

BAU Journal - Health and Wellbeing

Volume 1 Issue 3 *Urban Health & Wellbeing*
Building Collaborative Intelligence for Better
Lives in Cities
ISSN: 2617-1635

Article 59

October 2018

AUTISM AWARENESS AMONG THE LEBANESE POPULATION

NOURHAN EL ZEIN Beirut Arab University, Faculty of Medicine
Beirut Arab University, Faculty of Medicine, nourhanelzein10@gmail.com

ALAA HAJJAR
Beirut Arab University, Faculty of Medicine, Alaahajjar@hotmail.com

NADIA JRADI Senior Lecturer of Pediatrics, Department of Clinical Sciences, Faculty of Medicine
Beirut Arab University, Lebanon, nadia_jradi@hotmail.com

Follow this and additional works at: <https://digitalcommons.bau.edu.lb/hwbjournal>



Part of the [Architecture Commons](#), [Business Commons](#), [Life Sciences Commons](#), and the [Medicine and Health Sciences Commons](#)

Recommended Citation

EL ZEIN, NOURHAN Beirut Arab University, Faculty of Medicine; HAJJAR, ALAA; and JRADI, NADIA Senior Lecturer of Pediatrics, Department of Clinical Sciences, Faculty of Medicine (2018) "AUTISM AWARENESS AMONG THE LEBANESE POPULATION," *BAU Journal - Health and Wellbeing*: Vol. 1 : Iss. 3 , Article 59.
Available at: <https://digitalcommons.bau.edu.lb/hwbjournal/vol1/iss3/59>

This Article is brought to you for free and open access by Digital Commons @ BAU. It has been accepted for inclusion in BAU Journal - Health and Wellbeing by an authorized editor of Digital Commons @ BAU. For more information, please contact ibtihal@bau.edu.lb.

AUTISM AWARENESS AMONG THE LEBANESE POPULATION

Abstract

Autism spectrum disorder (ASD) is a developmental disorder characterized by persistent problems in social communication and interaction; it is currently diagnosed in 1 out of every 67 children. Symptoms of ASD are most commonly recognized in the second year of life, but may be present earlier. Although there is no medical cure for autism, some intervention plans can improve attention, learning and related behaviors; outcome is significantly improved if early intervention is provided. Therefore, promoting autism awareness can assure an early diagnosis and subsequently an early intervention to provide each person with ASD the opportunity to achieve the highest possible quality of life. This study aims to assess the knowledge of the Lebanese population about the definition, prevalence, manifestations, and treatment of Autism. A total of 640 individuals distributed over the six Lebanese districts were selected to fill a questionnaire. 8% of participants recognized the true prevalence of autism being around 1% in the general population., 66% were familiar with the definition of autism. A significant number of participants held false beliefs regarding the characteristics of an autistic person as having severe intellectual defect (39%), suffering from a lack of feelings (35%) and having exceptional talents (39%). Only 47% of participants renounced a link between autism and vaccines. 51% believed that autism can be cured. Many factors were noted to affect the knowledge level notably the place of residence and the education level. This study clearly elaborates the lack of autism awareness among the Lebanese population.

Keywords

Autism, awareness, children, early intervention, Lebanon

AUTISM AWARENESS AMONG THE LEBANESE POPULATION

NOURHAN EL ZEIN¹, ALAA HAJJAR², and NADIA JRADI³

^{1&2}Beirut Arab University, Faculty of Medicine

³Senior Lecturer of Pediatrics, Department of Clinical Sciences, Faculty of Medicine, Beirut Arab University, Lebanon

ABSTRACT: *Autism spectrum disorder (ASD) is a developmental disorder characterized by persistent problems in social communication and interaction; it is currently diagnosed in 1 out of every 67 children. Symptoms of ASD are most commonly recognized in the second year of life, but may be present earlier. Although there is no medical cure for autism, some intervention plans can improve attention, learning and related behaviors; outcome is significantly improved if early intervention is provided. Therefore, promoting autism awareness can assure an early diagnosis and subsequently an early intervention to provide each person with ASD the opportunity to achieve the highest possible quality of life. This study aims to assess the knowledge of the Lebanese population about the definition, prevalence, manifestations, and treatment of Autism. A total of 640 individuals distributed over the six Lebanese districts were selected to fill a questionnaire. 8% of participants recognized the true prevalence of autism being around 1% in the general population., 66% were familiar with the definition of autism. A significant number of participants held false beliefs regarding the characteristics of an autistic person as having severe intellectual defect (39%), suffering from a lack of feelings (35%) and having exceptional talents (39%). Only 47% of participants renounced a link between autism and vaccines. 51% believed that autism can be cured. Many factors were noted to affect the knowledge level notably the place of residence and the education level. This study clearly elaborates the lack of autism awareness among the Lebanese population.*

