

Knowledge of Rheumatoid Arthritis and Preventive Practices Among Residents at Jinja District Jinja Uganda

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ABSTRACT

Rheumatoid arthritis (RA) is a systemic autoimmune and acquire a long-term disease. It causes symptoms such as pain, early morning stiffness, joint swelling, fatigue decreased ability to work, and premature mortality, and also difficult to manage at home and work. The study was cross-sectional and data was collected using a simple structured questionnaire from the Jinja district. The data was analyzed using an excel spreadsheet and calculator. Results were presented in tables and pie charts. Results indicate that 65% of the respondents do know what Rheumatoid Arthritis is. The majority of 20% of respondents know Rheumatoid Arthritis through radio. The majority of 39% of respondents indicated that aging causes Rheumatoid Arthritis. The majority of 60% of respondents indicated that Rheumatoid Arthritis Can Make Work Difficult. The majority of 70% of respondents indicated that they were not diagnosed with Rheumatoid Arthritis. The majority of 44% of respondents indicated that physical exercise is the major means to manage Rheumatoid Arthritis. Results indicate that 60% of the respondents do go to the hospital for a checkup when they feel pain. The majority of 70% of respondents always take care of their teeth. The majority of 60% of respondents don't maintain a healthy weight. The majority of 22% of respondents don't maintain which food is can be used to prevent Rheumatoid Arthritis. The majority of 35% of respondents often exercise when they get time. There should be proper knowledge levels. Before providing education for RA patients, healthcare professionals must take time to ascertain the knowledge level of each patient, so that the education can be tailored to their individual information needs.

Keywords: Rheumatoid Arthritis, autoimmune disease, premature mortality and morning stiffness.

INTRODUCTION

Rheumatoid arthritis (RA) is a systemic autoimmune and acquire long-term disease [1, 2, 3]. It causes symptoms such as pain, early morning stiffness, joint swelling, fatigue decreased ability to work, and premature mortality, and also difficult to manage at home and work [1, 4, 5, 6]. It is more prevalent among women than men (sex ratio 3: 1) [7]. The prevalence and incidence of RA rise as the age increases, until about the age of 70 and also people who have an accident that affected the joints [8]. Rheumatic diseases are extremely common conditions and may affect one in ten of the population, thereby representing a high demand for healthcare [9, 10, 11, 12]. It has been reported that globally, the annual incidence of RA is approximately 3

cases per 10,000 population, and the prevalence rate is approximately 1%, increasing with age and peaking between the ages of 35 and 50 years and Out of every 100,000 people, 41 have RA every year [13]. According to Glob (2012), his report shows that about 0.42% (4.3 million) in have RA every year in Africa [14]. In Uganda, the crude incidence of RA in Uganda's urban city has been estimated to be about 12.3% with a female-to-male ratio of 2.4:1 and a mean age of 46.9 years [15]. The report has shown that women are about two to three times more likely to get RA than men and hormones in both genders may play a role in either preventing or triggering it (Bester et al., 2016). RA increases the risk of heart disease or stroke because it can attack the

<http://www.inosr.net/inosr-experimental-sciences/> pericardium (lining of the heart), and cause inflammation throughout the body [16, 17]. The risk of a heart attack is 60 percent higher one year after being diagnosed with RA than it is without the disease [18]. Most of the time patients also want to know how to manage RA and the expected changes that occur daily and how to deal with the pain of RA and without proper education, it might affect the outcome [19]. The purpose of RA education is to provide people with knowledge on how to monitor and manage the symptoms caused by RA, and so that they can make decisions concerning their daily lives on how to avoid RA [20]. There is evidence that awareness about RA improves patients' understanding of the progress of the disease and treatments especially their knowledge of the disease-specific facts helps in preventing individual conditions to worsen [20]. However, in a study by [21] on patients with RA who refuse to accept the

educational program did not benefit from patient's education and thereby, experienced only short-term benefits while patients who participated in the full program benefited more, in that their pain self-efficacy improved [16]. The report has shown that people who know RA early benefit more than patients who have suffered for a longer period before they realize RA [19]. Reports have shown that increasing people's awareness about RA and its treatments has been as a result of individual counseling and group education which comprises of people from different multidisciplinary teams consisting of physicians, nurses, physical and occupational therapists, pharmacists, social workers, psychologists and dietitians altogether contributed in creating awareness about RA through various means [22].

