

The Clinical Characteristics of Auditory Hallucinations Among Schizophrenic Inpatients

⁽¹⁾ Eman Sameh Abd Elhay, ⁽²⁾ Mohamed Hafez El-Atroni

(1) Psychiatric and mental health Nursing, Faculty of Nursing, Mansoura University

(2) Psychiatry, Faculty of Medicine, Mansoura University

Corresponding author: eman_2004@mans.edu.eg

Abstract

Abstract: Schizophrenia is the most chronic psychosis in Egypt and accounts for the majority of inpatients in our mental hospitals. Hallucinations are very common in patients with schizophrenia. Auditory hallucinations are one of the prominent symptoms of schizophrenia. Auditory hallucinations can be highly distressing, often disrupt social functioning and increase the risk for suicide. **Aim:** Assess the clinical characteristics of auditory hallucinations among schizophrenics inpatients. **Setting:** El-Maamoura Hospital for Psychiatric Medicine, in Alexandria. **Sampling:** A convenient sample of 100 schizophrenic patients who have auditory hallucinations. **Tools:** 1) The socio demographic and clinical characteristics which developed by the researcher. 2) Characteristics of Auditory Hallucinations Rating Scale. **Result:** The findings revealed that about one third of the studied schizophrenic patients had voices “louder” in comparison to subject’s other auditory experiences. While two third of them were full understanding of the auditory hallucination content. Three quarter of the studied schizophrenic patients were had full specification of source of voices. Patient’s age from 25 to 45 years were had the highest mean score of auditory hallucinations. there is no significant correlation between socio demographic and auditory hallucinations characteristics. **Conclusion:** The findings of the present study contribute to the clinical characteristics of auditory hallucination among schizophrenic inpatients and there is no significant correlation between socio demographic and auditory hallucinations characteristics. **Recommendation:** There is a need to carry out more researches to assess the phenomenology of auditory hallucinations. Accurate and specific assessment of auditory hallucination may facilitate engagement with patients and improve the selection of strategies to help them manage the voices that upset them.

Key words: schizophrenia ,hallucinations, auditory hallucinations.

Introduction

Schizophrenia is a severe mental illness characterized by disturbances in a person's thoughts, perceptions, emotions, behaviors and by significant social or occupational dysfunction (Alshowkan et al., 2015). Schizophrenia is considered a chronic disorder with poor outcomes and considered one of the major psychotic illness in Egypt. According to the National Institute of Mental Health (NIMH, 2011), schizophrenia is relatively common, affecting 1.1% of the population or around 65 million people worldwide suffer from schizophrenia (Mousa, Imam, Sharaf, 2011).

Hallucination is one of the main positive symptoms of schizophrenia (Bagul, 2012). It is estimated that 90% of the people with schizophrenia experience hallucinations (Varcarolis, 2014). Hallucinations are distorted sensory experiences that appear to be real perceptions (De Chazeron et al., 2015).

These false sensory impressions are generated by the mind rather than by any external stimuli, and may be seen, heard, felt, and even smelled or tasted (Varcarolis, 2014). Seventy five percentages of schizophrenic patients usually have auditory hallucinations (Woodruff, 2004).

Auditory hallucinations are pervasive in people with schizophrenia. Despite high doses of medication a significant number (25%-50%) of patients with schizophrenia still experience distressing auditory hallucinations and it is becoming persistent symptomatic (Pandarakalam, 2016).

Persistent auditory hallucinations produce adverse effects, including heightened anxiety, depression, social withdrawal, homicide, suicide, and affect the quality of patients' lives (Frederick & Cotanch, 1995). The ability to assess the clinical characteristics of auditory hallucination is crucial for psychiatric nurses. Nurses are challenged to provide care, which is

empowering and helps people who hear voices Identification of auditory hallucination symptoms enables nurses to help patients to deal with auditory hallucinations.

Aim of the study:

The aim of this study was to explore the clinical characteristics of auditory hallucinations among schizophrenics inpatients.

Research Question:

1. What are the clinical characteristics of auditory hallucinations?
2. Is there relation between the clinical characteristics of auditory hallucinations and the socio-demographic and clinical data among schizophrenics patients?

Subjects and Methods

Research Design

An exploratory descriptive study was used

Settings

The study was conducted at El-Maamoura Hospital for Psychiatric Medicine, in Alexandria. The hospital is affiliated to the ministry of health and serves three governorates namely, Alexandria, El Beheira, and Matrouh. The present study was conducted in all gratis and paid male and female wards.

Subjects of the study:

The subjects of this study comprised 100 hospitalized schizophrenic patients (50 and 50 male and female schizophrenic patients respectively), who fulfill the following criteria:

1. Patients fulfilling criteria for schizophrenia and acknowledged the presence of auditory hallucinations.
2. Adult aged between 18 up to 55 years.
3. Patients who willing to participate in the study.

Exclusion criteria are:

Schizoaffective patients, Patients who consumed illegal drugs, and who are uncooperative or with incoherent speech were excluded from the study.

Tools of the Study

Data were collected by using the following tools:

A-Interview questionnaire sheet:

This sheet was constructed by the researcher after reviewing the literature to assess nursing student socio-demographic and clinical data characteristics ; such as; age, gender, marital status, educational level, occupation ,

B: Characteristics of Auditory Hallucinations Rating Scale. The scale was originally developed by (Oulis. et al, 2007).

