

Original article:

Health promotion in physiotherapy & out-patient department care in neck pain patients

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Abstract:

Background: health promotion is a term comprising of health education & health awareness. It is practiced as sole entity at large health gatherings, schools, offices & other institutes. An individual needs to be equally motivated in an equally conducive atmosphere where he can stay healthy n motivated to practice & promote a healthy lifestyle. Today it is usually understood that physiotherapy is a science based field of practice that uses mainly physical approaches that intend to promote, maintain & restore physical, psychological & social well-being.

There have been numerous effective health approaches for health promotion. This study evaluates analyses & emphasizes the need for health promotion at an outpatient department care of a physiotherapy out-patient department for long lasting benefits of physiotherapeutic care.

Material & methods: in the physiotherapy OPD and to assess the post outpatient care in neck pain patients, a longitudinal study was carried out for 3 months. They were rated on a NDI & quality of life scale. Patient education was included as a part of the intervention in conjunct to the regular physiotherapy treatment to the patient. The analysis was done using paired t-test.

Conclusion: it was concluded that health promotion is an inseparable part of physiotherapy intervention protocol. There can be various ways to convey the patient about the health promotion advisories. But during the treatment session it was noted that most of the physiotherapists were engaged in health education & awareness rather than only considering the intervention programme.

Key words: health promotion, outpatient care, health education, clinical physiotherapy practice

Introduction:

Health promotion is an umbrella term resting its essence on enabling people to gain control over their health. Health is now seen as a sole entity and it is being practiced at a large scale in schools, colleges, offices & other institutes (1). There has to be an equal interaction between the person & the community for health to be promoted in an individual. By that we mean there has to be an individual equally motivated in an opportunistic environment where he finds enough opportunities to promote a healthy lifestyle. Stretching during regular work hours has been recommended as one of the treatment techniques for patients with Neck Pain. Strengthening and fitness exercises have shown to be effective at preventing Neck Pain and reducing its severity. Neck movement is dictated by the sternocleidomastoid, and longus capitis for flexion, a concerted effort of the splenius capitis, semispinalis, sub occipital, and trapezius for extension, and the scalene, sternocleidomastoid, and fibres from the trapezius to control lateral bending.(16)

When we talk about health promotion, there have been numerous approaches proposed for effective health promotion. The super setting approach is one of the most significant ecological approaches, which enables

placing individual in a social, environmental & cultural context & with the help of an holistic approach enables to change potentials & developmental processes with a starting point in the circumstances of the people.(1)

Physiotherapy has been a part of the broader perspectives of rehabilitation that aims at decreasing disability using biomedical, social & psychological measures. Physiotherapy has been defined as a healthcare profession concerned with human function & movement & maximizing potential. Today it is usually understood that physiotherapy is a science based field of practice that uses mainly physical approaches that intend to promote, maintain & restore physical, psychological & social well-being.

As for health promotion, it is part of the broader field of public or community health which is defined by the world health organization as “all organised measures to prevent disease, promote health & prolong life among the population as a whole. O’neil & cardinal argue that use of the expression “health promotion” should be restricted to the wide range of practices it encompasses, including strategies such as health education, social marketing, mass communication, political action, community organisation & organisational development. (2) The first three strategies aim mainly at modifying individual behaviours, & last three focus mostly on enabling planned changes in the environment & in collective aspects of behaviours.

Based on numerous literatures proposed, there have been two key essential concepts to address which link health promotion with physiotherapy. Physiotherapists have generally their interventions based on certain conditions which need to be given priority attention. Establishing a diagnosis of physical pathology is the basis of any intervention planning in physiotherapy.

The second concept is the linking of physiotherapy with empowerment. This method enables people to take charge of their own health. Empowered individuals may better take care of them even after cessation of the physiotherapy treatment. Practicing clinical Physiotherapists, interns or final year students have been often encouraged to adopt person centred & person empowered approaches to health care. Such approach facilitates patient empowerment, of which the means of attainment are collaboration between therapist, & patient, clinical reasoning, patient education, & establishment of a good patient-therapist relationship.

