Prevalence of Schneirder's First Rank Symptoms in Iraqi Schizophrenic Patients

Kareem Nasir Hussain; F.I.C.M.S, C.A.B.M.S

Department of Medicine-Medical College-Al-Qadisiya University

Abstract

Background: Schizophrenia is a mental disorder defined in term of abnormal clinical feature of behavior, affect, thinking and perception. Kurt Schneider 1887-1967 divided schizophrenic symptoms into 1st or 2nd rank are entirely devoid of any therapy and are intended purely pragmatically diagnostically.

Objectives (aims): To determine the prevalence of Schneider's First Rank Symptoms in Iraqi schizophrenic patients and explain the finding on a cultural basis.

Method: A cross sectional study that enrolled 76 schizophrenic patients treated as inpatient in Psychiatric Unit in Al-Diwaniya Teaching Hospital from1 May 2012 to 1 Jun. 2013, who met the diagnosis of schizophrenia according to ICD-10 and Schneider's First Rank Symptoms according to C. S. Mellor[8, 9]. All patients were examined within a maximum of four days from admission to the hospital.

Results: This study revealed that 55% of them have clear First Rank Symptoms. The commonest was somatic passivity, thought broadcast, commentary voices and thought insertion.

Conclusion: First Rank Symptoms are of value in the routine clinic diagnosis of schizophrenia in Iraq.

Phenomenology or descriptive psychopathology is of vital importance and it needs experience and training to help better clinical diagnosis of psychiatric disorder.

NOTE: FRS**:** First Rank Symptoms.

الخلاصة

خلفية الموضوع: الفصام (الشيزوفرينيا) من أخطر و أعقد الأمراض العقلية بسبب عدم معرفة مسبباته و لأنه يصيب الإنسان في زهرة شبابه, فهو سرطان البشرية العقلي. وقد أطلق العلامة يوجين بلويلر E. Bleuler اصطلاح الفصام عام 1916م. الفصام مجموعة أمراض عقلية تشترك بأعراض أساسية متشابهة كالتفكير المفكك غير الواقعي و التدهور التدريجي في بناء الشخصية و اضطراب الوجدان و اضطراب الإرادة, و اضطراب السلوك الحركي, و الهلاوس و الأوهام.

و قد أطلق العلامة شنايدر في تشخيصه لمرض الفصام أعراض أولية و ثانوية.

الأهداف: صممت هذه الدراسة لتبيان معدل و نطاق أعراض شنايدر الأولية لدى مرضى الفصام (الشيزوفرينيا) العراقيين.

الطرق: هذه الدراسة المقطعية شملت العينة المأخوذة من المرضى الداخلين في مستشفى الديوانية التعليمي الشعبة النفسية ضمن الفترة من 1 آيار 2012 إلى 1 حزيران 2013.

أجري الفحص الطبي للمرضى بواسطة المقابلة شبه الأصولية و المعتمدة على الجدول الاحصائي و التشخيص العاشر ICD-10 لمنظمة الصحة العالمية مضافاً إليه مقابلة الاستبيان السريري للكشف عن أعراض شنايدر الأولية و المعرفة من قبل Mellor عام 1970م. خلال الأيام الأربعة الأولى من دخول المرضى للوحدة النفسية في مستشفى الديوانية التعليمي. وإهمال جميع الحالات التي يشك بعدم وجود أعراض شنايدر الأولية فيها.

النتائج: كشفت هذه الدراسة أن 55٪ من المرضى لديهم أعراض شنايدر الأولية الواضحة. و من الأعراض الشائعة هو الشعور بالاستسلام أو السلبية الجسمية و التفكير المزروع عندما يشعر المريض أن أفكاره ليست عائدة له بل مزروعة من قبل جهة أخرى. الهلاوس السمعية التي تعلق على المريض و أفعاله و كذلك يشعر المريض بأن أفكاره مسموعة من قبل الآخرين.

الاستنتاجات: قد توصلنا إلى أن أعراض شنايدر الأولية لها قيمة تشخيصية في مرض الفصام لدى العراقيين. و هي تحتاج إلى خبرة سريرية في التشخيص, وهي واسعة الانتشار في المرضى العراقيين.

