

Efficacy of physiotherapy in Adhesive Capsulitis -A descriptive survey on patient's perspective at CRP's musculoskeletal outdoor settings

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Abstract

Purpose of the study: The main purpose of the study is to explore the efficacy of physiotherapy in Adhesive Capsulitis at CRP's musculoskeletal outdoor setting on patient's perspectives. *Methodology:* The study design was a descriptive survey design, which was a quantitative retrospective survey. 50 Adhesive Capsulitis patients from the musculoskeletal outdoors setting of CRP were taken. The type of sample was incidental sampling. The duration of interview was 15 minutes and in one session. *Result:* The participants gave different response regarding physiotherapy. Among 50 subjects the efficacy of physiotherapy is excellent to 40%, very good to 34% and good to 26%. No one chose the other options, which were satisfactory and bad. So, the overall idea about the efficacy of physiotherapy on patient's perspectives was very good. *Conclusion:* This study highlighted both agreement and diversity that patient's perspectives are a critical factor to assess the efficacy of physiotherapy in Adhesive Capsulitis.

Key words: Adhesive capsulitis, Physiotherapy, patient's perspectives.

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Introduction:

The term Adhesive capsulitis is a condition in which shoulder becomes painful and stiff. This condition leads to a progressive loss of motion (freezing) and limited function of the shoulder over several months (Kelley, et al., 2013). Although physiotherapy is a new and developing profession in Bangladesh, Centre for the Rehabilitation of the Paralyzed (CRP) Musculoskeletal department is providing physiotherapy treatment for a remarkable percentage of Adhesive Capsulitis patients.

Adhesive capsulitis is a common condition characterized by pain and reduced range of motion in the affected shoulder. It results from contraction of the glenohumeral joint capsule and adherence to the humeral head (Ewald, 2011). The Causes of adhesive capsulitis are primary cause of the condition is unknown, but secondary shoulder capsulitis develops from known causes of stiffness and immobility, such as previous shoulder trauma or surgery, and may represent an entirely different condition (Abate, et al., 2013).

Physiotherapy Management of Adhesive Capsulitis

The best physiotherapy approach to Adhesive Capsulitis is preventative. Physiotherapy treatment is the first option for Frozen Shoulder.

Physiotherapy treatment given at CRP in Adhesive Capsulitis patient are:

- Stretching exercises (active/passive)
- Pendular mobilization exercises

- PNF stretching
- Shoulder mobilization
- Scapulo humeral mobilization
- Movement with mobilization
- Isometric exercises
- Strengthening exercises of rotator cuff

Review of literature: Frozen shoulder, also known as, adhesive capsulitis is a condition characterized by pain and significant loss of both active range of motion (AROM) and passive range of motion (PROM) of the shoulder (Nath, 2015). It affects 2% to 3% of population. It tends to occur in patients older than 40 years of age and 50 years of old woman are most commonly affected. In Bangladesh, Adhesive capsulitis is one of the common disabling diseases affecting both elderly male and female (Arshad, et al., 2015).

Patient's perspectives: Perspective is defined as 'A particular attitude towards something way of thinking about something' Patients are not passive consumers but active agents on their own behalf in fact.

Aim of the study: To explore the efficacy of physiotherapy treatment in Adhesive Capsulitis patients at CRP's musculoskeletal outdoor setting on patient's perspectives.

Specific objectives of the study: To find out the severity of pain before receiving physiotherapy, outcome of pain after receiving physiotherapy, activity restriction before receiving physiotherapy, outcome of activity restriction after receiving

physiotherapy, effectiveness of physiotherapy for Adhesive Capsulitis according to patients' perspective, measuring the outcome in Adhesive Capsulitis at CRP's outdoors department.

Methodology:

Study design: The study design was a descriptive survey design, which was a quantitative retrospective survey. The descriptive survey is the valuable way of collecting more information directly from individuals; findings are accurately quantifiable (Hicks, 2009).

The researcher had taken 50 adhesive capsulitis patients from the musculo-skeletal outdoors setting of CRP. The type of sample was incidental sampling. Because incidental sampling is the cheapest and easiest sampling method to use (Polgar and Thomas, 2007), it was chosen. The duration of interview was 15 minutes and in one session.

Method of data collection: In this study, the researcher was selected data from CRP's musculoskeletal outdoor physiotherapy department. The researcher selected the sample according to his inclusion criteria at that time when the patient came to physiotherapy outdoor department to receive physiotherapy treatment. In both open and closed-ended questionnaire, face-to-face interview was taken.

