

Rheumatoid Arthritis Education for Improving the Quality of Life Along with Multi Treatment Approaches

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Abstract

Background:

Rheumatoid arthritis is a progressive condition which can affect to person's daily routine activities due to painful movements. There is a need to work on guiding the clients related to energy conservation, life style modification along with stress management techniques. Patient's education is one of the important domain to improve the quality of life but in Pakistan there is not enough work has been done on RA education .So for the first time this study was conducted in Pakistan to work on all required domains and education guidelines of rheumatoid arthritis.

Objective:

To improve the quality of life by using multi approaches as providing RA education to guide proper use of energy conservation and life style modification techniques as preventions of deformities, and overcome the patient's stress by using mindfulness meditation , as an initiative step in Pakistan.

Method

50 patients were enrolled with diagnosis of RA(Rheumatoid arthritis) .Assessment was done with FIM scoring to find out the functional limitations ,PSOM to find out the level of stress due to progressive condition , PAIN INVENTORY to observe pain nature and how it burdened to home activities . Patient's training was started with counseling and pain management in initial three sessions, 14 total sessions were conducted including energy conservation guideline, education for proper use of joints and safety precautions, relaxation exercises guided as home program, provision of adaptive devices for kitchen activities, eating and bathing purpose to prevent further deformities and same number of meditation sessions were provided side by side with relaxation massage and exercises.

After completion of 24 sessions re assessment was done with the same FIM scoring, Pain inventory and PSOM scale.

Results

Results showed the marked difference in pre and post scoring of FIM , pain inventory and PSOM scale.

Conclusion

Patient's insight and education is very important especially in progressive conditions by guiding energy conservation techniques and life style modification to lessen the chance of deformities and it is also important part to work on to overcome

stress to provide quality life in physical and psychosocial both areas .

Key Words: Rheumatoid Arthritis, RA education, Energy conservation, Meditation.

I. INTRODUCTION

Rheumatoid arthritis is a common, long lasting, incapacitating and painful inflammatory condition which distresses connective tissues, it's a main cause of ill health as progressive disease with feeling of weakness(6, 8,9,10,17,20) morning stiffness, joint inflammations and its difficulties to getting up from bed are the main signs at early stage . (10, 20)The symptoms increases by the time with number of issues as difficulty in walking, doing daily routine home tasks with illness and serious health issues as body aches, painful movements and insomnia, that all can be the cause of low self-esteem. (6,18,20) Social tasks and leisure time activities can also be affected due to pain(20)According to one research ,that published in 2014 ,2% women affects with inflammatory arthritis in UK female inhabitants (8) The main indicator of RA is fatigue and progressive weakness which can be affected on person's life routine and other areas of daily life as feeling discomfort in social gatherings due to pain, depressive symptoms, frustration and tiredness even though not showing good response sometimes to the team working on person's rehabilitation. (4, 5, 6) If patient feel low due to painful movements then cognitive behavior therapy can be introducing along with counseling and other techniques of psychological involvements as meditation and pain management. (4, 9, 16, 17, and 18) Rheumatoid arthritis patients have number of restrictions to perform daily living activities and the main goal of Occupational therapist is to train the client in work simplification to use at the work place or home (1,20) Treatment can be given By Occupational therapist or Physiotherapist or other team members but the main focus as initial step should be, providing the knowledge as education before start to work on intervention (2,8,9,11,19) Early based intervention should be pain management and home plans to prevent from further deformities , written guideline also must be given to use resting positions along with proper pattern of positioning and work rest work approach . (9,11,12,19,20) Client should be centered practice for making proper modifications and

