

Knowledge and Attitude of Families and Health Care Providers towards Autism

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Abstract

Objective: To assess families and health care provider's awareness, beliefs and attitudes regarding autism spectrum disorders

Methods: The study was a cross-sectional study conducted at King Abdulaziz Medical City and National Guard primary health centers in Riyadh, Saudi Arabia in April 2010. A validated autism awareness questionnaire was used to assess participants' knowledge regarding the causes, treatment and outcomes

Related to autism as well as their attitude towards autistic children. Two groups of respondents were assessed and compared: families of children with autism and healthcare providers.

Results: In total (1451) respondents completed the survey. About two thirds (66.3%) of respondents were familiar with autism and their knowledge and awareness was not affected by their gender ($P= 0.6$) or age ($p= 0.7$). However, knowledge was significantly higher among those with higher education

($p=0.0001$) and among health care providers ($p= 0.002$).

Only 22.7% thought that autism was curable, and 40.0 % believed that early diagnosis and intervention can help children with autism. Most respondents demonstrated positive attitudes towards children with autism ($p= 0.007$).

Conclusion: The findings of this study highlight care givers' and health care providers' beliefs and attitudes regarding autism.

Key words: Awareness, Autism, Saudi Arabia

Introduction

Autism spectrum disorder (ASD) is a lifelong neuro developmental disorder characterized by considerable weakness in social communication, and behavioral challenges. About 1 in 68 children have ASD according to estimates from the US Centers for Disease Control and Prevention (CDC) [1].

However, Studies of ASD particularly rare in the Middle East. A rough estimate the prevalence of ASD is 18/10,000 in Saudi Arabia which is slightly higher than the 13/10,000 reported in developed countries. Although the exact prevalence of ASD in Saudi Arabia is unknown [2], it is increasing rapidly and is now believed to be higher than the prevalence of other childhood condition [3]. However, awareness, implementing screening strategies for early identification of ASD could enable early treatment and better outcomes [4]. Although there are limited ASD studies in Arab countries, a 2014 systemic review of epidemiological studies on autism in Arab countries conducted by Salhia, et al. [5]. However, this review found that only a few studies explored the epidemiology of autism in Arab Gulf countries and none have investigated the burden of the disease on children with autism, families or society. Nevertheless, A cross-sectional study was conducted to evaluate school teachers' awareness about ASD in an urban region of Oman which highlighted the lack of knowledge about ASD among teachers, moreover study found that social and cultural beliefs could affect knowledge about ASD [6-10]. Further studies are required to better identify the burden and risk factors of autism in Gulf countries.

Study aimed to assess families and health care provider's awareness, beliefs and attitudes regarding autism spectrum disorders.

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Methods

Study design and participants

A cross-sectional study was conducted at King Abdulaziz Medical City (KAMC) which considered as one of the biggest tertiary hospitals and National Guard primary health care centers (PHC) in Riyadh Saudi Arabia on the month of April which corresponding to autism awareness month. All families who visited (KAMC) and (PHC), in addition to all health care providers working in the same facilities during study period were included.

Self-administered questionnaire was distributed to study participants, a total of 1,451 participants filled the questionnaire and return it back in the same setting. The time taken to complete the questionnaire was approximately less than ten minutes.

Measures

The survey questionnaire was developed by the author in Arabic which considered as the native and

First language used in Arab countries then translated to English.

Questionnaire in both languages were assessed by four experts in the field (i.e., neuropsychology, developmental pediatrician, clinical psychology and biostatistical). The questionnaire consisted of two parts: the first part was concerned with the participants' demographics variables (age, gender, marital status, and monthly income etc.) and the second part involved autism-related questions in five categories. The first category (two questions) addressed knowledge about autism; the second (three questions) addressed participants' perceptions about the cause of autism; the third (two questions) addressed knowledge about available interventions and outcomes; the fourth (three questions) assessed the participants' willingness to volunteer to work with autistic individuals; and the fifth (one question) assessed knowledge about the services provided to the autistic children. A 3-point Likert scale was used to gauge the participants' responses (Yes/No /Not sure). The content and face validity of the questionnaire was done and a pilot study by in 10 of each of the two responding categories was performed to check for understanding and clarity of the questions. Cronbach's alpha was calculated to assess the internal consistency as 0.73.