The scale measures various parameters of hallucination. It consists of 18 items, and the content of this items consists of " Loudness", "Clarity", "Location", " Intersubjectivity", "Duration", "Frequency", "Objectivity", "Homogeneity", "Length of utterances", "Voices commenting on thoughts or actions", "Second-and/or third-person auditory hallucinations" "Internal auditory hallucinations", "Insight into auditory hallucination" "Emotional impact", "Independence from volition", "Hallucinatory behavior", "Nonverbal auditory hallucination", and "Congruence with affective state" , each of which is scored from one to three; one is the lowest severity while three indicate the highest severity.

The hallucination severity score therefore ranged from 18 to 54 as (mild= 0-18, moderate = 19-36, and severe=37-54). Reliability done using Cronbach's Alpha Cronbach's ($\alpha = 93.3$) (Oulis. et al, 2007).

Ethical Considerations:

The research ethical consideration in this study including the following:

- Included in the study. The permission was obtained from the faculty of nursing ethics committee.
- Patient's written consent to participate in the study was then obtained. For those who were illiterate, the informed was read to them and then give oral consent.

Pilot Study:

A pilot study was carried out on a total of 10% of the sample (10 of schizophrenic patient who had auditory hallucinations) according to the criteria of selection at El-Maamoura

Hospital for Psychiatric Medicine before starting the data collection and these patients didn't included in the actual study to test the clarity and applicability of the tools.

Field Work:

The actual fieldwork for the process of the data collection has consumed four months started on the beginning of July (2014) and was completed by the end of October (2014). Data were collected by the investigator.

Statistical analysis:

The data obtained were reviewed and prepared for computer entry, coded, analyzed and tabulated. An IBM compatible PC was used to store and analyze the data and to present the important results. Calculations were done by means of statistical software package namely; "SPSS". The statistical process used in the analysis included:

- Simple frequency tables.
- Pearson's correlation tests for correlating the quantitative data.
- Spearman's correlation tests for correlating the qualitative data.

Results:

Table (1) Represent frequency distribution of the studied schizophrenic patients according to their socio-demographic characteristics. It appears that female and male patients represented an equal percentage in two groups. Also, it was shown that 61.0% of the studied schizophrenic patients were in the age group ranging from 25 to less than 45 years of age, while 33.0% were on the category more than 45 years of age . in relation to religion , 93% of the studied schizophrenic patients were Muslim, while 7.0% of them were Christian.

Regarding educational level , 47 % of the studied schizophrenic patients had preparatory school degree, while 5% of them had high education degree. Concerning occupation, it was found that 45.0% of studied schizophrenic patients were unemployed , while 18.0% of them were house keeper.

As for patients' marital status; around 62% of studied schizophrenic patients reported they are single , while only 2% of them were widow.

In relation to the living condition, 88.0 % of studied schizophrenic patients were living with their families, while only 4% of them living with relatives .

Table (2): Represent shows Clinical characteristics distribution of the studied schizophrenic patients according to their clinical data. It appears from the table that, patient's ages at onset of disease, 43.0% of the studied schizophrenic patients were from 20 to less than 25 years, while 2.0% of them were in the age more than 35 years. Regarding the number of hospital admission, 72.0% of the studied schizophrenic patients were admitted 4 times and more, while 4.0% of them were admitted one time.

In relation to the length of hospital stay, 67.0% of studied schizophrenic patients were staying in hospital for less than 3 months, while only 8.0 % of them were staying in hospital from 6 to less than 12 months. Concerning when the patient starts to hallucinate, 79% of the studied schizophrenic patients were started to hallucinate since 10 years and more, while only 10% of them were less than 5 years.

Concerning patient's reaction to auditory hallucinations, 63.0% of the studied schizophrenic patients were feel and upset / sad and 32% of them were feel fear.

Table (3) Present the clinical characteristics of auditory hallucinations among schizophrenic patients .It was observed that (39.0%) of the studied schizophrenic patients had voices "louder" in comparison to subject's other auditory experiences. In relation to the "clarity of voices" it was observed that 65.0% of them were full understanding of the auditory hallucination content. In relation to the "location of voices" 71.0% of the studied schizophrenic patients were had full specification of source of voices.

Concerning to "intersubjectivity of voices", it was observed that 57% of patients didn't belief that nearby people hear the voices and 31% of them belief that all nearby people hear the voices.

In relation to the duration of auditory hallucinations, 55.0% of the studied schizophrenic patients were had voices lasts for more than 30 minutes in each occurrence.

Regarding the “frequency of voices”, the table shows that 66.0% of them were hearing voices many times every day. Regarding the “objectivity of voices”, the table shows that 66.0% of the studied schizophrenic patients were had unshakably conviction about the reality of auditory sensory stimuli.

Regarding the “homogeneity” of the hearing voices the “similarity of auditory hallucinatory experience to the nonhallucinatory ones”, 68.0% of the studied schizophrenic patients were had voices almost identical to the non hallucinatory ones. Concerning the “length of utterances” of voices 65.0% were had almost continuous utterances of voices experiences.

