ASSESSMENT OF KNOWLEDGE AND ATTITUDE OF WOMEN IN MAJMAAH CITY, SAUDI ARABIA ABOUT MULTIPLE SCLEROSIS

Fawaz Alotaibi*, Rayan Alsaab, Suliman Alkhamis, Salwa AlAlwi, Anfal Aljumayan, Elsadiq Mohamed

*[1]Majmaah University, Medical Intern Principal Author.

[2,3]Majmaah University, Medical Intern.

[4]Taibah University, Medical Intern.

[5]King Faisal University, Medical Intern.

[6]Assistant Professor of Community Medicine.

*Corresponding Author
Fawaz Alotaibi
Majmaah University,
Medical Intern Principal
Author.

ABSTRACT

Background: 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. 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 sclerosis[1]. **Purpose:** the Study is designed to evaluate the knowledge & attitude of multiple sclerosis among women in Majmaah City. **Methods:** The Study design will be cross-sectional to study the knowledge and attitude of women in Majmaah, Saudi Arabia about multiple sclerosis & will be conducted in Majmaah city at public places. Study population are women aged 18 years and more and whoreside in Majmaah city will be included in the study. Sampling Technique is Consecutive sampling & The data will be 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**: 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.

MATERIALS AND METHODS

Study Design

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

Study Area

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

Study population

Women aged 18 years and more and whoreside 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 will be calculated by the formula

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

n= sample size

Z= normal standard deviate

P= prevalence

e= degree of accuracy

$$n = \frac{(1.96)^2 \, (0.5)(1 - 0.5)}{(0.05)^2}$$

$$n = \frac{(3.85)(0.5)(0.5)}{0.0025}$$

Sample $= 339$

Sampling Technique

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

Data collection

The data will be collected by a pre tested questionnaire. The questionnaire will include socio demographic data and data regarding women multiple sclerosis knowledge and attitude of women towards the disease.

Data Management and Analysis

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

Ethical Considerations

Participation consent from the subjects will be taken. They will also be briefed about the advantages of the study to the community due to their participation. All information will be kept purely confidential and will only be used for the analysis.

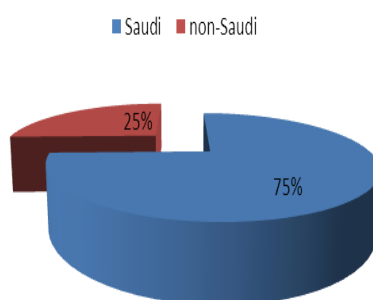Ethical clearance has been taken from the ethical committee of the university.

RESULTS

The researchers clearly see that the weakness of 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

Number (%)		
Sample (N=339)	**Knowledge Evaluation**	**Total grades**
(48.67)165	Very weak	**≥7**
(38.49)132	weak	**8-11**
(12.39)41	Average	**12-16**
(0.29)1	Good	**17-20**
(0.00)0	Very Good	**20>**

Figure 1. Presents type of citizenship for respondents

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.

REFERNCES

1. Stephen Sawcer, R. F., Mara Ban (2014). "Multiple Sclerosis Genetics." Lancet Neurology, 13: 700 - 709.

2. Ana Beatriz Calmon Nogueira da Gama Pereira, M. C. S. L., Fernanda Ferreira, Chaves da Costa Pereira, Regina Maria Papais Alvarenga (2015). "Prevelance of Multiple Sclerosis in Brazil: A Systemic Review" Multiple Sclerosis and Related Disorders. 10-31.

3. Sreeram V Ramagopalan, R. D., Ute C Meier, Gavin Giovannoni (2010). "Multiple Sclerosis: risk factors, prodomes and potiential causal pathways." Lancent Neurology. 9: 727-739.

4. Douglas S. Goodin, A. T. R., Robert A. Bermel, Gary R. Cutter, Robert J. Fox, Gareth R. and F. D. L. John, Claudia F. Lucchinetti, Aaron E. Miller, Daniel Pelletier, Michael K. Racke, Bruce D. Trapp, Timothy Vartanian, Emmanuelle Waubant (2015). "Relapses in multiple sclerosis: Relationship to disability." Multiple Sclerosis and Related Disorders. 21-72.

5. Don H Mahad, B. D. T., Hans Lassmann (2015). "Pathology Mechanisms in Progressive Multiple Sclerosis" Lancent Neurology, 14: 183-193.

6. Joep Kilestein, R. A. R., Chris H Polman (2011). "Oral Treatment for Multiple Sclerosis." Lancent Neurology, 10: 1026–1034.

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

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

9. Bassam A. Al Bathia, Khaled E. Al Zayeda, Mohammad Al Qenaib, Gamal Makboulc, d, Medhat K. El-Shazlyd, e.

10. Characteristics of patients seeking health information online via social health networks versus general Internet sites: a comparative study. - Magnezi R1, Grosberg D, Novikov I, Ziv A, Shani M, Freedman LS.

11. Knowledge and attitude assessment of Iranian multiple sclerosis patients receiving interferon beta - 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 Nasr 6.

12. Metacognitive knowledge and online awareness in persons with multiple sclerosis.

13. Goverover Y1, Genova H2, Griswold H3, Chiaravalloti N2, DeLuca J2 uspected multiple sclerosis - what to do? Evaluation of a patient information leaflet.

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

15. Level of attitude toward complementary and alternative medicine among Iranian patients with multiple sclerosis - Mohammad Hossein Harirchian, 1 Mohammad Ali Sahraian,2 Amir Hosseinkhani, 3 and Nasibeh Amirzargarcorresponding author.

16. Long-term treatment risks in multiple sclerosis: risk knowledge and risk perception in a large cohort of mitoxantrone-treated patients. - Hofmann A1, Stellmann JP, Kasper J, Ufer F, Elias WG, Pauly I, Repenthin J, Rosenkranz T, Weber T, Köpke S, Heesen C; MS Network Hamburg.

17. An information aid for newly diagnosed multiple sclerosis patients improves disease knowledge and satisfaction with care.

18. Solari A1, Martinelli V, Trojano M, Lugaresi A, Granella F, Giordano A, Messmer Uccelli M, D'Alessandro R, Pucci E, Confalonieri P, Borreani C; SIMS-Trial group.

19. Evidence-based patient information about treatment of multiple sclerosis--a phase one study on comprehension and emotional responses.Kasper J1, Köpke S, Mühlhauser I, Heesen C.

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