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## Patterns used by Schizophrenic Patients to Cope with Auditory Hallucination

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### ABSTRACT

**Background:** Many patients with psychotic disorders experience persistent auditory hallucinations despite rigorous pharmacological treatment. **Aim:** This study was to assess patterns used by schizophrenic patients to cope with auditory hallucination **Methods:** Analytical descriptive research design was utilized for the current study. The study was carried out at National Centered for Mental Health - Fhais Hospital - Jordan. Which affiliated to the Ministry of Health at Jordan Governorate. A convenient sample of 55 patients from pervious mentioned setting. Two tools were utilized to collect data for this study (Coping with auditory hallucinations. socio-demographic and clinical data interview schedule). **Results:** The results revealed that, the acceptance of the voices cognitive strategy which was significantly associated with the employment status of patients. Also the behavioral coping strategies, it was found that, performing home tasks or hobbies was significantly related to sex. Also marital status was significantly associated with walking, standing or setting strategy and whispering strategy. In addition, praying or doing other religious activities strategy was significantly related to educational level. **Conclusion and Recommendation:** The study concluded that Jordan Schizophrenic Patients used several coping strategies to take care of auditory hallucinations. There were many significant correlations between coping strategies and socio- demographic and/ or clinical characteristics. Thus, the study recommended continuing learning program for nurses in the form of workshops, conferences and review update to help schizophrenic patients cope successfully with auditory hallucinations.

**Keywords:** auditory hallucinations, coping strategies, schizophrenia

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## INTRODUCTION

Hallucinatory experience may be described as positive, negative or neutral (*Nolen-Hoeksema, 2014*). *ALuhrmann, (2014)* said that the experience of hallucination is complex and varies from person to person, and suggests that the hallucinatory experiences are influenced by one's particular social and cultural environment. Hallucination may feel patients privileged, relieved their boredom, amused them, acted as a guide, provided an outlet for anxiety, relieved unpleasant affect, served a protective or companionship function, helped in integrating trauma, strengthened and stimulated them. In contrast, some investigators have described voices to be perceived as threatening, accusing, reproving, hurting, freezing, disgracing or intruding *Kneisl ,Trigoboff (2013)*. *Leede-Smith, Barkus (2013)* found that the most patients of their hallucinating sample reported that hallucinatory voices had a negative impact on their lives. The present study will describe these phenomena in Jordanian settings.

The one type of talking therapy that is useful is cognitive behavioral coping strategies which are a form of psychotherapy. Cognitive behavioral coping strategies cannot make your voices disappear but some people find that it is successful in helping them to control or manage their voices. Cognitive behavioral coping strategies have been used for some years to treat a variety of mental health problems with varying results. Although more conclusive studies are still needed, we found some preliminary evidence for the efficacy of cognitive behavioral coping strategies in the treatment of command hallucinations (*Pontillo et al., 2016*).

### **Significance of the Study:**

Auditory hallucinations are unusual experience that can be emotionally stressful and few people are equipped to cope with through prior learning. For some people assistance with coping will be adjunctive to pharmacotherapy, whilst for others coping enhancement ought to be the primary intervention. Nurses and other health professionals who would wish to support people in coping with auditory hallucinations are constrained by a paucity of research to inform their practice. So, based on the obtained data of the present study, the most frequently used coping strategies can be determined. Then a learning program can be tailored to help schizophrenic patients cope successfully with auditory hallucinations.

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**AIM OF THE STUDY:**

This study was to assess patterns used by schizophrenic patients to cope with auditory hallucination.

**SUBJECTS AND METHOD:**

**Study Design:** Analytical descriptive research design was utilized for the current study. This design facilitates the search for knowledge and determine of the causality in situations.

**Setting:** This study was carried out at National Centred for Mental Health - Fhais *Hospital* - Jordan. Which affiliated to the Ministry of Health at Jordan Governorate?

**Sample:** The sample of the study was collected during three months. This consisted of 55 schizophrenic patients with the following criteria:

- Chronic stable schizophrenia with auditory hallucinations were enrolled.
- The patients acknowledge that they have auditory hallucinations.
- Patients who were changing their antipsychotic medication were not included, since change of medication would suggest the absence of stability.

**Data Collection Tools:**

Patients were assessed by using:

**TOOL I: Sociodemographic and clinical data interview schedule:**

questionnaire which includes socio- demographic data such as age, sex, residence, occupation.....etc and clinical data as psychiatric history as diagnosis, duration of illness, number of previous psychiatric hospitalization, history of auditory hallucinations as well as information about the experience of having auditory hallucinations". The researcher designed this tool based on literature review.

