

## Assessment of Accessibility Preparation for People with Special Needs at Al Ahsa Mosques

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### ABSTRACT

**Introduction and Aim:** Sala' is one of the essentials of Islam religion that Muslims do five time a day. Praying in a mosque for many people is one of the important Activities of the daily living (ADL) that they engage in day-to-day basis. The Saudi Arabia Ministry of Municipal and Rural Affairs has given the right to people with disability by legislations and mandatory rules to all public facilities to be accessible for the Special needs users. The goal of this study is to find the accessibility of mosques in Al ahsa region for Special needs users.

**Method:** The study design was a cross-sectional, descriptive study that surveyed wheelchair users and their caregivers, using Google form. The study was conducted by a questionnaire type assessment, 12 questions were used to assess different aspects of accessibility to mosques, and using a Likert scale with five options (Very unsatisfied – Unsatisfied – Normal – Satisfied – Very satisfied). The questionnaire was reviewed by two occupational therapists and one physical therapist, to ensure content validity and reliability.

**Result:** Seventy wheelchair users and twenty caregivers participated in the study. The main reason for being confined to a wheelchair was a motor vehicle accident (31.43%). Overall, 74.29% of wheelchair users and 45% of caregivers expressed dissatisfaction with the mosques' accessibility for Special needs users.

**Conclusion:** In the current state of the mosques in the Al ahsa were found to be not accessible for people with special needs.

**Keywords:** Accessibility preparation, people with special needs, wheelchair users, Al Ahsa Mosques

### INTRODUCTION

In the Saudi eastern province there are 108267 people who have some sort of disability and in Saudi Arabia there are 667280 in total that are diagnosed with a disability. One of the main roles of the Occupational therapy is to help individuals to engage in occupations(1). Spirituality in Saudi Arabia is very important due to the fact that Islam is the prevalent religion in Saudi Arabia. According to occupational therapy practice framework, it describes spiritual activities and expression as "activities that allow a sense of

connectedness to something larger than oneself or that are specially meaningful" (p.S22)(2). Disability is defined by the International Classification of Functioning, Disability and Health (ICF) as "an umbrella term for impairments, activity limitations and participation restriction(3). Praying (Salat) is very important aspect of the Muslim's daily activities according to the fact that praying five times a day is a mandatory act and it is seen as a ritual activity, any kind of disability could prevent us from performing this activity (World Health Organization (WHO)(2). From an

occupational therapy perspective, for a disabled Muslim, accessibility to mosques is essential to pray(3). The occupational therapist should help any Muslims who have any kind of disability to engage to in their spiritual activity (Salat)(4). Many people with disability use the wheelchair to mobilize. The wheelchair is used by individuals who have difficulties or cannot perform gait activities due to an illness, injury or disability, such as spinal cord injury patients, those who are quadriplegic and who have lower limb amputations.

Welage and Liu 2011 refer for the term accessibility is the level in which the people environments can be accessible and reliable in a safety manner and preserved the privacy of the people with disability (PWD)(5). According to a study conducted by Meyers, Anderson, Miller, Shipp, and Hoenig 2002 that reported from adult wheelchair users in Boston and North Carolina that they had difficulty in performing and accessing any activity that had any religious value and there relative, and accessing workplaces(6). Moreover, according to Goldsmith, Selwyn For people with disabilities, the universal design means the outputs which designers conduct are universal and common in the all of the world areas. All these products that the designers design are fit and cater for all users, being that it would suit all its other potential users as well (7). In Malaysia they implemented the universal design in one of the mosques, and it had a significant effect for accessibility for all kind of disability(8).

The Saudi Arabia Ministry of Municipal and Rural Affairs has given the right to people with disability by putting mandatory rules and legislations to all the buildings to be accessible for the wheelchairs users (9). A study was done by Abu Tariah H, Ghasham N, Alolayan M, Alahmadi B, Alqarni A. showed that mosques in Riyadh are not accessible for wheelchair users(10). The goal of this study is to measure the accessibility of the mosques in Al ahsa.

Justification:

Wheelchair users and people with disability have the right as everyone else in this world to live and do their activities of daily living independently and without any obstacles, also they have needs and desires that make them live in suitable way. Praying in a mosque for many Muslims is one of the important Activities of the daily living (ADL) that they engage in day to day basis. Wheelchair users have the right to access and pray in mosques daily without any barriers. The Saudi Arabia Ministry of Municipal and Rural Affairs has given the right to people with disability by legislations and mandatory roles to all public facilities to be accessible for the wheelchair's users.