Regarding the “voices commenting on thoughts or actions”, 51.0% of them were had voices frequent comments or repetitious of thoughts and actions. Regarding the “second – and / or third person voices”, 45.0% of them were had voices mainly in the third person, while 29.0% of the studied schizophrenic patients were had voices mainly in the second person.

In relation to the “internal auditory hallucinations”, the table shows that, 48.0% of them had external and internal hallucinations, as for the “congruence with affective state” auditory hallucinations, 80.0 % of the studied schizophrenic patients were had voices mainly incongruent with affective state. Regarding the “emotional impact” of voices, 84.0% of them were had voices with marked emotional impact.

Coming to the “independence from volition” is the ability to stop auditory hallucinations, the table shows that 77.0% of them were nearly or always unable to stop auditory hallucinations. Coming to the “hallucinatory behavior of voices”, 59.0% of the studied patients were had behavior as if hallucinated (lips move, whisper, looks around).

Coming to the “non verbal auditory hallucinations”, 56.0% of them were had rarely nonverbal auditory hallucination. As for, the “insight into auditory hallucinations”, 53.0% of them were had delusional explanation of hallucinations.

Table (4) Present the mean scores and severity of auditory hallucinations among the studied schizophrenic patients. It was observed that, (88.0%) of the studied schizophrenic patients were had severe level of auditory hallucinations, while only 12.0% of them had moderate level of auditory hallucinations. Regarding the mean scores and standard deviation the studied schizophrenic patients were 44.26 ± 5.69 .

Table (5): Shows the relationship between socio-demographic characteristics and the mean scores of auditory hallucinations among the studied schizophrenic patients.

Concerning patient’s age, it was found that highest mean score of auditory hallucinations was for patient’s age from 25 to 45 years as the mean score was 44.67 ± 5.06 . Regarding patient’s sex, it was found that highest mean score of auditory hallucinations was for male patient as the mean score was 44.22 ± 5.21 .

In relation to religion, it can observed that the highest mean scores of auditory hallucinations were for Muslim patients was 43.82 ± 5.67 . The table also shows that the patient’s occupation and the highest mean score of auditory hallucinations were for worker was 44.62 ± 5.16 .

Speaking about the educational level, it was found that the highest mean score of auditory hallucinations was for patients had secondary education as the mean score was 44.60 ± 5.77 . Concerning to marital status, the highest mean score was for those single patients as the mean score was 44.69 ± 5.77 .

Regarding to living status the highest mean score was for those patients who living with their families as the mean score was 43.87 ± 5.54 . There were no a statistical significant difference was found between clinical characteristics and socio demographic data.

Table (1) Distribution of Socio-demographic characteristics of the studied schizophrenic patients who had auditory hallucinations (n=100):

Variables	The studied schizophrenic patients(n=100)	
	N	%
Age years:		
<25	6	6.0
25-<45	61	61.0
≥ 45	33	33.0
Sex:		
Male	50	50.0
Female	50	50.0
Religion:		
Muslim	93	93.0
Christian	7	7.0
Profession:		
Unemployed	45	45.0
Worker	37	37.0
House keeper	18	18.0
Education level:		
read &write	18	18.0
Preparatory educ.	47	47.0
Secondary educ.	30	30.0
Higher education	5	5.0
Marital status:		
Single	62	60.0
Married	23	23.0
Divorced	13	13.0
Widow	2	2.0
Living status:		
Alone	8	8.0
With family	88	88.0
With relatives	4	4.0

Table (2): frequency distribution of Clinical data about the disease of the studied schizophrenic patients (n= 100) .

Variables	The studied schizophrenic patients (n=100)	
	n	%
Age of onset of disease:		
<20	22	22.0
20-<25	43	43.0
25-<30	19	19.0
30-<35	14	14.0
≥ 35	2	2.0
No. of hospital admission:		
1	4	4.0
2-3	24	24.0
4 & more	72	72.0
Length of hospital admission (months):		
<3	67	67.0
3-<6	15	15.0
6-<12	8	8.0
≥12	10	10.0
Years since onset of hallucinations:		
<5	10	10.0
5-<10	11	11.0

Variables	The studied schizophrenic patients (n=100)	
	n	%
≥10	79	79.0
# Reaction to auditory hallucinations:		
Fear	32	32.0
Happy	7	7.0
Upset/sad	63	63.0
Angry	15	15.0
Anxiety	11	11.0
Terror	15	15.0
Confused	2	2.0
Depressed	15	15.0
Helpless	5	5.0
Hopeless	5	5.0
Anxious before auditory hallucinations:		
No	1	1.0
Yes	99	99.0

more than one item was chosen for patient's reaction toward auditory hallucinations.

Table (3) Frequency distribution of the Characteristics of auditory hallucinations among the studied schizophrenic patients (n=100).