**TOOL II: Coping with auditory hallucinations scale** to assess coping strategies employed by schizophrenic patients to deal with auditory hallucinations. . It comprises of clusters of coping strategies. The first cluster includes cognitive strategies represented in three sub items. The second includes behavioral strategies which composed of eleven sub items. The third includes seeking help strategies represented in two sub items and finally physiological coping strategies which consists of three sub items. (*Mohamed.2009*).

**ADMINISTRATIVE DESIGN:**

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- Before starting any step in the study, ethical approval was sought from faculty of nursing , Zarqa University administrator
  - The official approval was obtained from Jordanian Ministry of Health, and hospital administrator to carry out the study is obtained by submission of official letters issued for the directors of the selected hospital.

**Ethical considerations:**

- Ethical issues is raised by taking verbal consent for participation from every patient after explaining the aim of the study and confirming confidentiality of their data, The researchers are emphasized that the participation is voluntary and they have the right to withdraw at any time.
- The interview was conducted in private and separated room at the respective clinic to collect data from the patients. In the presence of misunderstanding the questions the researcher was helped them to respond the questions. Patients who has not capable of responding to the questionnaire due to more severe illness were excluded.
- Each sheet took about 10- 15 minutes to be answered. Data collected in three months period.
- All data will remain confidential and be anonymous using a series of research codes.

**Data analysis:** A quantitative study generates appropriate results for the purpose of the current study by using Statistical Package of Social Science (SPSS) to manage their data. The commonality of using this package indicates that this software was a convenient and standard tool for quantitative analysis, with which researchers may already be familiar. The most common and appropriate tests used in SPSS data analysis included Chi-Squire comparing categorical data, t-test comparing continuous data between two groups, correlation for the relationship between individual continuous variables and Analysis of Variance (ANOVA) for more than two groups.

**RESULTS:**

**Table (1):** illustrates that the highest percentage of participants (38.2%) were within 30-39 years old group. A substantial proportion of the participants (78.2%) were males, less than half of the studied students (47.3%) were single. 54.5% of them were graduated from secondary schools. Concerning the employment, it was found that 38.2% of participants were not employed, 38.2% were skilled workers, and 10.9% were housewives.

**Table (2):** shows the clinical characteristics of the study sample. It was shown that a total of 65.5% of the patients had chronic paranoid schizophrenia. Regarding the number of previous psychiatric hospitalization generally. A total of 41.8% reported one time admission in the psychiatric hospital during the previous year. With regards the history of the beginning of hallucinations, 41.8% reported that they experienced hallucinations from 5 to less than 10 years. In relation to the effect of hallucinations on the patients' life, 32.7% reported that hallucinations influenced on their relation with their families and let them quarrel with their families, 27.3% complained from anxiety and fear, and 23.6% reported that, they left the work because of hallucinations. Concerning the number of voices heard currently, 81.8% reported that, they heard one or two voices.

**Table (3):** shows the characteristics of the auditory hallucinations for the sample. The highest percentage (56.4%) reported that they were distressed. In respect to the most distressing aspect of hearing voices, 34.5% reported that the voices are triggering anxiety and headache, 27.3% reported that the voices are threatening or hurting them with unpleasant talk. Regarding hostility of the voices, 50.9% described the voices as hostile, In respect to the location of the voices, more than half of them(50.9%) described that the heard voices are outside their heads. Regarding the frequency of the voices, 61.8% reported that the voices continue for minutes/day. When the patients were asked what are the times of the day the voices worst, 40% reported that they hear at all times. When the patients were asked about in which situation the voices increase, 56.4% reported while they set alone. The majority (78.2%) of the patients reported that the medications decreased the voices.

**Table (4):** shows that the coping strategies used by schizophrenic patients to cope with auditory hallucinations. It is obvious that the most commonly used cognitive coping strategy was acceptance of the voices 38.2% followed by suppression of the voices (32.7%). Regarding behavioural coping strategies, it was noticed that watching TV was the most frequently used behavioural coping strategy by 40% of the patient followed by praying or doing other religious activities (25.5%) and similar percentage for walking, standing or setting coping strategy. In respect to seeking help coping strategies, it was found that going to the doctor employed by 50.9% and 49.1% used the strategy of talking

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to someone else. Concerning physiological coping strategies, it was found that, 67.3% of the patients used medications to manage auditory hallucinations.