### **Objective of the study**

#### **Aim of the study:**

1. To measure the accessibility of the mosques in al ahsa for Special needs users.
2. To find the barriers that prevents Special needs users from going to mosques.
3. Increase the accessibility for Special needs users in mosques.
4. Help the authorities by getting the feedback from the Special needs users view.
5. Eliminate the obstacles that the Special needs users face at daily bases.

#### **Specific Objectives:**

1. The most goals for people who use Special needs are to use the mosque safely.
2. Check the accessibility of the mosques for people with special needs.
3. Find out the challenges that may face the Special needs users and their caregivers.

#### **Secondary Objective:**

1. Will the mosque be more accessible for any kind of disability?
2. Educate people who enter the mosques to respect people with special needs.

## METHODOLOGY

### Study Area/Setting:

This study was conducted in Al-Ahsa.

### Study Subjects:

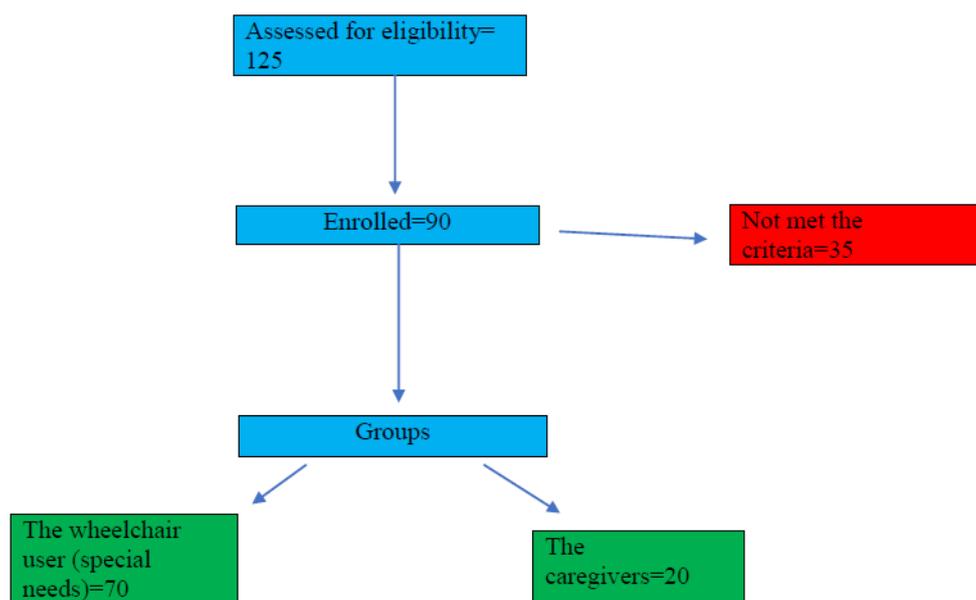
#### Inclusion Criteria:

1. 15 years old to 65 years.
2. People who use wheelchair, temporarily or permanently.
3. Only male Subjects
4. Main Mosques
5. Caregivers
6. The illiterate patients

#### Exclusion Criteria:

1. Patient who have mental disability only
2. Mosques in different areas such as restaurant, gas station, company, shopping centers.

### Sampling Technique:



This study applied the Random sampling Technique. This technique was used to evaluate through the issuing of a questionnaire to people with special needs. These people circulated it to other peers to participate in this survey. All Participants were asked to complete all sections of the questionnaire. The information sheet explains that informed consent is implied through voluntary participation in this survey.

3. Patient with Wheelchairs users in the Hospital or other long-term care patient

### Study Design:

This study used to a quantitative, Descriptive, survey design. This quantitative study design is a research extensively was used for human thinking and acts a special way. Descriptive study design is an observing and describing the patient behavior through questionnaire. Survey design is a collecting data from the patient. Statistical tools to be use survey in this study.

### Sample Size:

The number of participants in the study was 90 with a respond rate 44%.