Statistical Analysis

The data was analyzed using SPSS for Windows (v 20). The reliability of the questionnaire was tested by Cronbach's alpha. Descriptive data were then generated. Chi-square tests were used to compare proportions and percentages for categorical variables. T-tests were used to compare means for continuous variables. Comparisons of responses in different domains by different demographic characteristics were assessed by Fisher's exact test for nonparametric variables and by a two-tailed t-test for parametric variables.

Ethical Considerations

Verbal agreement was taken from the participants before filling the survey questionnaire, in addition to cover letter at the beginning of the questionnaire stated that the information obtained by this study would be used for research purposes only and the treatment plan would not be affected by acceptance or refusal to take part in the study. The confidentiality and obscurity

were maintained constantly during the study period and all the data was safe guarded.

Ethical approval for the study was obtained from the Institutional Review Board of King Abdullah International Medical Research Center at, King Saud bin Abdulaziz University for Health Sciences in Saudi Arabia.

Results

A total of 1,451 respondents were included, of whom (57.1%) were female. Two thirds were in the age range 31-50 years and (71.2%) have an educational level of a diploma or higher. Just over a third (34.4%) worked in the healthcare field, and (27.1%) had a monthly income <5000 SR while 26.9% had a monthly income >10000 SR (Table 1).

Almost two thirds (66.3%) had heard of autism but only 19% had heard of Asperger's syndrome and 13.4% knew somebody with ASD. 42.2% said they would be prepared to help or deal with autistic children (Figure 1). When asked if there is a link between autism and consanguineous marriages, vaccination, and specific foods, 44.2%, 16.3%, and 18.3%, respectively, said "Yes." As can be seen from Table 2, the degree of overall knowledge/awareness about ASD (i.e., at a level >50%) among the different demographic groups was not affected by gender (p=0.6), age (>40 vs. <40 years; p=0.21) or income (p=0.7). On the other hand, knowledge/awareness was significantly higher among those with higher education (p=0.0001) and among health care providers (p=0.002) other hand, knowledge and awareness was significantly higher in those with higher education (p=0.0001) and among health care providers (p=0.002).

| Characteristics | N0 (1451) | % |
|---------------------------------|-----------|------|
| Age group in three group | | |
| <31 | 489 | 33.7 |
| 31-50 | 836 | 57.6 |
| >50 | 126 | 8.7 |
| Gender | | |
| Male | 623 | 42.9 |
| Female | 828 | 57.1 |
| Education | | |
| Up to high School | 179 | 12.3 |
| High school & diploma | 466 | 32.1 |
| University and & above | 806 | 55.5 |
| Career | | |
| Doctor | 129 | 8.9 |
| Specialist | 130 | 9.0 |
| Technical Job | 136 | 9.4 |
| Student | 103 | 7.1 |
| Others | 953 | 65.7 |
| Income (SR) | | |
| <5000 | 393 | 27.1 |
| 5000-10000 | 379 | 26.1 |
| >10000 | 391 | 26.9 |
| Others | 288 | 19.8 |

