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Alzheimer's Disease from the Perspectives of Saudi Elderly People

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Abstract: The purpose of this research was to examine Saudi elderly's perception of Alzheimer's disease (AD). Additionally, this study examined both the unique and collective variance of socio-demographic variables among Saudi elderly people in regards to their knowledge of Alzheimer's disease. A descriptive cross-sectional correlational research design was utilized. A convenience sample was utilized with a size of 300 Saudi elderly people aging 60 years and more. Setting was in Prince Salman social center in Riyadh city. Data collection was executed by using the structured self- administered questionnaire s heet, it covered three measures: a) Socio-demographic data questionnaire, b) Saudi elderly people's knowledge of Alzheimer's disease concerning "its early identification" and c) Saudi elderly people's perception of Alzheimer's disease. This study revealed that generally perception of saudi elderly people toward care of Alzheimer's disease was good and ranked as first one. The second rank in the perception was assessment of Alzheimer's disease as it slightly less than the care. The last rank was perception about the disease in general related to symptoms and stigma then causes and risk factors. As regards knowledge of saudi elderly people was good toward Alzheimer's disease. Recommendations made by the author include: (1) development and execution of educational programs should be executed to expand knowledge and decrease undesired perceptions. (2) Professional workers in the community should be approached and educated to assume more responsibility in increasing knowledge of AD and in altering adverse perceptions and underlining desired ones.

Key words: Alzheimer's disease · Knowledge · Perception · Saudi elderly people · Assessment & Care

INTRODUCTION

Alzheimer's disease (AD) is an irreversible, progressive brain disease that gradually and slowly destroys memory and rational thinking processes and skills and eventually it affects the ability to perform the simplest tasks. Usually, the majority of the inflicted cases start to develop Alzheimer's signs and symptoms after the age of 60. AD is the most underlying cause of dementia among older people that is characterized by the loss of cognitive functioning, thinking, remembering, reasoning and behavioral abilities, to extent degree that it interferes with person's daily life and basic activities [1-4].

The effect of Alzheimer's disease is wide-ranging and extensive. Such overarching impact is most obvious in the family where all family members are affected by this disease and their lifestyle is intensely [5-7].

Matters of daily living become challenging and difficult when Alzheimer's disease influences the patients, their families and caregivers. During the progress of the disease, the caregivers, in addition to their own personal business and needs, are charged with more responsibilities and duties including seeking and dealing with healthcare providers, negotiating medications, monitoring patient's behavior and attending to the daily needs and requirements of the patient [8-12].

Patients with Alzheimer's disease characteristically exhibit and show symptoms of impaired memory and decision-making abilities, as well as other problems with their behavior and verbal abilities [13-16]. The Diagnostic and Statistical Manual of Mental Disorders, Cited in American Psychiatric Association [15], indicates that patients with Alzheimer's disease might have slight awareness of their memory loss or other cognitive issues.

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According to Ho *et al*. [4,15-17] primary caregivers experience an increase in visiting their doctors more frequently, a decline in health and weight, as well as increased rates of anxiety and depression.

Although current Alzheimer's treatments cannot stop Alzheimer's from progressing, they can temporarily slow the worsening of dementia symptoms and improve quality of life for those with Alzheimer's and their caregivers. There is a worldwide effort under way to find better ways to treat the disease, delay its onset and prevent it from developing [1,18]. Researches are focusing on several different aspects and features, including helping people to maintain mental functioning, managing behavioral symptoms and slowing or delaying symptoms of disease. In addition the focus is geared towards decreasing the economic and societal costs which are imposing huge burdens on the health care system. Such actions concentrating on helping people and managing costs will help also in reducing personal costs that affects persons with Alzheimer's disease and their caregivers and society at large [19-22].

Significance of the Study for the Saudi Region: Not much is known about AD knowledge among the Saudi population. Moreover, the impact of acculturation on AD knowledge among Saudis has not been studied. Culture influences how people define, perceive and respond to illness and explains variations in illness related behaviors. The researcher speculates that Saudi population and level of acculturation can play a role in understanding the disease and explaining health related behaviors. Despite of the assumption that more acculturated individuals has greater access to sources of mainstream information, including disease information and that they are more knowledgeable about aspects of AD, little evidence is currently available.

Recently in Saudi Arabia had small group initiatives from within the caregivers and medical community to establish awareness on Alzheimer's disease to be as a primary objective of these newly formed organizations [1].