KEYWORDS: Autism, awareness, children, early intervention, Lebanon

1. INTRODUCTION

Autism spectrum disorder (ASD) is a developmental disorder, it affects approximately 10 in 1000 children worldwide (Elsabbagh M, 2012), it is characterized by persistent problems in social communication and interaction, along with restricted and repetitive patterns of behavior, interests or activities (American Psychiatric Association, 2013). The exact cause of autism is still unknown; however, it is well proven that it has both a genetic etiology and an environmental factor (Lai MC, 2014). Clinical features of ASD are most commonly first recognized during the second year of life; however, they may be present earlier (Landa RJ, 2013) (Ozonoff S,

2010). Individuals with autism spectrum disorder vary from each other by the level of impairment in their communicational skills and attitudes (American Psychiatric Association, 2013). Management strategies differ between patients according to their level of disability although there is no yet medical cure for autism; however, some behavior management therapies started early on can be effective in improving the outcome and the prognosis of the affected children (Maglione MA, 2012) (Orinstein AJ, 2014) (Eikeseth S, 2007). Earlier diagnosis of autism requires an adequate public awareness of autism and its presenting features, to our knowledge, no studies have previously addressed the level of public awareness in Lebanon regarding autism.

Our primary objectives in this study were to determine the level of autism awareness in Lebanon and to assess the knowledge of Lebanese population about the definition and nature, prevalence, manifestations, and treatment of Autism. The results of this study will help to target the education gaps and will allow the authorities to increase the awareness levels related to autism, to enable earlier diagnoses and intervention (De Vilbiss EA).

2. METHODS

This study was approved by the Institutional Review Board (IRB) in Beirut Arab University. A cross-sectional study was conducted on the Lebanese population. Sample size was calculated to be 385 by keeping confidence interval at 95%, precision at 5%. This sample size was inflated to increase the validity of the study. A total of 640 individuals were selected by simple random sampling (SRS). The calculated sample size was divided according to the population distribution in the six Lebanese districts: North, Bekaa, Nabatieh, South, Mount Lebanon, and Beirut. Only Lebanese people above 18 years old were included.

Primary data was collected through a self-administered questionnaire which assessed the people's knowledge about autism. The questionnaire was available in both Arabic and English languages, and was divided into 2 parts: demographic and knowledge. The demographic part included questions related to the gender, age, educational level, marital status, presence of children, and health profession; the knowledge part included questions to assess different aspects of Autism such as its nature, prevalence, presenting features, diagnosis, and treatment. A scoring system based on 29 questions was set, with each question given an equal weight of one point. Zero was given to participants whose answers were all incorrect, and a score of 29 was given to participants whose answers were all correct. The questionnaires were distributed randomly in different streets as well as pharmacies, schools, stores, and clinics.

Data was analyzed using SPSS version 23. The awareness scores were calculated based on the number of correct answers, Kruskal-Wallis Test and Mann-Whitney U Test were used for correlations. A p value of less than 0.05 was considered significant.

3. RESULTS

Data from 640 participants was analyzed. The mean age was 32 with a standard deviation of 12.009, and a minimum age of 18 years old and a maximum of 72 years old. 42.81% (n = 274) had children while 57.19% (n = 366) had no children. The demographic characteristics of the participants are shown in table 1.