METHODOLOGY

Study Design

This was a cross-sectional study [23] using primary data from a case-control study of people of Jinja District Area, Jinja Uganda.

Study Area

This study was carried out in Jinja district Area, this place is situated in Jinja Uganda

Study population

The estimated population Jinja District Area was about thousands to million. All adults from ages 18 will be involved in the Research study.

Inclusive criteria

This research included;

- i. Everybody within the local government above 18 years was included.
- ii. Both adult males and females were participating in the study.

Exclusive criteria

This research excluded;

Those below 18 years was exempted from the study.

Sample Size Determination

The sample size of 120 participants was determined with cases (n) to controls (2n) ratio by [24], using the standard normal value of 1.96 and power of 80%.

Where,

A sample size formula developed by [25] for cross-sectional studies will be used.

$$N = Z^2 P(1-P)/E^2$$

Sampling Procedures

Systematic random sampling was used, the households where the number was given to a household in groups of 5 households using statistical tables.

The selected households will be visited and all adults in the respective age groups both male and female were given questionnaires from the study sites, after acquiring appropriate consent. Those who did not understand English had the questionnaire interpreted in the local language by an interpreter.

Data Collection Methods

Before engaging the community for data collection, the district Head was first visited and briefed to seek permission for community entry. If the district Head gives his approval for the data collection and later introduced the research team to the community and head who worked cooperatively, especially during the selection of households

Statistical Analysis and Data Management

The information on the questionnaire was entered into an excel sheet. The obtained data was cleaned and transferred to Statistical Package for Social Sciences (SPSS IBM) version 25. Descriptive characteristics of participants will be presented as frequencies and percentages. For bivariate analyses, cross-tabulations

<http://www.inosr.net/inosr-experimental-sciences/> were applied to study the association between the predictor variables and the dependent variable. Statistical significance was obtained using a 95% Confidence Interval (CI) at $p < 0.05$ and OR was determined to.

Ethical Consideration

Permission to conduct the study was obtained from the office of the local government of Health Services of Jinja District Area, Jinja Uganda.

Results indicate that 50% of the respondents were between ages 29-38 years, 40% were 18-28 years, and 18.7% were 18-28 years respectively. The majority of participants were Busoga 78.4%, Luganda 2.4% and others 9.1%; Religion was Muslim 42.3%, Catholic 36.5%, Seventh day Adventist 16.6% and others 4.6%; 76.3% were married, divorced 12.9% and 10.9%

The data collectors had to first explain to the respondents the purpose of the study, assure them of the confidentiality and then verbal informed consent will be obtained before data was collected and the respondents will be told of their autonomy to draw out of the study at any time, they got uncomfortable to continue with the study [26].

RESULTS

were single mothers. On education, 36.9% attended primary, 27.8% secondary, 22.8% had no formal education and 12.4% tertiary level; occupation of participants indicated about 53.1% were peasant farmers, 32.0%, business, 12.4% housewives and 2.5% others.

Table 1: Show the demographic characteristic of the respondents

Variable	Frequency (n = 120)	Percentage (%)
Age		
18-28 years	40	40
29 - 38 years	50	50
39 - 48	30	30
Sex		
Male	72	60
Female	48	40
Religion		
Christian	30	20.3
Muslin	60	65
Others	20	16.7
Marital status		
Partner	56	46.7
Single	40	33.3
No-partner	24	20
Education level		
No education	40	33.3
Primary	34	28.3
Secondary	20	16.7
Post-secondary	26	21.7
Occupation		
Peasant farmer	10	8.3
Civil servant	30	25
Traders	20	16.7
Others	20	16.7
unemployed	10	8.3

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Knowledge of Rheumatoid Arthritis

Results indicate that 65% of the respondents do know what Rheumatoid Arthritis is. The majority of 20% of respondents know Rheumatoid Arthritis through radio. The majority of 39% of respondents indicated that aging causes Rheumatoid Arthritis. The majority of 60%

of respondents indicated that Rheumatoid Arthritis Can Make Work Difficult. The majority of 70% of respondents indicated that they were not diagnosed with Rheumatoid Arthritis. The majority of 44% of respondents indicated that physical exercise is the major means to manage Rheumatoid Arthritis.