**Table (5):** shows the relationship between demographic characteristics of the schizophrenic patients and their coping strategies with auditory hallucinations. acceptance of the voices cognitive strategy which was significantly associated with the employment status of patients. With regards to the behavioural coping strategies, it was found that, performing home tasks or hobbies was significantly related to sex ( $P < 0.001$ ), also marital status was significantly associated with walking, standing or setting strategy ( $P = 0.05$ ) and whispering strategy ( $P = 0.02$ ). In addition, praying or doing other religious activities strategy was significantly related to educational level ( $P = 0.04$ ). Regarding physiological coping strategies, it was noticed that, relaxation strategy was significantly associated with the level of education ( $P = 0.04$ ).

**Table (6):** shows the relationship between clinical characteristics of the schizophrenic patients and their coping strategies with auditory hallucinations. acceptance of the voices cognitive strategy which was significantly associated with onset of hallucinations for patients ( $P = 0.04$ ). With regards to the behavioural coping strategies, it was found that, watching TV was significantly related to diagnosis ( $P = 0.04$ ), using ear plug was significantly associated with general number of hospitalizations ( $P = 0.05$ ), using sense of humour was significantly associated with onset of hallucinations ( $P = 0.03$ ), and whispering was significantly associated with age at the onset of hallucinations ( $P = 0.002$ ). In addition, walking, standing or setting strategy was significantly related to the current number of voices heard ( $P = 0.05$ ). Regarding physiological coping strategies, it was noticed that, both sleeping ( $P = 0.04$ ) and using of medications ( $P = 0.05$ ) strategies was significantly associated with diagnosis.

**Table(1):** Demographic characteristics of the study sample (N=55)

<b>Variables</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Age (years)</b>		
15-19	1	1.8
20-29	13	23.6
30-39	21	38.2
40 and over	20	36.4
<b>Gender</b>		
Male	43	78.2
Female	12	21.8
<b>Marital status</b>		
Single	26	47.3
Married	16	29.1
Separated/Divorced	10	18.2
Widows	3	5.5
<b>Employment</b>		
Unemployed	21	38.2
Unskilled worker	5	9.1
Skilled worker	21	38.2
Business	2	3.6
Housewife	6	10.9
<b>Educational level</b>		
Illiterate	3	5.5
Read And write	4	7.3
Primary education	13	23.6
Secondary education	30	54.5
University education	5	9.1

**Table (2):** Clinical Characteristics of the study sample (N=55)

<b>Clinical variable</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Diagnosis</b>		
Chronic paranoid schizophrenia	36	65.5
Undifferentiated schizophrenia	19	34.5
<b>Duration of illness (years)</b>		
2 - < 5 years	13	23.6
5 - < 10 years	20	36.4
10 years and more	22	40.0
<b>Number of previous psychiatric hospitalization generally</b>		
No previous hospitalizations	4	7.3
Admitted one time	7	12.7
Admitted two times	11	20.0
Admitted three times	11	20.0
Admitted four and more	22	40.0
<b>Number of psychiatric hospitalization during the previous year</b>		
No admission	6	10.9
Admitted one time	23	41.8
Admitted two times	13	23.6
Admitted three times	2	3.6
Admitted four and more	11	20.0
<b>Number of months since the last psychiatric hospitalization</b>		
Not applicable	13	23.6
Less than 6 months	33	60.0
6-12 months	6	10.9
> 12 months	3	5.5
<b>History of the beginning of hallucinations (years)</b>		
< 5 years	19	34.5
5- 10 years	23	41.8
>10 years	13	23.6
<b>Age at the onset of hallucinations</b>		
20-29 years	38	69.1
30- 39 years	16	29.1
40 years and more	1	1.8



<b>Clinical variable</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Effect of hallucinations on the patients' life</b>		
Left the work	13	23.6
Influence the relation with family and quarreled with them	18	32.7
Left the patient anxious and fearful	15	27.3
Influence his body (pain or tremor)	1	1.8
Left patient talk with himself	8	14.5
<b>The number of voices heard previously</b>		
One or two voices	40	72.7
Three or four voices	6	10.9
Five voices and more	9	16.4
<b>The number of voices heard currently</b>		
One or two voices	45	81.8
Three or four voices	4	7.3
Five voices and more	6	10.9
<b>History of receiving antipsychotic medications (years)</b>		
< 5 years	23	41.8
5- 9 years	14	25.5
10 years and more	18	32.7
<b>know the name of received medications</b>		
Yes	29	52.7
No	26	47.3