Till date the most frequently practiced health promotion strategy by physiotherapists in patient education. (3) This forms an important part of the intervention plan for the patient. Patient education is the strategy through which physiotherapists include health promotion & primary intervention in their practice. Clinical health promotion “predisposes, enables & reinforces patients to take greater control of the non-medical determinants of their health on their own. Patient education & counselling are the two main strategies.(4) Physiotherapists who practice clinical health promotion emphasize behaviour modification, self-care & individual empowerment(5) while taking into account a person’s whole life context & not just the disease itself.(6)

Health promotion as a physiotherapist

In the last few decades, managing health has shifted its paradigm from surgical to conservative treatment options. Physiotherapy stands as flag bearer for providing conservative treatments to multiple diseases. As physiotherapists can be consulted directly without medical referral are absolutely apt to serve as link between disease control & health promotion.(9) Patient education in whatever form, it may be verbal as an advice, written as an ergonomic care or as a treatment intervention has always been included in the intervention programs for patients. The importance of patient education as a type of intervention program in low back pain patients cannot be denied as they have to be educated about their condition as much as before any implementation of exercises advised.(8)

Sharing of information is nevertheless a two way communication process. (7) Simply indicating someone about what to do or what not do may not be sufficient to provoke a significant change in behaviour. (8) The real change has to be brought within the community & the surroundings. Taking charge of one's health is the foremost important aspect in totally eliminating the disease as well as minimising the possibilities of recurrence. (4)

There have been numerous studies for low back pain & health promotion. In this study postural neck pain has been undertaken to study the effects of health education. Whether health education can in any form reduce the impact of the work culture & certain habitual postures if advised & corrected could curb the harmful effects such as neck pain & muscle spasms or not.

Methodology

To know whether physiotherapists were actually actively involved in the health promotion strategies in the physiotherapy OPD and to assess the post outpatient care in such patients, a longitudinal study was carried out at the Dasmesh College of physiotherapy, DIRDS after taking the institutional ethical committee clearance. A total of 100 patients coming to the physiotherapy OPD from the age of 25-35 years were included. Patients included in the study were mainly computer operators who had a 9am-5pm job. So they would be spending a minimum of 6 hours on the desktops. They were included in the study on convenience sampling.

Patients were clinically diagnosed for chronic neck pain. Patients with tumour, cervical spondylosis, herniation, PIVD, acute pain, age beyond 35 & below 25 were excluded. Considering the disability status of the patient for pain only, they were rated on the neck disability Index (NDI) & quality of life scale. Two groups were formed. For the first group experimental group the intervention consisted of myofascial release of the bilateral trapezius for spasm & an exercise program which included neck isometrics (strengthening) for 3 weeks, (4 sessions per week) with a set of ergonomic advices for the maintenance of an ideal posture, stretching techniques were taught while sitting in their chairs & working on their desktops along with the MFR & exercise program. They were advised to perform the neck stretches, neck rotations & general stretching of the shoulder girdle, every two hourly. They were also advised to have a proper seating posture most suitable for them which would have minimal impact on their neck. Patient education was in the form of ergonomic advices, dos & don'ts & general advisory for non-harming techniques in day to day life to the patient. The second group, i.e the control group was given myofascial release of the bilateral trapezius for spasm & an exercise program which included neck isometrics (strengthening) for 3 weeks, (4 sessions per week).

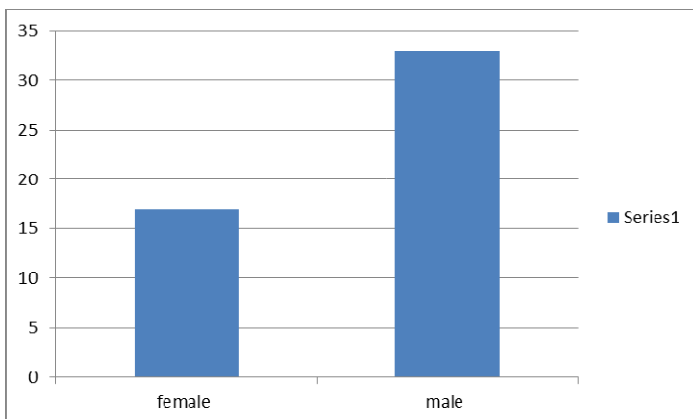
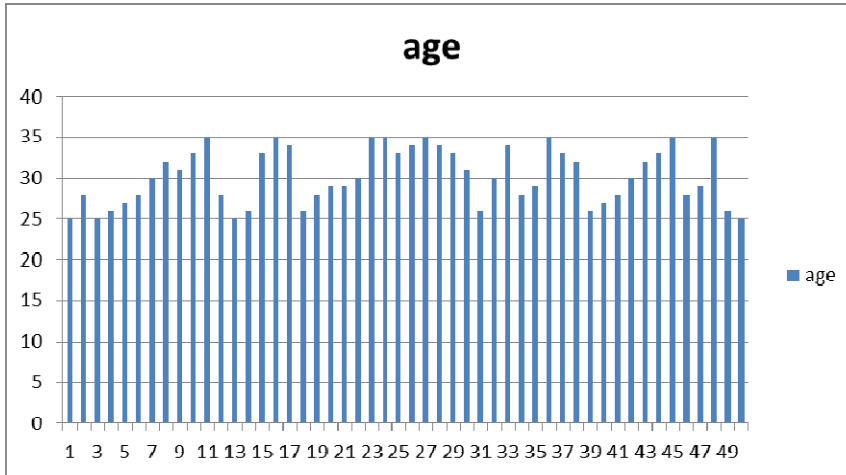
The study duration of the trail was 3 months. Therefore patients had a follow up of three months after the actual treatment procedure concluded. The post interview consisted of any signs of aggravated pain, discomfort & whether there was religious following of the ergonomic advices given by the physiotherapists.

