

ASSESSMENT OF THE POPULATION AWARENESS ABOUT SCHIZOPHRENIA DISEASE AMONG AL-HASA REGION IN SAUDI ARABIA

Amal Khaleel Abu Alhommos^{1*} and Batool Rashid Al-Janoubi¹

Pharmacy Practice Department, Clinical Pharmacy College, King Faisal University, Alhasa, Saudi Arabia.

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*Corresponding Author

Amal Khaleel

AbuAlhommos

Pharmacy Practice

Department, Clinical

Pharmacy College, King

Faisal University, Alhasa,

Saudi Arabia.

ABSTRACT

Schizophrenia is probably the most severe mental disorder, as it is correlated with cognitive deficits, deficits in social functioning and high levels of distress. Schizophrenia most commonly has its onset in early adulthood affecting approximately 24 million people worldwide and 208,643 people in Saudi Arabia. Schizophrenia is usually a lifelong psychiatric disability. Many patients require comprehensive and continuous care over the course of their lives. The main objective of this study was to assess the population awareness of schizophrenia disease in Alhasa region of Saudi Arabia. The study was a cross-sectional study design was carried in Saudi Arabia, over a period between 25th of January to 25th of March 2017. The Saudi population in Al-Hasa were the population of the study. An online questionnaire

was published to collect the data. The questions were close ended or multiple choice type. The questionnaire included two sections: demographic section and the population knowledge section. The 310 persons fully completed the online questionnaire. The exclusion criteria in this study was any participants who are medical practitioner such as pharmacists, physician and nurses. The population were well aware about schizophrenia disease regarding to the prevalence of schizophrenia among gender, onset of the disease, other associated disease or conditions that may cause schizophrenia, proper strategy to deal with any schizophrenic patient. However, they were unaware about the schizophrenia definition, life long chance for developing schizophrenia, genetic risk factors, common symptoms of schizophrenia, disease management, and side effect of the medications.

KEYWORDS: Population, Awareness, and Schizophrenia.

1. INTRODUCTION

Schizophrenia defined by defects in one or more of the following five domains: delusions, hallucinations, disorganized thinking (speech), totally disorganized or abnormal motor behavior (including catatonia), and negative symptoms.^[1]

The pathophysiology of schizophrenia is not totally understood, but there was a range of structural and functional brain defects that have been identified to be the underling cause of schizophrenia, including the hippocampus.^[2,3] There was a hypothesis saied that the schizophrenic brain has abnormal levels of dopamine. It seems that dopamine is associated in some way in the pathophysiology of schizophrenia. Other neurotransmitters may also play a role such as glutamate, serotonin, and gamma-aminobutyric acid (GABA).^[3]

Schizophrenia most commonly has its onset in early adulthood affecting approximately 24 million people worldwide and 208,643 people in Saudi Arabia.^[4,56] It is rarely occurs before adolescence or after the age of 40 years. Although the prevalence of schizophrenia is equal in males and females, the onset of illness tends to be earlier in males. Males most frequently have their first episode during their early 20s, whereas with females it is usually during their late 20s to early 30s.^[7]

Schizophrenia is probably the most severe mental disorder, as it is correlated with cognitive deficits, deficits in social functioning and high levels of distress. It has a long time course, and there is a major risk of suicide or self-harm.^[8]

Schizophrenia is usually a lifelong psychiatric disability. Family relationships, social functioning, and employment are frequently affected, and periodic hospitalizations are common. The management of schizophrenia involves multiple strategies to optimize the patient's functional capacity, reduce the frequency and severity of symptom exacerbations, and reduce the overall morbidity and mortality from this disorder. Many patients require comprehensive and continuous care over the course of their lives.^[9]

The medications that can be used to treat schizophrenia include:

First-generation antipsychotics, have more potentially neurological side effects, including the risk of developing a movement disorder (tardive dyskinesia) that may or may not be reversible, they include: *Chlorpromazine, Fluphenazine, Haloperidol, Perphenazine.*^[10]

