

Evaluating knowledge of Dementia and Alzheimer's Disease among Egyptians

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Abstract:

Objective: To investigate knowledge about Dementia and Alzheimer's disease among Egyptians attending or accompanying those attending the out-patient clinics of Ain Shams University Hospitals and the dementia clinic in El Abasia hospital for mental health. **Methods:** the study was conducted on 343 subjects; 200 males (58.3%) and 143 females (41.7%) with a mean age (\pm SD) of 48.3 ± 16.3 years. Subjects were subdivided later to those having a dementia patient in the family and those who are not for further statistical analysis. A questionnaire was applied to all subjects regarding the nature of the disease, its magnitude, and related symptoms.

Results: Higher mean knowledge percentage was found among subjects with high education (43.3%) compared to those with secondary education or less (36.8%) and the difference was of a high statistical significance ($P < 0.01$). Having a patient with dementia in the family did not significantly improve the mean knowledge percentage regarding the disease compared to those not having a family member with dementia. Females and participants aging < 48 years showed better knowledge than males and participants > 48 years but the relation was not statistically significant ($P > 0.05$). The most correct knowledge participants have is the genetic nature of the disease (99.8 %) while the most incorrect one is that patient interview, neurological examination and CT brain give 100% diagnostic accuracy (95.1%).

Conclusion: The main factor that influences dementia knowledge is educational level. The knowledge about dementia and Alzheimer's disease among Egyptian community is clearly deficient.

Key words: Dementia, Knowledge, Egyptians.

Introduction:

Dementia is a growing health problem worldwide (1) and is now considered a health priority (2) and an epidemic in many countries (3-6). Dementia has detrimental effects on patients' function (7), their carers (2,8), family and the whole community. Many governments now either have already or are on their way to develop policies to face this devastating problem by creating dementia friendly communities, supporting research on prevention and treatment, and providing available treatment to those who need it (6,9-10). The prevalence of dementia in the MENA area (Middle East and North Africa) in 2010 was 3.7% and number of people suffering dementia was 1.15 million. This was estimated to reach 2.59 million in 2013 and 6.19 million in 2050 (11).

In Egypt, the estimated number of persons suffering dementia is about 350000 persons in 2013 – most of whom are elderly (2). Even though dementia is a common disorder, public, healthcare professionals, and even policy makers awareness have not been extensively studied. Among the few studies on dementia literacy (knowledge and beliefs about the disease), results generally show that public (12-15) and healthcare professionals' knowledge (16-17) is generally low. Public's literacy is crucial to public acceptance of evidence-based mental health care and encourages people with dementia and their families to come forwards and not be hindered by the stigma and myths of the disease (18). The purpose of this study is to investigate the public's dementia literacy in Egypt.

Subjects and Methods:

A cross sectional study was conducted which involved 343, 200 male (58.3%) and 143 female (41.7%) with a mean age (\pm SD) of 48.3 ± 16.3 years. All subjects were offered a structured questioner aiming to gather information about:

1 – Personal data and family history. 2 – Alzheimer's disease and dementia knowledge they have. 3 – The need for awareness and its appropriate method from their point of view. Before starting the questioner, a statement was given defining cognitive functions: (Cognitive functions are those functions concerning with memory, attention, learning ability, language, and calculation)

Most of questions were offered as multiple-choice questions which involved queries about cognitive functions and aging, the nature of Alzheimer's disease, its prevalence in Egypt, diagnostic methodology, how Alzheimer's patients act, and its

treatment and curability. All questions regarding knowledge were gathered and assessed as a mean knowledge percentage in relation to certain variables. Results:

Among our studied population there was no statistically significant difference between males (N=200,58.3%) and females (N=143,41.7%) regarding the mean percentage of knowledge about Alzheimer's disease (P= 0.2). Age also was not a statistically significant variable regarding Alzheimer's disease knowledge when the studies subjects was categorizes below or equal to 48 years of age and older than this (P=0.8). Educational level was the main variable that has a significant impact on Alzheimer's knowledge, subjects with high education got 48.3% of their knowledge about Alzheimer's correct compared to 36.7 % for subjects with lower educational level (P<0.001) Table (1).

