Rate of Schneiderian First Rank Symptoms among Newly Diagnosed Schizophrenic Patients

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Abstract

Background: Schneiderian first rank symptoms are considered highly valuable in the diagnosis of schneideria.

They are more evident in the acute phase of the disorder and fading gradually with time. Many studies have shown that the rate of these symptoms are variable in different countries and are colored by cultural beliefs and values.

Objectives: To find out the rate of Schneiderian first rank symptoms among newly diagnosed schizophrenic patients, to assess which symptom(s) might predominate in those patients, and to find out if there is/are any correlation(s) between the occurrence of these symptoms and the sex of the patients.

Methods: Out of twenty-four patients with no past psychiatric history and whom were diagnosed as Schizophrenia for their first time depending on Diagnostic and Statistical Manual-4th Edition-Text Revised criteria for diagnosis were evaluated for the presence of Schneiderian First Rank Symptoms by using a semi-structured interview schedule.

Results: Out of twenty -three patients (54.7%) had present with one or more Schneiderian First Rank Symptoms.' Third person Hallucinatory Voices", "running Commentary Hallucinatory Voices', and " Somatic Passivity" were present more frequently than other symptoms.

The study revealed no sex differences in regard of the occurrences of the Schneiderian (FRS). More than 82% of those who had the symptoms showed more than one symptom.

Conclusions: Many factors influence the presence or absence of Schneiderian First Rank Symptoms among schizophrenic patients including the criteria selected for the diagnosis of the disorder, the tools adopted for the detection of these symptoms, the duration of the illness, and probably patient's cultural background.

Although there are individual differences of First Rank Symptoms among different cultures, still we expect certain symptoms to be present more than others. The influence of cultural factors in altering the basic symptoms of psychiatric illnesses is of great importance.

Key Words: Diagnostic and Statistical Manual-4th Edition-ext Revised (DSM-IV-TR), First Rank Symptoms (SFRS), American Psychiatric Association (APA), International Pilot Study of Schizophrenia (IPSS), International Classification of Diseases (ICD).

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Introduction

Schizophrenia is a grave mental disorder usually affecting young adults characterized by deteriorations of higher mental functions particularly thinking, emotion, perception, and personality; and may lead to a state once the patient become out of touch with the reality, living in his/her own world dominated by delusions and hallucinations; losing his/her humanity.

The concept of Schizophrenia has progressive development since Morel's description of the illness in 1858, followed by the work of Kraepelin, Bleuler, and others.

Accordingly the diagnosis of Schizophrenia has developed from one era to another until finally it relied on the recent criteria of ICD-10 and DSM-IV classifications.

Kurt Schneider (1887-1967), tried to make the diagnosis of schizophrenia more reliable by identifying a group of symptoms characteristic of the illness, but rarely found in other disorders, these were his first rank symptoms (Appendix-A), which he considered them essential in the diagnosis of the illness.

Schneider followed a descriptive phenomenological approach rather than etiological bases.

He considered that the presence of one or more of these symptoms in the absence of organic or affective disorders is diagnostic of the illness. Schneiderian First Rank Symptoms are usually prominent during the first onset attack of the illness, and diminish in number of symptoms and clarity with the next relapses, or when the illness become chronic. The importance of Schneiderian First Rank Symptoms is recognized in the DSM-IV and ICD-10 classifications.

Schneiderian First Rank Symptoms are usually prominent during the first onset attack of the illness, and diminish in number of symptoms and clarity with the next relapses, or when the illness become chronic.

Schneider considered all other symptoms as second rank, like Perplexity, Paranoid Delusions,

Second Person Hallucinatory Voices, Emotional Disturbance, etc….

Methods

The present study is a cross sectional study of 45 patients who attended Ibn-Rushd Psychiatric Teaching Hospital in Baghdad during the period between May 1st 2006 and November 1st 2006, and who were diagnosed as schizophrenia by the psychiatrists of the above mentioned hospital. The selected patients had no past psychiatric history and the diagnosis of schizophrenia was made for their first time, and they had been managed either as in- or out-patients.

Inclusion Criteria:

1- Patients should have no past psychiatric history, or receiving any sort of psychotropic medications or other means of psychiatric management.

2- For the purpose of diagnosis, the patient should fulfill the DSM-IV-TR criteria for diagnosis of schizophrenia.

3- Duration of the patient's stay in hospital (if the patient had been managed as an in-patient) should not be more than two weeks at the time of the interview for the purpose of the present study. This criterion was included in order to avoid the chance of modification of the patient's symptoms by the medications.

Only 42 patients out of the total 45 patients fit the inclusion criteria, and the remaining 3 were excluded from the study.

All the remaining 42 patients were re-interviewed by the researcher using a semi-structured interview.

