conducted for adults with hip fracture. Patients showed improvement in physical function and discharge within six months. Along with sensory, physiological and social activities, team members should work on patient autonomy, motivation, anxiety and perceived stress. RCTs and systematic reviews to find out effectiveness of rehabilitative care is difficult to conduct because of today's clinical environment<sup>6</sup>. Little work regarding acute care and management of stroke in Pakistan is cited.

Post stroke consequences include deficits in memory, attention, concentration, perception and spatial awareness. About 31% of stroke survivors suffered from depression, 40% loss of upper limb functioning and 40% has swallowing difficulties. Apart from stroke survivors, their family members or care givers also report for health problems and increased level of stress. Multidisciplinary team involvements in early stages help overcome these problems and thus decrease the burden of both survivors and care givers<sup>7</sup>. Focus group participants drew attention towards interdisciplinary collaboration, using skills of every team member of rehabilitation to give best outcomes to the patients. The moderators show great concern about need of layout and forum to work as team and provide fruitful results in terms of faster rehabilitation of stroke patients. Interdisciplinary teams should feel the responsibility to work together effectively to meet patient goals and collaborate with other professionals for group efforts and for long term stroke care in community settings. In Australian center 65% patients were treated, 27% in U.S and 56% in UK reported improved outcome. No such results have seen in Pakistan yet<sup>8</sup>. Pakistan is also a developing country and is facing such problems but no results are reported showing ratio of physical therapists<sup>9</sup>. Susan A Nancarrow pointed out following ten principles of interdisciplinary team work in a study. Leadership and management, Communication, Personal rewards, training and development, appropriate resources, appropriate skill mix, Climate, Individual characteristics, Clarity of vision, Quality and outcomes of care and Understanding roles<sup>10</sup>. Developing countries like Pakistan and others should also work out to develop rules and principles for proper integration of multidisciplinary team with assigned roles to excel and decrease the burdens of debilitating conditions.

## CONCLUSION

Attitude of professional was categorized very important while developing multidisciplinary team approach for quality care. Inter professional and interdepartmental communication and collaboration was highlighted for developing multidisciplinary team approach. Appropriate resources and procedures, skill mix in team, climate of the team, individual personal characteristics, clear vision, quality and outcome of care, understanding of the roles, proper communication and respect and dignity was the key characteristics emerged from focus group discussion.

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## CONFLICT OF INTEREST

This study has no conflict of interest to declare by any author.

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