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# Dentistry for individuals with special needs in Saudi Arabia: a commentary

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**Abstract**

There are approximately one million residents with disabilities in Saudi Arabia. The Saudi societal view of individuals with disability is of people who are helpless, dependent, home-bound and lack productivity. There are reports of patients with disabilities who present management difficulties, are in need of increased oral hygiene and who have caries ratios comparable to the general population. However, there is little or no preparation of dental students to provide services for their special needs. Examples of dental education accreditation standards in other countries are used as models for needed educational programmes.

***Key words:*** *Disabilities, Saudi Arabia, dental education*

## Introduction

The 2002 report, *Country Profile on Disability: Kingdom of Saudi Arabia*, (Japan International Cooperation Agency, 2002) details the national proportion of individuals with a wide range of disabilities, by age, residence, and causal factors. It is symptomatic of the state of dentistry for individuals with disabilities in Saudi Arabia that the report includes the number of physicians (602) and nurses and midwives (287), as well as the availability of various services; but nothing about dentists and oral health services.

### *Perceptions*

The word 'disability' was mentioned in the Qur'an or Hadiths (*religious texts of Islam*), in a direct and indirect way. As well, the concept of Muslims having inabilities or special needs and how they interacted in society can be found throughout the history of Islam. The belief of Muslims is that individuals are created with different abilities and disabilities with the objective for a Muslim to focus on their abilities and show gratefulness rather than focus on the disability. "*A Muslim has the right to improve the situation of their disability through prayer, medical, educational and advocacy resources*." (Al Thani, 2006).

There are allowances for Muslims with disabilities and the aged to be exempt from some of the Islamic practices such as prayers, fasting and performing hajj – the pilgrimage to Mecca. It is the fifth pillar of Islam, an obligation that must be carried out at least once in their lifetime by every able-bodied Muslim who can afford to do so. It is a demonstration of the solidarity of the Muslim people, and their submission to God (Hajj, 2009).

Due to the diversity of medical conditions and disabilities, "*... it is a preferred practice to refer to a Muslim religious leader to determine what (if any) exemptions of Islamic practices are placed upon a person with a disability or the aged ...The community as a whole is enjoined to be accepting of all people regardless of their disability and Muslims are required to support them in addressing their needs...*" (Al Thani, 2006). Caring for a family member with a disability is viewed as being highly rewarding. In general, Muslim care providers prefer to remain with the individual in need at all times and prefer to have activities that involve the whole family.

In Islam, the body is a gift from God and needs to be looked after and not abused. Keeping the body healthy is part of one's religion. Any illness is to be received with patience and prayers and Muslims are strongly encouraged to seek treatment and care. Essentially, "*... Islam sees disability as 'morally neutral'. It is neither a blessing nor a curse... It is simply a fact of life which has to be addressed appropriately by the society of the day*" (What does Islam say about disability?, 2009).

Saudi societal view of people with disabilities is based on a simple notion of disability which consists of helplessness, continuing dependence, being home-bound, low

quality of life and lack of productivity. Under the Labor and Workman Law (Article 51) a person with disability is defined as "..any person whose capacity to perform and maintain a suitable job has actually diminished as a result of a physical or mental infirmity"(Japan International Cooperation Agency, 2002). In accordance with these attitudes, small scale educational programmes are provided for the parents of children with disabilities. How effective and helpful these educational programmes are in minimising the impact of disabilities on the family and community and in changing the attitudes of the community toward disabled people, are issues that are yet to be answered. (Al-Gain and Al-Abdulwahab, 2002).

## Numbers and proportions

An essential first step in planning for and developing programmes to provide services for individuals with special needs is to determine the numbers and distribution of the population to be served. The reality is that extremely limited recent data are available (most information is for the 1990s and early years of this century) with even less information for most areas outside of the major urban locations. Most estimated information about prevalence and distribution of individuals with disabilities is derived from brochures produced by various rehabilitation centres from their service populations rather than by general population studies (Murshid, 2005).

