Assessment of Knowledge and Attitude of Multiple Sclerosis among Women in Majmaah City, Saudi Arabia

Fawaz Alotaibi¹, Rayan Alsaab², Elsadi Mohamed³

¹²Majmaah University, Intern.
³Assistant professor of community medicine.

*Corresponding author: Fawaz Alotaibi, Majmaah, Majmaah University, Intern; Email: fa10fa@outlook.com

Citation: Fawaz Alotaibi, Rayan Alsaab and Elsadi Mohamed (2017) Assessment of Knowledge and Attitude of Multiple Sclerosis among Women in Majmaah City, Saudi Arabia: Nessa Journal of Neurology and Neurodisorders

Copyright: © 2017 Fawaz Alotaibi, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Abstract:

Background: Multiple Sclerosis (MS) is a chronic, inflammatory and immune-mediated demyelinating disease that affects the central nervous system. It is characterized by infiltration of immune cells, abnormal formation of myelin sheath, and the formation of multifocal plaques in the brain and spinal cord. Those diagnosed with MS are usually found to be in their most productive years of life. The disease usually starts between 20 and 40 years of age, and affects women more than men. According to the Atlas of MS database, worldwide about 2.5 million people are found to be diagnosed with multiple sclerosis¹.

Purpose: The Study is designed to evaluate the knowledge & attitude of multiple sclerosis among women in Majmaah City.

Methods: The Study design was cross-sectional to study the knowledge and attitude of women in Majmaah, Saudi Arabia about multiple sclerosis and was conducted in Majmaah city at public places. Study populations are women aged 18 years with and more and who reside in Majmaah city was included in the study. Sample size is 339 women participated. Sample Technique is Consecutive sampling & the data was collected by a pre tested questionnaire.

Results: The findings showed that (48.67%) of the respondents have very weak knowledge about multiple sclerosis, while (38.49%) of respondents’ knowledge is weak and (12.39%) of the respondents have an average knowledge of multiple sclerosis; while (0.29%) have a good knowledge about multiple sclerosis. The respondents who have a positive attitude about Multiple sclerosis are more than the respondents who have a negative attitude about Multiple sclerosis.

Conclusion: This Study revealed that the majority of the study participants had limited knowledge and severe weakness in the awareness level toward the multiple sclerosis disease which requires increasing the awareness level.

Keywords: Multiple sclerosis, Knowledge, Attitude.
Introduction

Multiple Sclerosis (MS) is a chronic, inflammatory and immune-mediated demyelinating disease that originates from the central nervous system. It is characterized by infiltration of immune cells, abnormal formation of myelin sheath, and the formation of multifocal plaques in the brain and spinal cord. Those diagnosed with MS are usually found to be in their most productive years of life. Multiple sclerosis (MS) is the most common autoimmune disease affecting the central nervous system. There is a wide range of clinical features related to Multiple Sclerosis. Clinically isolated syndrome (CIS) is the first neurological symptom that results from a demyelinated process in the CNS. Eighty five percent of people who develop MS are likely to present with (CIS), of those who present with CIS, only 63% overall will develop MS over a period of 20 years. Clinical trials using beta-interferon in patients with a CIS have demonstrated that early treatment may delay developing MS in about 50%. However, there are no clinical features that are unique to MS but some are highly suggestive of the disease such as visual loss, bladder insufficiency, vertigo, and numbness...etc. The most common presenting symptoms are sensory disturbances, followed by weakness and visual disturbances. The etiology of MS is not well understood, but it is probable of multifactorial etiologies, such as combining both genetic and environmental factors. The literature on the risk factors for MS has grown substantially in recent years, with best evidence to date proving that a combination of a genetic predisposition, exposure to Epstein-Barr virus, cigarette smoking, and reduced sunlight exposure/vitamin D levels is involved. The clinical process of MS starts in those who are genetically susceptible. The importance of genetic factors in susceptibility to MS was proved by genetic epidemiological studies. Family studies assessing risks to relatives of MS was also questioned and researched, First-degree relatives are generally at 10–25 times greater risk of developing MS than the general population. The clinical course of MS is highly heterogeneous. Approximately 85% of patients present with a relapsing-remitting course (RRMS), which is characterized by episodes of acute worsening of function followed by partial or complete recovery. RRMS onset typically occurs in early adulthood once one is diagnosed, for around two decades, approximately half will go on to develop secondary progressive MS (SPMS). SPMS is defined as a slow-clinical deterioration, without any signs of relapses. Primary progressive MS (PPMS) affects only 10–15% of the MS population and is associated with a rapid disease progression. The median age of onset is 40 years for progressive-onset (PPMS) and 30 years for relapsing-onset MS (RRMS/SPMS), a difference of ten years. A slightly higher female preponderance is consistently seen in relapsing-relapsing onset (RRMS) but not in progressive-onset MS. If patients die within the first year of the disease, it is referred to as acute multiple sclerosis.