adjustments (19) Another important part of treatment is to work on energy saving techniques is to protect the joints (19) joint protection should be main objective by providing knowledge of positioning to prevent deformities because hand joints mainly involved in arthritis patient so there must be provide guideline and knowledge to keep safe the hands or by providing adaptive devices for the purpose of energy conservation techniques. (15, 19) RA Education is very important to motivate the clients towards work on self-maintaining and the guidelines for inhibition from disfigurements as ulnar deviations and recover the daily based activities by required suggestions of life style alterations. (2,6,9,10,11,12,13) There must be a little provision of therapeutic based education to give proper knowledge and with modification according to individual person for improving the person's quality of daily routine (12,13) Sense of balance in patient's education is another main ingredient to make better understanding of patient that must be according to the practitioner (10,12,13) Group education is more effective ,if therapist working on number of RA clients so it's better to gather on the time of providing education and awareness with some selective group tasks for making coordination which can be motivating (9) Occupational therapists are main performers to improve the quality of life among Rheumatoid arthritis patients by their vital role of providing education and to adjust the clients in their surroundings (3,5,19,20) Modified tools can be provided to patient with specific design for the purpose to use as simplification , energy protection and improving the quality by positive impact as independent life style and psychological wellbeing .(15,17,18,19) To improve the self-efficacy and confidence is another goal to achieve for patient care by using the techniques of counseling and guidelines for their better acceptance and realization regarding the condition to help themselves for making plans of adjustment in life to achieve their life goals with successful attainments by some required changes and amendments according to their conditions .(6,8,16,18,20) RA patients mostly feel depression due to long term effects of painful functionality and dependency ,its important at this stage to provide some other therapies for removing the negative psychological impacts because stress can increase the negative symptoms , mindfulness meditation is very effective for body and joint relaxation , mind calming and as diversional therapy along with coping skills and stress management techniques (16,17,18) it is important to work on energy conservation , life style modifications along with stress management techniques and meditation to provide quality care .(11,19)

The purpose of this study was to improve the quality of life by using multi approaches as providing RA education to guide proper use of energy conservation and life style modification techniques as preventions of deformities, and overcome the patient's stress by using mindfulness meditation, as initiative step in Pakistan.

II. METHODOLOGY

Sample Selection:

Total 50 patients were recruited from Department of Occupational Therapy, institute of Physical Medicine and Rehabilitation, DOW University of Health Sciences with the diagnosis of Rheumatoid Arthritis, within duration of 2 years (from June 2017 to July 2019).

- Inclusion criteria was included:
 - Diagnosed with RA only
 - Male and female both genders
 - Age limitations: 20 to 50
 - Early diagnosis (in between 2 to 3 years)
- Exclusion criteria was included:
 - Any other condition except RA
 - RA with any another severe /chronic diagnosis
 - Age limit: more than 50
 - Late diagnosis /chronic condition

Method:

- Initially , patients were evaluated by ;
 - FIM SCORING to finding out their functional limitations and capabilities
 - PSOM ,to evaluate their status of intention , attention, focusing towards their functional activities due to symptoms of pain or condition
 - WHQOL, to evaluate the quality of life
 - PAIN INVENTORY CHECKLIST, to finding out the nature of pain and status of performance in daily routine with pain.
- After evaluation done, Patients were enrolled for 32 sessions structured and well- planned training program with multi approaches and expert

Occupational therapy Domains as:

- *Awareness and Occupational Therapy Counseling:* Initial session was done to evaluate the patient's insight, related to their diagnosis ,providing awareness by guiding early care tips as preventive measures
- *Early Care Guideline:* 3 sessions were done to provide written guidelines , explaining with practical applications of using correct posture ,positioning as energy conservation ,life style modification tips and importance of modified devices to prevent from further expected deformities
- *Pain Management /Relaxation:* Next 3 sessions were done to relief pain, if required and applied pain management tips by using hot water for small finger joints to relax,rest positioning, using pain relieving massage along with written home program to use some morning exercises.