Table (1) Comparison between gender, age, level of education and the mean knowledge about Alzheimer’s disease Percentage score %

	Mean	SD	t	P
Gender Males N=200 Females N=143	40.9 42.6	14.6 13.5	1.1	0.2
Age ≤48 years N=175 >48 years N=166	42.9 40.3	14.6 13.7	1.7	0.08
Education Secondary or less N=89 High education N=254	36.8 43.3	13.7 14.0	3.7	<0.01**

** P<0.01 highly significant

Among the studied population subjects were subdivided into those with positive history of having Alzheimer's patient in the family (18%) and those without that history (82%). There was no statistically significant difference between the two groups regarding Alzheimer's and dementia knowledge (p> 0.05). The most known correct knowledge by the studied subjects is that: cognitive impairment increases with age (61.75%) Fig (1).

Fig. (1) Comparison between the two studied groups as regards correct knowledge about cognitive impairment and aging (correct=increases with age,incorrect= decreases with age, age has no effect, or part of normal aging). (p>0.05)

Alzheimer's is a disease and not a normal part of aging process (76.65%) Fig.(2) and its prevalence increases with aging (85.8%), Alzheimer's disease has genetic nature (99.8%), and its common feature is memory difficulties (55.3%) Fig (3).

Fig. (2) Comparison between the two studied groups as regards correct knowledge about Alzheimer's (correct=being a disease, incorrect= part of normal aging). $P(>0.05)$

Fig. (3) Comparison between the two studied groups as regards correct knowledge about the most common feature that characterize Alzheimer patients' behavior (correct=with memory difficulties, wandering, repeating tasks, incorrect=they behave normally). $P(>0.05)$

The most prevalent incorrect knowledge is that Alzheimer's is not the most prevalent type of dementia (66.2%), the disease is curable (58.7%), and patient interview, neurological examination and CT brain give 100% diagnostic accuracy (95.1%) Fig (4). Most of our studied population does not know the burden of the disease in Egypt represented by the number of Alzheimer's patient in the country (72.55%). Ninety six percent of the studied population thinks that the community is in need for more awareness about Alzheimer's disease and the best method from their point of view to offer this awareness is TV shows (71%) Fig (5).

Fig. (4) Comparison between the two studied groups as regards correct knowledge about the procedure that gives 100% accurate diagnosis (correct= autopsy, incorrect= CT scan, neurological examination, or patients' interview).

Fig (5). Distribution of subjects according to their preference for how to get knowledge.

Discussion

This study aimed at testing the knowledge of the Egyptian population about some important information that should be known by the public in order to overcome many false believes which may passively affect the elderly quality of life on the long run.

In the current study there was no impact on either age or gender as variables and knowledge about dementia. This indicates that there is no effect of the different experiences gained by age and gender on that type knowledge. This may be due to the lack of interest to learn about this issue and on the other hand the Egyptian community is lacking easy methods to disseminate this knowledge compared to other countries in which those educational services are available and simple (19-20). In the current study education is the main factor that significantly improving the knowledge of the participants and this demonstrate very important issue especially in the Egyptian community in which the illiteracy is 26 % (21). This can be compared to the Australian community in which participants had a high rate of

recognition of dementia (12). A very interesting finding that no statistical difference between participants having a family history of Alzheimer's and those do not have was found. In fact this indicates a serious defect that dealing with Alzheimer's disease patients is lacking the part of health education for care givers. This point is covered in suitable ways in other countries (22), but it is worth mentioning that at the time being, some governmental (Ain Shams University) and non-governmental (Egypt Alzheimer's Society) organizations are now carrying increasing efforts in the field of health education. 76.65% of the participants agreed that, Alzheimer's is a disease rather than an age-related change. This agreed with McManus and Devine, 2011(23) whose participants respond by 94%. Also 99.8% agreed that there are genetic factors. Those correct answers indicated that there are baseline important and correct knowledge among participants which can be a good start for educational programs. The need for such educational program recommended in previous research studies (14).

On the Other hand; the incorrect answers were mainly direct toward lack of knowledge on the other causes of dementia rather than Alzheimer's disease itself. Also as regards the misunderstanding about the method of diagnosis and treatment; this again reflects the lack of public health education. Another important point is that this type of lack of knowledge unfortunately helps in the distribution of false believes which on the long run may affect the quality of life of both patients and their caregivers as well as hindering early diagnosis and treatment. Ninety six percent of the studied population thinks that the community is in need for more awareness about Alzheimer's disease and the best method from their point of view to offer this awareness is media.

In conclusion, Egyptians need to improve their knowledge about dementia and this will indirectly improve the quality of life of elders. Policy makers and organizations concerned with the elderly need to plan for such educational programs on a wide base.

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October 2014 volume1 (2)
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