Table 1: Demographic Characteristics of Participants

Characteristics	Participants
Age in year N (mean ± SD)	32±12.009
Gender N (%)	
Males	272 (42.5%)
Females	368 (57.5%)
Occupation N (%)	
Health care worker	87(13.59%)
Non-health care worker	553(86.41%)
Area of residence N (%)	
Beirut	60(9.38%)
Bekaa	88(13.75%)
Mount Lebanon	238(37.19%)
North Lebanon	134(20.94%)
South Lebanon	74(11.56%)
Nabatieh	46(7.19%)
Marital status N (%)	
Single	313(48.91%)
Married	301(47.03%)
Divorced	12(1.88%)
Widowed	14(2.19%)
Number of children	
Do not children	366(57.19%)
Have children	274(42.81%)
Education N (%) No	
Formal education	17(2.66%)
School education	143(22.34%)
University education	452(70.63%)
Vocational education	28(4.38%)

When asked to assess their own knowledge about autism, 9.06% (n = 58) noted that they know a lot of information, while 77.19% (n = 494) noted that they know some information, and 13.75% (n = 88) noted they don't know anything about autism. 8% of the participants recognized the true prevalence of autism being around 1% in the general population (as shown as Fig. 1), 66% were familiar with the definition of autism being a genetic disease while 35% thought it is an acquired disease with only 47% of participants renouncing a link between autism and vaccines.

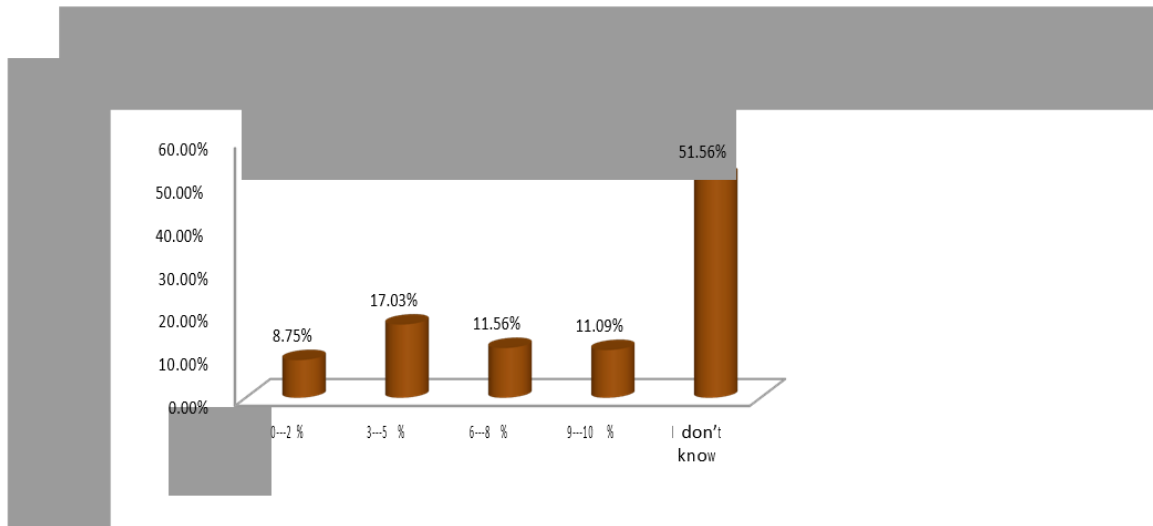


Fig. 1 Prevalence of Autism in Lebanon

39.22% of the participants falsely believed that an autistic child has a severe intellectual defect, while 38.59% falsely believed that an autistic child has exceptional talents. Table 2 shows the awareness level of the participants to the other features and characteristics of an autistic child.

Table 2: Participants' Answers on the Features of an Autistic Child

Questions	Yes	No	I don't Know
Autism affects the person ability to communicate.	83.75%	7.66%	8.59%
An autistic child likes being alone	66.41%	28.59%	5.00%
An Autistic patient has no feelings	34.53%	47.34%	18.13%
An autistic doesn't like to develop friends	59.69%	22.97%	17.34%
Autism makes the person violent	40.78%	41.41%	17.81%
People with autism look different from typical people	60.47%	31.56%	7.97%
All autistic children have high Intelligence	25.47%	41.72%	32.81%
All autistic children have exceptional talents	38.59%	28.91%	32.50%
A person with autism can attend a regular school	24.06%	63.13%	12.81%
All patients with autism have the same severity	11.56%	69.38%	19.06%

Participants had a lack of knowledge regarding the presenting features of autism (as shown as Fig. 2), and the medical nature and course of the disease, as 9.53% of participants thought that autism appears at birth, 13.59% believed that it affects the person's motor skills, 24.35% thought it can be diagnosed by brain imaging and 53.27% believed it can be cured.