Auditory hallucinations characteristics	The studied schizophrenic patients (n=100).	
	n	%
1-Loudness (in comparison to subject's other auditory experiences):		
Less loud	9	9.0
Equally loud	52	52.0
Louder	39	39.0
2-Clarity : degree of understanding of their content:		
Unable to understand	6	6.0
Partial understanding	29	29.0
Full understanding	65	65.0
3-Location : spatial specification of source of origin:		
Unable to specify	5	5.0
Partial specification	24	24.0
Full specification	71	71.0
4-Intersubjectivity: expectation or belief that nearby people hear the voices:		
Only the patient hears them	57	57.0
Some of nearby people also hear the voices	12	12.0
All nearby people hear the voice	31	31.0
5-Duration (in each occurrence):		
<one minute	7	7.0
2-30 min	38	38.0
>30 min	55	55.0
6-Frequency of voice hearing:		
Rarely	2	2.0
A few times every day	32	32.0
Many times every day	66	66.0
7-Objectivity: conviction about the reality of auditory sensory stimuli perceived by patient:		
Aware of hallucinations	10	10.0
Brief periods of doubt but generally convinced	24	24.0
Unshakably convinced	66	66.0
8-Homogeneity: similarity of auditory hallucinatory experience to the non hallucinatory ones:		
Significantly different	6	6.0
Partially similar	26	26.0
Almost identical	68	68.0
9-Length of utterances:		
A few words or brief sentences only	6	6.0
Mainly longer sentences	29	29.0
Almost continuous utterances	65	65.0

Auditory hallucinations characteristics	The studied schizophrenic patients (n=100).	
	n	%
10-Voices commenting on thoughts or actions:		
No interaction between voices and thoughts	9	9.0
Sometimes voices do comment or repeat or describe	40	40.0
Frequent comments or repetitions of thoughts or actions	51	51.0
11-Second- and/or third-person AH:		
Only or mainly in the second person	29	29.0
Neither more prominent than the other	26	26.0
Only or mainly in the third person	45	45.0
12-Internal auditory hallucinations: inner voices, perceived with the vividness and concreteness characteristics of hallucinations but lacking external projection.		
External hallucinations	14	14.0
External and internal hallucinations	48	48.0
Internal hallucinations	36	36.0
13-Congruence with affective state:		
Mainly congruent	11	11.0
Both congruent and incongruent	9	9.0
Mainly incongruent	80	80.0
14-Emotional impact:		
Absent or minimal	1	1.0
Moderate	10	10.0
Marked	84	84.0
15-Independence from volition:		
Able to stop AH, perhaps by engaging in some activities	2	2.0
Succeeds only partly	21	21.0
Nearly or always unable to stop them	77	77.0
16-Hallucinatory behavior:		
Absent	2	2.0
Behavior as if hallucinated	59	59.0
Has been engaged in actions with serious consequences due to hallucinations	39	39.0
17-Nonverbal auditory hallucinations:		
Rarely	56	56.0
Sometimes daily	34	34.0
Often daily	10	10.0
18-Insight into auditory hallucination:		
Explains them in natural terms (thoughts, illness)	11	11.0
Unable to explain them	36	36.0
Delusional explanation of hallucinations	53	53.0

Table (4): Mean scores and severity of auditory hallucinations among the studied schizophrenic patients (n=100).

Auditory hallucinations characteristics	The studied schizophrenic patients (n=100)	
	n	%
Severity of auditory hallucinations characteristics:		
Mild	0	0
Moderate	12	12.0
Severe	88	88.0
Total scores of auditory hallucinations characteristics:		
Range (0-54)	30-54	
Mean±SD	43.74±5.69	

Table(5): Relation between Mean scores of auditory hallucinations among the studied schizophrenic patients and their socio-demographic data (n=100):

socio-demographic	Mean scores of auditory hallucinations among the studied schizophrenic patients (n=100)	
	Mean±SD	t-test or F value P
Age years:		
<25	43.66±3.82	2.373 0.099
25-<45	44.67±5.06	
≥ 45	42.03±6.71	
Sex:		
Male	44.22±5.21	3.155 0.842
Female	43.26±6.14	
Religion:		
Muslim	43.82±5.67	0.561 .000
Christian	42.57±6.24	
Profession:		
Unemployed	43.75±5.96	1.408 .249
Worker	44.62±5.16	
House keeper	41.88±5.90	
Education level:		
read & write	44.05±5.25	1.338 .266
Preparatory educ.	43.55±5.65	
Secondary educ.	44.60±5.77	
High education	39.20±6.50	
Marital status:		
Single	44.69±5.77	2.141 0.100
Married	42.91±5.33	
Divorced	41.53±5.24	
Widow	38.00±4.24	
Living status:		
Alone	42.75±6.64	0.203 0.817
With family	43.87±5.54	
With relatives	42.75±8.34	

Discussion

Results of the current study revealed important features describing the clinical characteristics of auditory hallucinations in an Egyptian sample among schizophrenic inpatients at El-Maamoura Hospital for Psychiatric Medicine, in Alexandria.

Auditory hallucinations are one of the most prominent symptoms of schizophrenia. Auditory hallucinations can be highly distressing, often disrupt social functioning and

increase the risk for suicide (**Van Lutterveld et al., 2013**)

Results revealed that one third of the studied schizophrenic patients had voices "louder" in comparison to subject's other auditory experiences. In the same line (**McCarthy-Jones et al.,2012**) Who reported that the loudness of voices for the majority of schizophrenic patients were spoke at a normal tone. It could be attributed to the intrusiveness of hallucinations and the intensity of delusional beliefs associated with it.

The current study also revealed that two third of the studied patients were full understanding of the auditory hallucination content. According to (Oulis. et al. 2007) clarity is the degree of understanding of the content of voices and rated as unable to understand, partial understanding and full understanding. It could be attributed to that the patient most of the time alone.