- *Stress Management to remove the Hindrance on the way of improvement:* As the very important goal to remove the stress symptoms(stress and negative symptoms can be the hindrance in client’s improvement especially in patients with diagnosis of progressive conditions due to fear of getting life time painful and non-stopping and more progressing disease)three sessions were done for only applying stress management and mind diversions and before applying further techniques ,it was included in this study to start each session with some relaxations (massage, meditation and mind diversion tips) and ends up with a little counseling and stress management guidelines (morning exercises , deep breathing , positioning)

- *Life style modifications along with ADL training :*

Sessions were included energy conservation techniques(positioning, modified devices one handed techniques), fatigue prevention tips(proper seating , work-rest-work,),work simplification techniques (use one handed techniques by using specific kitchen modified tools as rocker’s knife and cutting boards ,guide to use intervals /breaks in long duration daily chores),Modified techniques to apply in daily routine tasks as replacement of movement pattern ,flexion pattern and ulnar deviation can be replaced with extension pattern and radial deviation (dish washing, clothe washing , dusting , cooking) ,use leisure and sports with required adaptations in sports items and techniques and provision of home plans

- *Provision of specific customized modified adaptive tools;*

After evaluation and finding the issues and status, customized tools provided according to their functional confines as energy saving and improve the quality. The types of devices deliveredfor this study were:

- Curved /light weighted cutlery
- Curved/long /light bath brushes, comb /hair brushes and nail cleaners.
- Modified kitchen tools as cutting board, rocker’s knife, and peelers as one handed and energy saving practices.
- Broad and light weighted handled kitchen cooking tools to prevent

ulnar deviation and flexion disfigurements.

- Modified dusters to use as replacement of flexion to extension as requirement.

DOMAINS OF OCCUPATIONAL THERAPY INTERVENTION FOR RA		
NO	DOMAINS OF OCCUPATIONAL THERAPY INTERVENTION	NO OF SESSIONS
1	Assessments + Insight	1
2	Awareness / Counseling as early care	3
3	Early Care Guideline	3
4	Pain Management /Relaxation	4
5	Stress Management	4
6	Life style modifications along with ADL training	17
TOTAL DURATION		32

Re Assessment:

Re assessment was done after completion of 32 productive sessions by FIM scoring, PSOM, WHQOL and pain inventory checklist to find out the difference and level of improvement by intervention strategies applied and to provide further home guideline ,if required in case of residual issues.

III. RESULTS

Paired sample t-test was applied to compare the difference between pre and post result of FIM scoring, Pain Inventory, WHQOL, and PSOM .The results showed the noticeable improvement in post intervention results.

TABLE 1.1 and GRAPH 1: (Pain inventory checklist) Results showed the marked improvement after applying tips and pain management techniques.

GRAPH 1: PRE AND POST RESULTS OF PAIN INVENTORY

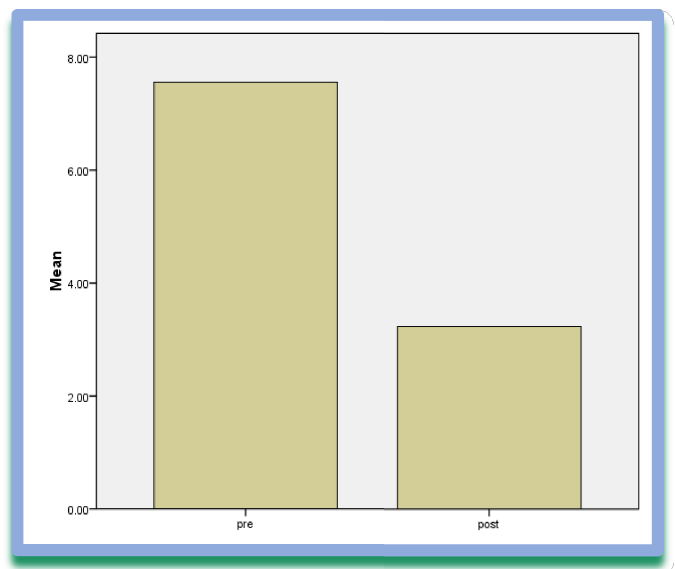


TABLE 1.2 AND GRAPH 2(Quality of life)

Result showed distinct improvement and graph 2 showed the clear difference in all four domains of quality of life including domain 1(physical health), domain 2 (psychological), domain 3 (social relation) and domain 4 (environmental).

