

Assessment of the Knowledge on Management of Rheumatoid Arthritis among Care Providers in Selected Villages at A.Rangampet, Tirupati, Andhra Pradesh, India

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Abstract: Normally, the defense mechanism of the body in which an immune response is mounted only against foreign (non-self) antigens, but occasionally the body fails to recognize its own tissues and attacks itself. The abnormal condition in which the body reacts against constituents of its own tissues is called as autoimmunity. Rheumatoid arthritis is a chronic, systemic inflammatory disorder. It also affects many tissues organs, but principally attacks synovial joints. Objectives: To assess the knowledge score regarding management of Rheumatoid Arthritis among care providers and to find out association between the Knowledge score regarding management of Rheumatoid arthritis with their selected background variables. Methodology: Based on the nature of the problem and objectives of study the research approach chosen for the study is descriptive approach. In this study 60 samples were selected by non-probability convenience sampling technique. The tool used for data collection consisted of management of rheumatoid arthritis. Validity of the tool was appraised by experts and was found to be valid for the study with required modification. Reliability was done using Cronbach's alpha reliability method and found at 0.99. The tools were found reliable. The pilot study was conducted to assess the feasibility of the study design at selected villages at A rangampet. The collected data was analyzed by using descriptive and inferential statistics.

Keywords: Rheumatoid arthritis, care providers, auto immunity

1. Introduction

Rheumatoid arthritis is a chronic and systemic inflammatory disorder. It affects many tissues and organs, but principally and severely attacks synovial joints. The process starts with an inflammatory response of the synovium secondary to hyperplasia of synovial cells, excess synovial fluid and development of synovial pannus in the synovium. The pathology of the disease process often leads to destruction of articular cartilage.¹ World arthritis day has celebrated in 1996 by ARI (arthritis rheumatism international) first it is celebrated each year on October 12. the aim of world arthritis day are; to raise awareness of arthritis in all its forms among medical community, people with rheumatoid arthritis and general public.² Rheumatic diseases comprised of autoimmune and inflammatory disorder have been called "the primary crippling diseases".³ They are the most prevalent chronic condition in the US and a leading cause of disability.⁴ The term arthritis literally means "inflammation of a joint" but arthritis is actually a collection of more than 100 related, but distinct, conditions. The cause of rheumatoid arthritis is unknown, but it may results from a combination of environmental, demographic, infection and genetic factor.⁵ Socioeconomic, psychological, and life style factors (e.g. tobacco use; main environmental risk) may influence disease outcome.⁶

Worldwide prevalence is approximately 1%. Its incidence and prevalence is more in developed countries and less in developing countries except India. There is higher incidence if we go from south to north Europe. Prevalence in

developing countries is 0.1 -0.5%.¹ But in India, the prevalence of rheumatoid arthritis is 0.75%, is similar to the developed countries. The most reliable estimates of incidence, prevalence and mortality in rheumatoid arthritis are those derived from population based studies.⁸ Rheumatoid arthritis affects women 3 times more than men, and it can be first developed at any age. The risk of first developing the disease (disease incidents appears to be greatest for women between 30-50 years of age). Rheumatoid arthritis is a chronic disease progressive deterioration of joint structures leading to deformations and disability.⁹

Objectives

- 1) To assess the knowledge score regarding management of Rheumatoid Arthritis among careproviders.
- 2) To find out association between the Knowledge score regarding management of Rheumatoid arthritis with their selected background variables.

Operational Definition

- 1) **Assess-Assess** means gathering information regarding management of Rheumatoid Arthritis.
- 2) **Knowledge**-It is information and awareness of the study.
- 3) **Rheumatoid Arthritis**- An autoimmune disease which results from the body's system attacking the cartilage tissues
- 4) **Care providers**- The people who provide care for the rheumatoid arthritis client

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Delimitations

- 1) Data collection period for 4 weeks.
- 2) The study was limited to only with care providers in selected villages at A. Rangampeta.

2. Methodology

The research design used for this study is non experimental descriptive design. Background variables: Age, gender, occupational status, marital status, residential status. Research Variables - Management of Rheumatoid Arthritis In the present study. The study is conducted at selected villages of Kandhulavaripalli, Sheshapuram and Naravaripalli. The sample size of the present study is 50 care providers were selected by non probability convenience sampling technique.¹¹ Content validity obtained from nursing and medical expert, based on their valuable suggestions, recommendations and opinions regarding adequacy and appropriateness of the tool.