One of the opening statements in the 2002 report indicates that despite medical statistics compiled by the Ministry of Health for its annual reports, there are no regular and reliable reports on disabilities: including numbers, types of disabilities, amputee population, or geographic distribution. (Japan International Cooperation Agency, 2002). A population study during the mid 1990s, estimated that there was, an overall disability prevalence around 4.5% (The Joint Centre for Research in Prosthetics and Orthotics and Rehabilitation Programmes, 1996). Using the 23.1 million national population figure in 2009 (excludes 5.6 million non- nationals) and 4.5% rate of disability, there were approximately 1,040,000 resident nationals with disabilities in Saudi Arabia at the beginning of the century (Central Intelligence Agency, 2009).

Despite the fact that 85% of the population resides in urban areas, more than half (58.7%) of individuals with disabilities are residents of rural areas (*Table 1*). Nevertheless, almost all services and programmes are concentrated in the metropolitan areas, and thus are not easily accessible to the rural population or nomadic tribes. In addition, there are duplications of efforts in urban areas due to lack of communication, coordination and cooperation among public and private organisations (Japan International Cooperation Agency, 2002).

More than one-third (35.3%) of the disabilities were classified as congenital (e.g. cerebral palsy, intellectual disabilities), approximately 16% were metabolic (diabetes), 11% were bone and joint (rheumatoid arthritis), 10% hereditary (muscular dystrophies, thalassemia, hemophilia), and others included trauma (spinal cord and injury) and infection (poliomyelitis). Available data by age indicated an increasing proportion of individuals with disabilities in older age groupings (Japan International Cooperation Agency, 2002).The specific rate of disabilities associated with hereditary factors is of particular concern, given the high rate of consanguineous marriages (Kershaw, 2003). In some parts of Saudi Arabia, particularly in the south, the rate of marriage among blood relatives ranges from 55-70%; among the highest rates in the world, according to the Saudi government (The Joint Centre for Research in Prosthetics and Orthotics and Rehabilitation Programmes, 1996).

The 2002 report identified the role of the Ministry of Health in the establishment of numerous rehabilitative services for individuals with disabilities, which offer physical, occupational, speech and auditory therapy as well as prosthetic and orthotic services. In addition, day care centres, polio care centres, social education institutes, social welfare homes and institutional facilities offer a wide range of programmes for young and elderly people with disabilities. "*Greater attention has been placed on health care for persons with disabilities than education and training, and there is very little attention given to helping persons with disabilities to gain employment*" (Japan International Cooperation Agency, 2002).

***Table 1. Proportion of individuals with disabilities by area and type of disability: 2000 (Japan International Cooperation Agency, 2002)***

| | *Urban (%)* | *Rural (%)* |
|---|---|---|
| *Total for all disabilities* | *41.3* | *58.7* |
| *Physical* | *39.6* | *60.4* |
| *Visual* | *48.2* | *51.8* |
| *Hearing* | *36.9* | *63.1* |
| *Intellectual* | *38.7* | *61.3* |
| *Psychiatric* | *31.3* | *68.7* |
| *Combinations* | *37.7* | *62.3* |

## Dentistry

There is an extended series of reports that highlight the dental service programmes in Saudi Arabia for persons with disabilities at individual dental treatment centres in the urban areas of the country. The report highlights patient management difficulties, the need for additional oral hygiene, relatively similar caries rates compared to children without disabilities, and traumatic injuries associated with particular disabilities (Adenubi and Martinez, 1997; Murshid, 2005; Al-Johara *et al*., 2006a). Other presentations review the knowledge and attitudes of the parents of individuals with disabilities regarding dental services for their children in Saudi Arabia. Most indicate a reasonable knowledge regarding sugar reduction and tooth brushing, and limited knowledge regarding the benefits of fluoridation and the timing of first visits for the dental care of their youngsters (Al-Shalan *et al*., 2002; Al-Shalan, 2003; Al-Johara *et al*., 2006b; Wyne, 2007). While the studies of various programmes in Saudi Arabia provide particular insight for the care of individuals with disabilities, the majority of reports are for relatively small numbers of youngsters and older patients. There is a scarcity of data for a national perspective.