**Table (3):** Characteristics of the auditory hallucinations of the sample (N=55)

<b>Variable</b>	<b>Frequency (no)</b>	<b>Percentage (%)</b>
<b>Experience of hearing voices</b>		
Painful	7	12.7
Distressing	31	56.4
Comfortable	7	12.7
Both painful and comfortable	10	18.2
<b>What is the most distressing aspect of hearing voices?</b>		
Threat and hurt the pt with unpleasant/vulgar talk	15	27.3
Let the patient anxious and feel with headache	19	34.5
Let the patient harm others	10	18.2
Let the patient leave the work	3	5.5
Laugh at the patient	3	5.5
Nothing	5	9.1
<b>Experience of hearing other sounds rather than voices</b>		
Whispering	14	25.5
Train or car sound	3	5.5
Others	4	7.3
No	34	61.8
<b>Tone of the voices</b>		
Very High/loud	13	23.6
High	13	23.6
Moderate	21	38.2
Soft	8	14.5
<b>Clarity of the voices</b>		
Clear	32	58.2
Vague	12	21.8
Neutral	7	12.7
Others (neutral & vague)	4	7.3
<b>Are the voices hostile, friendly or differ at different times?</b>		
Hostile	28	50.9
Friendly	7	12.7
Differ at different times (Hostile/ Friendly)	20	36.4
<b>Location of the voices</b>		
Outside the head	28	50.9
Inside the head	14	25.5
Inside and outside the head	13	23.6

Variable	Frequency (no)	Percentage (%)
<b>Do you think other people can hear the voices?</b>		
Yes	5	9.1
No	31	56.4
Don't know	19	34.5
<b>Frequency of the voices</b>		
Continuous all the day	4	7.3
For hours per day	17	30.9
For minutes per day	34	61.8
<b>What are the times of the day the voices worst?</b>		
Afternoon	1	1.8
Evenning	18	32.7
During sleep	14	25.5
All the times	22	40.0
<b>Form of the talk of the voices</b>		
Phrases	22	40.0
Sentences	19	34.5
Paragraphs	7	12.7
Continuous Monologue	7	12.7
<b>The voices talk to whom?</b>		
Talk to the patient	45	81.8
Talk to each other about the pt	3	5.5
Both	7	12.7
<b>Are they males or females?</b>		
Males	24	43.6
Females	9	16.4
Both	14	25.5
Others (devils)	8	14.5
<b>Do you know who are they?</b>		
Yes	16	29.1
No	21	38.2
Don't know	18	32.7
<b>The most situations in which you hear the voices?</b>		
In crowd	1	1.8
When sitting alone	31	56.4
Both	23	41.8

<b>Variable</b>	<b>Frequency (no)</b>	<b>Percentage (%)</b>
<b>Are these voices ordering you or suggesting doing?</b>		
Yes	25	45.5
No	30	54.5
<b>Are these voices ordering you hurting yourself?</b>		
Yes	9	16.4
No	46	83.6
<b>Are these voices ordering you doing something?</b>		
Yes	26	47.3
No	29	52.7
<b>Are these voices commenting on what you are doing?</b>		
Yes	26	47.3
No	29	52.7
<b>Are these voices criticizing or commenting about you?</b>		
Yes	30	54.5
No	25	45.5
<b>Are these voices laughing at you?</b>		
Yes	10	18.2
No	45	81.8
<b>Are these voices talking with you about religion or God?</b>		
Yes	17	30.9
No	38	69.1
<b>Are these voices talking with you about sex?</b>		
Yes	15	27.3
No	40	72.7
<b>Does medication decrease the voices?</b>		
Yes	43	78.2
No	12	21.8

**Table (4):** Coping strategies used to cope with auditory hallucinations (N=55)

<b>Coping strategy</b>	<b>Used</b>		<b>Not used</b>	
	<b>No.</b>	<b>%</b>	<b>No.</b>	<b>%</b>
<b>I. Cognitive coping strategies</b>				
Decreasing attention for the voices	16	29.1	39	70.9
Suppression of the voices.	18	<b>32.7</b>	37	67.3
Acceptance of the voices.	21	<b>38.2</b>	34	61.8
<b>II. Behavioral coping strategies</b>				
Reading aloud	0	0	55	100.0
Playing or making exercises	5	9.1	50	90.9
Walking, standing or setting.	14	<b>25.5</b>	41	74.5
Whispering	4	7.3	51	92.7
Using ear plug	6	10.9	49	89.1
Listening to music or radio	2	3.6	53	96.4
Watching TV	22	<b>40.0</b>	33	60.0
Avoidance of people or situations	7	12.7	48	87.3
Praying or doing other religious activities	14	<b>25.5</b>	41	74.5
Using sense of humor	6	10.9	49	89.1
Performing home tasks or hobbies.	4	7.3	51	92.7
<b>III. Seeking help coping strategies</b>				
Talking to someone else about hallucinations	27	<b>49.1</b>	28	50.9
Going to the doctor	28	<b>50.9</b>	27	49.1
<b>IV. Physiological coping strategies</b>				
Relaxation	3	5.5	52	94.5
Sleeping.	15	<b>27.3</b>	40	72.7
Using of medications.	37	<b>67.3</b>	18	32.7