The Saudi Alzheimer's Disease Association reported that Alzheimer's disease accounts for 50% to 80% of dementia cases worldwide and the greatest known risk factor is increasing age of 65 and older and the prevalence rate of Alzheimer's disease was not documented yet [1].

Reviewing national researches estimate to date that no national registries or official statistics on the prevalence of Alzheimer's disease in the Arab World. It is fair to conclude that the numbers of reported cases are far less than the actual existing patients. This indicates that the condition is under diagnosed. The majority of cases present in their later stages of the disease while prognosis is worse and the benefit of drug therapy is limited. Our societies consider memory loss as part of the normal aging process and this is the largest hurdle to overcome in order to ensure proper management of the disease.

Developing nursing research and increasing networking of nurse researchers within Saudi Arabia to overcome the lack of nursing literature about AD could be achieved. By adding to the earlier requirement of nurses in promoting nursing research the needs of groups most at risk were to be considered, evaluating programs there is a need to support maximum participation in health care planning; to teach people about self-care emphasize the uniqueness of nursing to integrate knowledge, experience and the ability to reflect on and research.

Generally, there is an urgent need to assess AD knowledge and perception among Saudi elderly population. Studying elderly group of the Saudi population is meaningful because this population has diversity in socioeconomic status, health status, as well as diverse exposure to AD and other neurologic diseases. This will have a great impact on extending the literature of AD in this country and Arab countries as well and in finding the proper means of managing AD.

Purpose of the Study: The purpose of this study was to examine Saudi elderly people's perception of Alzheimer's disease regarding "its early identification, assessment and provided care" in Riyadh city.

Research Questions: In order to fulfill the purpose of the study, the following questions will be addressed:

- What is the knowledge of Saudi elderly people about Alzheimer's disease concerning its early identification?
- How Saudi elderly people perceive Alzheimer's disease "its assessment and provided care"?
- Is there a correlations between Saudi elderly people's socio-demographics and their perception of Alzheimer's disease?

MATERIALS AND METHODS

Research Design: A quantitative descriptive correlational and cross sectional design.

Study Setting: Prince Salman Social Center was selected to be the setting for this research study.

Subjects: The total number of the study subject was 300 Saudi elderly people. The following inclusion criteria were used for selecting the study sample: participants should be of Saudi nationality, aging 60 years and above, both sexes, not diagnosed with AD or other cognitive problems and welling to participate in the study. A non-probability convenience sampling was used.

Instrumentation of the Study: In this study, a structured self – administered questionnaire sheet was used.

This questionnaire was developed by the researcher based on reviewing related literature for years from (2000 to 2014). It includes three parts.

Part I: Socio-demographic characteristics related to elderly people such as: age, gender, marital status, income, level of education, previous job, number of family members, home care provider, medical history and past family history of Alzheimer' disease.

Part II: Knowledge of Saudi elderly people of Alzheimer's disease "its early identification". It is composed of ten major categories: memory, solving problems, difficulty completing familiar tasks, Confusion with time or place, trouble understanding, problems to find the appropriate words, misplacing, poor judgment, social activities and changes in mood and personality.

Part III: Perception of Saudi elderly people of Alzheimer's disease" its assessment and care". It is composed of 5 major categories related to assessment, care, causes & risk factors, stigma and signs and symptoms of Alzheimer's disease. Each category consists of specific information items. A five point Likert scale was used.

Data Collection Procedures: Subjects were selected by the Prince Salman Social Center according to the specified inclusive and exclusive criteria.

The Actual Study: Collecting data for the present study was done during the period from (Onset July 2013 to the end of November 2013). The average time spent for collecting data for each participant was approximately 40 to 60 minutes as elderly people consume time to concentrate.

Statistical Analysis: All questions in the questionnaire were coded and entered into the computer through statistical package for social sciences (SPSS) version 20. Variables were described using frequency distribution for categorical variables and means with standard deviations for continuous variables.

RESULTS

Part 1: Socio-demographic characteristics of the subjects:

Subject's Age Groups Distribution: As it is shown in Table (1), slightly more than half 57% of the subjects were in the age group (60 to 65 years), 23% from 66 to 70 years, 5% of the subjects were in the age group (76 to 80 years). While only 3% of subjects were in the age group above 80.

History of Retirement (Retired since When): As shown in Figure (1), 47% of the of the subjects were retired since 5 to 10 years, 23% only retired in the past five years, 17% were retired since11 to 15 years ago and 13% retired since above 15 years.