Second-generation antipsychotics, which are generally preferred on the first-generation antipsychotics because they pose a lower risk of serious side effect, they include: *Aripiprazole, Asenapine, Clozapine, Iloperidone, Lurasidone, Olanzapine, Paliperidone, Quetiapine, Risperidone, Ziprasidone*.^[10]

The common side effects of the antipsychotics were: weight gain, diabetes mellitus, hypercholesterolemia, extrapyramidal symptoms (dystonia, akathisia, pseudoparkinsonism and tardive dyskinesia), prolactin elevation, sedation, anticholinergic side effects (dry mouth, blurry vision, constipation, drowsiness, sedation, hallucinations, memory impairment and difficulty urination, dizziness and decrease sweating), orthostatic hypotension and QT prolongation.^[11,12,13]

The rationale of this study was most of our population have a low awareness about psychiatric diseases especially schizophrenia, and there is no other related studies performed in Saudi Arabia to evaluate the awareness of schizophrenia disease.

The main objective of this study was to assess the population awareness of schizophrenia disease in Alhasa region of Saudi Arabia.

2. METHOD

A cross-sectional survey study was conducted in Saudi Arabia in Al-Hasa region, over a period between 25th of January to 25th of March 2017. The participants were selected when they are interested to participate in this study.

A structured self administered online questionnaire was published to collect the data. The questions were close ended or multiple choice type. The questionnaire included two sections: demographic section, and the population awareness section about disease definition, risk factors, life long risk, prevalence, symptoms and proper strategy to manage the patient diseases.

Data that collected from population was documented and analyzed by using Microsoft Excel 2011 to present them as percentage.

3. RESULTS

The 310 persons fully completed the online questionnaire. The exclusion criteria in this study was any participants who are medical practitioner such as pharmacists, physician, and nurses.

3.1. Demographic Data

The most common population age category was 18-35 years. A 252 (81.3%) of participants were women and 58 (18.7%) were men. The majority of the participants were possessed a bachelor degree 166 (53.5%), 119 (38.4%) were possessed a high school education, and the remaining of the participants were possessed other degrees. All participants are living in Al-Hasa (100%). Demographics of participants are summarized in Table 1.

Table (1): Demographics of participants.

Characteristics	Categories	N (%)
Age (in years)	18-25 years	111 (35.8%)
	25-35 years	100 (32.3%)
	35-45 years	63 (20.3%)
	More than 45 years	36 (11.6%)
Gender	Male	58 (18.7%)
	Female	252 (81.3%)
Location	Central region	0 (0%)
	Eastern region (Al-Hasa)	310 (100%)
	Western region	0 (0%)
	Southern region	0 (0%)
	Northern region	0 (0%)
Education level	Uneducated.	1 (0.4%)
	High School	119 (38.4%)
	Academic (Bachelor)	166 (53.5%)
	Other qualifications	24 (7.7%)
	(Diploma & Master degree)	

3.2. Assessment of Population Awareness About Schizophrenia Disease

The assessment of population awareness was based on 60% or more of population sample answered any question was considered as well aware about any aspect.

The (41.3%, 128) participants only were aware about schizophrenia definition. Also, only (42.9%, 133) participants were aware about life long risk for developing schizophrenia, which was rarely occurred. However, (61%, 189) participants were aware about the prevalence of schizophrenia is equally common between both male and female patients. Actually, (56.1%, 174) participants were aware about that earlier onset of the disease occurred in male gender.

About the participants awareness about the schizophrenia risk factors, only (39.4%, 122) participants were aware that schizophrenia has a genetic risk factor, but (84.8%, 263) participants were aware that head injury or brain tumors can cause schizophrenia. Although,

(50.3%, 156) were aware about the schizophrenia common symptoms which was Hallucination.

Actually, (65.2%, 202) participants were aware about the proper strategy to deal with any schizophrenic patients which is advising him/her to visit the psychiatric physicians.

Therefore, about (95.5%, 296) participants were aware that schizophrenia disease could affect the social life of the patients, but most of the participants (92.6%, 287) were aware that the disease could affect the patients' productivity and working level. Most of our participants (64.5%, 200) refuse to engage with any schizophrenic patient, as shown in Fig. 1.

