

## Dentistry for Egyptians with Special Needs

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### Abstract

There are approximately 12 million residents with disabilities in Egypt. Despite national legislation to assure individuals with disabilities, needed services are difficult to secure since social views exclude them from functioning as member of a community. The general social outlook to patients with disabilities ranges from barriers which restrict the inclusion and normalization in society to general limitation in the availability dental services. Specifically, in terms of oral health care, there is limited preparation of dental students in Egypt (particularly, exposure in predoctoral training programs) to provide care for this population. Examples of dental education accreditation standards in other counties are used as models for the improvement of dentals students in Egypt to provide services for these individuals. Further emphasis is needed to prepare dentists (including those in current practice) and healthcare professionals to provide, healthcare for patients with special health care needs. This article explores the gaps from social stigma to predoctoral training in Egypt in an effort to improve oral care and general healthcare for patients with special need.

**Keywords:** Disability, Special needs, Oral health, Dental education, Patient access

### Introduction

The World Health Organization's latest report on disability and health specified that:

- Over a billion people, about 15% of the world's population, have some form of disability.
- Between 110 million and 190 million adults have significant difficulties in functioning.
- Rates of disability are increasing due to population ageing and increases in chronic health conditions, among other causes.
- People with disabilities have less access to health care services and therefore experience greater unmet health care needs [1].
- About 1 in 59 children has been identified with autism spectrum disorder.

In 2014, there were approximately 87 million residents of Egypt. The 2006 Egyptian census estimated that 1.8 per cent of the Egyptian population (about 1.5 million residents) was disabled. The census only accounted for impairment and did not include activity limitations or participation restrictions as part of its measure. The United Nations reported a much higher figure, estimating that 12 million people are living with some type of disability [2].

### People with Disabilities in Egypt: Overlooked and Underestimated

“Among the most popular images from Egypt's parliamentary elections last November were pictures of soldiers helping voters with disabilities at the polling stations... Away from the cameras, however, people with disabilities remain a marginalized and largely overlooked part of Egyptian society” [3].

Only recently, are Egyptian politicians beginning to integrate people with disabilities into their political platforms. This has partly resulted from the large number of people who became disabled as a result of injuries suffered during the Revolution, attracting more media attention to the problem [3]. The issue of people with disabilities in Egypt is multi sided:

- Schools created for children with disabilities, the education provided is weak and few families can afford the extra costs for tutoring and teaching aids [3].
- The 1975 Rehabilitation of Disabled Persons Law provided people with disabilities access to vocational training and employment, but does not outlaw discrimination altogether. The government policy for Children is often forced to leave school and find work in cases where the head of the household becomes disabled.
- Workers' compensation rights are limited, and often not enforced.

- Disability remains culturally stigmatized. Rather than encouraging people with disabilities to become active members of society, cultural norms have often led to families hiding their members with disabilities and caring for them at home.
- Some Egyptian parents view their offspring's disability as a form of divine punishment while others fear it may have a negative social impact on their other children.
- The effects of marginalization have been also extended to public and private schools, where admissions standards often cause children with disabilities to be rejected.

In state sponsored employing Egyptians with disabilities Egyptians is based on a quota system (5%) for companies with more than 50 employees. According to most sources, however, this quota is not enforced, and companies will often have disabled persons on their payroll to meet the quota without actually employing these individuals.

### Health Care

Egypt's healthcare system includes both a public and private sector. Public health coverage is offered through the Health Insurance Organization (HIO), which covers about 58% of Egyptians, and the Ministry of Health, which covers 17%. Government-run medical facilities provide treatment free of charge. There are also private insurance options, and a network of private healthcare providers and medical facilities. Many mosques also operate their own clinics, especially in the large cities. "Medical care offered by the public health insurance system is generally of poor quality. Government hospitals are known to be rife with negligence and generally provide minimal care. Only about 6% of Egyptians covered by the HIO actually utilize its services due to dissatisfaction with the level of services it funds. In 2008/2009, 72% of health expenditure in Egypt was paid out of pocket by people seeking treatment. Egypt is currently working on an overhaul of its public healthcare system to improve its quality" [4].

### Oral Health

The 2014 report (the first nationwide survey in over 23 years to collect comprehensive information on the status of oral health among Egyptian adults and children) indicated "that utilization of dental services is not at optimal level; 40% of subjects reported that they experienced dental problems at the time of examination but did not see a dentist for treatment. Visiting behaviors of subjects showed that nearly 20% had not visited a dentist for more than 2 years and another 20% had never been to a dentist. Nearly 70% of examined children had some untreated caries experience; meanwhile, 80% were suffering from some form of periodontal disease. Minimal attention is being paid to primary prevention both on individual and professional levels. 77% of the examined individuals do not brush their teeth on a regular basis, 38% have never brushed their teeth, and only 48% use toothpaste" [5]. Among young people, females are more likely to brush their teeth. The prevalence of brushing teeth increases with the socio-economic status. While 73% of young people in the lowest wealth quintile never brush their teeth, only 12% of those in the highest wealth quintile never do. (Population Council 2011) As to manpower, in 2011, in Egypt there were 1.8 dentists per 10,000 population, compared to 9.8 dentists per 10,000 population in Jordan and 14.7 dentists per 10,000 population in Lebanon [6].

