

# Community Attitudes Towards People with Down's Syndrome: A Sample From Iraq

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**Abstract** Down syndrome (DS) is one of the most common congenital disorders associated with intellectual disability and social stigma. Community attitudes and knowledge of this condition are important for inclusion of people with DS into the community and improving their quality of lives. Results from surveys from the world showed that people still hold negative attitudes towards inclusion of people with DS. Studies in the Arab world are sparse and there are no data exploring these attitudes in Iraq in the absence of formal awareness programs; hence, this study was done to report and analyse the Iraqi community attitudes towards people with Down syndrome. A survey questionnaire of the attitudes from a sample from the community was done. Results showed that Iraqis still hold negative thoughts towards inclusion of people with DS, however they are less negative than their counterparts in Europe and United States. Female gender was the most common factor associated with positive attitudes. The results of this study underscore the importance for organized campaigns and programs to increase awareness towards DS and inclusion in the community. Further research is required to explore the factors underlying these attitudes.

**Keywords** Down Syndrome, Public Attitudes, Inclusion, Iraq

## 1. Introduction

Down's syndrome (DS) is a chromosomal disorder that results in intellectual disability and growth problems[1]. Worldwide incidence of this syndrome is 1 in 1000 births and increases exponentially with the maternal age. People with DS usually have reduced life expectancy and suffer from mental retardation, heart problems, Alzheimer's disease among other complications. However, the severity of the disease differs from patient to patient[2].

Perceptions of the disease and the public attitudes towards people with Down syndrome are very important in the inclusion of these people in the community and the supporting families[3], and early interventions can improve their quality of lives[4].

Several surveys have been carried out to explore the understanding and the attitudes of people towards people with DS and their inclusion in the community. However, most of these studies focus on specific groups of people (e.g. students[5], teachers[6], and physicians[7]).

Other studies that included different groups of people has found that United States communities still hold negative opinions towards people with DS[8]. Another study found that European communities also still hold negative attitudes towards people with Down's syndrome[9].

Studies of community attitudes in the Arab world are lacking. One Lebanese study reported that there is a positive attitude towards inclusion by the parents of children with DS in 2 private schools in Lebanon[10].

Iraq is a country in the Middle East with an estimated population of 31,234,000[11]. There are no official statistics about Down's syndrome in Iraq and no studies exploring the attitudes towards disability. Children with mental disabilities are not enrolled in public schools and nurseries in Iraq.

Formal awareness programs about intellectual disability are lacking in Iraq. The awareness and support for children with DS is mainly from non-governmental organizations. One such organization is the Iraqi Down Syndrome Association which endows an educational centre for children with DS named "HibatoAlla Centre" which involves a kindergarten and primary school. This institute was established in 1993 with individual efforts. It now provides educational opportunities for over 100 children with DS. The Down syndrome association also holds annual conferences and some other activities to increase awareness towards DS[12].

The objective of this study is to elicit the self-reported attitudes of people from the Iraqi community towards children with DS. The results will provide better understanding of the public awareness towards DS and underscores the need for formal and organized programs for support and awareness.

The results of a website-based survey are presented and analysed to assess the attitudes towards the inclusion of people with Down's syndrome and some of the factors that

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are associated with these attitudes.

## 2. Methods

A cross-sectional study was conducted using a self-administered questionnaire to measure the public response towards inclusion of people with Down's syndrome in the community, public schools, and individual relationships. The questionnaire consisted of 2 parts: the first part is concerned with the demographics (i.e. gender, age, marital status, and education level), the previous experience with people with Down's syndrome and whether the responders had a family member with Down's syndrome. The second part consisted of six questions which were designed to measure 3 aspects of personal opinions and attitudes towards inclusion of people with Down's syndrome. These were from educational, community, and personal perspectives. Some questions were adapted from previous surveys [8, 9].

The six questions used in the survey are as follows:

→ Question 1: Do you think people with DS need special schools?

→ Question 2: Do you think mixing students with DS in public schools affects other students?

→ Question 3: Do you support offering jobs to people with DS?

→ Question 4: Do you think people with DS can be integrated into the community?

→ Question 5: If you were a teacher, would you be able to teach people with DS?

→ Question 6: Can you be a friend with anyone with DS?

An electronic survey website ([www.kwiksurveys.com](http://www.kwiksurveys.com)) was used for data collection. The recruitment process was done using the social network website (Facebook). Recruitment messages were sent to members of Facebook groups and fan pages that likely to include Iraqis. The questionnaire included a question asking the responders whether they identify themselves as "Iraqi" or not. The duration of data collection was between June 2011 and August 2011.

Data from the survey were analysed using Microsoft Excel and Statistical Package for the Social Sciences SPSS 18.0 (SPSS Inc., Chicago, Ill). Categorical variables were described using frequency distribution and percentages. Chi square test was used to examine the association between the different factors with outcome. P-value of less than 0.05 was considered as statistically significant.