Introduction

Definition of schizophrenia:

Although there is no consensus on this point, Schizophrenia is a mental disorder defined in term of abnormal clinical feature of behaviour, affect, thinking and perception.

Schizophrenia takes a wide variety of forms and almost certainly represents a group of disorders share some characteristics, but are as yet only poorly defined[16].

History and concept of schizophrenia :

Recognizable descriptions of schizophrenia are historically considerably less common, in medical texts or literature generally, than those of melancholia or mania.

The earliest unambiguous descriptions date only from the end of the 18th century, and it was a further hundred years before the syndrome was defined with any clarity.

In 1856 Morel had coined the term demence precoce to describe an adolescent patient, once bright and active, who had slowly lapsed into a state of silent withdrawal.

In 1868 Kahlbaum had described the syndrome of Katatonie and three years later Hecker had also described Hebephrenie. [3, 20]

"Emil Kraepelin 1856-1926"

In the 4th edition of his textbook in 1893, demential praecox first appeared as an entity under the heading of "Psychic Degenerative Process". In later edition dementia praecox begins to appear as an entity of its own.

He distinguished between dementia praecox and manic depressive psychoses.

Kraepelin noted that patient with dementia praecox had their symptoms of hallucination, delusion and reduced attention to the outside world in a state of clear Consciousness and with unimpaired memory. He deprecated anatomy, physiology.. etc and the neglect of straight forward clinical psychiatric approach. Having failed to establish such disease entity on purely anatomical, purely etiological or purely symptomatological criteria, he nevertheless expressed his firm belief in the interdependence of these criteria.

Kraepelin had created the disease entity of dementia praecox a single without being able to name unequivocal symptom of it.

"Eugen Bleuler 1857-1939"

one of the first to retrieve the psyche in dementia praecox was Bleuler and his assistant C.G-Jung. Bleuler stated that I call dementia praecox, schizophrenia because I hope to show that the split of the several psychic function is one of its most important characteristic.

It is important that we postulate the existence of primary psychic symptoms, even though we do not know exactly what they are and that the symptomatology of dementia praecox so far described consist of a large extent of secondary symptoms which are brought about by the reaction of the sick psyche to the complex (i.e. the affect).

We thus differentiate not only between the disease process and its symptom, but among the latter between primary, directly caused by the disease process and secondary symptoms brought about by certain psychic mechanisms.

Primary symptoms are the real characteristic of the clinical picture and can be demonstrated more or less clearly in every case, the secondary symptoms need not be present, they are not brought about by what is essential in the disease process, but by circumstances which are only loosely associated with it.

It is also clear to Bleuler that the obligatory symptoms are not very helpful when it comes to diagnosis in an individual case.

Bleuler had ever intended to create a new diagnostic approach, he was quite satisfied in that respect with Kraepelin work, but he presented a new theory of the disease.

All the same, Bleuler's attempt had diagnostic consequences of considerable magnitude.

"Kurt Schneider 1887-1967"

Schneider as did Jaspers, explicitly avoid any kind of preconception about the nature of these psycho-pathological symptoms. Unlike Bleuler with his speculative classification into primary (process-bound) and secondary (complex-bound) symptoms [5,6].

As we do not know the somatosis, such differentiation be entirely hypothetical. He divided schizophrenic symptoms into 1st. or 2nd. rank, these symptoms are not delet with by any theory but are intended here for purely pragmatically diagnostically.

These 1st. rank symptoms thus only have a purely diagnostic preference over the 2nd. rank symptoms which can also be found in the other psychoses and at times in non-psychotic conditions.

This however does not say that we speak of schizophrenia only if 1st rank symptoms are found. 2nd. rank symptoms and behavioral abnormalities very often permit such a diagnosis if present in certain combination and numbers.

Compared to Bleuler he greatly narrows the circumference by avoiding an over-reliance on the recognition of Bleuler's primary or basic symptoms (the four *A*s), which are far too nonspecific.

Schneider described features that are more easily perceived and described and which therefore show a higher degree of inter-rater reliability, features which are economically put into check lists and fed into computers.