Table 1: Socio-demographic characteristics of the 1451 participants

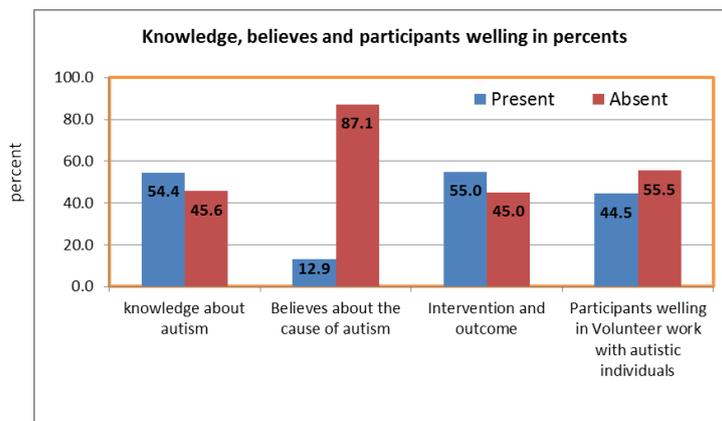


Figure 1: Participant's attitude towards Autistic children. Percentage of knowledge, cause, outcome and volunteer work with individuals with autism

| | Percent of those with > 50% knowledge overall | P-value |
|---------------------|---|---------|
| Gender | Male | 27.3% |
| | Female | 28.6% |
| Age (years) | < 40 years | 27.4% |
| | > 40 years | 29.6% |
| Educational level | < than a diploma level | 19.8% |
| | > than a diploma level | 31.4% |
| Profession | Health care providers | 34.4% |
| | Others | 26% |
| Monthly income (SR) | < 5000 | 30.5% |
| | > 10000 | 29.2% |

Table 2: Overall knowledge/awareness (>50%) by gender, age, educational level, profession (healthcare providers vs. others), and income

| Characteristic | Healthcare providers (n=498) | Others (n=953) | P-value |
|--|------------------------------|----------------|---------|
| Prepared to help/deal with autistic children | 233 (46.8%) | 376 (39.5%) | 0.007 |
| Met/dealt with a person with autism | 206 (41.4%) | 345 (36.2%) | 0.054 |
| Supportive of integrating autistic children into public education programs | 272 (54.6%) | 544 (57.1%) | 0.369 |

Table 3: Participants' attitudes toward autistic children

Only 22.7% believed that autism was curable, while 40.5% thought that early diagnosis and intervention can help. 38% stated that they have met or dealt with a person with autism and 40.5% had attended lectures on autism. Nevertheless, 56.2% were supportive of integrating autistic children into public education programs (Table 3).

Discussion

The purpose of this quantitative study was to evaluate levels of awareness, beliefs, and attitudes regarding ASD among families and healthcare providers. Our study suggests that there is a good level of knowledge about autism among caregivers and health care providers unlike other studies from other countries such as Oman and India [6,9-11]. Our data also suggest that older individuals tend to have more knowledge than younger respondents. The study shows that there is a relationship between education level and knowledge about autism, which is not surprising. While 44.2% of the respondents believed that there is a relationship between autism and consanguineous marriages, only 16.3%

and 18% believed that there is a relationship between autism and vaccination or certain types of foods, respectively. Among healthcare providers, 46.8% were willing to work with children with autism. This compares to 39.5% of the family members (p=0.007). On the other hand, equal frequencies of healthcare providers (54.6%) and family members (57.1%) supported the idea of integrating autistic children into public education programs (p=0.369).

This study has the limitations of many cross-sectional survey studies in terms of issues regarding its reliability, and applicability across society. One of the limitations of this study could be that it was limited to one geographical area and study finding cannot be generalized. Another limitation is the lack of measurement tools that can be used in ASD awareness studies, and, more specifically, the unavailability of Arabic versions of these tools. These Arabic tools are essential in Arabic speaking communities such as the communities included in this study, as lack of them can lead to inaccurate fulfilment of study objectives.

Conclusion

As the number of children with ASDs is growing over time, it is important to explore perceptions regarding ASD among families and health care providers. This study showed that both families and health care providers have good knowledge about autism. Also, the findings support the idea of inclusion of students with autism in general education programs. Furthermore, the associations between early intervention programs and favourable outcomes were well understood by the study participants.

Declaration of Conflicting Interests

The author declares that there is no conflict of interest.

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