### Data Collection methods, instruments used, measurements:

Two questionnaires were developed, to survey people with special needs and caregivers. The questionnaires were developed by the researchers. Based in the International Classification of Functioning, Disability and Health (ICF), the physical context of the mosque is the focus of questionnaires were to find its impact on functioning and participation of prayer in

the mosques for people with special needs. To ensure content validity, the questionnaires are reviewed by a panel of experts (2 occupational therapists and one physiotherapist with at least 10 years of clinical experience each). The questionnaires were revised according to the panel of expert 'feedback. In addition to the demographic questions, 12 questions were used to assess different aspects of accessibility in mosques, using Likert scale with five options (strongly agree to strong disagree). The caregiver questionnaire focused on 2 main questions regarding the number of times a day the person with special needs was accompanied to the mosque and rating their satisfaction with the accessibility of the mosque from 1 to 5 (highly dissatisfied to highly satisfied).

We used for this study two matrix questionnaires, one for people with special needs, another one for their caregivers. We asked questions about the accessibility of the mosque for people the wheelchair users. The questionnaire was reviewed by two occupational therapists and one physical therapist to ensure the content of validity and reliability. The study was conducted by a questionnaire type assessment. 8 to 12 questions were used to assess different aspects of accessibility to mosques; using a Likert scale with five options (Very unsatisfied – Unsatisfied – Normal – Satisfied – Very satisfied).

We choose Likert scale because it is suitable for encouraging people to answer detailed questions about measures of how people feel about something. Likert scale questions are good for help and in the same time to avoid asking the people difficult survey questions like open-ended, fill-in the- blank, simple yes/no, select all that apply, and ranking questions.

#### **Data Management and Analysis Plan:**

Statistical analyses included a summary of participant's characteristics and pre-planned descriptive analyses. The SPSS version 16 has been used in the data analysis. Also, at the same time manual

calculation has been used to confirm that the results are the same between them. The response categories list in Likert scales has a rank order, but the intervals between values cannot be presumed equal. Therefore, the mean and standard deviation are inappropriate for ordinal data (Jamieson, 2004) (12).

Statistics you can use are following way:

1. Summarize using a median or a mode (not a mean as it is ordinal scale data); the mode is probably the most suitable for easy interpretation.
2. Display the distribution of observations in a bar chart (it cannot) be a histogram, because the Data is not continuous (13).

#### **Ethical Consideration:**

- Approval was obtained from King Abdullah International Medical Research Center (KAIMRC) IRB Committee, which is the authorized department to allow conducting research in MNGHA.
- Research procedures have ensured privacy during data collection.
- Data was stored securely with adequate provisions to maintain the confidentiality of the data.
- All possible measures were ensured that participants' identities are not directly or indirectly disclosed for secondary data analyses.

#### **RESULTS**

The total result from the study (table 1) was 70 Saudis wheelchair male users. All of the participants were from Al ahsa that met the inclusion criteria in this study. Almost third of the participant (31.43%) were between the age 20-30 years and the 30% were from the age 30-40. More than half of the participants were married (57.14%). The income of the participant was mostly between 0-3000 (35.71%) and 3000 -7000 (35.71%). Most the participants (71.43%) have their presence of relative. 45 of the participants (64.29%) were using the wheelchair more than 7 months, (21.43%) used the wheelchair between 4-6 months.

Almost half of the participants (51.43%) have high school degree, (21.43%) have diploma degree, and (17.14%) have bachelor's degree. Almost third of the participants (35.71%) has diabetes, (24.29%) have hypertension, and (14.29%) have cerebral palsy. the reason of why the participants are using the wheelchair was varied but the majorities where that (31.43%) for car accident, (25.71%) for spinal cord injury, (14.29%) because of the cerebral palsy.

The result from the participants (table 2) to the Likert statement was that the mosques were inadequate and not accessible for wheelchair users. The roads from the house to the mosque were not accessible for the participants (55.72%) disagree and (18.57%) were neutral. The participants did not find the entrances and the exits of the mosques accessible (83.29%) disagree. The participants indicated that the bathroom entrances and exits were not accessible (64.29%) disagree. Moreover, the sink is not accessible for wadoo (71.42 %) disagree. The majority of the participants (81.43%) agree point that they have difficulties in using the toilet. (70%) of the participants disagreed that the wheelchair are not able to maneuver inside the mosque. Also (71.43%) of the participants disagree indicate that the Quran shelves are not accessible. The participants (68.61%) indicated that the way from the parking lot to the mosque is not accessible and (20%) are neutral. Also (65%) of the participants disagreed in which the parking lot is adequately placed and (15.71%) are neutral. In general (74.29%) disagreed with the statement that the mosques are accessible for wheelchair users.

The caregiver in (table 3) for the wheelchair users (70%) disagreed in which the wheelchair users can go by themselves

to the mosques. In the other hand (45%) of the caregivers are unsatisfied with accessibility, (20%) are neutral and (30%) are satisfied.