Table 2: Show the Knowledge of Rheumatoid of the respondents

Variable	Frequency (N = 120)	Percentage (%)
Do you know what is Rheumatoid Arthritis	Yes	65
	No	55
If yes, how did you know about it?	Health Personal	19
	Television	10
	Radio	21
	Others	10
	Work Shop	5
What are the factors that cause of RA that you know	Aging	39
	Occupation	15
	Inappropriate Footwear	10
	Trauma	6
	Overweight	10
	Smoking And Drinking	40
What are the consequences of RA that you know?	Increase The Risk for Infection	20
	Can Lead to A Shorter Lifespan	30
	Increase Your Risk for Heart Disease	10
	Can Make Work Difficult	60
Were you ever diagnosed with RA before	Yes	50
	No	70
How do you manage or treat RA	Make Used of Drugs	40
	Physical Exercise	44
	Joint Protection and Energy Conservation	30
	Others	6
Total		100

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Preventive Practices of Rheumatoid Arthritis

Results indicate that 60% of the respondents do go to the hospital for a checkup when they feel pain. The majority of 70% of respondents always take care of their teeth. The majority of 60% of respondents don't

maintain a healthy weight. The majority of 22% of respondents don't maintain which food is can be used to prevent Rheumatoid Arthritis. The majority of 35% of respondents often exercise when they get time.

Table 3: Show the Knowledge of Rheumatoid of the respondents

Variable	Frequency (n = 120)	Percentage (%)
How often do you go to the hospital for check-up	Always	10
	never	40
	once a year	10
	when I feel pain	60
How often do you take care of your teeth	Always	70
	never	5
	once a year	15
	when I feel pain	30
Do you maintain a healthy weight?	yes	40
	no	60
	don't know	20
Which foods that can help Prevent RA know	grain	10
	yam	15
	beans	16
	fish	15
	meat	14
	others	22
How often do you exercise	nothing	28
	everyday	20
	once a week	10
	one a month	10
	when ever I gettime	35
	never exercise	25
	don't know	20
Total		100

DISCUSSION

The purpose of RA education is to provide as much information as patients require. The present study gives an insight into how correctly these RA patients understood their disease and its treatments at the time the data were collected.

Results indicate that the majority of the respondents were males around ages 29-38 years the majority are married and attended primary with the majority being farmers. [27] indicated that the majority of the respondents are males who are married and are farmers.

Our results indicate that the majority of the respondent doesn't have Rheumatoid Arthritis, which may be because most of the people who stop at the primary level of education might be a low level of awareness about RA. Similar results have been found in previous studies [28]. While those who know about RA discover when listening to the radio as outlined by [29] who state that the easy way to pass information in a rural

One conclusion of this study is that the knowledge levels of RA patients can vary from poor to good, even when healthcare professionals teach them one-to-one during routine consulting hours and also the ear about it through different means. RA patients' gender, age and disease duration correlated with their knowledge levels. Before providing education for RA patients, healthcare professionals must take time to

area is through radio. Our study indicated that RA is common in old people and people who have it find it hard to work. A similar result has been found in [30]. The majority of respondents indicated that physical exercise is the major means to manage Rheumatoid Arthritis. Similar results have been found in the previous study [31].

The majority of our respondents acknowledge that, the preventive practice of the participant is only when they go to the hospital for a checkup, when they feel pain and carry out regular exercise, which is similar to the previous study by [7]. The majority of respondents don't maintain a healthy weight but take care of their teeth and don't smoke. Which is similar to the previous studies by [29, 32]. The report shows that the majority of respondents don't know which food is best used to prevent or manage RA which is similar to the previous studies [32, 33].

CONCLUSION

ascertain the knowledge level of each patient (this concerns particularly men and older RA patients), so that the education can be tailored to their individual information needs. Healthcare professionals should ensure that they teach the people who are prone to RA especially older ones the common preventive practice however, more research is needed to evaluate RA knowledge levels.

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