Social Living Condition: Table (2) shows that almost 99% of the subjects live with their families and only 0.7% live alone, slightly more than 55% of the subjects live with 5 to 10 family members, 22% live with less than 5 members, 19% have between 11 to 15 family members and only 2% of the subjects didn't respond to this question, 82.7% of elderly people have home care provider while only13% did not. It is worthy to indicate that 4.3% of the subjects didn't respond to this question.

Table (3) present "Changes in memory that hinders daily life" had an overall mean of 3.877 where the statement "Loss ability to remember recent events" scored the highest agreement response from the elderly people with a mean of 4.147. While the statement "Patient adopt aiding means to remember (such as paper or electronic notes)" scored the lowest agreement mean (3.32).

In addition Table (4) imaging "Difficulties and challenges in planning and problem solving" had an overall mean of 3.973 where statement "difficulty when concentrating and take much longer to perform tasks accustomed to implement before" scored the highest agreement response from the elderly people with a mean of 4.033 and the statement "the difficulty in balancing daily accounts" scored the lowest agreement mean (3.87). "Difficulty in completing familiar tasks at home, work or hobbies time" had an overall mean of 3.76 where the statement "Alzheimer's patients find it difficult to drive to

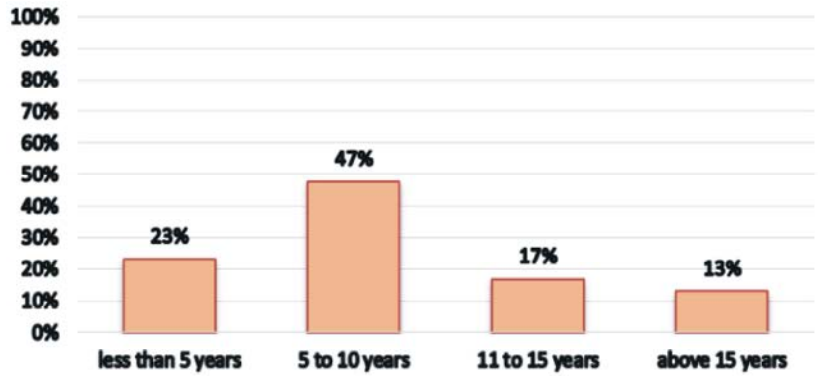

Fig. 1: Retirement

Table 1: Subject's age groups distribution

Age	Percent
From 60 to 65 years old	56
From 66 to 70 years old	23
From 70 to 75 years old	13
From 76 to 80 years old	5
Above 80	3
Total	100

Table 2: Social Living condition

Living with whom	Percent
Living alone	0.7
With his family	98.7
Other (specify)	0.3
Missing data	0.3
Number of people Living with	
Less than 5 people	22
5 to 10 people	55
11 to 15 people	19
More than 15 people	2
Missing data	2
Home care provider	
Available	82.7
Not Available	13
Missing data	4.3

places familiar to them" scored the highest agreement response from the elderly people with a mean of 3.94 and the statement "Alzheimer's patients find it difficult to remember their favorite sports game" had the lowest agreement mean (3.483). "Mental dispersion regarding time and place" had an overall mean of 3.892 with the statement "Alzheimer's patients lose the ability to determine dates, seasons and the sense of time" having the highest agreement response from the elderly people with a mean of 4.127 and the statement "Alzheimer's patients find it difficult to grasp the events that just occurred (right now)" scoring the lowest agreement mean (3.633).

Conversely, Table (5) "Problems in understanding and interpreting visual images and spatial relationships" had an overall mean of 3.155 where the statement "These people may find difficulties in reading and judging distances in terms of being far or close and difficulty in distinguishing colors or its reflections" scoring the highest agreement response from the elderly people with mean (3.233) and the statement "Alzheimer 's patient cannot often recognize himself in the mirror" having the lowest agreement mean (3.073). "Changes in mood and personality" had an overall mean of 3.88 with the statement "Alzheimer 's patient may become muddled, confused, skeptical, frustrated, depressed, scared and feared" having the highest agreement response from the elderly people with a mean of 4.047 and statement "patient feels angry rapid for any situation" scoring the lowest agreement mean (3.73).

Table (6) shows the analysis of perception of Saudi elderly people about Alzheimer's disease considering "assessment" items. The overall mean was 3.748 indicating that elderly people almost agree on the overall perception scale concerning items of assessment. Also, it is worthy to note that the statement "patients with Alzheimer's are exposed to depression" had the highest agreement response from the elderly people with a mean of 4.017 and the statement "There is a confusion between symptoms of depression and Alzheimer 's disease" scoring the lowest agreement mean (3.48).