**Table (5):** The relationships between demographic characteristics and coping strategies.

**Table 5:** The relationships between demographic characteristics and coping strategies.

Coping strategies	Age		Sex		Marital status		Employment		Education						
	$\chi^2$	df	P	$\chi^2$	df	P	$\chi^2$	df	P	$\chi^2$	df	P			
<b>I. Cognitive coping strategies</b>															
Decreasing attention for the voices	4.12	3	0.25	0.13	1	0.71	0.45	3	0.92	3.75	4	0.44	1.42	5	0.92
Suppression of the voices.	6.20	3	0.10	0.42	1	0.52	1.91	3	0.59	3.89	4	0.42	2.57	5	0.77
Acceptance of the voices.	3.87	3	0.28	0.79	1	0.77	1.37	3	0.71	<b>12.2</b>	<b>4</b>	<b>0.02</b>	3.22	5	0.67
<b>II. Behavioral coping strategies</b>															
Reading aloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Playing or making exercises	3.41	3	0.33	0.01	1	0.91	2.70	3	0.44	1.99	4	0.74	10.2	5	0.07
Walking, standing or setting.	1.36	3	0.72	0.50	1	0.48	<b>7.98</b>	<b>3</b>	<b>0.05</b>	1.87	4	0.76	3.95	5	0.56
Whispering	0.39	3	0.94	1.20	1	0.27	<b>9.96</b>	<b>3</b>	<b>0.02</b>	6.98	4	0.14	6.06	5	0.30
Using ear plug	0.52	3	0.92	0.11	1	0.75	3.80	3	0.28	3.06	4	0.55	7.43	5	0.19
Listening to music or radio	6.70	3	0.08	0.97	1	0.33	2.32	3	0.51	3.36	4	0.50	1.71	5	0.89
Watching TV	2.09	3	0.55	0.64	1	0.42	1.04	3	0.80	5.24	4	0.26	7.69	5	0.17
Avoidance of people or situations	0.58	3	0.90	0.21	1	0.64	1.06	3	0.79	4.07	4	0.40	6.97	5	0.22
Praying or doing other religious activities	1.21	3	0.75	0.63	1	0.43	2.01	3	0.57	2.62	4	0.62	<b>11.5</b>	<b>5</b>	<b>0.04</b>
Using sense of humor	3.20	3	0.31	0.11	1	0.75	4.20	3	0.24	1.35	4	0.85	5.27	5	0.38
Performing home tasks or hobbies.	3.06	3	0.38	<b>15.5</b>	<b>1</b>	<b>&lt;0.001</b>	5.82	3	0.12	1.69	4	0.79	6.39	5	0.27
<b>III. Seeking help coping strategies</b>															
Talking to someone else about hallucinations	5.81	3	0.12	0.005	1	0.94	0.97	3	0.81	4.47	4	0.35	0.59	5	0.99
Going to the doctor	5.81	3	0.12	0.005	1	0.94	0.97	3	0.81	4.47	4	0.35	0.59	5	0.99
<b>IV. Physiological coping strategies</b>															
Relaxation	1.49	3	0.69	0.89	1	0.35	1.02	3	0.79	4.39	4	0.36	<b>11.4</b>	<b>5</b>	<b>0.04</b>
Sleeping.	5.02	3	0.17	0.40	1	0.84	3.62	3	0.31	4.30	4	0.37	1.60	5	0.90
Using of medications.	3.99	3	0.26	0.42	1	0.52	4.76	3	0.19	8.12	4	0.09	1.2	5	0.94

$\chi^2$ , Chi-square test; df, degree of freedom; P, significance level (2 tail test)

