

INDEX

INDEX	i
LIST OF FIGURES:	iv
ABSTRACT:.....	v
ACKNOWLEDGEMENTS:.....	vii
CHAPTER 1: INTRODUCTION.....	1
1.1 BACKGROUND	1
1.2 STATEMENT OF THE PROBLEM	3
1.3 JUSTIFICATION	5
1.4 OBJECTIVES OF THE STUDY	5
1.5 NULL HYPOTHESIS	6
1.6 OPERATIONAL DEFINITIONS	6
1.7 ABBREVIATIONS	6
CHAPTER 2: REVIEW OF LITERATURE	9
2.1 INTRODUCTION	9
2.2 ASSESSMENT TOOLS	10
2.2.1 Assessment of Function	12
2.2.2 Assessment of Health Related Quality of Life	14
2.2.3 Assessment of disease activity.....	16
2.3 THE ROLE OF OCCUPATIONAL THERAPY IN THE TREATMENT OF RA	17
2.4 EFFICACY AND OUTCOMES OF OT IN RA.....	18
2.4.1 Training of motor function	19
2.4.2 Education on joint protection and energy conservation.....	19
Changes in knowledge	20
Changes in Behaviour	20
Physical health status.....	21
Psychosocial Health Status.....	21
Self-Management Skill Strengthening.....	22
Theoretical Models	22
Self-Efficacy	22
2.4.3 Implementing the use of assistive devices	23
2.4.4 Splinting	24
2.4.5 Comprehensive Intervention.....	25
2.5 EFFECTS OF ETHNICITY AND SOCIOECONOMIC STATUS IN RA	27
CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY	30
3.1 RESEARCH DESIGN	30
3.2. STUDY POPULATION	33
3.2.1 Sample Size.....	33
3.3 SCREENING AND RANDOMISATION PROCEDURE	33
3.3.1 The Screening Procedure	33
3.3.2 The Randomisation Procedure	34
3.4 SHEDULE OF VISITS AND ASSESSMENTS.....	35
3.4.1 Time Schedule	35
3.5 THERAPEUTIC INTERVENTIONS	38
3.5.1 In-Patient Care.....	38
3.5.2 Focus Groups	40
3.5.3 Home Based Intervention	42
3.5.3.1. Evaluation of the Home.....	43
3.5.3.2 Adjustments Made	44
3.5.3.3 Demonstration of Activities.....	44
3.6 OUTCOME MEASURES USED FOR STUDY POPULATION	44

3.6.1 Demographic Data	44
3.6.2 Health Assessment Questionnaire	45
3.6.3 Short Form 36	46
3.6.4 Disease Activity Score-28	46
3.6.5 Reassessment of Subjects	47
3.7 STATISTICAL ANALYSIS	48
3.7.1 Statistical Methods: Qualitative and Quantitative	48
3.7.2 Qualitative data	49
3.7.3 Analysis of Home Based Intervention	49
3.8 ETHICS	49
CHAPTER 4: RESULTS	50
4.1 INTRODUCTION	50
4.2.1 Baseline Comparison of the Experimental and Control Groups	52
4.2.2 Comparison of the Baseline Scores and Scores after One Week In-patient Intervention Programme	54
4.2.2.1 Within Group Comparison for the Experimental and Control Groups	54
4.2.2.2 Between Group Comparison for the Experimental and Control Groups	57
4.2.3 Comparison of the Baseline Scores and Scores after Week 20 (\pm 1 week) Follow-up Period	60
4.2.3.1 Within Group Comparison for the Experimental and Control groups	60
4.2.3.2 Between group Comparison for the Experimental and Control Groups	64
4.2.4 Comparison of the Scores After the One week Intervention Programme and Scores after the Final Follow-up Period	66
4.2.4.1 Between Group Comparison	66
4.2.4.2 Comparison of Data from Week 1 to Final Follow-up	69
4.2.5 Summary of Change in HAQ-DI Scores over the Full Period of Intervention	72
4.3 COMPARISON OF TREATMENT MODALITIES USED FOR THE EXPERIMENTAL AND CONTROL GROUPS	74
4.3.1 Focus Groups	74
4.3.2 Home Based Intervention	78
4.3.2.1 Resources assessed	78
4.3.2.2 Assistive devices issued	79
4.3.2.3 Area adjusted	82
4.3.2.4 Task adjusted	84
4.4 COMPARISON OF SUBJECTS' EVALUATION OF THE INTERVENTION PROGRAMME	89
4.5 NULL HYPOTHESIS	89
4.6 SUMMARY OF RESULTS	90
CHAPTER 5: DISCUSSION	93
5.1 OUTCOME MEASURES	94
5.1.1 Functional Ability	94
5.1.2 Disease Activity	99
5.1.3 Health Related Quality of Life	100
5.2 SUBJECT'S EVALUATION OCCUPATIONAL THERAPY INTERVENTION	102
5.3 RESEARCH DESIGN	104
5.4 SUMMARY	106
CHAPTER 6: CONCLUSION	108
REFERENCES	112
APPENDICES	119

LIST OF TABLES:

CHAPTER 3:

Table 1: Schedule of Assessments	36
Table 2: Schedule of OT Treatment	37

CHAPTER 4:

Table 3: Comparison between control and experimental groups' demographical information and HAQ-DI at baseline	53
Table 4: Comparison of baseline with end of in-patient treatment HAQ scores for the experimental group	55
Table 5: Comparison of baseline with end of in-patient treatment HAQ scores for the control group	56
Table 6 : Comparison between control and experimental groups with respect to change from baseline to end of in-patient treatment.	58
Table 7: Comparison between the categories of the SF 36 for the control and the experimental groups' after week 1 (0 – 100 scale)	59
Table 8: Comparison of baseline with Week 20 (\pm 1 week) follow-up within experimental group ...	62
Table 9: Comparison of HAQ-DI baseline with Week 20 (\pm 1 week) follow-up within control group	63
Table 10: Comparison between HAQ-DI of the control and experimental groups with respect to change from baseline to week 20 (\pm 1 week) follow-up.	65
Table 11: Comparison between HAQ-DI of the control and experimental groups with respect to the end of in-patient treatment programme and the week 20 (\pm 1 week) follow-up.	67
Table 12: Comparison between SF 36 scores of the control and experimental groups with respect to change from 1 week to Week 20 (\pm 1 week) follow-up, 0-100 scoring.	68
Table 13: Comparison of end of week 1 with Week 20 (\pm 1 week) follow-up	69
Table 14: Comparison of baseline with Week 20 (\pm 1 week) follow-up SF 36 scores for the control group	70
Table 15: Change in the Control Groups HAQ-DI scores over time.....	73
Table 16: Change in the Experimental Groups HAQ-DI scores over time	73
Table 17: Behaviour and Self-management	74
Table 18: Awareness of Problems Preventing Occupational Performance:	76
Table 19: Family Support.....	78
Table 20: Comparison of Available Resources Between Control and Experimental Groups	79
Table 21: Tasks Adjusted During Home Visits	88
Table 22: Group Evaluation of Comprehensive Occupational Therapy Intervention	89

LIST OF FIGURES:

CHAPTER 3:

Figure 1: Flow Chart of Study Design.....	32
Figure 2: Groups making the extended sponges	39
Figure 3: Groups making the extended sponges.	39
Figure 4: A Subjects house in Protea North, Soweto	43
Figure 5: Illustrating how using cement bricks that were lying around could be used to raise the work surface for a better ergonomically adjusted washing position.	44
Figure 6: Flow Chart of Research Design and Subject Number over Time	51

CHAPTER 4:

Figure 7: Comparison of the Experimental and Control Group's HAQ-DI Scores.....	54
Figure 8: Change in DAS38 Scores from Baseline to Final Follow-up.....	61
Figure 9: Change in HAQ-DI Scores over time	66
Figure 10: Comparison of the Experimental and Control group's SF 36 Scores over Time	71
Figure 11: Assistive Devices Issued to Experimental Group.....	80
Figure 12: Plug assistive device and ergonomical changes made.....	81
Figure 13: Wooden tap turner being used by subject.....	81
Figure 14: Area Adjusted	82
Figure 15 bellow: Kitchen cupboard after	83
Figure 16 right: Patient in "kitchen area"	83
Figure 17: Adjustment to washing line height.....	84
Figure 18: Subject demonstrating.....	85
Figure 19: Subject demonstrating how to squeeze water from mop applying joint protection techniques.....	85
Figure 20: Subject demonstrating how to use an adjusted wire hanger as a reaching tool while using joint protection techniques.	86
Figure 21: Using a broom as a reaching	86

ABSTRACT:

THE EFFECT OF A COMPREHENSIVE OCCUPATIONAL THERAPY INTERVENTION PROGRAMME ON THE OCCUPATIONAL PERFORMANCE OF PEOPLE WITH RHEUMATOID ARTHRITIS, LIVING IN SOWETO.

C Dreijer du Plessis

Post-graduate student, University of the Witwatersrand, Johannesburg, South Africa

Introduction: Rheumatoid Arthritis (RA) is a chronic disabling joint disease. Empowering patients with RA to self manage the disease can lead to changes in behaviour, pain or physical health and psychosocial health status. Limited evidence exists for the efficacy of comprehensive Occupational Therapy (OT) intervention for patients with RA in improving functional ability.

Objective: The primary objective of the study was to evaluate the impact of comprehensive OT intervention on patients with RA in producing a sustained improvement in patients' functional ability.

Methods: A prospective randomized control study over 4 months in which patients with moderately disabling RA, following a week of in-patient rehabilitation care, received either home visits and focus group care (group 1) or standard care (group 2). Primary outcome measures included the modified Health Assessment Questionnaire Disability Index (HAQ-DI), Disease activity score (DAS28) and SF-36 scores.

Results: There were 29 and 22 patients in each group, respectively. The HAQ-DI improved significantly in both groups following the 1 week in-patient care ($p < 0.05$) and there was a clinically significant difference between the groups at the 4 months follow-up visit. The SF-36 scores did not change significantly for group 1 while group 2 showed significant improvements in 5 of the 8 domains at four months. However, group 2, had significantly worse SF-36 scores at baseline compared to group 1. There was a significant improvement in disease activity with the experimental group having 25% fewer tender joints. During the focus groups,

the two main themes of "behavior and self management" and "problems that interfere with occupational performance" emerged.

Conclusion: A comprehensive in-patient occupational therapy programme does lead to sustained significant improvement in functional ability and Health related quality of life (HR-QOL). Focus groups and home based intervention appears to have a clinically significant impact on disease activity.

Key words: Rheumatoid Arthritis, Comprehensive Occupational Therapy intervention, Home based intervention, Occupational Performance.