Now the clear understanding that the concept of schizophrenia as such and it's particular definition are based on convention.

The only important matter is that the researcher is aware of the relativity of his premises and that he never loses sight of the relativity of his own particular concept of schizophrenia.

Criticism

- That they (FRS) make no contribution to our standing of schizophrenia. (C.S. Mellor 1970).

Schneider never claimed that FRS had any theoretical value. They have only pure diagnostic purpose. These symptoms offer an operational definition of schizophrenia which might be suitable for research purposes, particularly where a prior and exclusive selection of schizophrenic subjects must be made.

- The method by which they are elicited is unreliable. (C.S. Mellor, 1970).

A major obstacle to the wider acceptance of phenomenological data is the absence of any measures of reliability.

These measurement need to be made and the effect of experience and specialized training determined.

- They do not relate to prognosis[19].

The necessity of this seems somewhat strange, since there are few symptoms in medicine that relate to prognosis.

- It was also clear that they could occur in other conditions, for example in mania and further Koehler [7] has argued that their clinical boundaries are less clear than they at first appear.

Influence of FRS on diagnostic systems

In spite of the criticisms, the FRS have influenced a number of diagnostic systems. These include:

The ICD-9 and the forthcoming ICD-10, the Research Diagnostic Criteria of Spitzer et al (1978), the Taylor and Abrams Scale (1978), DSM-III (American Psychiatric Association 1980), and more recently DSM-IV-TR (2000) and the present State examination (PSE-Wing et al 974).

A new perspective in FRS of Schneider

It is clear that acute insult to the brain provoke psychiatric disturbances, variously referred to an organic brain syndrome (DSM-IV-TR).

On summarizing patients with epilepsy arising from the temporal lobes may present with schizophrenia like psychoses and FRS closely resembling schizophrenia in the absence of epilepsy. Other schizophrenia like presentation may occur in epilepsy, but these do not appear to be linked to the temporal lobes. [10,18]

It is more likely that pathological disturbances as reflected in the EEG, PET and MRI will *be* identified in the dominant hemisphere if *the* FRS are used to identify and categorize the mental state.

Epileptic who develop psychoses are more likely to have had **their** epilepsy since late childhood or early adolescence [17], the continuing epileptic dysfunction thus being present during the time of development of symbolic language and crucial interpersonal peer relationship.

It is thus suggested that FRS have specificity to the temporal lobe structures, particularly but not necessarily in the dominant hemisphere. [10]

FRS of Schneider are primarily disturbance of symbolic thought and language and specific auditory hallucinosis. Schneider pointed out that these symptoms can be grouped under the concept of permeability of the barrier structures which form the underlying anatomical correlates of that permeability[15].

Method and Material

The subjects were selected randomly from inpatient who were admitted to Al-Diwaniyah Teaching Hospital between 1 May 2012 to 1 Jun. 2013 and given the diagnosis of schizophrenia by consultant psychiatrist.

- Diagnostic criteria used were those in ICD-I0 and clinical interview style question were asked and Mellor (1970) definition for First Rank Symptoms were adapted for assessment of the symptoms (see appendices).
- All patients were examined within a maximum of four days from admission to the hospital. This was done to allow accurate assessment of symptoms before they had been substantially modified by treatment.
- The history was supplemented by an account of the illness from another informant.
- Only definitely present symptoms were considered positive and all other including questionably present were neglected i.e. first rank symptoms were rated as either present or absent.

Result

The sample consist of (76) patients. (40) males and (36) females.

Age range was 17-55 years (Mean = 30.5 years).

23 males and 19 females have one or more First Rank Symptoms. i.e. 42 patients of 76 have FRS, and this constitute 55% of the sample.

Those 42 patients have variable number of FRS.

Table 1. : Patients by number of FRS

number of FRS	number of patient
1	6
2	9
3	12
4	9
5	4
6	2
	----- 42

x^2= chi-square tests 9.71 , df = degree of freedom 5, p= p-value 0.04

The distribution of individual FRS were assessed and compared with other studies as shown in the following table.

Table 2 : Frequency of individual FRS across cultures.