Informed consent: The people who had own interest to be the sample was given consent forms and the purpose of the consent form was explained to the participants verbally in their own language. The participation of the participants was fully voluntary. They had the right to withdraw it any time. It was also told that their confidentiality would be maintained. The result of the study may not have any direct effect on them but the people may benefit from the study in future.

Ethical issues:The ethical approval had been taken from CRP's academic section Bangladesh Health Professions Institute (BHPI) ethics committee.

Data analysis:The data that the researcher collected was descriptive data. Generally descriptive statistics are used in conjunction with survey methods (Hicks, 2009).

Results:

Male and female ratio

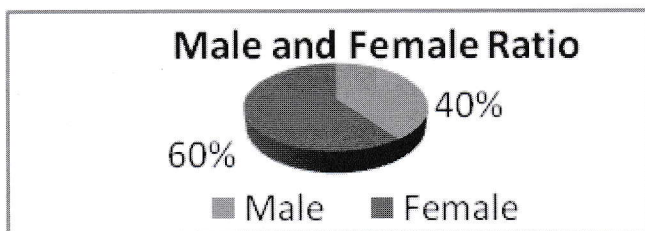


Chart 1 shows that, 50 subjects were used for this study. Among them 20 were male and 30 were female. So, the ratio of male and female was 20:30 and the percentage was male 40% and female 60%.

Ratio of main problem

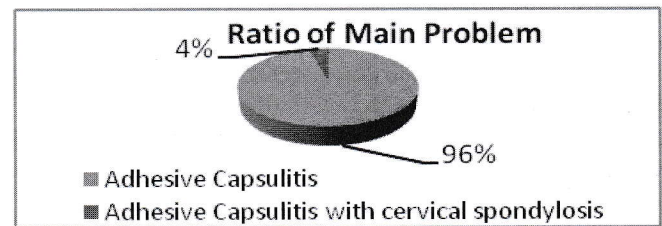


Chart 2 shows that, all the participants had Adhesive Capsulitis as a main problem. Adhesive Capsulitis was 96% and the Adhesive Capsulitis with cervical spondylosis was 4%.

Severity of pain before receiving physiotherapy:

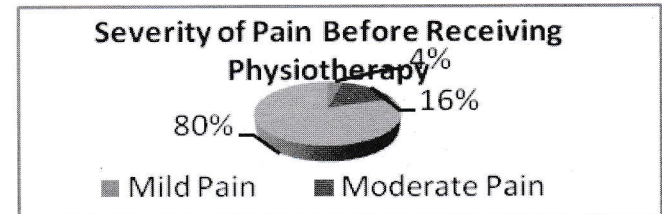


Chart 3 Shows the percentage was severe pain 80%, moderate pain 16% and mild pain 4%.

Outcome of pain after receiving physiotherapy:

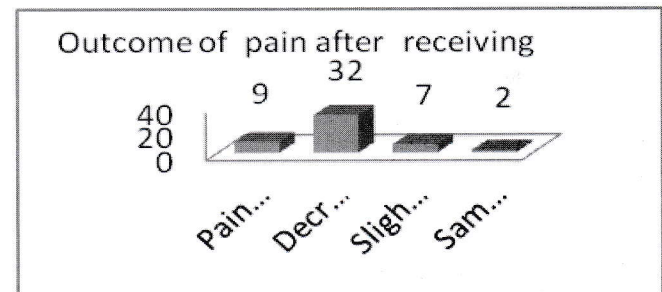
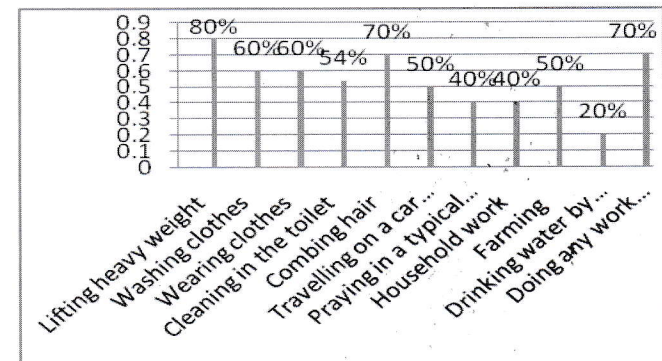


Chart 4 shows that, abolished, decreased a lot, slightly decreased and same as before. And percentage was pain abolished 18% decreased a lot 64%, slightly decreased 14% and same as before 4%.

Activity restriction before receiving physiotherapy:



From the chart 5, we can find some activities among which one in severe most. There was an open-ended question to the participants, which activities were restricted severely before receiving physiotherapy and they told at least four activities, which hampered their daily life. So, there were the main activities, which were restricted mostly according to the

physiotherapy, effectiveness of physiotherapy for Adhesive Capsulitis according to patients' perspective, measuring the outcome in Adhesive Capsulitis at CRP's outdoors department.