Before beginning interview with any patient, the purpose of the interview and the study was explained by the researcher to each patient, stressing on the issue of confidentiality, then a written consent was obtained from each patient, in addition to active participation of the informants in the interview and the study.

In the evaluation of Schneiderian First Rank Symptoms (FRS), Mellor's definitions for (FRS) were adopted.

Only definitely present and clear symptoms were included and all other symptoms including questionably present were neglected. i.e. (FRS) were rated as either present or absent.

Statistical Analysis:

Whole data arranged and tabulated with numbers and percentages. Associations between variables measured by using Chi-Square Test, and Fisher Exact Test, and *P*-values were evaluated by a highly qualified Community Medicine Specialist as a statistician.

P-value of equal to or less than 0.05 considered as a level of significance.

Results

Results are summarized in (**Tables 1-14).**

The sample consists of 42 patients who have been diagnosed as Schizophrenia depending on DSM-IV-TR criteria for their first time in life, i.e. newly diagnosed schizophrenia

- Among the 42 patients, 25 were male (59.5%), and 17 were female (40.5%). 23 patients out of the total 42 had one or more FRS (54.7%) 13 were male (52%), and 10 were female (58.8%), with P= 0.66, i.e. occurrence of (FRS) were not significantly present in a particular sex**.** **(Table-1*)***
- Among the 23 patients who had (FRS), only 4 patients (17.4%) presented with just one symptom at the time of the interview, while the remaining 19 patients presented with more than one symptom (82.6%) with *P* value of less than (0.01) which is highly significant. **(Table- 2)**
- Each symptom alone been studied for its rate differences between male and female, with *P*. > 0.05 for each symptom, i.e. there were no significant relation between the occurrences of a particular symptom in a particular sex. **(Table 4-14)**

Tables

(Table-1)
Rates of (FRS) among Male and Female Patients

Category	(FRS)	No (FRS)	Total	%
Male	13	12	25	52
Female	10	7	17	58.8
Total	23	19	42	54.7

X2=0.19 d.f. = 1 P=0.66

-**Table 1** showed no significant correlations between the occurrence or absence of the symptoms between male and female. i.e. there is no particular preference for the occurrence of the Schneiderian (FRS) in a particular sex.

(Table-2)
Number and percentage of (FRS) per patients:

(FRS)	Number of Patients	Percentage
One Symptom Only	4	17.4
More Than One Symptom	19	82.6
Total	23	

P < 0.01

- **Table 2** showed a highly significant statistical result for the occurrence of more than one symptom in those who present with Schneiderian (FRS) ; i.e. when a particular Schneiderian (FRS) occur, it was accompanied by at least another one during the presentation.

(Table-3)
Frequency of Occurrence of Each Symptom per Patient:

Symptoms	*No. of Patients*	*%*
Thought Echo	2	8.7
Third Person Hallucinatory Voices	14	60.86
Running Commentary hallucinatory Voices	14	60.86
Somatic Passivity	13	56.52
Thought Withdrawal	4	17.4
Thought Insertion	5	21.73
Thought Broadcasting	5	21.73
Made Affect	3	13.4
Made Impulse	4	17.4
Made Volition	8	34.8
Delusional Perception	1	4.34

- Although **Table -3** showed a relative excess of the occurrence of third person hallucinatory voices, running commentary hallucinatory voices, and somatic passivity; no statistically significant occurrence of any particular symptom could be detected, with p values of greater than 0.05.

(Table-(4)
Difference in Occurrence of (Thought Echo) Between Male and Female:

Thought Echo	*Male*	*Female*
Present	1	1
Absent	12	9
Total of (FRS)	13	10

P. = 0.69

-**Table 4** showed no significant sex difference in the occurrence of this Thought Echo.

(Table -5)
Difference in Occurrence of (Third Person Hallucinatory Voices) Between Male and Female:

Third Person Hallucinatory Voices	*Male*	*Female*
Present	10	4
Absent	3	6
Total of (FRS)	13	10

P. = 0.17

-**Table 5** showed no significant sex difference in the occurrence of Third Person Hallucinatory Voices.

(Table-6)
Difference in Occurrence of (Running Commentary Hallucinatory Voices) Between Male and Female:

Running Commentary Hallucinatory Voices	*Male*	*Female*
Present	**10**	**4**
Absent	**3**	**6**
Total of (FRS)	**13**	**10**

P. = 0.17

-**Table 6** showed no significant sex difference in the occurrence of Running Commentary Hallucinatory Voices.

(Table -7)
Difference in Occurrence of (Somatic Passivity) Between Male and Female:

Somatic Passivity	*Male*	*Female*
Present	7	6
Absent	6	4
Total of (FRS)	13	10

P. = 0.55

-**Table 7** showed no significant sex difference in the occurrence of Somatic Passivity.