	UK		Saudi Arabia		Lahor/India		Present study		Statistic Value		
	1- (n=173)		2- (n=52)		3- (n=50)		4- (n=42)				
	n	%	n	%	n	%	n	%	x2	df,	p-value
1-Audible Thought	20	11.6	6	11.5	1	2	9	21	21.55	3	0.00008
2-Voices in 3rd.P.	23	13.3	11.11	21.1	7	14	13	30	10.29	3	0.016
3- comm. voices.	23	13.3	11	21.21	8	16	18	42	9.2	3	0.02
4-Soma. Passivity.	20	11.6	39	75	33	66	25	59	7.27	3	0.05
5-Th. With drawal.	37	21.4	6	11.5	3	6	13	30	48.32	3	0.001
6- Th. Insertion.	34	19.6	7	13.5	21	42	15	35	21.78	3	0.007
7-Th. Broadcast.	17	9.8	9	17.3	23	46	20	47	6.30	3	0.09
8- Made Affect.	11	6.3	18	34.6	1	2	6	14	17.55	3	0.01
9- Made Impulse	5	2.9	23	44.2	-	-	-	-	51.14	3	0.0001
10-Made Volition	16	9.2	19	36.5	7	14	6	14	10.5	3	0.04
11-Del. Perception.	11	6.3	4	7.7	4	8	3	7	7.45	3	0.05

1- [9]. 2- [22]. 3- [18]. 4- Present study (2011-2012)

As shown in the table the commonest first rank symptoms were "Somatic Passivity", "Thought Broadcast", "Commentary Voices", and "Thought insertion".

"Made Impulse" and "Delusional Perception" were the lowest.

The patients with and without FRS were compared on the basis of sex;marital status and duration of illness as shown in Table 3, 4, 5

Table 3: Patients with and without FRS by sex

Category	*FRS*	*No FRS*	Total	%
Males	23	17	40	52.6
Females	19	17	36	47.3

X^2=0.173, d.f =1, P>0.05 (Not Significant)

Table 4: Patients with and without FRS by marital status

Category	*FRS*	*No FRS*	Total	%
Never married	24	21	45	59.2
Married.	18	13	31	40.7

X^2=0.173, d.f =1 p>0.05 (Not Significant)

Table 5:Patients with and without FRS by duration of illness

Category	FRS	No FRS
Mean length of illness in years.	3.27±1.96	7.08±2.04

T-test =8.319, P < 0.001 highly significant.

From above tables seems that sex and marital status did not appear to have any influence on the presence or absence of FRS, while duration of illness have great influence in determining their presence.

Discussion

one of the objectives of this study is to stress whether or not the FRS of Schneider are of important consideration in the diagnosis of schizophrenia by our consultant psychiatrist. Also to uncover whether there is certain variables affect their presence.

The prevalence of FRS found to be 55% and in comparison with other studies from different centres are: 72% among British patients[9], 73% in their Kenyan sample[12,11], 73% in Nigerian Patients[13]. Other studies in Asian patients, 25% from Sri- Lanka[1,2], 35% from India[14,8].

This range is seen in the International Pilot Study of Schizophrenia (IPSS) as well as: USSR 31%, India 48%, UK 76% and Taiwan 79%.

This difference in the prevalence of FRS in schizophrenic patients reported from different centres is probably due to the difference in the criteria of diagnosis used and to the differences in the method of eliciting FRS.

Schneider (1959) stated that the phenomenological methods described by Karl Jaspers should be used to elicit and identify the FRS[5], but Pointed out that practitioner of this method require rigorous training before applying them[10,18]. While some of the studies used the PSE style of questioning to elicit FRS, Ndetei and Vadher used the syndrome check-list and their finding were based on a retrospective case-note study.

As regard the individual FRS, there was a marked disparity in the frequencies reported in population with different cultural background [9]. In the Present study, somatic passivity is with the highest frequency 59%, while it was 11.6%[9]. This may be explained on cultural_basis, that our people believe in the alien force which is stemming from their tradition. Many patients presented being possessed by the Jinn for example and their families partially trust their belief and seeking psychiatric help only when all measures have failed to expel the Jinn.