Patients were assessed using the neck disability Index (15) & a quality of life scale; pre & post treatment. The scoring for each section the total possible score is 5: if the first statement is marked the section score = 0, if the last statement is marked it = 5. If all ten sections are completed the score is calculated.

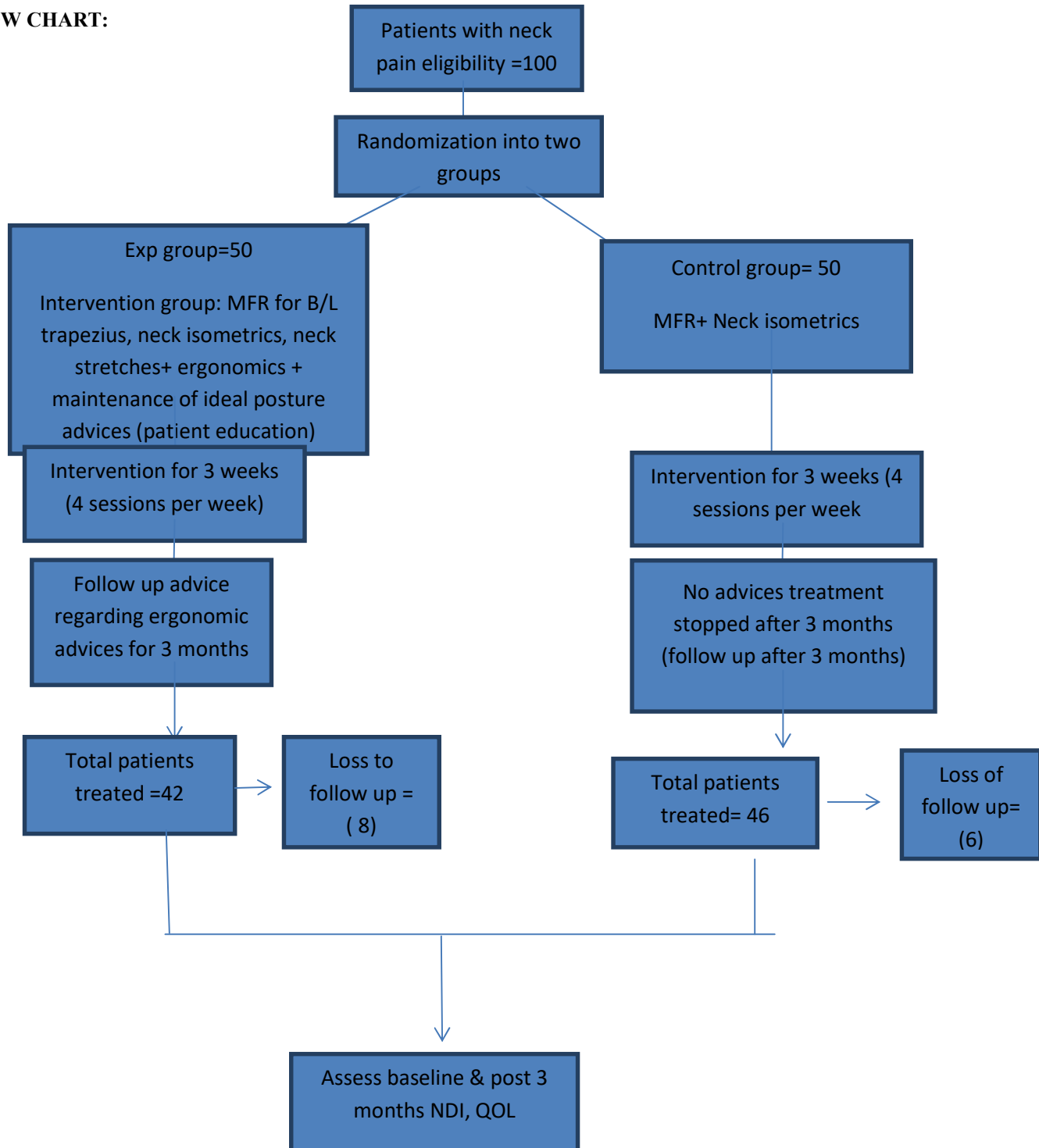
The quality of life scale used was the John Flanagan quality of life scale. The Quality of Life Scale (QOLS), developed originally by John Flanagan in the 1970's, has been adapted for use in chronic illness groups. Evidence for reliability and validity has been published over the years for both English and other translations. (10)

