**JPPS 2007; 4(1): 29–32 ORIGINAL ARTICLE**

TYPES AND CONTENTS OF HALLUCINATIONS IN SCHIZOPHRENIA

**Avinash De Sousa**

# ABSTRACT

**Objective :** Hallucinations are one of the commonest symptoms seen in schizophrenia. This research aimed to study the types and content analysis of various hallucinations seen in patients with schizo- phrenia.

**Design:** Cross sectional study.

**Place and duration of study:** This study was conducted in a private psychiatric hospital in Mumbai from January 2002 to January 2007.

**Subjects and Methods:** The nature and content of hallucinations in 559 patients with schizophrenia was analyzed. The ptients meeting DSM IV criteria for Schizophrenia were asked to complete a questionnaire which enquired the hallucinatory experience. The data was tabulated and the results presented.

**Results:** The most common type of hallucinations were of auditory nature (69.23%) and amongst that a majority of patients heard voices of an unknown person (54.52%). Visual hallucinations were less com- mon (8.59%) followed by the other types of hallucinations.

**Conclusion:** The study was an exploratory study in a private care setting. Auditory hallucinations were the most frequent as is generally reported in literature. More than one third (37%) of those experiencing auditory hallucinations had first rank symptoms.

**Key words:** Hallucinations, Schizophrenia.

# INTRODUCTION

Hallucinations across any sensory modality are seen in schizophrenia with the general incidence of such anomalous experiences being about 50% across all cases1. Visual hallucinations occur in 15% subjects, tactile hallucinations in around 5% while the commonest of hallucinatory experiences are auditory being about 55%2.

The pattern of auditory hallucinations is often spe- cific. The most common of these is a voice. The voice has certain characteristics that make it different from the voice of the patient. Its grammatical form may be differ- ent and the owner of the voice may be someone not usually known to the subject. Also noted is the fact that these voices intensify when there is no background noise or if the background noise is meaningless while they diminish when the subject is involved in conversa- tions3.

The regular occurrence of these voices even prompted the mention of them in first rank symp- toms such as voices arguing, voices speaking thoughts aloud and voices commenting on the subjects actions4.

**Avinash De Sousa,** Consultant Psychiatrist & Director, Get Well Clinic and Nursing Home, Mumbai.

**Correspondence :**

**Dr. Avinash De Sousa**

Visual hallucinations and their patterns are how- ever less established and are very often of things that do not occur normally in this world5. Olfactory and gusta- tory hallucinations are rarer compared to most hal- lucinatory experiences and so are pseudohallucina- tions6-8.

# SUBJECTS AND METHODS

The study was conducted on patients between the ages of 20-50 years admitted to a private psychiatric cen- tre of an urban metropolis in India. All patients were di- agnosed as Schizophrenia using the DSM-IV criteria.9 Patients with hallucinatory experiences in their symp- tomatology were chosen for the study. The total number of patients in the study were 634. Out of these patients without definite evidence of hallucinations (n = 66) and patients with pseudo-hallucinations (n = 9) were ex- cluded from the study. The number of patients thus in- cluded for the final analysis was 559. A questionnaire with reference to hallucinations was prepared and given to the patients. The time duration for answering the ques- tionnaire was 30-45 minutes.

# RESULTS

The most common form of hallucinations was au- ditory reported by 69.23% cases followed by visual hal- lucination seen in 8.59% of cases. The other forms of hallucinatory experiences were much rarer (table 1). Surprisingly no patients reported hallucinations in more than one sensory modality.

**Table 1**

**Type of Hallucinations**

|  |  |  |
| --- | --- | --- |
| **Type of Hallucinations** | **Schizophrenic Patients**  **(n = 559)** | **Percent- age** |
| Auditory | 387 | 69.23% |
| Visual | 48 | 8.59% |
| Gustatory | 12 | 2.15% |
| Olfactory | 14 | 2.51% |
| Tactile | 32 | 5.72% |

On analyzing the content of visual hallucinations God was seen by 33.33% of cases while bizarre visual hallucinations were noted in 29.17%. The hallucinations were seen both in day and night by majority of patients (81.25%) (table 2).