The management of schizophrenia achieves by medications and the family and social support for patients. Only (53.9%, 167) of participants were aware about this fact. The best initial treatment location for schizophrenic patients is in the psychiatric hospital. About (47.4%, 147) participants were aware about this issue. The best treatment strategy to control the disease is by taking the medications for life exactly as directed by consultants. Actually, (62.9%, 195) participants were aware about that.

According to the non-pharmacological treatment used for schizophrenic patients are behavioral treatment or active community treatment. The (53.9%, 167) of participants were aware that the first therapy is focus on individual thoughts and their related affects are elicited and challenged for the patient but, only (39%, 121) of participants were aware that the second treatment focus on improving patients' functional outcomes.

The most common used medications to treat the disease can cause addiction, slurred speech and hand tremor. The (61.9%, 192) of participants were aware that the medications used to treat the disease can cause addiction. Only (81.1%, 56) of participants were aware that the two side effects resulted from using the medications as shown in Fig. 2. The assessment of population awareness about schizophrenia disease are summarized in Table 2.

Table (2): The assessment of population awareness about schizophrenia disease.

The population awareness about schizophrenia	Correct answer	N (%)	Level of Awareness
1. Schizophrenia Definition: "What do you know about schizophrenia?"	Schizophrenia is a brain disorder that keeps you from thinking clearly. It can cause you to see or hear things that aren't there, or to believe things that aren't true.	128 (41.3%)	Unaware
2. Lifelong chance for developing schizophrenia: "During the course of a person's life, what are the chances of developing schizophrenia?"	Rare.	133 (42.9%)	Unaware
3. The schizophrenia prevalence among gender: "Do you think that schizophrenia <u>more affect</u> the: Male, Female, or Both equally?"	Both equally.	189 (61%)	Aware
4. The schizophrenia onset between two genders: "Do you think that the onset of symptoms of schizophrenia <u>earlier</u> in: Male or Female?"	Male.	174 (56.1%)	Unaware
5. Risk factors for schizophrenia: a. Genetic factors: "Do you think that schizophrenia <u>more related to genetic factors</u> ?" b. Other associated diseases or conditions: "What do you think the diseases that can induce schizophrenia?"	Yes. Head injury or brain tumor.	122 (39.4%) 263 (84.8%)	Unaware Aware
6. Schizophrenia common symptoms: "If one of your relatives has schizophrenia, what are the associated symptoms?"	Hallucinations.	156 (50.3%)	Unaware
7. Proper strategy to deal with any schizophrenic patient: "What is the proper action when you see any patient with schizophrenia?"	Advice hem/her to visit the psychiatrist physician.	202 (65.2%)	Aware
8. The social deficits resulted from schizophrenia disease: a. The relationship with community affected: "Do you think that schizophrenia affect	Yes.	296 (95.5%) 287 (92.6%)	

<p>the relationships of the patient with community?"</p> <p>b. The patients' productivity and his/her working level: "Do you think that schizophrenia affect the level of working and productivity of the patient?"</p> <p>c. Engagement with schizophrenic patients: "What is your opinion if someone came to engage from your family and he is a schizophrenic patient?"</p>	<p>Yes.</p> <p>-----</p>	<p>200 (64.5%)</p>	<p>Aware</p> <p>Aware</p> <p>Aware</p>
<p>9. The disease management:</p> <p>a. Social and family support: "If we treat schizophrenia disease with <u>medications it will</u>"</p> <p>b. The initial treatment location: "What is the best treatment location for schizophrenia disease?"</p> <p>c. Medication adherence: "What are the things to consider when you have a schizophrenic patient?"</p> <p>d. Behavioral treatments: "There are a variety of treatments for schizophrenia. <u>Behavioral treatments focus on...</u>"</p> <p>e. Active community treatments: "There are a variety of treatments for schizophrenia. <u>Active community treatments (ACT) focus on...</u>"</p>	<p>Need a social and family support.</p> <p>In hospital.</p> <p>To keep schizophrenia under control, you usually must take medicines for the rest of your life. It is important to take them exactly as directed.</p> <p>Individual thoughts and their related affects are elicited and challenged.</p> <p>Improving patients' functional outcomes.</p>	<p>167 (53.9%)</p> <p>147(47.4%)</p> <p>195 (62.9%)</p> <p>167 (53.9%)</p> <p>121 (39%)</p>	<p>Unaware</p> <p>Unaware</p> <p>Aware</p> <p>Unaware</p> <p>Unaware</p>
<p>10. Medications side effects:</p> <p>a. Addiction: "Do you think the psychiatric medications will induce addiction?"</p> <p>b. Other side effects: "Do you think that the slurred speech and hand tremor symptoms are related to disease or medications?"</p>	<p>Yes.</p> <p>Medications.</p>	<p>192 (61.9%)</p> <p>56 (18.1%)</p>	<p>Aware</p> <p>Unaware</p>