GRAPH 2: PRE AND POST RESULTS OF WHQOL

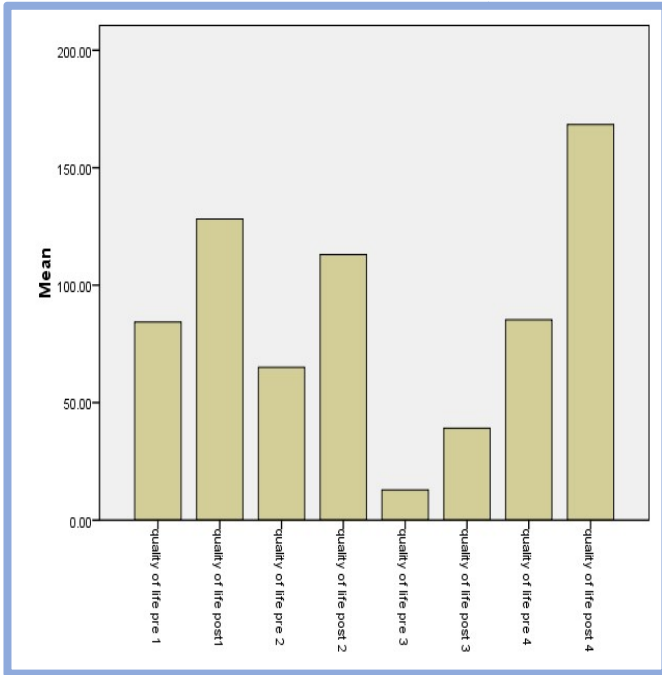


TABLE 1.3 AND GRAPH 3(FIM Scoring)

Post FIM results according to the table proved the improvement in functionality after applying therapy techniques and pain management tips even though the graph 3 also indicating the improvement in post results

Representing the FIM SCORING of Patients performance on the basis of Daily living activities with the help of modified devices.Pre and post results showed the marked improvement in their functionality which was limited before training and provision of modified devices

GRAPH 3: PRE AND POST RESULTS FIM SCORING

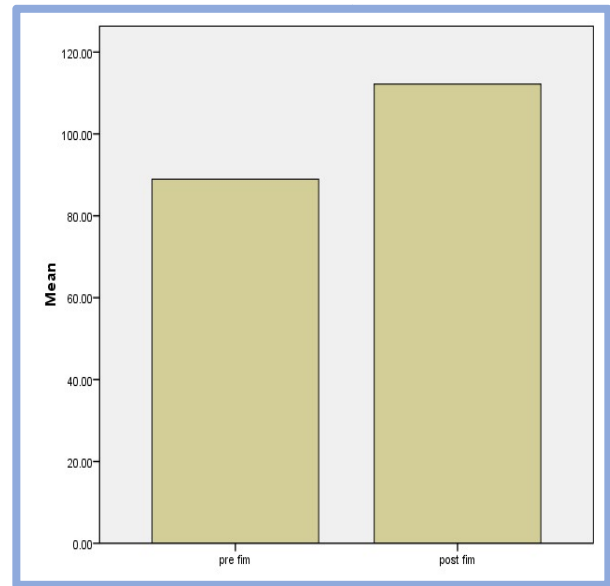


TABLE 1.4 AND GRAPH4 (Positive state of mind) The results of table 1.4 and graph 4 are visible to show the marked improvements in mind status I in daily life after interventions