**Table 1: Demographic data**

S.NO	special need users (n=70)	
	Demographic classification	n (%)
1	Age	
	0-19	0(0)
	20-30	22(31.43)
	31-40	21(30)
	41-50	7(10)
	51-60	13(18.57)
	61-65	7(10)
	<65	0(0)
2	Gender	
	Male	70 (100)
	Female	0(0)
3	Marital status	
	Single	30(42.86)
	Married	40(57.14)
4	Income	
	0	1(1.43)
	0-3000	25(35.71)
	12000-20000	15(21.43)
	20000and above	4(5.71)
	3000-7000	25(35.71)
5	Presence of relative	
	Yes	50(71.43)
	No	20(28.57)
6	Duration of special needs	
	1-3 months	10(14.29)
	4-6 months	15(21.43)
	7months and above	45(64.29)
7	Educational qualification	
	Elementary	3(4.29)
	High school	36(51.43)
	Middle school	4(5.71)
	Diploma	15(21.43)
	Bachelor	12(17.14)
8	Chronic Diseases	
	Cerebral palsy	10(14.29)
	Hypertension	17(24.29)
	Diabetes	25(35.71)
	Edema	5(7.14)
	Cardiovascular disease	4(5.71)
	Asthma	9(12.86)
	Causes of Special needs	
	Cerebral palsy	10(14.29)
	Car accident	22(31.43)
Spinal cord injury	18(25.71)	
Parkinson's disease	2(2.86)	
Multiple sclerosis	7(10)	
Amputation	5(7.14)	
Traumatic brain injury	3(4.29)	
Osteoarthritis	3(4.29)	

**Table 2: Assessment of accessibility preparation for people with special needs at Al Ahsa Mosques: Questionnaire (Likert Scale)**

S.no		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1	The road to the mosque is accessible for the wheelchair users	6 (8.57)	12 (17.14)	13(18.57)	30(42.86)	9(12.86)
2	The mosque's entrances and exits are accessible	2(2.86)	8(11.43)	8(11.43)	24(34.29)	28(40)
3	The mosque bathroom entrance and exit are easily accessible	5(7.14)	9(12.86)	11(15.71)	28(40)	17(24.29)

**Table 2 Continued...**

4	The sink is applicable for ambulation (wudou)	5(7.14)	5(7.14)	10(14.29)	32(45.71)	18(25.71)
5	I find a difficulty to use the toilet	35(50)	22(31.43)	10(14.29)	1(1.43)	2(2.86)
6	I can easily move with my wheelchair within the mosque	3(4.29)	9(12.86)	9(12.86)	33(47.14)	16(22.86)
7	The Quran shelves are suitable and reachable	5(7.14)	8(11.43)	7(10)	28(40)	22(31.43)
8	The way from the parking lot to the mosque is accessible	3(4.29)	5(7.14)	14(20)	16(22.86)	32(45.71)
9	The parking spot is adequately placed	4(5.71)	9(12.86)	11(15.71)	21(30)	25(35.71)
10	In general the mosque is accessible for wheelchair users	2(2.86)	5(7.14)	11(15.71)	36(51.43)	16(22.86)

**Table 3: Assessment of accessibility preparation for people with special needs at Al Ahsa Mosques: Questionnaire (Likert Scale)**

S.N		Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
1	The wheelchair user can go to the mosque by himself	3(15)	1(5)	2(10)	8(40)	6(30)
2	Are you over all satisfied by the accessibility in the Mosque	6(30)	0(0)	5(25)	3(15)	6(30)

## DISCUSSION

Religious activity is one of the main activities that the people participate during their lifetime. One of the main roles of Occupational therapists is to see if the environment is adequate for people with disabilities[2]. The purpose of this study was to find the accessibility of mosques in Al Ahsa from the perspective of Special needs users and their caregivers. The parking lots were not adequate and not developed for using a wheelchair. The finding was applicable with the finding of other reviewed studies (4.5.6.8.10).

Only small number of wheelchair users were filled the questioner in spite of the efforts of the research assistants that distributed the questionnaire every way possible and due to global pandemic. This observation gave an indication about the accessibility issues of the mosques for wheelchair users in spite of the significance of prayer in mosques by all Muslims[8].