The 16 item quality of life scale by John Flanagan was used. It is easy to administer & the scoring is based on seven responses were "delighted" (7), "pleased" (6), "mostly satisfied" (5), "mixed" (4), "mostly dissatisfied" (3), "unhappy" (2), "terrible" (1).

Demographic details of participants:



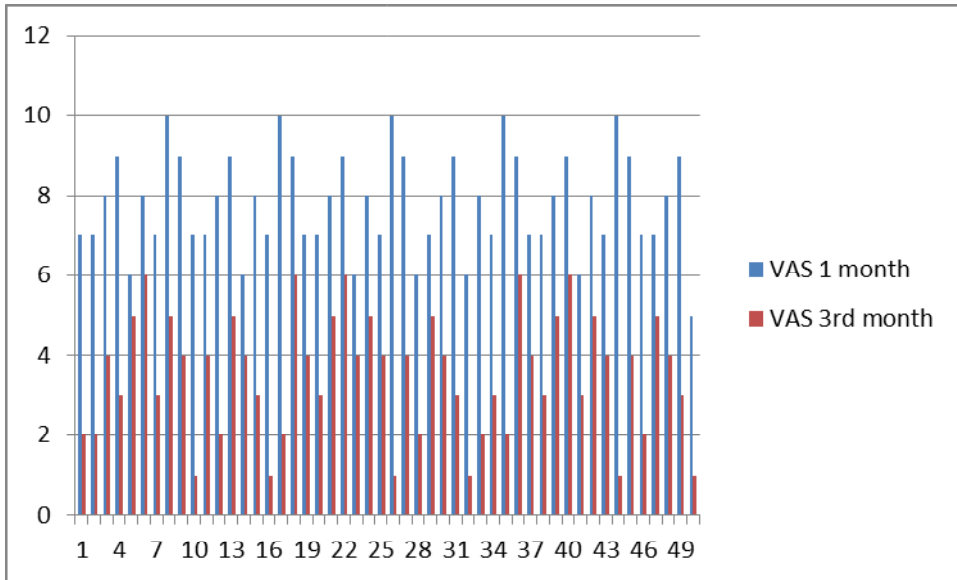
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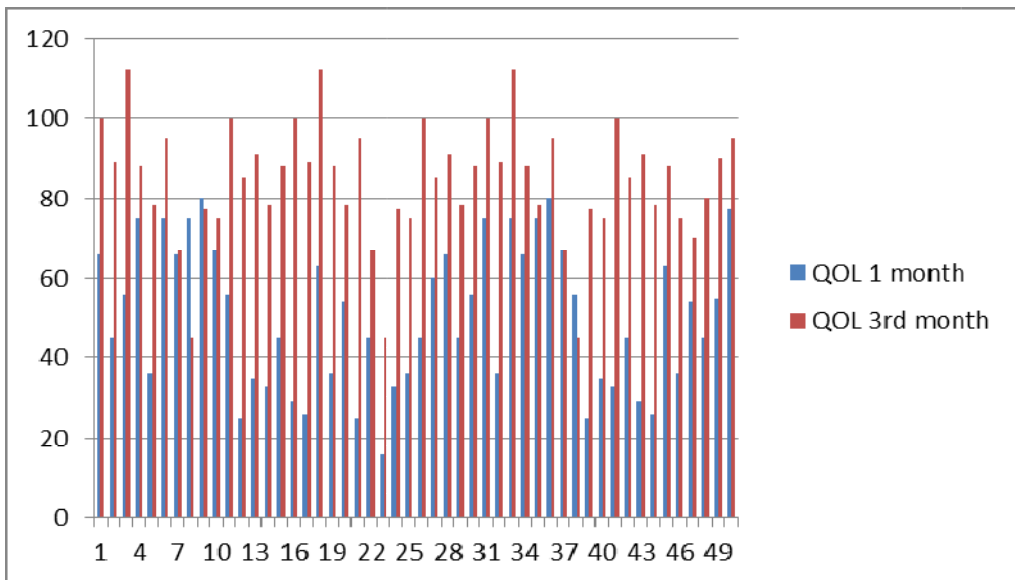
Results