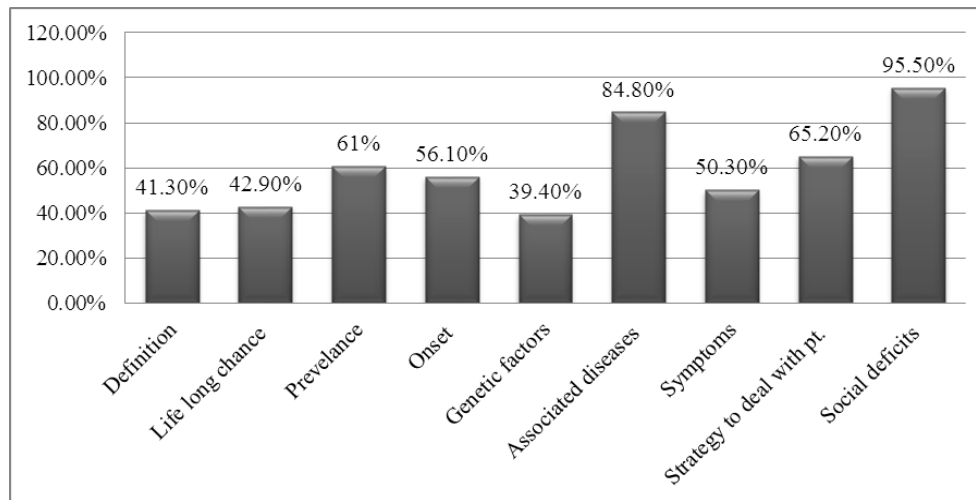


Figure 1: Assessment of population awareness about schizophrenia disease.

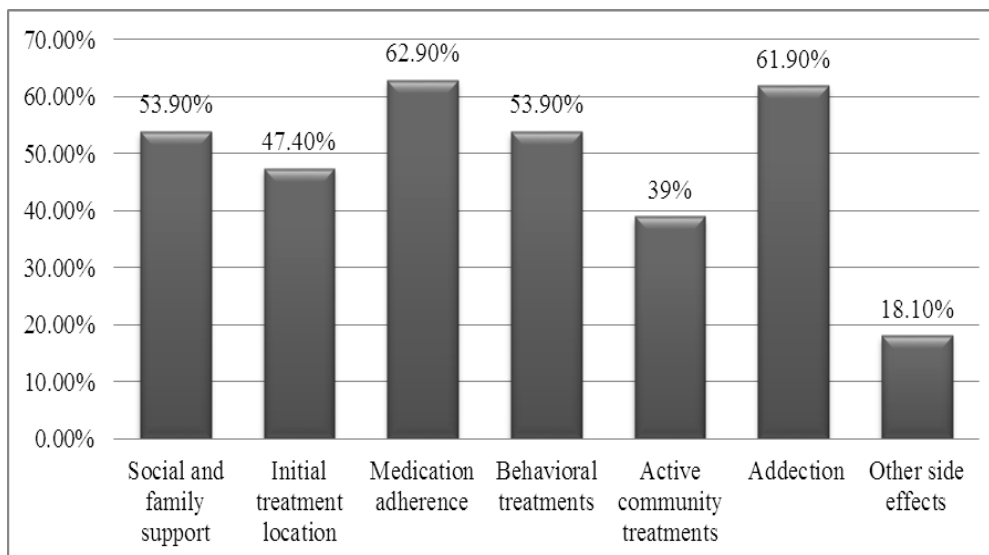


Figure 2: Population awareness about schizophrenia disease management and medication side effects.