Table (8)
Difference in Occurrence of (Thought Withdrawal) Between Male and Female:

Thought Withdrawal	*Male*	*Female*
Present	1	3
Absent	12	7
Total of (FRS)	**13**	**10**

P. = 0.19

-**Table 8** showed no significant sex difference in the occurrence of Thought Withdrawal.

Table (9)
Difference in Occurrence of (Thought Insertion) Between Male and Female:

Thought Insertion	*Male*	*Female*
Present	2	3
Absent	11	7
Total of (FRS)	13	10

P. = 0.37

-**Table 9** showed no significant sex difference in the occurrence of Thought Insertion.

(Table -10)
Difference in Occurrence of (Thought Broadcasting) Between Male and Female:

Thought Broadcasting	*Male*	*Female*
Present	3	2
Absent	10	8
Total of (FRS)	13	10

P. = 0.63

-**Table 10** showed no significant sex difference in the occurrence of Thought Broadcasting.

(Table -11)
Difference in Occurrence of (Made Affect) Between Male and Female:

Made Affect	*Male*	*Female*
Present	2	1
Absent	11	9

Total of (FRS)	13	10

P. = 0.60

-**Table 11** showed no significant sex difference in the occurrence of Made Affect.

Table (12)

Difference in Occurrence of (Made Impulse) Between Male and Female:

Made Impulse	*Male*	*Female*
Present	3	1
Absent	10	9
Total of (FRS)	13	10

P. = 0.40

-**Table 12** showed no significant sex difference in the occurrence of Made Impulse.

(Table -13)

Difference in Occurrence of (Made Volition) Between Male and Female:

Made Volition	*Male*	*Female*
Present	4	4
Absent	9	6
Total of (FRS)	13	10

P. = 0.48

-**Table 13** showed no significant sex difference in the occurrence of Made Volition.

Table (14)

Difference in Occurrence of (Delusional Perception) Between Male and Female:

Delusional Perception	*Male*	*Female*
Present	1	0
Absent	12	10
Total of (FRS)	13	10

P. = 0.58

-**Table 14** showed no significant sex difference in the occurrence of Delusional Perception.

Table (15)

Comparisons of the Rate of Schneiderian (FRS) Among Different Studies:

Study	*Rate of Schneiderian (FRS)*
Present	54.7%
Iraq [1]	55%
IPSS [2]	57%
Saudi Arabia [3]	56.5%
Pakistan [4]	67%
UK [5]	72%
Kenya [6]	73%
Nigeria [7]	73%
Sir-Lanka [8]	25.4%
India [9]	35%

Discussion

-The main objective of the present study was to find out the rate of Schneiderian First Rank Symptoms among those newly diagnosed Schizophrenic patients.

- Out of twenty-four patients already studied, 23 were present with (FRS), (54.7 %). **(Table-1)**

This rate was found to be relevant in comparison with other studies from Iraq and other countries **(Table-15)**, which measure the *prevalence* of (FRS) among schizophrenic patients.The relative differences that were detected between the present study and other studies might be due to:

1- Present study assessed the rate of Schneiderian (FRS) among those who were newly diagnosed as Schizophrenia, while other studies

assessed the prevalence of Schneiderian (FRS) among schizophrenic patients regardless of the novelty of the diagnosis.

2- Different criteria for the diagnosis of Schizophrenia were used among the studies for example ICD-8 in IPSS [8], ICD-10 in Ahmed's

3- Study [1], while the present study relied on the strict criteria of DSM-IV-TR.

4- Different methods and definitions were used for eliciting (FRS) for example PSE were used in IPSS [8], while in the present study Mellor's

5- Definitions of (FRS) were adopted in the semi-structured interview.

6- The studies were done a cross different countries with different cultural background.

- Although the study that was conducted in Iraq 1992 [7] measured the prevalence of Schneiderian (FRS) among Iraqi schizophrenic patients regardless of the novelty of the diagnosis, prevalence of Schneiderian (FRS) in that study (55%) was nearly similar to the rate of Schneiderian (FRS) in the present study (54.7%). This similarity between the two studies might reflect particular presentations of Iraqi schizophrenic patients which might be contributed to the same cultural background.

- Also the prevalence of Schneiderian (FRS) in the study conducted in Saudi Arabia was 56.5

- %[9], and in that conducted in Pakistan the figure was of 67 %[7], these findings are relevant to that of Ahmad's study conducted in our country [1], and to the findings of the present study. These similarities among the mentioned studies might reflect the relative proximity in the cultural background among these countries.