The passivity phenomena in the form of "made affect", "made volition" and "made impulse" were uncommon and it was higher in Mellor's study, this may be due to the tendency toward somatisation of psychiatric symptoms in our culture.

The International Pilot Study of Schizophrenia (IPSS), showed that "Commentary voices", "passivity feeling", "voices arguing" and ″thought broadcast" are highly discriminatory for schizophrenia[21]., and this is in close similarity to our result, that somatic passivity was 59%, thought broadcast 47%, Commentary voices 42%, and thought insertion 35%.

One may concluded, that although there is individual differences of FRS among different cultures, still we expect certain symptoms to be present more than other. The influence of cultural factors in altering the basic symptomatology of psychiatric illness is of great importance, so the subject of transcultural psychiatry must get greater effort, interest and investigation.

The comparison on the basis of the variables taken in this stud, revealed that sex and marital status have no influence on the presence of FRS, while duration of illness seems of great influence, that the group with the FRS have shorter mean duration of illness (2, 27 ± 1.96) and those with no FRS (7.08 ± 2.04). This goes with what generally drawn that FRs present more in newly rather than chronic schizophrenics.

The prevalence of FRS was 55%, taking in consideration the sample chosen was not absolute newly patients, so we may deduce that the 55% is considerable prevalence i.e. FRS are of importance in the diagnosis of schizophrenia in Iraq. From that one may conclude that the diagnosis of schizophrenia in our hospital inpatient are

based on narrower rather than broader criteria, i.e. no over diagnosis of schizophrenia.

Finally the present study is beginning and the topic of FRs is of vital importance in psychiatry in general, so further studies are needed to clarify the subject more.

Conclusion

- FRS are of value in the routine clinical diagnosis of schizophrenia in Iraq.
- It is important to mention that the choice of a particular diagnostic schema for schizophrenia will be determined by its usefulness until some external validating criterion for this disorder is discovered. So it is better to keep the subject of FRS open for further change and growth in the future.
- Phenomenology or descriptive psychopathology is of vital importance and it needs experience and training to help better clinical diagnosis of psychiatric disorder.

Appendix- I

ICD-10 criteria of Schizophrenia.

i. Thought echo, thought insertion or withdrawal, thought broadcasting, delusional perception.
ii. Delusions of control, influence or passivity, or delusions of other kinds, such as jealousy, exalted birth, special mission or bodily change.
iii. Hallucinatory voices giving a running commentary on the patients behavior, or discussing him between themselves, have similar significa-nce, as do almost any hallucinatory voices which routine for weeks or months on end.
iv. Fleeting non affective or half formed delusion or overvalued ideas of any content may be suggestive or diagnosis, if accompanied by hallucination in any modality. However, clearly defined delusions and hallucinations are not always present, particularly in chronic conditions. The diagnosis will then often depend on establishing the presence of negative symptoms such as:

a. Blunting of incongruity of emotional responses, increasing apathy, paucity of speech.
b. Breaks or interpolations in the train of thought.

Diagnostic Guidelines:

- A minimum of one very clear symptom (and usually to or more if less clear cut) belonging to any one of the groups listed as (I), (II), (III) above, or symptoms from at least two groups referred to as (a) and (b) should have been clearly present for most of time during a period of one month or more.

Appendix Ii:

- Definitions of Schneider First Rank Symptoms according to C.S. Mellor (1970):
- Audible thought: The patient experiences auditory hallucination, with voices speaking his thoughts aloud.
- Voice ageing: There are two or more hallucinatory voices in disagreement or in discussion. The subject is usually the patient who is referred to the in the 3rd person.
- Voices commenting on one's action: The content of the auditory hallucination is a description of the patient activities as the occur.
- Somatic passivity: The patient is passive and invariable a reluctant recipient of bodily sensation imposed upon him by some external agency.
- Thought withdrawal: The patient describes his thoughts being taken from his mind. As his thoughts cease, he simultaneously experiences them being withdrawn by some external force.
- Thought insertion: Thoughts ascribed to other. The patient experience thought which have not the quality of being his own.
- Thought broadcasting: The patient has the experience that his thoughts are not contained within his own mind. The

thoughts escape from the confines of the self into external world, where they may be experienced by all around.

