

Measuring Severity and Socio-demographic Characteristics of Disability in Population Based Setting, Dubai Household Health Survey 2014

Taryam M. M. O.¹, Al Faisal W.^{2, *}, Hussein H. Y.², Suliman E. A.³,
Al Janahi T.⁴, AlSalaq A. A.⁴, Wasfy A. S.³

¹Primary Health Care Services Sector, Dubai Health Authority, Dubai, United Arab Emirates

²Health Affairs Department, Primary Health Care Services Sector, Dubai Health Authority, Dubai, United Arab Emirates

³Dubai Health Authority, Dubai, United Arab Emirates

⁴Dubai Statistics Center, Dubai, United Arab Emirates

Abstract

Background: Disability was seen solely as the result of an individual's inability to function. Interventions usually included medical rehabilitation and the provision of social assistance. Measuring severity of disability is not a straightforward task. **Objectives:** Measuring disability severity levels across groups in Dubai and identifying socio-demographic characteristics of disability in Dubai. **Methodology:** Dubai Household Health Survey was conducted in 2014 as a Cross-sectional, multistage, stratified, Cluster survey. Houses were visited to obtain detailed information on the different health-related issues. According to Dubai Statistical center, the total population of Dubai at the end of 2014 was 2327350 (males 1613175, females 714175) (UAE 212000, Expatriates 2115350). Individuals aged ≥ 18 years were investigated for the level of disability. The disability questions of the questionnaire were asked to 3716 persons. Data were entered to the computer using Excel sheet and analyzed using SPSS 21. **Results:** The study showed that the percentage of those who have moderate to severe disability among Dubai population is 8.5%. It showed also that about 14% of the total male and female Emirati are having moderate to severe disability, while about 8% of the total male and female non-Emirati are having moderate to severe disability. The study showed that about 13.8% of Emirati (males) are having moderate to severe disability, while 6.9% of non-Emirati (males) are having moderate to severe disability. The study showed that about 14% of Emirati (females) are having moderate to severe disability, while 12.8% of non-Emirati (females) are having moderate to severe disability. The study revealed that 7.9% of group age 18-59 are having moderate to severe disability while 27.2 of aged more than 60 years showed moderate to severe disability. **Conclusions:** Disability is frequent and common health disorder among Dubai population, and more than 8.5% of the total population have somehow moderate to severe type of disability. National rehabilitation program needs to be developed in order to address disability needs and problems through national framework and multidisciplinary national taskforce.

Keywords

Disability, Severity, Population Based, Household Survey Dubai

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1. Background

According to the World Health Organization (WHO), and the International Classification of Functioning, Disability and

Health (ICF), disability is a complex phenomenon, and cover impairments, activity limitations, and participation restrictions. Disability is the interaction between individuals with a health condition (e.g. cerebral palsy, Down syndrome

* Corresponding author

E-mail address: wldalfaisal@gmail.com (Al F. W.)

and depression) and personal and environmental factors (e.g. negative attitudes, inaccessible transportation and public buildings, and limited social supports). About 15% of the population around the world have some form of disability. [1]

Measuring severity of disability is not straightforward task. For a child (less than 16 years of age) and a person of pensionable age, the degree of severity of disability shall be determined based on the need for personal assistance, guidance and supervision. It can be considered “profound disability” if a person needs constant personal assistance, guidance or supervision twenty-four hours a day; “severe disability” if a person needs personal assistance, guidance or supervision in every twenty-four hour period; and “moderate disability” if a person needs regular personal assistance or guidance outside his or her residence at least once a week. For a person of working age (a person of 16 years of age until attaining the pensionable age), the degree of severity of disability shall be determined based on restrictions on participation in daily activity and social life. It can be considered “profound disability” if a person’s daily activity or participation in social life is wholly restricted; “severe disability” if a person’s daily activity or participation in social life is restricted; and “moderate disability” if a person has difficulties in his or her daily activity or participation in social life. [2]

Having valid and reliable measures of disability based on survey data remains a major challenge. The new WHODAS 2.0 is a generic assessment instrument for health and disability that can be used across all diseases, including mental, neurological and addictive disorders. It is applicable in both clinical and general population settings, and applicable across cultures, in all adult populations. WHODAS 2.0 covers six domains of functioning, including cognition, mobility, self-care, getting along, life activities, and participation. [3]

Activities of daily living (ADLs) and instrumental activities of daily living (IADLs) scales have shown construct under-representation, lack of sensitivity to change, low discriminative power, presence of bias, and striking floor and ceiling effects in community-dwelling populations. It has also been observed that summative scores of ADLs/IADLs underestimate mean disability in cross-cultural studies. [4-10]

Dubai Household Health Survey 2014 has used questions that are compatible with the WHO instrument, and can be used to estimate the severity of disability among Dubai population.

2. Objectives

Measuring disability severity levels across groups in Dubai and identifying socio-demographic characteristics of disability in Dubai.

3. Methodology

Dubai Household Health Survey was conducted in 2014 as a Cross-sectional, multistage, stratified, Cluster survey. Houses were visited to obtain detailed information on the different health-related issues. According to Dubai Statistical center [11], the total population of Dubai at the end of 2014 was 2327350 (males 1613175, females 714175) (UAE 212000, Expatriates 2115350). Individuals aged ≥ 18 years were investigated for the level of disability.