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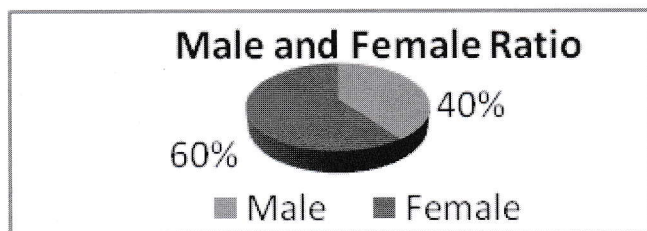


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Ratio of main problem

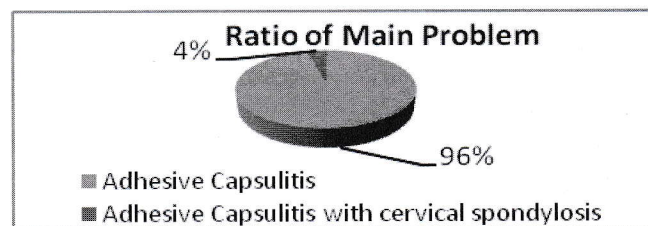


Chart 2 shows that, all the participants had Adhesive Capsulitis as a main problem. Adhesive Capsulitis was 96% and the Adhesive Capsulitis with cervical spondylosis was 4%. Severity of pain before receiving physiotherapy:

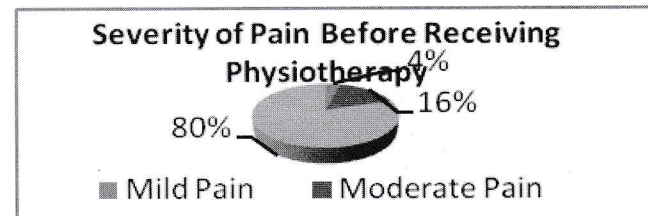


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Outcome of pain after receiving physiotherapy:

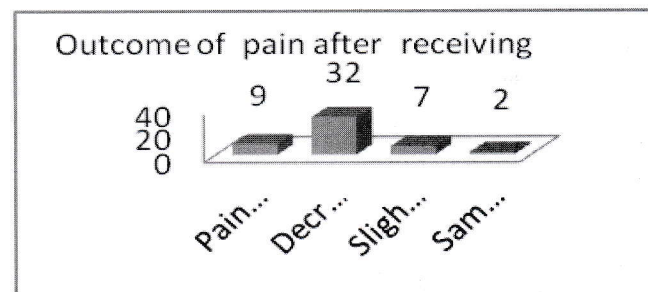
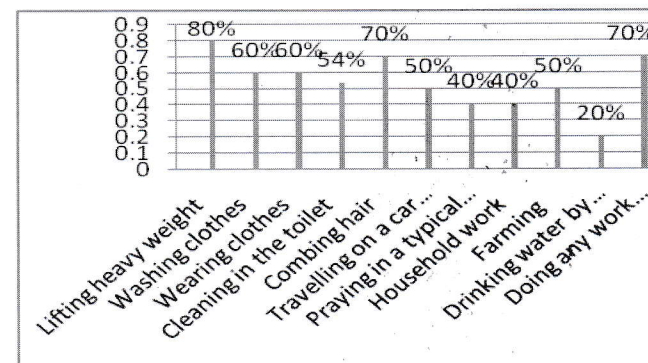


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Activity restriction before receiving physiotherapy:



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participants, points of view in their daily life. Now the activity restriction before receiving physiotherapy and their percentage was:
 Outcome of activity restriction after receiving physiotherapy
 Lifting heavy weight 80%, Washing cloths 60%, Wearing cloth 60%, cleaning in the toilet 54%, combing hair 70%, Travelling on a car while standing 50%, praying in a typical kneeling posture 40%, Household work 40%, Farming 50%, Drinking water by the help of a glass and affected hand 20%, Doing any work while pushing hand backwards and upwards 70%.

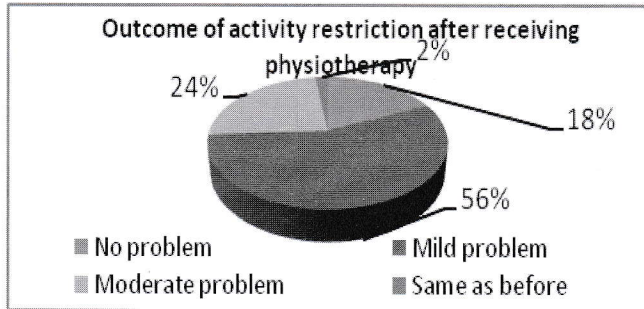


Chart 6 shows that, after receiving physiotherapy 9 participants said that they had no problem, 28 said that they had a very little problem and 12 participants said they had moderate problem and 1 said that problem was same before. And the percentage was no problem 18%, mild problem 56%, moderate problem 24% and same as before 2%.