The finding of auditory hallucination location, more than two third of the studied schizophrenic patients were had full specification of source of voices. Indeed, a recent phenomenological survey of 199 psychiatric patients showed that the location of AH was equally likely to be reported in internal or external space, or both, during the last episode (McCarthy-Jones et al.,2014).

In relation to the “internal auditory hallucinations”, the results shows that, one third of them had external and internal hallucinations, and also one third of them had internal hallucinations. The reason for the aforementioned significant is due to the schizophrenic patients may tend to attribute the auditory hallucination to be originating from outside of the head instead of the inside of the head (McCarthy-Jones et al., 2012). According to exploratory study by Wykes (2005) who found that approximately one third of patients with auditory hallucinations report them as located inside the head and stated that 38% of patients with auditory hallucinations heard them both internally and externally.

According to Copolov, et al (2004) he was found that many patients hear voices both internally and externally, and there was evidence that auditory hallucinations heard internally were associated with better insight than those heard externally. Another study was done in Egypt found that 60% of the studied patients had voices inside the body (Abd Elhay, 2008). The explanation of the obtained results may be the patients claimed that the voices come from a real person, jin, devil, angles, and/or God. Some patients reported that they hear their own inner voice speaking to them, these voices like the real human voice to the patients, and it's real to them.

The present study postulated that more than? Of the studied schizophrenic patients

were had voices lasts for more than 30 minutes in each occurrence. According to (Hacker., 2008) auditory hallucinations voices duration showed a significant correlation with intensity of distress , as did anxiety ,whilst the degree of negative content was near significance.

The results of the present study revealed that, two third of the studied patients were hearing voices many times every day. This finding was supported by other studies, which revealed that schizophrenic patients who experience auditory hallucinations commonly report high frequency (England. 2005' Gafar.1998). Morrison et al (2004) stated that frequency of auditory hallucinations were associated with anger and anxiety emotional reactions of voices. It could be attributed to in the present study, two thirds of the studied patients reacting to auditory hallucination with sad and upset, and one third were had feeling of fear toward the voices that may be related to high frequency of the auditory hallucinations.

The findings present that two third of the studied schizophrenic patients were had unshakably conviction about the reality of auditory sensory stimuli. The patients reported that, "There are no specific causes" that provoke voices. Patients claimed that they always look for explanation to account for the existence of these voices, but they do not find any cause most of the time. Wahass et al. (1997) found that Saudi Arabian patients had unspecified causes to the voices, which may be related to cultural aspects.

The findings of the present study denote that, around two thirds of the studied patients had voices “almost identical and similar to the non-hallucinatory ones”. This means that, patients experience the voices as if they were a real person talking to them. i.e. Schizophrenic patients involved in the present study do not view these voices as pathological part of their illness, so the voices are real to them and do not change.

Concerning to “intersubjectivity of voices”, it was observed that more than half of patients didn't belief that nearby people hear the voices and also one third of them belief that all nearby people hear the voices.

Concerning the “length of utterances” of voices, two third of the studied patients were had almost continuous utterances of voices experiences. The patients claimed that the voices can be single words, phrases, sentences with the auditory hallucinations hearers themselves or with other voices. For example, female patient was heard woman’s voice in her head whisper to her, about the secondary school exam, and she was talking really and distress her, then more women talking really fast to her and commenting that you are useless. According to **(Belin et al. 2011)** the perception of voice has been shown to entail more than just speech/language; it involves a wealth of socially important information about the identity, affect and location of a speaker.

Complexity may even be developed with time. Auditory hallucinations contents showed a high resemblance to normal daily inner speech that they can both have various linguistic complexities (hearing individual words, individual sentences, or conversations) **(Peloian, 2013 & Tai-yin., 2013)**.

Regarding the “voices commenting on thoughts or actions”, more than half of the studied schizophrenic patients were had voices frequent comments or repetitious of thoughts and actions. The studied patients claimed that voices always made threats and accused the patients of horrible things. Some patients claimed that the voices commenting about them with bad things like you are useless, ugly and/or bad person. The voices may also give patients orders that they feel they have to obey because the voices control the person’s body. For example, some patients said that the voices might also cause them to have experience pain. This finding was proved by other studies, which reported that auditory hallucinations may be threatening or obscene in nature, representing some outside evil power which the patients feel they have no control over **(Cheung et al., 1997 & Elliott et al., 1996)**. It was suggested that the environment might have a strong impact on the content of hallucinations **(Thomas et al., 2007)**.

Regarding the “second – and / or third person voices”, one third of the studied patients were had voices mainly in the third person, while more than one quarter of them were had

voices mainly in the second person. This study is consistent with, schizophrenic patients in severe depression, can get second person hallucinations supporting his depression. **(McCarthy-Jones et al., 2012)**. The finding of the present study was also supported by **Copolov (2004)** who stated that auditory hallucinations that addressed the patient as the second person were significantly more unpleasant. Over two third of participants in the study have experienced second or third person auditory hallucinations. **(Tai Yin.,2013)**

It is also noted that the majority of the studied schizophrenic patients were had voices mainly incongruent with affective state. It could be explained by the finding of a study was done by **(Beavan and Read, 2010)** indicated that there was a correlation between the content of the voices and patients’ emotional response. For example, participants who heard negative content such as being criticized experienced negative emotions such as feeling distressed.