The treatment of MS has grown tremendously over the past years. There is no definite treatment found to cure MS yet. However, the current drugs available are for disease modifying and symptoms relieving only. Many studies have successfully demonstrated high evidence rate in sustaining patients in the remitting phase with decreasing the rates of the relapses and suppressing MS symptoms such as numbness and bowel dysfunction. Current studies aim to assess the potential for neuroprotective effects of new drugs and seek strategies to achieve true disease-free status.
Materials and methods:

Study Design

The design was cross-sectional to study the knowledge and attitude of women in Majmaah, Saudi Arabia about multiple sclerosis.

Study Area

The study was conducted in Majmaah city which Founded in 1417 CE by an immigrant from the Shammar tribe. Majmaah was historically considered the capital of the region of Sudair.

It is a governorate in Riyadh Region, Saudi Arabia. Majmaah has an area of 30,000 square kilometers. The population of the city is around 45,000, while the population of the governorate as a whole is approximately 133285. Majmaah Governorate borders, is the Eastern Province and Qassim to the north, Thadig and Shaqra to the south and Rumah to the east. Zulfi and Al-Ghat borders Majmaah on the west.

Study Setting:

The study was conducted at public places in Majmaah City, Saudi Arabia which will include Banda, Alothiem markets, Friday souk, Almaqorsa garden, king Fahad garden, and EVE female mall.

Study population:

Women aged 18 years and more and who reside in Majmaah city will be included in the study. Saudi and non-Saudi women will be enrolled in the study.

Sampling

Sample Size: Sample size was calculated by the formula:

\[ n = \frac{Z^2P(1-P)}{e^2} \]

- \( n \) = sample size
- \( Z \) = normal standard deviate
- \( P \) = prevalence
- \( e \) = degree of accuracy

\[ n = \frac{(1.96)^2 (0.5)(1 - 0.5)}{(0.05)^2} \]
Sample = 339

**Sampling Technique:**

Consecutive sampling was approach all subjects who fulfill the inclusion criteria until the required sample size is successfully obtained.

**Data collection:**

The data was collected by a pre tested questionnaire. The questionnaire included socio demographic data and data regarding women multiple sclerosis knowledge and attitude of women towards the disease. Divided in to four section, Demographic, general information and practice, knowledge, attitude.

**Data Management and Analysis:**

The data was entered and analyzed using SPSS 20.0. Mean + S.D was given for quantitative variables. Frequencies and percentages have been given for qualitative variables. Pearson chi-square and / or Fisher exact test was applied to observe associations between qualitative variables. A p-value of <0.05 was considered as statistically significant.

**Ethical Considerations:**

Participation consent from the subjects has been taken. They will also be briefed about the advantages of the study to the community due to their participation. All information was kept purely confidential and only used for the analysis. Ethical clearance has be taken from the ethical committee of the university.

**Results:**

The researchers clearly shows poor knowledge about Multiple sclerosis for the respondents that represented in not knowing the causes, symptoms, related information and not using the available means to learn about it. The respondents who don’t use available means to learn about Multiple sclerosis are more than those who use available means. The respondents who don’t use the means of “Friends / Family“ to learn about Multiple sclerosis are more than the respondents who use means of “Friends / Family“ .The respondents who don’t use the means of “School / university “to learn about Multiple sclerosis are more than the respondents who use means of “School / university“. The respondents who don’t use the means of “Media ( TV , Newspapers , Magazines , .. etc.) “ to learn about Multiple sclerosis are more than the respondents who use the means of “Media ( TV , Newspapers , Magazines , .. etc.) “.
The respondents who don’t use the means of “Social Media (Twitter, Instagram, … etc.)” to learn about Multiple sclerosis are more than the respondents who use the means of “Social Media (Twitter, Instagram, … etc.).” The respondents who don’t use the means of “Workers in the health sector” to learn about Multiple sclerosis are more than the respondents who use the means of “Workers in the health sector”. The respondents who don’t use the means of “Awareness campaigns” to learn about Multiple sclerosis are more than the respondents who use means of “Awareness campaigns”. The respondents who don’t use the mean of “Entertainment places (sports clubs, gym, etc.)” to learn about Multiple sclerosis are more than the respondents who use the means of “Entertainment places (sports clubs, gym, etc.)”.