## 3. Results

A total of 878 responses were received. Four hundred eighty three respondents (55%) were males, 657 (74.8%) are single, and 187 (80.5%) of those who were married had kids. Five hundred sixty five respondents (64.4%) between 21 and 31 years old, and their education level was mostly undergraduate degree constituting 63.4%. Of those, 528 (60.1%) reported that they had previous encounters with people with Down's syndrome, while only 94 (10.7%) had people with

Down's syndrome in their families (Table 1).

Regarding the inclusion-in-education perspective, 80.3% of the respondents think that people with DS need special schools (83% of the males and 77% of the females), and 70.5% think that mixing students with DS in public school will negatively affect other students academically (76% of the males, and 64% of the females). From the community inclusion perspective, 89.4% support offering jobs to people with DS (87% of the males, and 94% of the females), and 84.5% think that people with DS can be integrated into the community (81% of the males, and 89% of the females). On the personal field, 78.5% of the respondents think that they can be friends with people with DS (73% of the males, and 84% of the females), and 76.7% think that they can teach students with DS, if they were teachers (75% of the males and 83% of the females), see Figure (1).

Older respondents were significantly more capable to be friends with anyone with Down's syndrome than younger ones ( $P = 0.044$ ). There is a significant association between the gender of the respondent and all the questions asked regarding Down's syndrome. For all questions females were more convinced than males regarding inclusion of people with DS in their community except for the opinion that children with DS need special schools and mixing students with DS in public schools with other students where males had more positive responses (p values are shown in Table 2).

**Table 1.** Distribution of respondents according to their demographic characteristics

Variable		Frequency (%)
Age groups (Years)	< 21	143 (16.3%)
	21 – 31	565 (64.4%)
	> 31	170 (19.4%)
Gender	Male	483 (55.0%)
	Female	395 (45.0%)
Marital Status	Married	221 (25.2%)
	Single	657 (74.8%)
Have Children	Yes	43 (19.5%)
	No	178 (80.5%)
Educational Qualification	High school or less	226 (25.7%)
	Bachelor	557 (55.7%)
	Postgraduate degree	95 (10.8%)
Previous encounter with people with DS?	Yes	528 (60.1%)
	No	350 (39.9%)
Family members with DS?	Yes	94 (10.7%)
	No	784 (89.3%)

Married respondents agreed that people with DS can be mixed with the community more than single respondents ( $p=0.009$ ), but those who did not have children reported the lack of ability to teach children with DS ( $p=0.02$ ).

## 4. Discussion

The results of this survey show that Iraqis still hold some negative attitudes towards people with disabilities. This is especially true with regards to inclusion in education where most of the respondents supported putting students with DS in special schools (80.3%) and that mixing them would affect their colleagues in school (70.5%). From a cultural perspective, respondents might prefer placing students with DS in special schools to protect them from violence and that those people are better in a special environment to facilitate their learning experience. An American study, found that only 30% supported special schooling for people with DS[8], and a full 100% of children with DS were enrolled in the public

school system in Rome, Italy[13] compared to results of the present study that show far more support for separation. This finding is in light of the system in the Iraqi public schools where children with mental disabilities are not enrolled with other students.

Respondents had more positive attitudes with community-inclusion of people with DS. Most of the respondents supported offering jobs (89.4%) and integrating them in the community in general (84.5%). In comparison with the American study, our results showed that Iraqis had more positive attitudes towards people with DS's ability to work than Americans (65.7%)[8].