**Table (6):** The relationships between clinical characteristics and coping strategies.

Coping strategies	Diagnosis		Duration of illness		No. of hospitalization generally		Onset of hallucinations		Age at the onset of hallucinations		The currently No. of voices							
	$\chi^2$	df	P	$\chi^2$	df	P	$\chi^2$	df	P	$\chi^2$	df	P						
<b>I. Cognitive coping strategies</b>																		
Decreasing attention for the voices	0.09	1	0.77	0.26	2	0.87	1.80	4	0.77	2.51	2	0.29	1.10	2	0.58	1.03	2	0.60
Suppression of the voices.	0.22	1	0.64	0.08	2	0.96	4.43	4	0.35	2.21	2	0.33	0.54	2	0.76	0.98	2	0.61
Acceptance of the voices.	0.54	1	0.46	0.06	2	0.97	2.00	4	0.74	<b>6.49</b>	<b>2</b>	<b>0.04</b>	1.97	2	0.37	1.78	2	0.41
<b>II. Behavioral coping strategies</b>																		
Reading aloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Playing or making exercises	0.07	1	0.79	1.19	2	0.55	6.36	4	0.17	0.08	2	0.96	0.39	2	0.82	1.83	2	0.40
Walking, standing or setting.	0.01	1	0.92	4.15	2	0.13	2.09	4	0.72	0.58	2	0.75	0.97	2	0.62	<b>6.07</b>	<b>2</b>	<b>0.05</b>
Whispering	0.46	1	0.50	0.26	2	0.87	3.78	4	0.44	1.39	2	0.50	<b>13.0</b>	<b>2</b>	<b>.002</b>	0.96	2	0.62
Using ear plug	.004	1	0.95	0.56	2	0.76	<b>9.63</b>	4	<b>0.05</b>	1.76	2	0.42	1.49	2	0.48	1.55	2	0.46
Listening to music or radio	0.22	1	0.64	0.65	2	0.72	1.82	4	0.77	2.89	2	0.24	0.93	2	0.63	0.46	2	0.79
Watching TV	<b>4.34</b>	<b>1</b>	<b>0.04</b>	1.03	2	0.60	5.34	4	0.25	0.61	2	0.74	0.78	2	0.68	0.51	2	0.78
Avoidance of people or situations	1.46	1	0.23	1.75	2	0.42	6.30	4	0.18	0.17	2	0.92	1.07	2	0.58	1.43	2	0.49
Praying or doing other religious activities	0.30	1	0.59	0.34	2	0.84	5.48	4	0.24	3.36	2	0.19	0.97	2	0.62	1.89	2	0.39
Using sense of humor	0.71	1	0.40	2.05	2	0.36	2.69	4	0.61	<b>6.92</b>	<b>2</b>	<b>0.03</b>	1.49	2	0.48	1.55	2	0.46
Performing home tasks or hobbies.	0.17	1	0.68	1.35	2	0.51	8.49	4	0.08	2.63	2	0.27	0.95	2	0.62	2.36	2	0.31
<b>III. Seeking help coping strategies</b>																		
Talking to someone else about hallucinations	0.57	1	0.45	0.44	2	0.80	4.94	4	0.29	2.03	2	0.36	0.98	2	0.61	2.21	2	0.33
Going to the doctor	0.57	1	0.45	0.44	2	0.80	4.94	4	0.29	2.03	2	0.36	0.98	2	0.61	2.21	2	0.33
<b>IV. Physiological coping strategies</b>																		
Relaxation	.002	1	0.96	1.84	2	0.34	4.76	4	0.31	0.18	2	0.91	2.19	2	0.34	0.71	2	0.70
Sleeping.	<b>4.10</b>	<b>1</b>	<b>0.04</b>	2.67	2	0.26	0.70	4	0.95	1.22	2	0.54	0.47	2	0.79	2.18	2	0.34
Using of medications.	<b>3.8</b>	<b>1</b>	<b>0.05</b>	0.80	2	0.67	0.51	4	0.97	0.74	2	0.69	0.68	2	0.71	3.17	2	0.21

$\chi^2$ : Chi-square test; df, degree of freedom; P, significance level (2 tail test)

**DISCUSSION:**

Hallucinations that are not real can be a distressing experience, both for the person that hears voices and for those who want to help. Understanding the experience of hearing voices has been stifled by the traditional psychiatric approach, but thankfully there are resources now available to those who hear voices and those who want to help — resources that are the result of new approaches to the task of understanding and managing voices that are distressing (*Row, 2003*).

Regarding the characteristics of the auditory hallucinations of the studied schizophrenic patients, the present study revealed that the majority of the studied schizophrenic patients reported that they were distressed and the voices are triggering anxiety and headache. The present study also showed that about half of the studied patients described the voices as hostile. This latter finding may be due to the fact that mental illness usually affects the cognitive, affective and behavioral status of the patients as well as general feeling of anxiety and fear.