4. DISCUSSION

This study is the first in Saudi Arabia that evaluate the awareness about schizophrenia disease among Al-hasa population. Schizophrenia is probably the most severe mental disorder, as it is correlated with cognitive deficits, deficits in social functioning, and high levels of distress. It has a long time course, and there is a major risk of suicide or self-harm.^[8]

Depending on demographic data, most participants were female (81.3%, 252), in the age between 18-25 years old (35.8%, 111) and 25-35 years old (32.3%, 100), with bachelor degree (53.5%, 166) or high school (38.4%, 119).

This study indicated that about (61%, 189) of participants were aware about the prevalence of schizophrenia is equally common between both genders male and female patients. Also, (84.8%, 263) participants were aware that head injury or brain tumors can cause schizophrenia. Actually, (65.2%, 202) participants were aware about the proper strategy to deal with any schizophrenic patients which is advising him/her to visit the psychiatric physicians. Although, about (95.5%, 296) participants were aware that schizophrenia disease could affect the social life of the patients, but most of the participants (92.6%, 287) were aware that the disease could affect the patients' productivity and working level. Most of our participants (64.5%, 200) refuse to engage with any schizophrenic patient.

Also, (62.9%, 195) participants were aware about that the best management strategy to control the disease is by taking the medications for life exactly as directed by consultants. About (61.9%, 192) of participants were aware that the medications used to treat the disease can cause addiction.

This study indicated that only (41.3%, 128) of participants were aware about the definition of the schizophrenia disease, Also, only (42.9%, 133) of participants were aware of life long risk developing schizophrenia, which was rarely occurred. Actually, just (56.1%, 174) of participants were aware about the earlier onset of the disease occurred in male gender.

About risk factors for developing schizophrenia only (39.4%, 122) of participants were aware that schizophrenia has genetic risk factor. Although, only (50.3%, 156) of participants were aware about the schizophrenia common symptoms which was hallucination. Only (53.9%, 167) of participants were aware about the management of schizophrenia can be achieves by medications and the family and social support for the patients. Also, only (47.4%, 147) of participants were aware about best place to initiate treatment location for schizophrenic patients is in the hospital.

This contributes to poor awareness about schizophrenia disease. Therefore, we recommend to increase the population awareness about the psychiatric diseases especially schizophrenia by conducted several workshops, distributing different pamphlets, providing special programs on TV channels or as mobile applications. The most appropriate strategy to improve population awareness by implement specialist pharmacists to provide counseling session with the patients. In addition, for future researchers related to our study, we recommend to cover most regions of Saudi Arabia with large sample size to achieve proper results.

Our study limitations were the short study duration, the most of our participants were female, it was performed in Al-Hasa region only, and we used the online questionnaire only for data collection.

However, our study strength points were the first study done in S.A about population awareness for schizophrenia disease, have a large sample size (310), assessing many aspects related to the disease such as risk factors, disease management, medication side effects, disease prevalence and onset.

5. CONCLUSION

The population were well aware about schizophrenia disease regarding to the prevalence of schizophrenia among gender, onset of the disease, other associated disease or conditions that may cause schizophrenia, proper strategy to deal with any schizophrenic patient, the social deficits resulted from schizophrenia disease (relationship with community and the patients' productivity and his/her working level), and the addiction side effect of the medications.

However, they were unaware about the schizophrenia definition, lifelong chance for developing schizophrenia, genetic risk factors, common symptoms of schizophrenia, disease management (social & family support, initial best management and non-pharmacologic treatment) and side effects of the medications.

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