Also, Table (7) represents the analysis of the "perception of Saudi elderly people toward Alzheimer's disease" in regards to "Care" that had an overall mean of 3.767 with the statement "When people with Alzheimer's disease begin to have difficulty taking care of themselves, caregivers should take over right away" recording the highest agreement response from the elderly people with a mean of4.344 and the statement "Driving safety for Alzheimer 's patients if he enjoys to drive a car all the time" having the lowest agreement mean (2.663).

Table 3: Knowledge of Saudi elderly people of Alzheimer's disease “memory "items

Sub-scale	Statements	Mean	Sub-scale mean	Standard Deviation	Rank	Rank in sub-scales
Memory that hinder daily life	Loss ability to remember recent events	4.147	3.8774	0.946	2	1
	Forgetting names and dates of important events	4.097		0.947	4	2
	Repeating the same question over and over again, despite receiving the answer	3.923		1.105	10	3
	Patient adopt aiding means to remember (such as paper or electronic notes)	3.32		1.201	30	5
	The patient's dependence on family members in performing the work which he/she was perform by himself	3.9		1.068	12	4

Table 4: Knowledge of Saudi elderly people of Alzheimer's disease “planning and problem solving, completing familiar tasks and time and place orientation“ items

Sub-scale	Statements	Mean	Sub-scale mean	Standard Deviation	Rank	Rank in sub-scales
Planning and problem solving	Suffers from changes in the planning and conduct of daily life	4.013	3.973	0.992	8	2
	The difficulty in balancing daily accounts	3.873		1.023	15	3
	Difficulty when concentrating and take much longer to perform tasks accustomed to implement before	4.033		1.06	6	1
Difficulty in completing familiar tasks	Alzheimer's patients find it difficult to drive to places familiar to them	3.94	3.766	1.099	9	1
	Alzheimer's patients find it difficult to budget their accounts note and financial transactions at work	3.876		1.066	14	2
	Alzheimer's patients find it difficult to remember their favorite sports game	3.483		1.172	28	3
Mental dispersion regarding time and place	Alzheimer's patients lose the ability to determine dates, seasons and the sense of time	4.127	3.892	0.973	3	1
	Alzheimer's patients find it difficult to grasp the events that just occurred (right now)	3.633		1.085	25	3
	In some cases, they may forget where they exactly are and how they got to the place they are	3.916		1.079	11	2

Table 5: Knowledge of Saudi elderly people of Alzheimer's disease “Problems in understanding and interpreting visual images, spatial relationships" and “Changes in mood and personality "items

Sub-scale	Statements	Mean	Sub-scale mean	Standard Deviation	Rank	Rank in sub-scales
Problems in understanding and interpreting visual images and spatial relationships	Sight problems is one of the signs of Alzheimer's disease	3.123	3.155	1.143	33	3
	These people may find difficulties in reading and judging distances in terms of being far or close and difficulty in distinguishing colors or its reflections	3.233		1.153	31	1
	Diseased person may pass by a mirror and wrongly believe that there is another person in the room	3.19		1.185	32	2
	Alzheimer 's patient cannot often recognize himself in the mirror	3.073		1.194	34	4
Changes in mood and personality	Alzheimer 's patient may become muddled, confused, skeptical, frustrated, depressed, scared and feared	4.047	3.889	0.987	5	1
	Patient feels angry rapid for any situation	3.73		1.114	19	2

Table 6: Perception of Saudi elderly people of Alzheimer's disease "assessment"items

Statements	Mean	Sub-scale mean	Standard Deviation	Rank
Patients with Alzheimer's are exposed to depression	4.017	3.748	0.991	1
There is a confusion between symptoms of depression and Alzheimer 's disease	3.48		1.167	2