The present study revealed that, the majority of patients were had voices with marked emotional impact. Emotion especially anxiety and depression has been found to be important in maintain hallucinations **(Freeman et al. 2003)** Depression, anxiety and stress are commonly experienced by schizophrenic patients who have auditory hallucinations **(Larøi & Woodward, 2007)**. **(Garrett and Silva, 2003)** found that the presence of emotion was significantly correlated with a belief that the voices were real.

In the present study, about two thirds of the studied patients reacting to auditory hallucination with sad and upset, and one third were had feeling of fear toward the voices. This may be due to most of the studied patients who hear voices initially imagine that they are alone in having these voices. This can make the experience anxious and unpleasant and produces feelings of shame or fear of going mad. This proved by previous findings that two thirds of the schizophrenic patients reported that voices upset them and increase their anxiety.

Coming to the “independence from volition” is the ability to stop auditory hallucinations, the results shows that three

quarter of the studied patients were nearly or always unable to stop auditory hallucinations. The same results were reported in another study by (Nayani& David, 1996), who reported that a minority can even control the content, speed or volume of the auditory hallucination. In contrast, other researches, found that the majority of patients only sometimes have control or never have control (Hoffman, Varanko, Gilmore, & Mishara, 2008). In the same line, schizophrenic patients who hear voices are better able to control this experience (Wahass et al. 2009)

Finding of the study indicated that two third of the studied patients were had behavior as if hallucinated (lips move, whisper, looks around). Concerning to “non verbal auditory hallucinations”, more than half of them were had rarely nonverbal auditory hallucination. According to McCarthy-Jones et al. (2012), 32% of schizophrenic patients reported non-verbal auditory hallucinations.

As for, the “insight into auditory hallucinations”, more than half of the patients were had delusional explanation of hallucinations. It could be attributed to the belief that an unusual sensory experience is real (Griffiths et al. 2014). Hallucinations often occurring with delusions during psychotic states may represent the concrete symbolic expression of delusional ideas that are seeking other routes of expression. According to Wong et al. (2003) the auditory hallucinations may be intimately connected to the content of the delusions, and may even be perceived as the voice of the instigator of the delusional system of thought.

More over Patients who hear the voices inside their head rather than outside show better insight, possibly because such patients can understand the voice as being created by their own mind. Insight may be linked not only to the location and severity, but also linked to a conviction and content (Lera, et al., 2011).

The findings of the present study revealed that highest mean score of auditory hallucinations was for patient’s age from 25 to 45 years. According to (Leucht et al., 2011) revealed that schizophrenia is a psychotic disorder that often begins in late adolescence or early adult hood. Regarding patient’s sex, it

was found that highest mean score of auditory hallucinations was for male patient.

This finding was supported by Sharma et al. (1999) female gender were predicted a higher frequency of hallucinations among schizophrenia. Furthermore according to Ochoa et al. (2012) who found that woman’s response to neuroleptics is better, there is less chronicity. Concerning to marital status, the highest mean score was for those single patients. These findings were supported by Fernandes et al. (2011), who reported the majority of schizophrenic patients were single. On the contrary a cross-cultural study found that hallucinations were more frequent among Turkish women with schizophrenia who had been married than single Turkish women (Rector& Seeman (1992). Ebrahim (2015) reported that the majority of schizophrenic patients had higher rate of divorce, never married and lower rate of marriage.

Regarding patient’s occupation and the highest mean score of auditory hallucinations were for worker. On other hand, these findings were not supported by Mohamed (2015), the majority of the schizophrenic patients were unemployed According to Steadman & Taskila (2015). for many people who have experienced mental health problems, the main barrier to employment is unwillingness on the part of employers to consider them because of their psychiatric history, others patients have more ongoing disabling problems that can impede work performance.

Speaking about the educational level, it was found that the highest mean score of auditory hallucinations was for patients had secondary education. These findings were not supported by Swanson et al. (1998), the patients with more education had lower levels of psychotic symptomatology than their counterparts with less education. This most evident that the patients with higher education had better adjustment, able to control their symptoms.

Regarding to living status the highest mean score was for those patients who living with their families. It could be attributed due to the majority of them were single. There were no a statistical significant difference was found

between clinical characteristics of auditory hallucinations and socio demographic data.

Conclusion and Recommendation

The findings of the present study reached the following conclusions:

The findings of the present study contribute to the clinical characteristics of auditory hallucination among schizophrenic inpatients and there is no significant correlation between socio demographic and auditory hallucinations characteristics

In the light of the results of the present study, it could be recommended that:

1. There is a need to carry out more researches to assess the phenomenology of auditory hallucinations.
2. Accurate and specific assessment of auditory hallucination may facilitate engagement with patients and improve the selection of strategies to help them manage the voices that upset them.