Table (1) Women knowledge evaluation for multiple sclerosis

<table>
<thead>
<tr>
<th>Number (%)</th>
<th>Knowledge Evaluation</th>
<th>Total grades</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample (N=339)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(48.67)165</td>
<td>Very weak</td>
<td>≥7</td>
</tr>
<tr>
<td>(38.49)132</td>
<td>weak</td>
<td>8-11</td>
</tr>
<tr>
<td>(12.39)41</td>
<td>Average</td>
<td>12-16</td>
</tr>
<tr>
<td>(0.29)1</td>
<td>Good</td>
<td>17-20</td>
</tr>
<tr>
<td>(0.00)0</td>
<td>Very Good</td>
<td>20&gt;</td>
</tr>
</tbody>
</table>

Figure 1. Presents type of citizenship for respondents

- Saudi
- non-Saudi

25%

75%
Discussion

Knowledge and attitude of women in Saudi Arabia about Multiple Sclerosis was unsatisfactory and a similar study done previously in Riyadh showed the same results-6, and another study done in Kuwait revealed that the majority of the study participants had limited knowledge, 8-identical study done in turkey appeared incompatible results to our study and it showed their level of awareness was favorable-7-. There was a shortage in using the available means and their source of knowledge was mainly from entertainment places and those women need educational aids and our results supported by a similar study done previously on Iranian ms patient and their result indicated the needing of developing of educational interventions for those patients regarding to their low levels of knowledge-10-. Also it wasn’t well understood to the general population comparable result noticed on sample of a multiple sclerosis Turkish patient -7-. Surprisingly our respondents attitude were positive which run against the result of previous research done in Kuwait showed that negative attitude of their respondent's-8-.

Conclusion

The results revealed that the majority of the study participants had limited knowledge and severe weakness in the awareness level toward the multiple sclerosis disease which requires increasing the awareness level, based on these facts we aim for a better MS awareness for those women and educating the community about MS should be the major future strategies in aim of early detection and limitation of the disease progression. There was a shortage in using the available mean and the respondents have a positive attitude toward multiple sclerosis.

Acknowledgement

I greatly acknowledge all the working team, Majmaah University, Malls, and all public places of bringing this project in to a great success.
References


6. Assessment of multiple sclerosis awareness and knowledge among the Saudi population in Riyadh City - N.A. Bwardi S. Kojan H.S.A. Hudaif S. Kojan H.S.A. Hudaif

7. Knowledge and attitude towards multiple sclerosis in Turkey - S Canbaz Kabay1,2, H Ozişık Karaman2, S Ayas1, E Mestan1, M Çetiner1 Knowledge, attitude and practice of patients attending primary care centers toward vitamin D in Kuwait

8. Bassam A. Al Bathia, Khaled E. Al Zayed, Mohammad Al Qenaib, Gamal Makboul, Medhat K. El-Shazlyd, e


10. Knowledge and attitude assessment of Iranian multiple sclerosis patients receiving interferonbeta - Roya Abolfazli, 1 Azam Elyasi, 2 Mohammad Reza Javadi, 2 Kheirollah Gholami, 2 Hassan Torkamandi, 3 Mohammad Amir-Shahkarami, 4 Masoud Etemadifar, 5 and Zahra Nasr6 Metacognitive knowledge and online awareness in persons with multiple sclerosis.


Heesen C1, Schäffler N, Kasper J, Mühlhauser I, Köpke S


17. Patient education program to enhance decision autonomy in multiple sclerosis relapse management: a randomized-controlled trial. S Köpke