GRAPH 4: PRE AND POST RESULTS POSITIVE STATE OF MIND

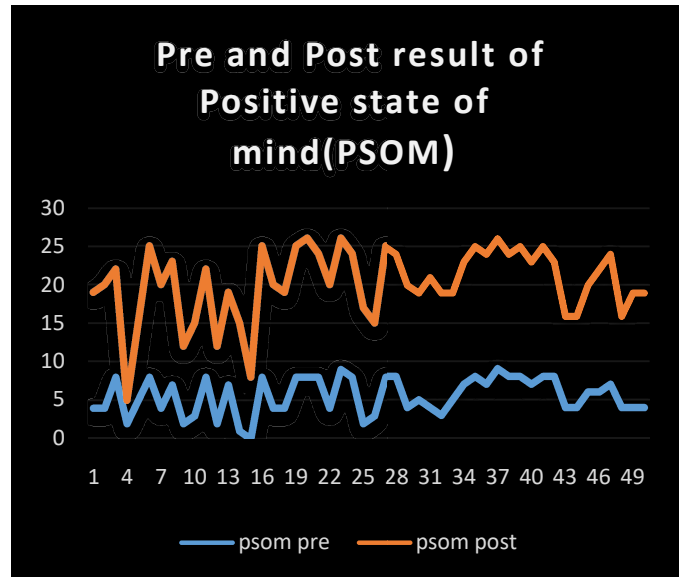


TABLE 1.1: PRE AND POST RESULTS OF PAIN INVENTORY CHECKLIST

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre - post	4.32000	.90919	.12858	4.06161	4.57839	33.598	49	.000

TABLE 1.2: PRE AND POST RESULTS OF QUALITY OF LIFE (WHQOL)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	quality of life pre 1 - quality of life post1	-4.38500E1	19.70561	2.78679	-49.45027	-38.24973	-15.735	49	.000
Pair 2	quality of life pre 2 - quality of life post 2	-4.80050E1	18.94100	2.67866	-53.38797	-42.62203	-17.921	49	.000
Pair 3	quality of life pre 3 - quality of life post 3	-2.62250E1	8.93389	1.26344	-28.76398	-23.68602	-20.757	49	.000
Pair 4	quality of life pre 4 - quality of life post 4	-8.31250E1	27.97650	3.95647	-91.07583	-75.17417	-21.010	49	.000

TABLE 1.3: PRE AND POST RESULTS OFFIM SCORING

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	pre fim - post fim	-2.32200E1	9.56031	1.35203	-25.93701	-20.50299	-17.174	49	.000

TABLE 1.4: PRE AND POST RESULTS OF POSITIVE STATE OF MIND(P SOM)

Paired Samples Test									
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	psom pre - psom post	-9.12000	2.30031	.32531	-9.77374	-8.46626	-28.035	49	.000

IV. DISCUSSION

Rheumatoid arthritis is a long lasting condition which can be cause of disfigurements in joints and weakness can hinder to perform basic daily living tasks due to pain and fatigue ,Medications are also important to relief pain , weakness and to improve the condition but as a progressive condition , life style modification is very important part which every health professional or rehabilitation expert should understand and can be provided by written guidelines

Occupational therapist have vital role to provide quality life by energy conservation, life style modifications and most important part is patients education by giving the knowledge related to awareness of arthritis, possible deformities and future problems in daily life and how to prevent the severe deformities and negative impacts on person's health as increasing exhaustions, limitations and other symptoms related to psychosocial areas as anxiety and depression.

There must be work on multi areas to provide education along with life style amendments, worldwide rehabilitation teams are working on curing the symptoms but in PAKISTAN

limited areas are focusing as some are working on life style, some are providing education so there was great need to work on multi approaches for betterment and improving the qualities.

This study was conducted at the platform of Occupational Therapy Department, Institute of Physical Medicine and Rehabilitation, DOW University of health sciences by applying all required domain. This study will be the great achievement towards initiative step for patient's education along with multi approaches and to give a proper track and chance to new therapist to work on arthritis rehabilitation with more passion and enthusiasm.

Next step will be the collaboration with Rheumatologist and other rehabilitation experts to make a proper channel to provide RA education in different cities and hospitals to improve the qualities of life and to minimize the chances of progressing deformities in patients.

V. CONCLUSION

Patient's education is very important goal of occupational therapy treatment to improve the quality of life along with multi approaches as energy conservation and stress management techniques.

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