During the three month study trial, 86 patients had submitted the neck disability Index & quality of life scale report, 42 from the intervention group, and 44 from the control group. Loss of follow up was due to several

other reasons. Results were calculated using SPSS software by un-paired t-test. There was a significant difference in the neck disability index rating ($p=2.4$) which in turn correlated with the improvement in overall quality of life of the patients .The value for quality of life scale was significant ($p=2.15$) & was rated on 7 criteria's. It is a patient reported scale which is self-perceived. There was a significant change in the quality of life of patients which was evident by the reduction of pain.



Graph 1: differences between Visual analog scale(VAS) for pain



Graph 2: difference between quality of life (QOL)

Mean	7.816326531	3.55102
Variance	1.611394558	2.294218
Observations	49	49
Pearson Correlation	0.16208708	
Hypothesized Mean Difference	0	
df	48	
t Stat	16.48003974	
P(T<=t) one-tail	1.07484E-21	
t Critical one-tail	1.677224196	
P(T<=t) two-tail	2.14967E-21	
t Critical two-tail	2.010634758	

1) Paired t-test for comparison between two grps for pain

Mean	50.14285714	83.95918367
Variance	329.1666667	225.039966
Observations	49	49
Pearson Correlation	0.122112321	
Hypothesized Mean Dif	0	
df	48	
t Stat	-10.71844754	
P(T<=t) one-tail	1.24427E-14	
t Critical one-tail	1.677224196	
P(T<=t) two-tail	2.48853E-14	
t Critical two-tail	2.010634758	

2) Paired t-test for comparison of quality of life between two groups

Discussion

There have been many studies to correlate the effect of health promotion & low back pain. Low back pain is a much more complex problem. But health promotion plays an extremely important role in the recurrence of the any type of mechanical pains caused due to wrong postures or any other physical distress. It is one of the most expensive musculoskeletal ailments in our society (11).

In this study we tried to relate neck optimal postures, exercises for neck & shoulder with only the conventional treatment for neck pain. Patients who exercised were to show much better results than only who got the physiotherapy treatment. Lifestyle modification & a behavioural modification are two very important aspects of health, which are a part of health education & health promotion.

Health education & health promotion are two terms which have been used often interchangeably. Health education is providing health information & knowledge to individuals & communities & providing skills to enable individuals to adopt healthy behaviours voluntarily. (12)

Empowerment is frequently related to the practice of health promotion. (13) Indeed empowerment is the core principle forming the basis of health promotion. We believe that people are far more capable of taking care of themselves once given a chance for managing their health. When individuals were given the responsibility of their own health, they were in a much better position to gain command over pain & disability. When patients were taught a series of stretching exercises in conjunct to the physiotherapy treatment, they sustained better

effects of the treatment overall. Also empowered individuals may make better use of health care services & resources & recognize their roles in getting better. (14)

In today's world where health care costs are increasing day by day, it is essential for the therapist & the patient to realise the importance of investing time in promoting ergonomics & health beneficial advice on a regular basis. Physiotherapists need to put in extra efforts in not only giving treatment but also administering some extra time for prescribing certain health promotional advices which would bring long lasting effects to the patients. The results of this study suggest that there should enough time given to every patient in not only prescribing therapeutic exercises but certain preventive strategies to completely ascertain the long term benefits of therapeutic exercises in Physiotherapy. Small lifestyle changes in the patient's routine activities can benefit him to reap long term benefits & cut the cost of recurrent medical expenses.

The limitations of the study are that there was no standardized protocol for health promotional advisories or recommendations. Therefore in the future studies we shall try using a standardised protocol for health advisories for one type of disability that would avoid any type of bias towards patients.

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