One study, which includes both children and adults, reviewed the attitudes of dentists in Riyadh who provided care to individuals with sensory impairments. The dentists showed a positive attitude toward individuals with this particular disability, but not as favourable as dental graduates from European and North American schools. It was felt that the differences may have been due to variations in dental school curriculum training and cultural backgrounds (Al-Sarheed *et al*., 2001). This generally positive attitude exhibited by dentists toward individuals with disabilities mirrored the reported positive attitudes of a series of Saudi Arabian health care professionals (although, not including dentists) toward people with physical disabilities. The researchers reported, in concurrence with earlier studies, that those who experience more contact with people with disabilities appeared to have more positive attitudes. This contact appears to decrease the fear of the unknown and erase negative stereotypes (Gething, 1984; Strohmer *et al*., 1984; Gething, 1991; Al-Abdulwahab and Al-Gain, 2003).

### *Dental School programmes*

The need for experience and contact with people with disabilities was the basis for establishing dental school accreditation requirements to ensure adequate basic science and clinical experience in the predoctoral training programmes in many dental schools in other countries.

For example in Canada and the United States: "*Graduates must have sufficient clinical and related experiences to demonstrate competency in the management of the oral health care for patients of all ages. Experiences in the management of medically-compromised patients and patients with disabilities and/or chronic conditions should be provided.*" (Standard 2.4.1) (Commission on Dental Accreditation of Canada, 2006).

"*Graduates* ***must*** *(sic) be competent in assessing the treatment needs of patients with special needs*." (Standard 2-26) (U.S. Commission on Dental Accreditation, 2008)

Except for a recent editorial citing a general shortage of faculty members for dental schools in Saudi Arabia (Al-Hadlaq, 2008), there is a general absence of information regarding the extent and variety of educational experiences to prepare dental students for the care of these individuals with special needs.

### *Dental School programmes in Saudi Arabia*

A telephone survey was carried out by the authors (AMA and MTH) interviewing the Paediatric Dentistry division heads of the three federal and two private dental schools in Saudi Arabia. The respondents reported that only the postgraduate residents in the departments of Pediatric Dentistry received one or two lectures and clinical experiences for the care of children with special needs, but only as part of medically compromising conditions. No follow up studies were carried out to determine the effects of these efforts. There were no structured dental teaching programmes and courses, or even a specific lecture for the undergraduate dental students in any of the schools, to ensure adequate preparation during the basic science foundation and clinical experiences to provide dental care for children with special needs.

## The challenge

In 2002, it was reported that, "*there are great opportunities in Saudi Arabia to develop new information about disabilities, particularly their nature, their incidence and their impact on society*" (Al-Gain and Al-Abdulwahab, 2002). At the beginning of this new decade, the challenge continues with the need to prepare the next generation of health providers (including dental practitioners) to provide the services for individuals with special needs. The challenge is for schools of dentistry to follow the accrediting steps taken by the dental profession in other countries to ensure that there is the adequate, basic science and clinical experience in predoctoral clinical programmes to prepare graduates to provide for the wide range of individuals with special needs.

However, developing such an input is possible

only if the profession and the general public can be convinced of the need for these programmes. To this end:

- There is a need for a national health survey (including oral health) of people with disabilities, with particular emphasis on the conditions in the rural areas. The current limited series of reports emphasize the conditions in the major urban areas.
- There is a need to identify the type and availability of current dental service centres for individuals with disabilities. Such an effort to catalogue dental school and health department programmes, as well as the number of private dental practitioners, would provide an essential basis for lobbying for improved educational programmes and service arrangements.
- There is a need to establish a national organisation to stimulate an awareness of the varied needs of individuals with disabilities. Such an organisation would serve as an advocate to raise standards, to support demonstration programmes and lobby to increase the commitment to have children with disabilities (where possible) placed in the regular school system, to increase employment opportunities and to foster acceptance in the general community. Such an effort should be in harmony with comparable efforts with the national groups in each of the Gulf States.

Only then can one anticipate the establishment of real programmes in schools to prepare dental students to care for individuals with disabilities. Such an effort cannot be relegated to small groups of trained specialists. The reality is that such an effort can be successful only with specially trained specialists (e.g. paediatric dentists) and the participation of the broad range of general practitioners who have been prepared to provide these needed services. (Waldman and Perlman, 2006)

As we seek to meet this challenge, our guiding principle should be the words of the US educator Horace Mann, who said in 1859, "*Be ashamed to die until you have won some victory for humanity*" (The Quotation Page, 2009)

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