Being able to participate in any religious activity in an unrestricted environment despite their disability is one of the Saudi Ministry of Municipal and Rural Affairs main goals to achieve. The Saudi ministry of municipal and rural affairs put amendments and guidelines that public places and mosques should follow but in spite of all the efforts, mosques are still not accessible [9]. Therefore, the global pandemic (COVID-19) played a main role for not reaching the aimed sample size.

None of the participants were female because they were in the exclusion criteria. The result indicated that the main cause of using a wheelchair for the participant was mainly due to car accidents. However, regarding to a previous study about the accessibility of mosques for wheelchair users in Riyadh the study indicated that mosques are not accessible for wheelchair users (10).

The researchers targeted the wheelchair users that met the inclusion criteria. It was noticed that the number of wheelchair users that used the mosques were low compared to the number of wheelchair users in Al Ahsa [11]. Sala' is very important aspect of Muslim daily activities, but before that Muslims are obliged to do Wadoo. During this Wadoo, Muslims must wash their hands, heads, feet, ear, nose, mouth in sequence and organized matter. Each mosque most has bathrooms and areas for practicing Wadoo. These areas must include sinks, faucets, seat and other equipment need for Wadoo. However, the result showed that bathrooms and Wadoo areas are not accessible for most wheelchair users. Most of the Wheelchair users need help with wadoo and using the restrooms. Another challenge is that most of the mosques do not provide ramps for the wheelchair users. The wheelchair users faced many challenges in several aspects. The roads to the mosques, enters, exits were found not accessible by majority of the

participant. The wheelchair users needed help to mobilize inside and around the mosques. The Quran shelves were not reachable.

Majority of the wheelchair users and their caregivers agreed that most of the mosques are not accessible and that they need an assistance to enter the mosque, pray and exit. Issues are associated with mosques' parking lots, roads, bathrooms, wadoo area, sinks, entrances and exits, door handles and shelves created serious obstacles and participation restriction for the wheelchair users. Practice of framework for occupational therapy and ICF describes spiritual activities and expression as "activities that allow a sense of connectedness to something larger than oneself or that are especially meaningful". Sala' is an important spiritual activity that the wheelchair users are restricted to participate in due to obstacles in the physical environment. The lack of accessibility to mosques, employment, education and other public place results in the segregation of the people with disability from the community. However, if the guidelines of the ICF and The Saudi ministry of municipal and rural affairs were applied we may have more people with disability participating their rights and spirituals activates. Majority of the feedback that we received from the questioner, the participant indicates if they want to do sala', they go for a distant and newly built mosque or they pray at home.

### **Implication:**

At the time being, wheelchair users have a lot of difficulties in doing their religious activity (sala'). The barriers that the people with special needs face are mostly environmental that prevent them from participating in religious activities. The environmental obstacles fortunately can be fixed and modified to fit their needs and empower them to live independently. The Saudi Ministry of Municipal and Rural Affairs provide design code for PWD[9]. The design code is not only for religious

building but for all public buildings, and it must be followed to empower the PWD. Being able to access any building is a human right. As a result of our study and other studies, many of the public building are not accessible [4.5.6.8.10].

To this day, there are no sufficient data that measures the accessibility of buildings in Saudi Arabia. There should be campaigns to spread awareness about how PWD face difficulties to participate in religious activates due to the inadequate design, how they can modify it and the environment to be more accessible. Imams of mosques do not notice any wheelchair users and think is none. However, in reality, they cannot go to mosques because they are not accessible for them. Therefore, the Imam indicates that the state of the mosques are adequate and accessible, but the data collected from our research and other studies indicates the contrary (10). Within the near future, we hope that there are more studies done about this problem specifically and more study to be done to all the public services that the government provides. We hope our study and the future studies help to improve the accessibility of all areas for PWD to provide the best services for PWD.

### **Limitation:**

The study has several limitations. The finding cannot be fully generalized due to many reasons. First, the global pandemic (COVID-19) played a main reason for not reaching the aimed sample size and distributing the questioner. Second, the number of the participant in the study was insufficient from the people with special needs and the caregivers. We hope in the future if other studies will be conducted to see the accessibility differences the between the old mosques and the newly built mosques and, to investigate about the main problem in the old mosques that caused them to be inaccessible and the proper modifications to fix these problems.

## CONCLUSION

Mosques in Al Ahsa region were found not accessible for wheelchair users and people with special needs. The current situation inhibited the people with disabilities from performing religious activities in mosques. Forcing modifications to public building and mosques is needed to overcome these difficulties.

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**Ethical Approval:** Approved

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