References

- Abd Elhay .(2008).** Self management of auditory hallucination among schizophrenic inpatients. Unpublished Master Thesis. Faculty of Nursing. Alexandria University.
- Alshowkan A, Curtis J, White Y (2015).** Factors Affecting the Quality of Life for People with Schizophrenia in Saudi Arabia: A Qualitative Study. *J Psychiatry* 18: 295
- Bagul, A. C. (2012).** “ effect of coping strategies on chronic drug resistant auditory hallucination in schizophrenia : a cross over study .,” *J*(January), 20–29.
- Beavan, V., & Read, J. (2010).** Hearing Voices and Listening to What They Say: The Importance of Voice Content in Understanding and Working With Distressing Voices. *The Journal of Nervous and Mental Disease*, 198(3), 201-205.
- Belin, P., P.E.G. Bestelmeyer, M. Latinus, and R. Watson. 2011.** Understanding voice perception. *British Journal of Psychology* 102(4):711–725.
- Bentall, Cheng, Tai-yin., 2013.** A phenomenological study of auditory verbal hallucination in psychosis. *Igarss* 2013, (1), pp.1–5. University of Hong Kong , master thesis published
- Carter, D. M., Mackinnon, A., Howard, S., Zeegers, T., & Copolov, D. L. (1995).** The development and reliability of the Mental Health Research Institute Unusual Perceptions Schedule (MUPS): an instrument to record auditory hallucinatory experience. *Schizophrenia Research*, 16(2), 157–165.
- Cheng, Tai-yin., 2013.** A phenomenological study of auditory verbal hallucination in psychosis. *Igarss* 2013, (1), pp.1–5. University of Hong Kong , master thesis published
- Cheung P, Schweitzer I, Crowley K, Tuckwell V. (1997).** Violence in schizophrenia: role of hallucinations and delusions. *Schizophrenia Research*; 26:181-90
- Copolov, D., Trauer, T. & Mackinnon, A., 2004.** On the non-significance of internal versus external auditory hallucinations. *Schizophrenia Research*, 69, pp.1–6.
- De Chazeron, I, Pereira, B., Chereau-Boudet, I, Brousse, G., Misdrahi, D., Fénelon, G., Llorca, P. M. (2015).** Validation of a Psycho-Sensory Hallucinations Scale (PSAS) in schizophrenia and Parkinson’s disease. *Schizophrenia Research*, 161(2-3), 269–276.
- Ebrahim, T A. (2015).** A study of gender differences in some cognitive functions in a sample of schizophrenic patients in Alexandria. Unpublished thesis . faculty of medicine , Alexandria university .
- Elliott A J, Byrne P R, Tucker G. (1996).** Auditory hallucinations: relationship to diagnosis & severity of illness characteristics. *Biological Psychiatry*; 39(7):544-45
- England M. (2005).** Mediation of the Relationship between Inner Voice Experiences and Health – Related Quality of Life. *Perspectives in Psychiatric Care*; 41(1):22.

- Fernandes, T., Mason, V., Abelha, L., Lovisi, G. M., & Cavalcanti, M. T. (2011).** Quality of life assessment of patients with schizophrenic spectrum disorders from Psychosocial Care Centers. *Jornal Brasileiro de Psiquiatria, 60*(2), 91–98.
- Frederick, J. & Cotanch, P. (1995).** Self-help techniques for auditory hallucinations in schizophrenia. *Issues in Mental Health Nursing, 16*, 213–224.
- Freeman D, Garety PA.(2003).** Connecting neurosis and psychosis: the direct influence of emotion on delusions and hallucinations. *Behav Res Ther* 2003;41:923–47.
- Gafar M. (1998).** Subjective Experiences and the Coping Processes in Schizophrenics. Unpublished Doctoral Thesis. Faculty of Nursing. Alexandria University.
- Garrett, M., & Silva, R. (2003).** Auditory hallucinations, source monitoring, and the belief that “voices” are real. *Schizophrenia Bulletin, 29*(1990), 445–457.
- Griffiths, O., R. Langdon, M.E. Le Pelley, and M. Coltheart. 2014.** Delusions and prediction error: Re-examining the behavioural evidence for disrupted error signalling in delusion formation. *Cognitive Neuropsychiatry* 19(5): 439–467
- Hacker, D., Birchwood, M., Tudway, J., Meaden, A., & Amphlett, C. (2008).** Acting on voices: Omnipotence, sources of threat, and safety-seeking behaviours. *The British Journal of Clinical Psychology / the British Psychological Society, 47*, 201–213.
- Hoffman RE, Varanko M, Gilmore J, Mishara AL.(2008).** Experiential features used by patients with schizophrenia to differentiate ‘voices’ from ordinary verbal thought. *Psychol Med.*;38:1167–1176
- Larøi, F. & Woodward, T.S., 2007.** Hallucinations from a cognitive perspective. *Harvard review of psychiatry, 15*, pp.109–117.
- Lera, G., Herrero, N., González, J., Aguilar, E., Sanjuán, J., & Leal, C. (2011).** Insight among psychotic patients with auditory hallucinations. *Journal of Clinical Psychology, 67*(7), 701–708.
- Leucht S, Tardy M, Komossa K, Heres S, Kissling W, Davis JM. (2012).** Maintenance treatment with antipsychotic drugs for schizophrenia. *Cochrane Database Syst Rev.* May 16;(5):CD008016. doi: 10.1002/14651858.CD008016.pub2.
- McCarthy-Jones et al.,(2012)** McCarthy-Jones, S., & Davidson, L. (2012). When soft voices die: auditory verbal hallucinations and a four letter word (love). *Mental Health, Religion & Culture, 16*(4), 1–17.
- McCarthy-Jones, S., Trauer, T., MacKinnon, A., Sims, E., Thomas, N., & Copolov, D. L. (2014).** A new phenomenological survey of auditory hallucinations: Evidence for subtypes and implications for theory and practice. *Schizophrenia Bulletin, 40*, 225–235.
- Morrison, A. P., Nothard, S., Bowe, S. E., & Wells, A. (2004).** Interpretations of voices in patients with hallucinations and non-patient controls: A comparison and predictors of distress in patients. *Behaviour Research and Therapy, 42*, 1315–1323.
- Mousa A. A., Imam S. A., Sharaf A. Y. (2011).** The Effect of an Assertiveness Training Program on Assertiveness Skills and Social Interaction Anxiety of Individuals with Schizophrenia. *Journal of American Science, 7*(12).
- National Institute of Mental Health (NIMH, 2011).** Schizophrenia. Retrieved May 20, 2011, from <http://www.nimh.nih.gov/health/publications/schizophrenia/complete-index.shtml> Nilsson, L.-L.,
- Ochoa, S., Usall, J., Cobo, J., Labad, X., & Kulkarni, J. (2012).** Gender Differences in Schizophrenia and First-Episode Psychosis: A Comprehensive Literature Review. *Schizophrenia Research and Treatment, 2012*, 1–9. <http://doi.org/10.1155/2012/916198>.
- Oulis, P., Gournellis, R., Konstantakopoulos, G., Matsoukas, T., Michalopoulou, P. G., Soldatos, C., & Lykouras, L. (2007).** Clinical dimensions of auditory