- IPSS [8] studied 811 schizophrenic patients across 9 countries including USA, UK, Denmark, Czechoslovakia, USSR, India, Taiwan, Colombia, and Nigeria; showed the prevalence of Schneiderian (FRS) to be of 57%[8] , which is relevant to what have been shown in the present study **(Table-15),** also the same study revealed that "Commentary Voices", "Voices Arguing", and "Passivity phenomena" are highly discriminatory for Schizophrenia [8], and this was in close similarity to the present study too.

(Table -16)
Comparisons between the Occurrence of Each (FRS) in the Present and Other Studies:

Symptoms	UK [5] N=173		Saudi Arabia[3] n=52		Pakistan [4] n=50		Iraq [1] n=42		Present Study n=23	
	N	%	n	%	n	%	n	%	n	%
Thought Echo	20	11.6	6	11.5	1	2	9	21	2	8.7
Third Person Hallucinatory Voices	23	13.3	11	21.1	7	14	13	30	14	60.8
Running Commentary Hallucinatory Voices	23	13.3	11	21.1	8	16	18	42	14	60.8
Somatic Passivity	20	11.6	39	75	33	66	25	59	13	56.5
Thought Withdrawal	37	21.4	6	11.5	3	6	13	30	4	17.4
Thought Insertion	34	19.6	7	13.5	21	42	15	35	5	21.7
Thought Broadcasting	17	9.8	9	17.3	23	46	20	47	5	21.7
Made Affect	11	6.3	18	34.6	1	2	6	14	3	13.4
Made Impulse	5	2.9	23	44.2	-	-	-	-	4	17.4
Made Volition	16	9.2	19	36.5	7	14	6	14	8	34.8

Delusional Perception	11	6.3	4	7.7	4	8	3	7	1	4.3

- As shown in the table 16, different rates been found among the studies which might be contributed in general to the four explanations mentioned above.
- Somatic passivity is with a high frequency in the present study (56.5%), this figure was relevant to what have been shown in Ahmed's study in Iraq (59), relevant to that of Saudi Arabia (75%), and that of Pakistan (66%); but the figure was irrelevant to that of Mellor's study conducted at UK (11.6%) **(Table-16).** This might be explained on cultural bases, that our people believe more in the alien forces which is stemming from our tradition. Many patients presented as being possessed by Ghost (Jinny) for example, which might be believed by patients as controlling both their mental and physical functions, and their families partially might accept their believes and seeks psychiatric help only when all measures have failed to expel the (Jinny). Also in most developing countries including ours, somatization is a common presentation of mental illnesses; therefore somatic passivity might be more presented in such cultures.
- Although particular symptoms occurred more frequently than others, the present study revealed no significant occurrence of a particular Schneiderian (FRS) **(Table- 3),** a result which was relevant to those of other studies.
- The comparison on the base of sex variable that was done in this study revealed that sex difference had no influence on the occurrence of the Schneiderian (FRS) **(Tables 4-14),** a result which was relevant to those of other studies.
- **Table 2** showed that in more than 82% of patients presented with Schneiderian (FRS) more than one symptom were presented, with *P* value of less than 0.01 which is highly significant, this means that in most of cases when one Schneiderian (FRS) occurred, it accompanied by at least another one.

Conclusions

1-Schneiderian First Rank Symptoms are of great value in the routine clinical diagnosis of Schizophrenia in Iraq, as they are present in a high rate in schizophrenic patients, and considered as essential in the diagnostic criteria of DSM-IV-TR.

2-Many factors influence the presence or absence of Schneiderian (FRS) among schizophrenic patients including the criteria selected for the diagnosis of the disorder, the tools adopted for the detection of these symptoms, the duration of the illness, and probably patient's cultural background.

3-One might conclude that although there are individual differences of (FRS) among different cultures, still we expect certain symptoms to be present more than others. The influence of cultural factors in altering the basic symptomatology of psychiatric illnesses is of great importance.

4-Descriptive psychopathology is of vital importance and it needs experience and thorough training to help better clinical diagnosis of psychiatric disorders.

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Appendix-A-

Schneiderian First Rank Symptoms:

1-Thought Echo; when the patient hear his/her thoughts spoken aloud.

2- Third Person hallucinatory Voices; when the patients hear voices talk with each other and refer to the patient as the third person.

3- Running Commentary Hallucinatory Voices; when the patient hears voices

4- Commenting on the patient's thoughts or behaviors.

5- Somatic Passivity; when the patient believes that external forces control his/her body's organ functions.

6-Thought Alienations; when the patient believes that he/she lost control on his/her thoughts, and this includes Thought Insertion, Thought Withdrawal, and Thought Broadcasting.

7- Made Experiences; when the patient believe that external forces control his/her Acts, Volitions, Feelings.

8- Delusional Perception; when the patient give new delusional meanings to some new perceptions

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