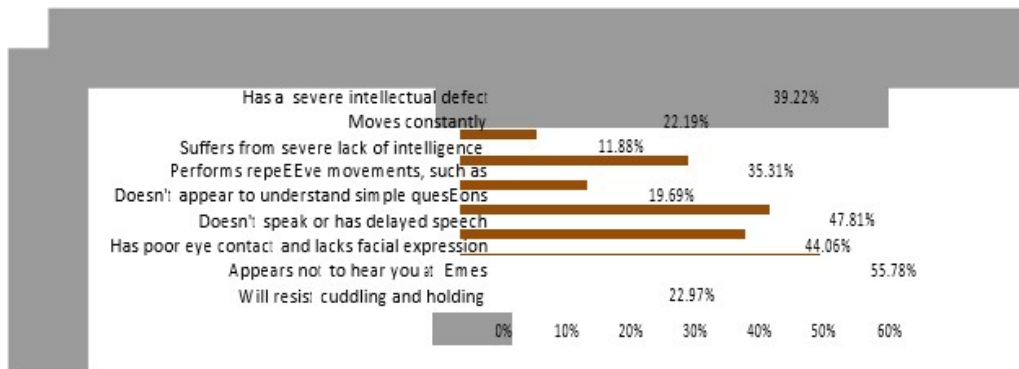


Fig. 2 Prevalence of Autism in Lebanon

Concerning the total awareness scoring system, the mean score of the participants was calculated to be 13.96 out of 29 corresponding to 48.14% (with a standard deviation of 3.53, a minimum score of 1 and a maximum score of 26), 58% of the participants had an awareness score below 50% (as shown as Fig. 3).

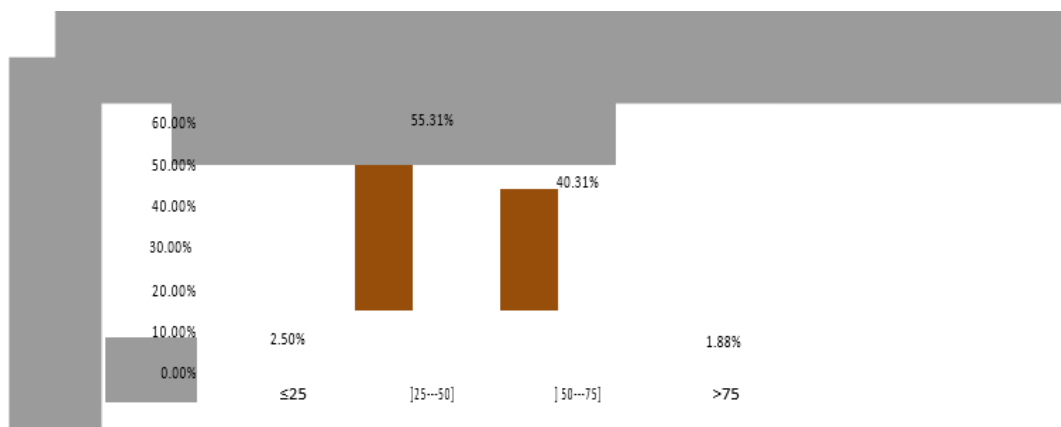


Fig. 3 Level of Awareness

The correlation between the awareness score of all the participants and some participants characteristics is shown in table 3. Bekaa district ranking first place followed by Beirut, Mount Lebanon, South, Nabatieh, and North with the last rank. As expected, participants with University education and participants with children had the highest awareness scores. Gender and marital status did not have any significant correlation with the awareness scores with p value 0.058 and 0.061 respectively. Moreover, there was no correlation between the level of awareness and the age since the coefficient of correlation was 0.042 with p value of 0.288.