- hallucinations in schizophrenic disorders. *Comprehensive Psychiatry*, 48(4), 337–342.
- Pandarakalam, J. P. (2016).** Pharmacological and non-pharmacological interventions for persistent auditory hallucinations in schizophrenia. *British Journal of Medical Practitioners*, 9, a914.
- Peloian J. H. (2013).** Voices Subjective: Understanding the Experience of Auditory Hallucinations in Schizophrenia A published Doctoral Thesis. Faculty of The Chicago School of Professional Psychology.
- Rector, N. a., & Seeman, M. V. (1992).** Auditory hallucinations in women and men. *Schizophrenia Research*, 7, 233–236. [http://doi.org/10.1016/0920-9964\(92\)90017-Y](http://doi.org/10.1016/0920-9964(92)90017-Y)
- Sharma RP, Dowd SM, Janicak PG. (1999) .** Hallucinations in the acute schizophrenic-type psychosis: effects of gender and age of illness onset. *Schizophr Res.* May 4;37(1):91-5.
- Steadman, K., & Taskila, T. (2015).** Symptoms of depression and their effects on employment, (May), 83. Retrieved from [http://www.theworkfoundation.com/DownloadPublication/Report/382_Symptoms of Depression_FINAL.pdf](http://www.theworkfoundation.com/DownloadPublication/Report/382_Symptoms_of_Depression_FINAL.pdf)
- Swanson CL Jr, Gur RC, Bilker W, Petty RG, Gur RE. (1998).** Premorbid educational attainment in schizophrenia: association with symptoms, functioning, and neurobehavioral measures. *Biol Psychiatry*. 10;44(8):739-47.
- Thomas P, Mathur P, Gottesman I, Nagpal R , Nimgaonkar V L.(2007).** Correlates of hallucinations in schizophrenia: A cross-cultural evaluation. *Schizophrenia Research*; 10: 1- 9
- Van Lutterveld, R., Dieren, K. M. J., Koops, S., Begemann, M. J. H., & Sommer, I. E. C. (2013).** The influence of stimulus detection on activation patterns during auditory hallucinations. *Schizophrenia Research*, 145(1–3), 27–32.
- Varcarolis E M. (2014).** Foundations of Psychiatric Mental Health Nursing. 7th edition. Philadelphia: W.B.Saunders Company,
- Vercammen, A. Knegeting H, Bruggeman R, Aleman A, (2011).** Subjective loudness and reality of auditory verbal hallucinations and activation of the inner speech processing network. *Schizophrenia Bulletin*, 37(5), pp.1009–1016.
- Wahass S, Kent G.(1997).** Coping with auditory hallucinations: a cross culture comparison between Western (British) and non-Western (Saudi- Arabian) patients. *J Nerv Ment Dis*;185:664-668.
- Wahass, S., & Kent, G. (2009).** The Modification of Psychological Interventions for Persistent Auditory Hallucinations to an Islamic Culture. *Behavioural and Cognitive Psychotherapy*, 25(4), 351.
- Wong, A. H. C., & Van Tol, H. H. M. (2003).** Schizophrenia: From phenomenology to neurobiology. *Neuroscience and Biobehavioral Reviews*, 27(3), 269–306. [http://doi.org/10.1016/S0149-7634\(03\)00035-6](http://doi.org/10.1016/S0149-7634(03)00035-6)
- Woodruff P. W. R. (2004).** Auditory hallucinations: insights and questions from neuroimaging. *Cogn. Neuropsychiatry* 9, 73–92.
- Wykes, T., Hayward, P., Thomas, N., Green, N., Surguladze, S., Fannon, D., & Landau, S. (2005).** What are the effects of group cognitive behaviour therapy for voices? A randomised control trial. *Schizophrenia Research*, 77(2–3), 201–210. <http://doi.org/10.1016/j.schres.2005.03.013>