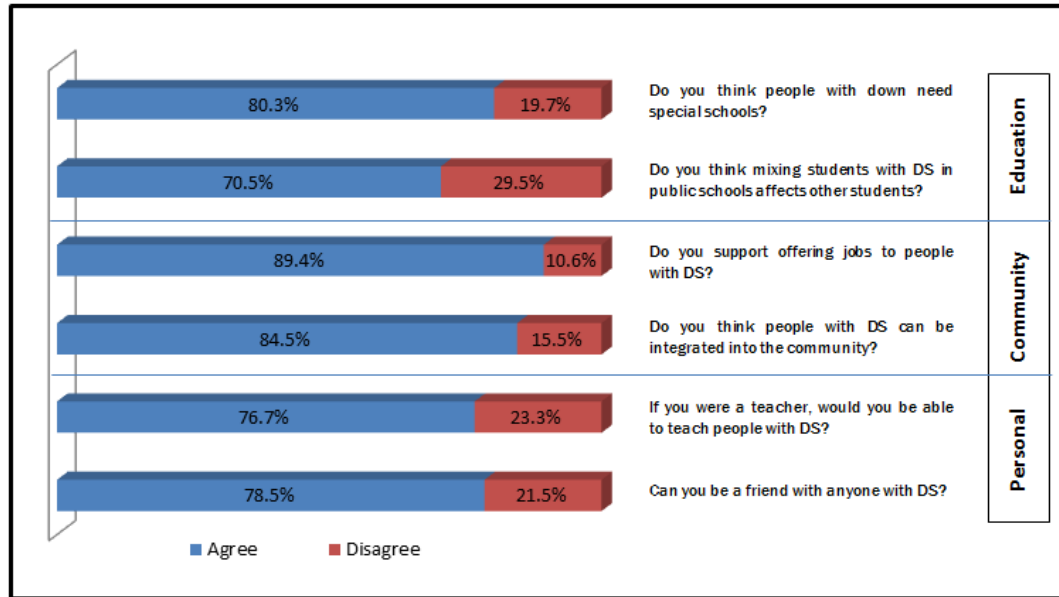


Figure 1. Responses from the self-administered questionnaire

Table 2. Distribution of respondents according to their responses to the six questions (significant results are in bold)

Parameter		Q1 (% yes)	Q2 (% yes)	Q3 (% yes)	Q4 (% yes)	Q5 (% yes)	Q6 (% yes)
Age	<21	76.9	67.1	87.4	81.8	77.3	74.8
	21-31	80.9	74.1	89.7	83.9	74.4	77.3
	>31	81.2	70.3	91.7	88.8	78.4	85.3
	Significance	P =0.54	P =0.39	P=0.46	P =0.19	P =0.56	<b>P = 0.044</b>
Gender	Male	83.0	76.0	86.5	81.0	72.5	74.5
	Female	77.0	63.8	93.6	88.9	83.5	83.3
	Significance	<b>P =0.03</b>	<b>P =0.00001</b>	<b>P=0.001</b>	<b>P =0.001</b>	<b>P =0.00001</b>	<b>P = 0.002</b>
Marital Status	Single	80.5	70.6	89.6	82.6	77.5	77.2
	Married	79.6	70.1	90.0	90.0	77.4	82.4
	Significance	P =0.78	P =0.89	P=0.85	<b>P =0.009</b>	P =0.99	P = 0.11
Having Children	No	79.1	69.8	90.7	93.0	90.7	90.7
	Yes	79.8	70.2	89.9	89.3	74.1	80.3
	Significance	0.92	0.95	1.00 (F.E.)	0.58 (F.E.)	0.02	0.11
Educational level	High school or less	78.8	69.9	89.8	85.4	77.9	80.1
	Bachelor degree	79.5	70.4	89.7	84.6	74.2	79.0
	Post graduates	88.4	72.6	89.5	82.1	77.8	71.6
	Significance	P =0.11	P =0.88	P=0.996	P =0.76	P =0.73	P = 0.21
Previous Encounter	No	80.6	68.3	91.7	82.6	77.9	77.1
	Yes	80.1	72.0	88.4	85.8	77.2	79.4
	Significance	P =0.87	P =0.24	P=0.12	P =0.196	P =0.81	P = 0.44
DS in the family	No	80.7	70.9	89.9	84.2	77.4	78.1
	Yes	76.6	67.0	88.3	87.2	77.4	81.9
	Significance	P =0.34	P =0.434	P=0.63	P =0.44	P =0.995	P = 0.39

With respect to the attitudes to the personal attitudes of the respondents, responses were mostly positive towards relationships with people with DS. Most respondents (76.7%) were able to teach people with DS compared to (69.7%) of the Americans who were willing to work with a student with DS on a class project. Most of our respondents were also able to be friends with people with DS (78.5%) in comparison with (57.5%) in the American study[8].

One of the factors affecting these attitudes was the female gender. Significantly fewer females supported special schooling and separation, while significantly more females supported offering jobs, mixing them in the community, had the ability to teach students with DS, and be friends with them. These findings agrees with other studies proving that female gender is a defining factor in attitudes towards people with intellectual challenges[8, 9].

Older people (>31) reported ability to be friends with people with DS significantly more than younger age groups, and married people held more positive attitudes towards their integration into the community probably because of their more life experiences and responsibility feelings towards such conditions. However, and interestingly, people with children reported less ability to teach students with DS.

This study has several limitations. The respondents were not randomly selected, likely to be literate, speaking English language, have access to the internet and use the social networking website used in this study and thus may not necessarily represent the population. Also, respondents were likely to be interested in the topic believing that answering the questionnaire will help in policy making and hence may show falsely positive results.

The objectives of this study were to explore the attitudes of Iraqis towards people with DS as a model of intellectual disability. The cultural and religious similarity may allow extrapolating these results to all countries in the Middle East. The importance of the results may help in policy-making and initiation of awareness programs towards supporting the intellectually disabled and prioritizing basic self-help skills for them in order to elevate the burden on their families.

The lack of formal awareness and support programs along with the results of this survey underscore the urgent need for organized campaigns and programs to publicize issues of people with DS and allow better integration into the community.

Further research to explore the attitudes in more realistic approach is warranted. This may lead to better understand the factors contributing to these attitudes within this culture.

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