Number of questions has been designed to assess the difficulties and functionalities along the last 30 days even been encountered, performing work, communications, carrying out activities. The answers were been measure according to scale of 1 to 10 degree based on severity. A total score for every person was calculated and the disability was accordingly classified to mild, moderate and severe. A questionnaire with full socio demographic data was designed tested and used by trained data collectors. The disability questions of the questionnaire were asked to 3716 persons. Data were coded, entered to the computer, cleaned and analyzed using SPSS 21.

4. Results

The study showed that the percentage of those who have moderate to severe disability among Dubai population is 8.5%. The study showed that about 14% of the total male and female Emirati are having moderate to severe disability, while about 8% of the total male and female non-Emirati are having moderate to severe disability. Table 1.

Table 1. Frequency distribution of disability severity among Dubai population (males and females) according to nationality.

	Total males and females					
	Emirati		Non-Emirati		Total	
	No.	%	No.	%	No.	%
No to Mild	326	86.0%	4162	92.0%	4488	91.5%
Moderate	41	10.8%	336	7.4%	377	7.7%
Severe	12	3.2%	28	.6%	40	.8%
Total	379	100.0%	4526	100.0%	4905	100.0%

The study showed that about 13.8% of Emirati (males) are having moderate to severe disability, while 6.9% of non-Emirati

(males) are having moderate to severe disability as shown by table 2.

Table 2. Frequency distribution of disability among male Dubai population according to nationality.

Disability	Males					
	Emirati		Non-Emirati		Total	
	No.	%	No.	%	No.	%
No to Mild	143	86.1%	3389	93.1%	3532	92.8%
Moderate	16	9.6%	230	6.3%	246	6.5%
Severe	7	4.2%	21	.6%	28	.7%
Total	166	100.0%	3640	100.0%	3806	100.0%

The study showed that about 14% of Emirati (females) are having moderate to severe disability, while 12.8% of non-Emirati (females) are having moderate to severe disability as shown by table 3.

Table 3. Frequency distribution of disability among female Dubai population according to nationality.

Disability	Females					
	Emirati		Non-Emirati		Total	
	No.	%	No.	%	No.	%
No to Mild	183	85.9%	773	87.2%	956	87.0%
Moderate	25	11.7%	106	12.0%	131	11.9%
Severe	5	2.3%	7	.8%	12	1.1%
Total	213	100.0%	886	100.0%	1099	100.0%

The study revealed that 7.9% of group age 18-59 are having moderate to severe disability while 27.2 of aged more than 60 years showed moderate to severe disability as shown by table 4.

Table 4. Distribution of disability among Dubai population according to age.

Disability	18-59		60+		Total	
	No.	%	No.	%	No.	%
No to Mild	4394	92.0%	94	72.9%	4488	91.5%
Moderate	351	7.3%	26	20.2%	377	7.7%
Severe	31	.6%	9	7.0%	40	.8%
Total	4776	100.0%	129	100.0%	4905	100.0%

5. Discussion

The study showed that the percentage of those who have moderate to severe disability among Dubai population is 8.5%. Compared to WHO results around the world [1], it seems that this percentage is much lower. This may be because of using the data of the household health survey of Dubai which took into consideration nine factors only. Further research is needed using different tools. WHODAS 2 instrument is a candidate tool for this purpose. Other tools may also be used.

Regarding severity of disability and nationality factor, this study showed that severity of disability is more common among Emirati compared to non-Emirate. No studies could be located for this factor, but in general they can be compared to other factors. This finding in this sense is different from another study finding which stated that analyzed data on ethnic differences in intellectual disability (ID). One study on children in the U.S. found that ID was proportionately higher among African-American children, after controlling for socio-demographic variables. Another study conducted in Australia found that ID was

proportionately higher among Aboriginals than other population groups. [12]

Current study revealed that the disability is an important health related disorder among Dubai population. The study showed that about 14% of the total male and female Emirati are having moderate to severe disability, while about 8% of the total male and female non-Emirati are having moderate to severe disability. This is similar to another study that showed that in the majority of the countries more than half of the respondents reported having long-term illness and approximately two chronic conditions and physical symptoms. [2]

This study showed that the severity of disability increase with age and the prevalence of moderate and severe disability is correlating with older age group. This result is similar to the results reflected by another study, which stated that disability is increasing with age. As people live longer and do not encounter fatal diseases, their illnesses are chronic instead and may lead to the development of disability. The association between increasing age and increasing disability has led to a negative image of aging, ant to the possibility of stigmatizing older adults who have a disability. Some gerontologists have introduced the term 'successful aging,

emphasizing the point that not all aging is negative. [13, 14]

6. Conclusion

Disability is frequent and common health disorder among Dubai population, and more than 8.5% of the total population have somehow moderate to severe type of disability. National rehabilitation program needs to be developed in order to address disability needs and problems through national framework and multidisciplinary national taskforce.

Conflict of Interest

The authors declare that they do not have any conflict of interest.

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