Comparison of outcome between pain and activity restriction after receiving physiotherapy

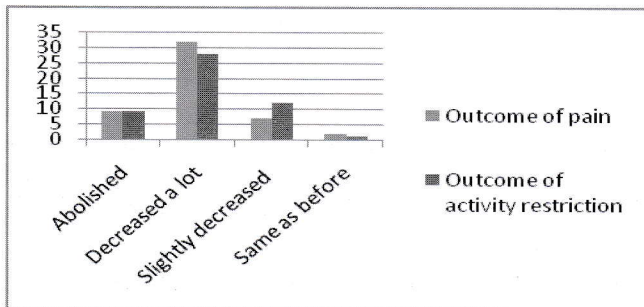


Chart 7 shows that comparison between the outcome of pain and activity restriction unambiguously. Both the participants and the therapists, point of view gave the participants four options, which were decided. A pilot study had been done to get these options. So, it was sure that the intensity of outcome was partly participants, point of view. And the comparison of outcome between pain and activity restriction was comparatively better on their perspective.

Discussion

There were 50 participants in this study among them 20 participants were male and 30 participants were female. So, the female participants were large in number than the male participants in this study. In this study among 48 participants were only adhesive capsulitis patient and the Adhesive capsulitis with cervical spondylosis patient 2

participants. This survey shows that among 50 participants, after taking physiotherapy management 18% participants had abolished pain, 64% participants had decreased a lot, 14% participants had decreased pain and inclusion 2% had pain same as before.

Pain abolished among those participants who had finished their treatment at least 20 sessions and maintain their home exercise in proper way. Pain decreased a lot among those participants at least 15 sessions and maintains their home exercise in proper way. Pain slightly decreased among those participants who had received minimum 7 sessions of treatment according to inclusion criteria and tried to maintain home exercise in proper way according to home advice of physiotherapist. Pain was same before among those participants who had received minimum session of treatments according to inclusion criteria but could not maintain the home exercises according to advice of physiotherapist. Adhesive Capsulitis is a condition where movement in shoulder joint gradually decreases causing pain and disability. For this condition, the pain and stiffness can limit the ability to do simple everyday activities like getting dressed, brushing hair or reaching into a cabinet (Ludewig and Reynolds, 2009). According to the majority of the sample the following functional criteria affected by pain are most commonly in Adhesive Capsulitis and the percentages were. Lifting heavy weight 80%, Washing clothes 60%, Wearing clothes 60%, Cleaning in the toilet 54%, Combing hair 70%, Traveling on a care while standing 50%, Praying in a typical kneeling posture 40%, Household work 40%, Farming 50%, Drinking water by the help of a glass and affected hand 20%, Doing any work while passing hand upwards & backwards 70%.

After receiving physiotherapy, among 50 participants, 18% viewed that they had no problem with their activities, 56% said that they had a very little problem and 24% told that they had moderate problem with their activities and 2% said that their problem was same as before with their daily activities.

Physiotherapy is given to maintain the joint range of motion and electrotherapy such as IRR (Infra-Red-Radiation) is given for pain relief (Griggs et al., 2010). So, it can be realized that for this group, physiotherapy was effective according to patient's perspectives.

Efficacy of physiotherapy has been recorded in this study by rating according to patient's perspectives. According to samples point view, the efficacy of physiotherapy is excellent, very good and good which mainly differs from patient to patient. But majority said that the efficacy of physiotherapy is excellent. Here, the efficacy of physiotherapy is excellent to 40%, very good to 34% and good to 26%.

Limitation of the Study: Sample should be selected from different places and the organizations. Few researchers had been done before on this topic area. So there was little evidence to support the result of this project study. The researcher could not compare this study with other study due to lack of resources. The number of sample was not so large

to generalize the result.

Recommendations: This study recommended that it would be better to do pre and posttest and an experimental study on different types of treatment technique for adhesive Capsulitis. The researcher recommends that the next generation of physiotherapy members continue study regarding this area. This may involve comparative study about physical tests, treatment methods and also other aspects of approaches to Adhesive Capsulitis. Larger sample size, more time preparation or collections of reliability test tools are vital to conduct this study for generalizability.

Conclusion: In this study, the researcher was able to find the better outcome of physiotherapy in a simple, easy and appropriate way where the subjects actively participated and expressed their feelings according to own point of view.

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