Table 7: Perception of Saudi elderly people of Alzheimer's disease“ Care“ items

Statements	Mean	Sub-scale mean	Standard Deviation	Rank
There is no cure for Alzheimer's disease but there are treatments to improve cognitive and behavioral symptoms	3.85	3.767	1.019	7
Alzheimer's disease is a significant burden on doctors and nurses and care provider of the patient	3.83		1.073	8
Alzheimer causes extensive pressure, on the level of psychological and social life	3.923		1.053	6
Alzheimer 's patients lose the ability to live alone and always needs to be cared of	4.297		0.904	2
Alzheimer 's patient care is by giving him instructions simple and easy	3.753		1.089	10
When people with Alzheimer’s disease begin to have difficulty taking care of themselves, caregivers should take over right away	4.344		0.785	1
Takes into account the patient not to do high physical effort during the day	3.783		1.049	9
Alzheimer 's patients benefit from psychotherapy of depression to and anxiety in the middle stage of the disease	3.623		0.951	11
It is better to remind Alzheimer 's patient that she/he repeats the same question or story	3.487		1.244	12
Once people have Alzheimer’s disease, they are no longer capable of making informed decisions about their own care	4.05		0.924	4
Alzheimer 's patient needs 24-hour observation	3.997		1.007	5
When a person is suffering from Alzheimer's disease and uses a note to remember, this leads to deterioration	2.903		1.177	13
Driving safety for Alzheimer 's patients if he enjoys to drive a car all the time	2.663		1.206	14
Has to be who grazing patient that accept the problems faced by, where that with the passage of time more and more will develop	4.237		0.889	3

Table 8: Perception of Saudi elderly people of Alzheimer's disease “Symptoms“ items

Statements	Mean	Sub-scale mean	Standard Deviation	Rank
Generally impaired ability to make good decisions and managing financial matters of the symptoms of Alzheimer's disease	3.783	3.572	1.068	2
Disturbances in memory and thinking results from Alzheimer 's disease	4.201		0.849	1
Alzheimer 's patients exposed to fall when the disease is getting worse	3.57		1.081	4
Tremor or shaking of the hands or arms is a common symptom in people with Alzheimer's disease	3.65		1.085	3
One of the symptoms of Alzheimer's problems in the circulation of money and buy supplies	3.475		1.053	6
One of the symptoms of Alzheimer's that person think that others are stealing his things	3.513		1.08	5
Alzheimer 's patient remembers events more recent than the old	2.813		1.266	7

Table 9: Correlation between socio-demographics variables and total score of perception scale

Socio-demographics variables	Perception scale Correlation value
Age in years	0.065
Gender	0.205**
Marital Status	0.103
Education Level	-0.003
Retirement Status	0.074
Retirement Since when	0.01
Location	-0.036
Number of people living with him	0.047
Home care provider	0.007
Type of House	0.029
Monthly income	-0.013
Do you suffer from any illness	-0.01
Is there a family member suffers from a genetic disease	-0.091

**Correlation is significant at level 0.01

Table (8) shows the results of analyzing the “perception of Saudi elderly people toward Alzheimer's disease Symptoms” that had an overall mean of 3.572 with the statement “Disturbances in memory and thinking results from Alzheimer's disease” scoring the highest agreement response from the elderly people with a mean of 4.201 and the statement “Alzheimer's patient remembers events more recent than the old” getting the lowest agreement mean (2.813).

Table (9) indicates the correlation results between socio-demographic variables and elderly's perception toward Alzheimer's disease. By looking at the results in

the table; it becomes apparent that there are no significant correlations between any of the socio-demographic variables and perception scale except for the variable of gender that has a significant correlation with the perception scale although the correlation coefficient is not that strong (0.205).

DISCUSSION

Recognizing the sample characteristics; the majority of the subjects are in the age range of 60 to 65 years, which is the age where concerns about aging diseases start.

Most of the participants are in the retirement stage and mostly retired since 5 to 10 years ago. It is obvious from the results that the majority of the participants are living with their families with a number of members in the family ranging from 5 to 10 people.

For the Assessment of Saudi elderly people level of knowledge regarding Alzheimer's disease "Early Identification". The overall mean is 3.742 for the measurement of the items for the knowledge of Saudi elderly people about Alzheimer's disease "Early Identification"; indicating that the majority of the studied elderly people agree on the overall knowledge scale that is geared towards early identification of Alzheimer's disease.

Becomes apparent that the statement (item) of "Alzheimer's patients may put things in its unusual place and then loses his things and cannot retrieve steps to find it" in the sub-scale (category) of "Putting things in the right place and the loss of the ability to track things" has the highest agreement response among all of the subscales' items with a mean of 4.157. While the statement (item) of "Alzheimer's patient cannot often recognize himself in the mirror" in the sub-scale (category) of "Problems in understanding and interpreting visual images and spatial relationships" has the lowest agreement response with a mean of 3.073. On the other hand, the statement (item) of "People with Alzheimer's find difficulties in follow-up or to engage in a debate or a current discussion" in the sub-scale (category) of "Problems to find the appropriate words when talking or writing" has the neutral agreement response among all subscales with a mean of 3.807.