### Oral Health of Individuals with Disabilities

Limited published information is available regarding the oral health of the residents with disabilities in Egypt. Available data do indicate that, as compared to the general population, there is a greater need for preventive and restorative services. For example:

- Hearing impaired children have a high prevalence of dental caries. Preventive and restorative treatment needs are unmet in these children. Malocclusion and/or oral habits are reported in children with hearing loss [7].
- Children with Autism Spectrum Disorder (ASD) had significantly poorer oral hygiene and gingival conditions than healthy children. Self-injurious behavior and bruxism were prevalent among children with ASD. More children with ASD had difficulty in securing needed dental care [8].
- Special Olympics Special Smiles: The Special Smiles program is an effort to increase access to dental care for Special Olympics athletes, as well as people in general with intellectual disabilities (ID). Dental screenings are used as a means to increase awareness of the state of the athletes' oral health for the athletes themselves, as well as their parents and/or caregivers.

Between 2007 and 2015, in a series of local Special Olympic events in Egypt and at World Games, 351 Special Olympic Egyptian athletes with ID were screened. 27% had mouth pain, 62% had untreated tooth decay, 28% had missing teeth and 71% had gingival signs of disease [9].

It should be emphasized that the population of athletes and the specific individuals screened for oral health needs may represent a select group of persons with intellectual disabilities from a specific country and not representative of the whole population of individuals with intellectual disabilities in that country. It may be that, as a result of added involvement by parents/guardians/care-givers, these individuals had more access to dental services than other people with intellectual disabilities.

### Dental School Programs

A dental practice license in Egypt requires graduation from a school of dentistry accredited by the Higher Education Ministry and spending one year training in a public hospital. Usually in this internship year, the resident spends three months in one of the university hospitals and the other nine months in different Ministry of Health hospitals. Experience in the care for individuals with special needs is limited to post graduate students. Essentially, the courses regarding the care of individuals with special needs are rare and difficult to find.

This 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 programs 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" [10].

"Graduates must (sic) be competent in assessing the treatment needs of patients with special needs" [11].

## The Challenge

The need is for schools of dentistry to follow the accrediting steps taken by the dental profession in other countries to ensure the adequate basic science and clinical experience in predoctoral clinical programs to prepare graduates to provide for the wide range of individuals with special needs. However, developing such an effort is possible only if the profession and the general public can be convinced of the need for these programs. To this end:

- There is a need for a national health survey (including oral health) of people with disabilities with particular emphasis on those residing in the rural areas.
- There is a need to identify the type and availability of current dental service centers for individuals with disabilities. Such an effort to catalogue dental school and health department programs, as well as the number of private dental practitioners, would provide an essential basis for lobbying for improved educational programs and service arrangements.
- There is a need to enhance national organizations to stimulate an awareness of the varied needs of individuals with disabilities. Such organizations would serve as an advocate to raise standards, to support demonstration programs 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.

Only then can one anticipate the establishment of real programs 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 trained specialists (e.g. pediatric dentists) and the participation of the broad range general practitioners who have been prepared to provide these needed services.

## Conclusion

The rate of disabilities in the world population is increasing due to life longevity and the associated chronic ailments and squeal that ensue. There is a wavering pillar of limited exposure and knowledge in managing and treating patients with special needs in the Middle East. In addition, there is the general cultural stigma faced by individuals with special needs. Egypt's census estimated that 1.8 percent of the Egyptian population (about 1.5 million residents) were disabled. However, this report did not account for limitations in activities of daily living. The United Nations reported a much higher figure which would reflect a dire need for a national survey of oral and general health in the population to reflect the actual figures. There are limitations to attaining these figures as the cultural and social stigma of confining people of special needs to even medical attention and the gap of knowledge and precautions of healthcare professionals to manage them. There is limited published information available regarding the oral health of the residents with disabilities in Egypt. Children with autism spectrum disorder had significantly poorer oral hygiene and gingival conditions than healthy children [8]. The Special Olympics Special Smiles program dental screenings at the World Games reflected that 27% of Egypt's national athletes had oral pain, 62% had untreated tooth decay, 28% had missing teeth and 71% had gingival signs of disease (Special Olympics 2015). This select group of persons with intellectual disabilities, as a result of added involvement by parents/guardians/caregivers, had more access to dental services than other people with intellectual disabilities. There is limited exposure in training programs to prepare and educate future dentists on managing and treating these patients. A

collaborative effort from dental specialists, educators in predoctoral programs and societal awareness for support and inclusion from school programs to employment is needed to improve the overall oral health, patient access and inclusion of people of special needs. This reiterates the need to enhance national organizations to stimulate an awareness of the varied needs of individuals with disabilities [12,13].

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