In this respect, *Higuera, Krucik(2014) ; Cockshutt (2004)* found that, People who are unwell sometimes feel they have no control over the voices they hear, and may be very frightened and distressed by them. They may believe the voices are powerful and will harm them if they do not do as they say.

*Lennox., et al (2000)* reported that hearing different talking voices is divided into 3 major categories: hearing any voice that is speaking your thoughts, hearing just one or multiple voice fighting and arguing with one another, and hearing voices that narrate your actions. The results of the current study showed that, when the patients were asked to whom the voice talk, 81.8% reported that the voices talk to them and they hear voices in the form of phrases.



Voice hearers who come to the attention of psychiatric services are often stuck in destructive communication patterns with their voices. The alternative approach is based on helping people make sense of their voices and learning to cope with them. The results of the current study showed that the most commonly used cognitive coping strategy was acceptance of the voices followed by suppression of the voices and decreasing attention. On the same line, *Spingh., et al (2002)* mentioned that if all the voices that you hear aren't negative but positive, then usually, you don't need to completely silence them and all you have to do is to learn to live with them. However, if those voices pressurize, threaten, swear or try to control you, then you must seek professional psychological help.

Regarding behavioural coping strategies, it was noticed that watching TV was the most frequently used behavioural coping strategy by 40% of the patient followed by praying or doing other religious activities. may be attributed to the fact that the Arabian and Moslem countries cope with traumatic life episodes by using praying, meditation or doing other religious activities. In agreement with this result, *Tsai Y, Ku (2005)* stated that the most commonly used management category was behavioural change to deal with auditory hallucination.

In respect to seeking help coping strategies , the current study noted that there was highest percentage going to the doctor employed and used the strategy of talking to someone else. However the educated patients represents the highest percentage in this study than no educated ones. Needless to say that the educated patients able to decide appropriately the source of psychological, social as well as a physical support. In this respect, *Trower (2004)* Many mental health professionals find themselves caring for people troubled by voices. Research has found high levels of distress among people who have limited control over the voices and few coping strategies. It is the role of professionals to help them .

Concerning physiological coping strategies, the findings of current study revealed that, most patients used medications to manage auditory hallucinations. This is a very expected result as the improvement in the symptoms of mental disorders such as cognitive and behavioural impairments, interpersonal relations are going to be positively reflected on patients satisfaction. The same was also true for those patients who valued the importance of complying with treatment and drugs. These patients are usually complying with their

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treatment regimen and are usually progressing clinically with significant improvement in their symptoms. This is supported by *Higuera* , *Krucik(2014)* who found that the scientists are not clear what causes other types of hallucinations that can be experienced by people with psychosis. Some researchers think particular brain chemicals may be involved, including dopamine and acetylcholine.

Hallucination as part of functional or organic psychosis responds best to antipsychotics. All antipsychotics are effective, the newer antipsychotics having an edge over the traditional antipsychotics. General guidelines for pharmacotherapy of psychosis apply for hallucination as well. Twenty-five to 30% of the auditory hallucinations in schizophrenia are refractory to traditional antipsychotic drugs. Even with the advent of newer antipsychotics, a significant minority of patients continue to hallucinate (*Chaudhury, 2010*).

Hallucination-focused integrative treatment uses multiple modalities to maximize control of persistent auditory hallucinations. It integrates a number of different types of treatment strategies (Cognitive behavioral therapy, supportive psychotherapy, psycho education, coping training, mobile crisis intervention and antipsychotic medication). The intervention uses 20 one-hour sessions over 9–12 months. Hallucination-focused integrative treatment is different from most cognitive behavioral therapy programmes in that both patient and relatives receive cognitive interventions and coping training. Studies suggest that Hallucination-focused integrative treatment is effective for chronic schizophrenia patients and for psychotic adolescents with auditory hallucinations. Also, these positive effects last as long as 9–18 months after treatment *Jenner., et al (2006)*.

In contradiction with the forgoing result, *Pontillo, et al. (2016)* suggested that schizophrenic patients use many coping strategies to cope with auditory hallucination. However, the medication doesn't work for everyone and some people continue to hear voices even when they take antipsychotics regularly over a period of time.

Further results in the current study, showed acceptance of the voices cognitive strategy which was statistically significantly associated with the employment status. This finding may be due to the fact that schizophrenic patients at work tend to have sense of high self esteem, support from others, find themselves busy all the time. Again reasonable employment status can give the opportunity for schizophrenic patients to function independently grooming, performing housework, shopping, sleeping and managing time.