The above-mentioned statements of the highest, lowest and neutral agreement response among all subscales concerning putting things in its unusual place and not retrieving them, not recognizing themselves in the mirror and finding difficulties in follow-up or to engage in a debate or a current discussion are in congruence with what was revealed by the study that was done by Werner [23] where the study found that Alzheimer patients' knowledge influences their behaviors that are related to the disease such as recognition, seeking for help and management and prevention.

As for the overall mean for the sub-scales; the sub-scale "Difficulties and challenges in planning and problem solving" had an overall mean of 3.973, which is the highest among all of the other sub-scales' overall means. On the contrary, the sub-scale "Problems in understanding and interpreting visual images and spatial relationships" had an overall mean of 3.155, which is the lowest among all other sub-scales' overall means. Such overall means indicate that there is a wide gap of knowledge, misconception of disease and that this group of elderly is prone to minor and weak knowledge and needs further education and this is in an agreement with what was found by Connell *et al*. [24] and Ayalon and Arena [25]. However, they also have significant misconceptions, which could discourage them from pursuing medical evaluation and seeking outside assistance for AD, potentially delaying its early detection and treatment.

The perception of Saudi elderly people toward Alzheimer's disease "Assessment and Care" items, the overall response on agreement towards the perception of saudi elderly people for Alzheimer's disease is partially positive as the mean 3.309 which indicate an agreement but not that strong.

The overall mean for the perception of Saudi elderly people about Alzheimer's disease "assessment" items is 3.748 indicating that elderly people almost agree on the overall perception scale towards assessment items. The statement "patients with Alzheimer's are exposed to depression" had the highest agreement response from the elderly people with mean of 4.017. This means that Saudi elderly people have similar perspective on Alzheimer's disease symptoms, risk factors and effectiveness of treatment similar to other cultures as reported by Roberts *et al*. [26]. The statement "Disturbances in memory and thinking results from Alzheimer's disease" in the category of "perception of Saudi elderly people toward Alzheimer's disease symptoms" had the highest agreement response (mean of 4.201), the statement "Alzheimer is a type of dementia" in the category of "perception of Saudi elderly people toward Alzheimer's disease Stigma" had the highest

agreement response with mean of 4.257. While the statement "Mental exercises reduce the incidence of Alzheimer's disease" in the category of "perception of Saudi elderly people toward Alzheimer's disease causes & risk factors" had the highest agreement response with mean of 4.064.

These findings reveal that the study's sample considers AD as a disease of memory loss. This agrees with a study by Jones *et al*. [27] reporting that communities share factors influencing dementia treatment seeking behaviors.

Correlation coefficient results broaden our understanding of diverse factors that may influence AD knowledge and perception. Results offer insight into who is more likely to be knowledgeable about AD and perceive more AD causes. They also provide information about the condition under which Saudi elderly people are more likely to know about AD care.

Correlation coefficients between socio-demographics variables and total score of perception scale indicate that there are no significant correlations between socio-demographic variables of level of education (-0.003), date of retirement (0.01), location (-0.036), number of people living with (0.047), home care provider (0.007), type of house (0.029), monthly income (-0.013) and suffering from any illness (-0.01) and perception scale. The only existing correlation is between gender and total score of perception scale (0.205).These results were in partial agreement with Watari and Gatz, Quinn and Owusu-Boakyewa [28-30].

CONCLUSION

This study revealed that generally perception of saudi elderly people toward care of Alzheimer's disease was good and ranked as first one. The second rank in the perception was assessment of Alzheimer's disease as it slightly less than the care. The last rank was perception about the disease in general related to symptoms and stigma then causes and risk factors. As regards knowledge of saudi elderly people most of subjects know that Alzheimer's disease associated with memory loss.

Implications: The findings of this study support a call for public education aimed at improving knowledge about AD and fostering appropriate beliefs about AD for this population. The dissemination o f information should include various aspects of AD and related services, including its unknown causes, risks and protective factors, symptoms, diagnosis, treatment and medical, social and health services available to persons with AD and caregivers.

Recommendations: Recommendations made by the author include:

- Development and execution of educational programs should be executed to expand knowledge and decrease undesired perceptions.
- Professional workers in the community such as physicians, nurses, social workers and others should be approached and educated to assume more responsibility in increasing knowledge of AD and in altering adverse perceptions and underlining desired ones.
- In conclusion, using a qualitative research approach is an applicable way to investigate a qualitative concept such as perceptions. Therefore, qualitative studies should examine the core of perceptions among Saudi elderly people.

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