- Made feeling: The patient experiences feeling which do not seem to be his own. This feelings are attributed to some external force and are imposed upon him.
- Made impulse: A powerful impulse overcome the patient to which he almost invariably give way. The impulse to carry out his action is not felt to be his own, but the actual performance of the act is.
- Made act: The patient experiences his action as being completely under the control of an external influence. The movements are initiated and directed throughout by the controlling influences and the patient feels he is automaton, the passive observer of his own action.
- Delusional perception: Delusion arises from a perception which to the patient possesses all the properties of normal perception and which he acknowledges be regarded as such by anyone else.

Appendix-Iii

Reference

1. Bland, R. C. and Orn, H. (1979). Schizophrenia Diagnostic Criteria and Outcome. British Journal of Psychiatry 134, 34-38.
2. Chandrasena, R. and Rodrigo, A. (1979), Schneider's First Rank Symptoms – their Prevalence and Diagnostic Implication in an Asian Population. British Journal of Psychiatry, 135, 248-51.
3. J. Hoenig,(1983), The Concept of Schizophrenia Kraeplin – Bleuler- Scheider, British Journal of Psychiatry, 142, 547-556.
4. Janaki Rashakrishnan, (1983), Schneider's First Rank Symptoms – Prevalence, Diagnosing Use and Prognostic Implication, British Journal of Psychiatry, 142, 557-559.
5. Jasper, K. (1912), The phenomenological Approach in Psychopathology, Transl. In British Journal, 1968, 114,1313-23.
6. Kaplan and Sadock's: Synopsis of Pschiatry, 11th Ed, 2009, Page: 785
7. Koehler, K. (1979), First Rank Symptoms of Schizophrenia, Questions concerning Clinical Boundaries, British Journal of Psychiatry, 134, 236-48.
8. Louis Appleby, David M. Forhow, Tim Amos: Post Graduate Psychiatry, 2nd Ed, 2001, Page: 331.
9. Mellor, C. S., (1970), First Rank Symptoms of Schizophrenia, British Journal of Psychiatry, 117, 15-23.
10. Michael, R. Trimble, (1990), First Rank Symptoms of Schizophrenia: a New Perspective, British Journal of Psychiatry, 156, 195-200.
11. Michael Gelder, Philip, Philip Cowen: Shorter Oxford Textbook, 6th Ed, 2012, Page 708.
12. Ndetei, D. M. and Singh, A. (1983), Schneider's First Rank Symptoms of Schizophrenia in Kenyan patients, Acta Pschytrica Scandinavica, 67, 148-153.
13. Oye Gureje and Bambgoboye, E. A., A study of Scheider's First Rank Symptoms of Schizophrenia in Nigerian Patients, British Journal of Psychiatry, 150, 869-870.
14. Radha Krishna, J. Mathew, J. Richard et al, (1983), Schneider's First Rank Symptoms: Prevalence, Diagnostic Use and Prognostic Implication. British Journal of Psychiatry, 142, 557-559.
15. Robert J. Howard, (1992), First Rank Symptoms of Schneider in the Late Paraphrenia, Cortical Structure Correlate, British Journal of Psychiatry, 160, 108-109.
16. Rose, N., Essential Psychiatry, University Department of Psychiatry, Warneford Hospital, Oxford.
17. Perez, M. M. and Tribmble, M. R., (1980), Epileptic Psychosis – Diagnostic Comparison with Process Schizophrenia, British Journal of Psychiatry, 177, 245-249
18. S.M. Lawrie: Companion To Psychiatric Study, 7th Ed., 2004, Page: 369-399.
19. Silverstein and Harrow (1981), Schneiderian First Rank Symptom in Schizophrenia, Archives of General Psychiatry, 38, 288-293.
20. Theodore A. Stern, John. Herman: Psychiatric Update And Board Preparation, Substance Misuse, 2000, Page: 85.
21. World Health Organization, (1973), International Pilot Study of Schizophrenia, Vol.1 Geneva.
22. Zarrouk, E.A., (1978), The Usefulness of First Rank Symptoms in Diagnosis of Schizophrenia in Saudi Arabian Population, British Journal of Psychiatry, 132, 571-573.