With regards to the behavioral coping strategies, it was found that, performing home tasks or hobbies was significantly related to sex. Also marital status was significantly associated with walking, standing or setting strategy and whispering strategy. sex differences in the use of behavioral coping strategies were observed. However, women more often used performing home tasks or hobbies. Although female respondents more often emotionally compared to male respondents. The effects of using behavioral coping strategies, such as performing home tasks or hobbies, reduced auditory hallucination for women, but not for men and the tendency for using coping styles are different for both sex.

Furthermore, *Mohamed (2009)* stated that behavioral coping strategies were significantly associated with sex, occupation, residence and level of education, onset of hallucination, and currently number of heard voices.

Regarding physiological coping strategies, it was noticed that, relaxation strategy was significantly associated with the level of education. This may be explained by educated patients accept their life style as it is and adjust to whatever limitations and losses they are faced with. Also, it may be related to that highly educated patients may have more aware about their problems.

#### **CONCLUSION ANDRECOMMENDATIONS:**

The study concluded that Jordan Schizophrenic Patients used several coping strategies to take care of auditory hallucinations. There were many significant correlation between coping strategies and socio- demographic and/ or clinical characteristics.

#### ***Based on the present study findings, the following recommendations are suggested:***

1- Continuing learning program for nurses in the form of workshops, conferences and review update to help schizophrenic patients cope successfully with auditory hallucinations.

2- Different coping styles should be included in the patient's records to determine the patients' abilities that help nurses to provide optimal nursing care for patients and cope effectively.

3-Implementation of Psycho-educational programs for schizophrenic patients which aim to:

-Educate patients and their family members about how to deal with auditory hallucination through using adaptive coping strategies to prevent and decrease the occurrence of fear and anxiety.

- Increase patient's awareness about their treatment modalities, are recommended.

4- Replication of this study is recommended using a wider probability sample and different settings.

5- Future research is needed to assess the effectiveness of educational programs for schizophrenic patients about coping strategies with auditory hallucination.

6- It should be acknowledged that a few recent reviews and studies have called into question the quality of the evidence or the true effectiveness of cognitive behavioural therapy in schizophrenia and other severe mental disorders.

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## الأنماط التي تستخدم من قبل مرضى الفصام للتكيف مع الهلوسة السمعية

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### الخلاصة

العديد من المرضى الذين يعانون من اضطرابات ذهانية يمرون بتجربة الهلوسة السمعية المستمرة على الرغم من العلاج الدوائي. الهدف من هذه الدراسة هو تقييم الأنماط التي يستخدمها مرضى الفصام للتعامل مع الهلوسة السمعية. تم استخدام التصميم التحليلي البحثي الوصفي للدراسة الحالية. وقد أجريت الدراسة في المركز الوطني للصحة النفسية -مستشفى الفحيص -الأردن. التي تتبع لوزارة الصحة في الأردن. عينة البحث مكونة من 55 مريضاً المكان المذكورة سابقاً. واستخدمت أداتان لجمع البيانات لهذه الدراسة على النحو التالي الاداء الأولي: البيانات الاجتماعية الديموغرافية و الإكلينيكية، مقياس التكيف مع الهلوسة السمعية. النتائج: كشفت النتائج أن قبول الأصوات كإستراتيجية معرفية ارتبطت بشكل كبير مع حالة عمل المرضى. أيضاً استراتيجيات المواجهة السلوكية، وجد أن أداء المهام المنزلية أو الهوايات كان مرتبطاً بشكل كبير بالجنس. كما ارتبطت الحالة الاجتماعية بشكل كبير مع المشي، والوقوف. بالإضافة إلى ذلك، كان الصلاة أو القيام بالأنشطة الدينية الأخرى ذات صلة كبيرة إلى المستوى التعليمي. الخلاصة والتوصيات: خلصت الدراسة إلى أن مرضى الفصام في الأردن استخدموا عدة استراتيجيات للتعامل مع الهلوسة السمعية. كان هناك العديد من الارتباطات الهامة بين استراتيجيات التكيف والخصائص الاجتماعية والديمغرافية و /أو الإكلينيكية. لذا أوصت الدراسة باستمرار برنامج التعلم للممرضات في شكل ورش عمل ومؤتمرات وتحديثات مراجعة لمساعدة مرضى الفصام على التعامل بنجاح مع الهلوسة السمعية.

**الكلمات المرشدة :** الهلوسة السمعية، استراتيجيات التأقلم، الفصام