After obtaining suggestions from the experts, necessary modifications were made in the tool. The reliability of the

tool will assess the knowledge of care providers. It will be established by Cronbach alpha method. The pilot study was carried out on 20 samples of college students at selected villages, who meet eligibility criteria in order to assess the reliability and feasibility of the tool. Main study was carried out on 50 samples of students who meet eligible criteria in 4 weeks. The data was collected and analyzed by using descriptive and inferential statistical method according to the objectives.

3. Results and Discussion

Analysis and interpretation were done with the help of descriptive and inferential statistics to meet the objectives of the study.

Knowledge on management of rheumatoid arthritis

The frequency and percentage distribution of knowledge scores among care providers regarding management of rheumatoid arthritis are presented in the table 1.

Table 1: Frequency and percentage distribution of knowledge scores among care providers regarding management of rheumatoid arthritis

Sl. No.	Knowledge Regarding Management of Rheumatoid Arthritis among care providers	Frequency	Percentage
1	Inadequate	5	8.3
2	Moderate	48	80.0
3	Adequate	4	11.7
Total		60	100

Mean: 2.03 Standard Deviation: 0.450

The table 1 explicitly shows that that majority 48 care providers (80%) have moderate knowledge level while 4 care providers (11.7%) have an adequate knowledge. On the contrary 5 care providers (8.3%) have an inadequate knowledge level on Rheumatoid Arthritis. The table also

reveals that the mean and standard deviation of knowledge on management of rheumatoid arthritis are 2.03 and 0.450. It is concluded that majority of the care takers (91.7 %) have sufficient knowledge on management of rheumatoid arthritis.

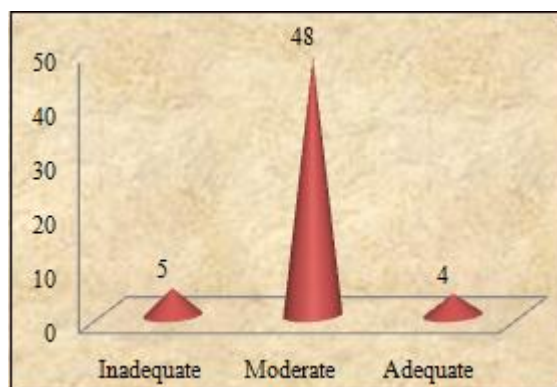


Figure 1: Knowledge scores among care providers on management of rheumatoid arthritis

Chi-square analysis

The association between knowledge score and with selected background variables among care providers regarding management of Rheumatoid arthritis has been elicited by computing Chi-square analysis and the results are presented in the Table 2.

Table 2: Association between knowledge score and with selected background variables among care providers regarding management of Rheumatoid arthritis

Demographic Variables	Description	Level of Knowledge			Df	Chi-square
		Inadequate	Moderate	Adequate		
		F	F	F		
Age	25 - 35 Years	0	0	0		
	36 - 45 Years	5	48	7		
	46 - 60 Years	0	0	0		
	> 60 Years	0	0	0		
Gender	Male	0	27	6	2	$\chi^2 = .810^*$ (p = .012)
	Female		21	1		
Religion	Hindu	5	45	3	4	$\chi^2 = 8.997^*$ (p = 0.001);
	Muslim	0	2	1		
	Christian	0	1	3		
Marital Status	Married	5	46	7	2	$\chi^2 = .517^{\oplus}$ (p = 0.772)
	Unmarried	0	2	0		
	Widow	0	0	0		
	Divorced	0	0	0		
Mother Education	Non Formal Education	2	18	0	6	$\chi^2 = 6.627^*$ (p = 0.011)
	Primary Education	2	19	2		
	Secondary Education	1	5	0		
	Higher Secondary	0	6	5		
Occupation Status	Home Maker	4	33	1	6	$\chi^2 = 17.164^*$ (p = 0.009)
	Business	1	13	3		
	Private Employee	0	2	2		
	Govt. Employee	0	0	1		
Monthly Income	< Rs.10000	4	29	1	6	$\chi^2 = 14.835^*$ (p = 0.022)
	Rs 10001 -20000	0	19	5		
	Rs 20001 - 30000	1	0	1		
	> Rs.30001	0	0	0		
Type of Family	Nuclear	1	30	4	4	$\chi^2 = .370^{\oplus}$ (p = 0.001)
	Joint Family	4	18	3		
	Extended Family	0	0	0		
Duration of Illness	< 1 Year	3	12	1	6	$\chi^2 = 7.360^{\oplus}$ (p = 0.289)
	1 - 2 Year	1	25	6		
	2 - 3 Year	1	6	0		
	> 3 Years	0	5	0		
Location	A Rangampeta	5	20	5	2	$\chi^2 = 7.619^*$ (p = 0.022)
	Kandulavaripalli	0	28	2		