Table 3: Correlation between the Awareness Score and the Participants' Characteristics

Characteristics	N	Mean	P Value
Residency			
Beirut	60	350.27	
Beqaa	88	366.7	
Mount Lebanon	238	322.8	< 0.015*
North South	134	279.4	
Nabatieh	74	315.31	
Education			
No education	17	185.71	< 0.002*
School	143	293.42	
University	452	334.46	
Vocational	28	315.36	
Occupation			
Health worker	87	361.59	< 0.025*
Non health worker	553	314.04	
Number of children			
No children	366	301.9	< 0.003*
Have children	274	354.34	

*: p value
<0.05

4. DISCUSSION

This study clearly shows a lack in the Lebanese population awareness level about autism as 58% of the participants had scores below 50%. This lack of awareness was mainly evident in the medical knowledge about the disease with more than half of the population believing that autism can be cured. Another problematic finding was the false belief of 39% of participants that autistic children suffer from a lack of intelligence, this is not true as autism is a disease that mainly affects the communication skills of a child rather than cognitive skills, this might explain the attitude commonly observed in the Lebanese population in dealing with autistic children as mentally retarded. In contrast, almost 39% of participants believed that autistic children have exceptional talents, the basis of this false belief resides in the media emphasizing on the exceptional talents of very few autistic children. This misunderstanding of the cognitive abilities of affected children whether as an underestimation or an overestimation should be clarified to the population to improve the attitude towards them and subsequently their quality of life.

A major concerning finding of this study is the fact that most of the population was not aware of the presenting features of autism in children which certainly delays the diagnosis although earlier diagnosis and subsequently earlier intervention lead to a much better prognosis and outcome, a fact fortunately known by 90% of the participants.

A reassuring finding of the study was that people did not actually overestimate their knowledge levels as participants who had the lowest score answered that they do acknowledge their lack of adequate awareness about this topic.

A major strength of this study is the large sample size distributed all over the Lebanese districts, and a major limitation is the use of a non validated questionnaire and scoring system in assessing the awareness level; however, this could not be subdued since an extensive literature review failed to reveal a validated assessment tool of autism awareness.

5. CONCLUSION

This research clearly elaborates the lack of awareness amongst the Lebanese population regarding autism and the presence of considerable misconceptions. Since the prevalence of this disease is increasing, this awareness is essential to allow early diagnosis and early interventions to improve the outcome and prognosis of affected children. Efforts should be made to conduct awareness campaigns across the different Lebanese districts, areas of targeted education were identified in this study.

ACKNOWLEDGMENTS

Thanks to Hanan Abdallah, Master Degree in biostatistics, Lebanese University.

REFERENCES

- American Psychiatric Association (2013). *Diagnostic and Statistical Manual of Mental Disorders* (5th Edition). Arlington, VA: American Psychiatric Publishing.
- De Vilbiss EA, Lee BK. Brief report: trends in US National autism awareness from 2004 to 2014: the impact of national autism awareness month. *J Autism Dev Disord* 2014, 44(12):3271-3.
- Eikeseth S, Smith T, Jahr E, Eldevik S. Outcome for children with autism who began intensive behavioral treatment between ages 4 and 7: a comparison controlled study. *Behav Modif.* 2007;31(3):264–78.
- Elsabbagh M, Divan G, Koh YJ, Kim YS, Kauchali S, Marcin C. Global prevalence of autism and other pervasive developmental disorders. *Autism Res.* 2012;5:160–179.
- Lai MC, Lombardo MV, Baron-Cohen S. Autism. *Lancet* 2014; 383:896.
- Landa RJ, Gross AL, Stuart EA, Faherty A. Developmental trajectories in children with and without autism spectrum disorders: the first 3 years. *Child Dev* 2013; 84:429.
- Maglione MA, Gans D, Das L, et al. Nonmedical interventions for children with ASD: recommended guidelines and further research needs. *Pediatrics* 2012; 130 Suppl 2:S169.
- Orinstein AJ, Helt M, Troyb E, et al. Intervention for optimal outcome in children and adolescents with a history of autism. *J Dev Behav Pediatr.* 2014; 35:247.
- Ozonoff S, Iosif AM, Baguio F, et al. A prospective study of the emergence of early behavioral signs of autism. *J Am Acad Child Adolesc Psychiatry* 2010; 49:256.