The table 2 presents that the Chi-square value is significant at 5 per cent level in case of the demographic variables of gender, religion, mother education, occupation status, monthly income and location. It can be inferred that there is substantial association between level of knowledge scores on management of Rheumatoid arthritis and demographic variables of the care providers. But the Chi-square value is insignificant on the demographic variables of marital status, type of family and duration of illness. It can be concluded that the demographic variables of gender, religion, mother education, occupation status, monthly income and location influenced level of knowledge scores of care takers on

management of Rheumatoid arthritis while marital status, type of family and duration of illness did not influence level of knowledge scores of care takers on management of Rheumatoid arthritis as Chi-square value is significant at 5 per cent level.

Item Analysis

The item analysis of knowledge among care providers on management of rheumatoid arthritis has been conducted and the results are presented in the Table 3

The table 3 portrays that 87 per cent of the care providers know the meaning of joints, 77 per cent of the care providers know the best time to do exercises for arthritis clients, 70 per cent of the care providers know the best treatment for joints which is swollen, painful and stiffness

would be and felt that the exercise will help, 68 per cent of the care providers know that the rheumatoid arthritis is more severe and 67 per cent of the care providers suggested that the footwear preferred by the rheumatoid arthritis clients.

Table 3: Item analysis of knowledge among care providers regarding management of rheumatoid arthritis

SL NO.	Item Analysis	N	%
1	What is meant by joints	52	87
2	The rheumatoid arthritis is the inflammation	37	62
3	Organ is not affected by rheumatoid arthritis	13	22
4	The causes for rheumatoid arthritis	14	23
5	Rheumatoid arthritis is more severe	41	68
6	The main clinical feature of rheumatoid arthritis	13	22
7	Sign of rheumatoid arthritis	28	47
8	The client can reduce his/her weight by taking less amount	12	20
9	The method to be followed to protect the knee joint	28	47
10	The footwear preferred by the rheumatoid arthritis clients	40	67
11	When the pain relieving medications should be taken	27	45
12	The side effect of anti-inflammatory drug is	25	42
13	The best treatment for joints which is swollen, painful and stiffness would be	42	70
14	The duration of hot application can be given the painful joints	36	60
15	The action of cold therapy for rheumatoid arthritis	30	50
16	The heat or cold therapy is contraindicated in	26	43
17	The diet recommended for rheumatoid arthritis client	31	52
18	The omega 3 fatty acids are present	41	68
19	Splint can be used	18	30
20	Resting splints can be used during	38	63
21	Exercise will help	42	70
22	The suitable exercise for rheumatoid arthritis client	29	48
23	The pillow is not used by the client under the knees	22	37
24	The best time to do exercises for arthritis clients	46	77
25	Arthrocentesis is performed for	30	50
26	The radiology test used to identify the rheumatoid arthritis	35	58
27	Surgery is recommended for rheumatoid arthritis	28	47
28	The common complication which occurs in rheumatoid arthritis	30	50
29	The systemic complication of rheumatoid arthritis	38	63
30	Psychosocial problem would be priority a client with rheumatoid arthritis	25	42

4. Conclusion

The rheumatoid arthritis is a chronic as well as systemic inflammatory disorder that affects many tissues organs but principally attacks synovial joints. The knowledge score regarding management of Rheumatoid Arthritis among care providers and the association between the Knowledge score regarding management of Rheumatoid arthritis with their selected background variables has been elicited. Majority of the care takers (91.7 %) have sufficient knowledge on management of rheumatoid arthritis. There is substantial association between level of knowledge scores on management of Rheumatoid arthritis and demographic variables of the care providers. Marital status, type of family and duration of illness did not influence level of knowledge scores of care takers on management of Rheumatoid arthritis. Finally 67 per cent of the care providers suggested that the footwear must be preferred by the rheumatoid arthritis clients.

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