On analyzing the content of auditory hallucinations, amongst the voices heard an equal number of patients heard male and female voices with no sex preponder- ance (table 3). Most of the voices heard were of unknown people not known to the subject (54.52%). Around 14.99% claimed that the voice they heard was of God.

When asked about the emotional tone of the voices a majority reported it as angry (48.32%) while 21.96% re- ported to be derogatory and abusive in nature.

Around 8.01% reported the hallucinations being pleasant and soothing (praises about them or some pleasant conversations they have had) while 3.1% of the subjects reported musical hallucinations which were quite relaxing to them.

91.47% reported the perception of auditory hallucinations in both ears while 94.57% reported the presence of hallucinations during both day and night.

# DISCUSSION

In line with the literature in general, auditory hallu- cinations were the most common form of hallucinations found in this group.

Seeing God is a very common visual hallucination in the Indian context where culturally people are more religious and often invoke God’s blessings regularly through prayer. They also feel that God may talk to them or guide them in important matters. This is replicated in our study. Visual hallucinations are seen in schizo- phrenia though they are commoner in organic syn- dromes10.

Abusive and derogatory voices as found in our study are common findings in schizophrenia when delu-

**Table 2**

**Analysis of the Visual Hallucinations**

|  |  |  |  |
| --- | --- | --- | --- |
| **Visual Hallucinations** | | **Schizophrenic patients (n = 48)** | **Percentage** |
| Nature | Scenic | 4 | 8.33% |
| Bizzare | 14 | 29.17% |
| Sexual | 2 | 4.17% |
| Flashes of Light | 2 | 4.17% |
| God | 16 | 33.33% |
| Devils/Spirits | 10 | 20.83% |
| Other Features | Past experiences | 10 | 20.83% |
| Continuity | 11 | 22.92% |
| Time of the day | Day | 4 | 8.33% |
| Night | 5 | 10.42% |
| Both | 39 | 81.25% |

**Table 3**

**Auditory Hallucination Analysis**

|  |  |  |  |
| --- | --- | --- | --- |
| **Hallucination Analysis** | | **Schizophrenic patients (n = 387)** | **Percentage** |
| Sex of the Voice | Male | 194 | 50.13% |
| Female | 193 | 49.87% |
| Analysis | Parents / Relatives | 69 | 17.83% |
| Unknown | 211 | 54.52% |
| Mixed | 49 | 12.66% |
| God | 58 | 14.99% |
| Emotions Expressed | Angry | 187 | 48.32% |
| Pleasant | 31 | 8.01% |
| Abusive | 85 | 21.96% |
| Variability | 84 | 21.71% |
| First rank symptoms | Voices arguing | 41 | 10.59% |
| Commenting | 66 | 17.05% |
| Speaking thoughts | 38 | 9.82% |
| Hearing noises | Noise | 33 | 8.53% |
| Musical | 12 | 3.1% |
| Mixed | 9 | 2.33% |
| Other features | Commands | 61 | 15.76% |
| Both Ears | 354 | 91.47% |
| One ear | 33 | 8.53% |
| Past experiences | 22 | 5.68% |
| Continuity | 47 | 12.14% |
| Time of the day | Day | 9 | 2.33% |
| Night | 12 | 3.1% |
| Both | 366 | 94.57% |

sions of a persecutory nature co-exist11. It has also been reported that a combination of vivid mental imagery and poor reality testing in schizophrenia predisposes the subject to experience auditory hallucinations12.

Musical hallucinations are seen rarely in schizo- phrenia and a variety of psychiatric disorders. They are more common in organic psychiatric states13. It is well known that in schizophrenia hallucinations

may occur at certain times of the day or when under pre- disposition to certain stressors, hence the same was assessed by us14.

# CONCLUSION

The phenomenological studies are not common in schizophrenia in literature from deveoping countries. This study assessed the nature and contents of auditory hallucinations in a large sample. No correlates of the hal- lucinations have been studied and nor have they been studied with relation to the delusions present. This study was done keeping day to day clinical practice and the essence of descriptive psychopathology in mind. Fur- ther studies are needed employing a proper control to assess the associations of the hallucination with different types of hallucinations and other psycho pathologies.

# REFERENCES

1. Cutting J, Dunne F. Subjective experience of schizo- phrenia. Schizophr Bull 1989;15: 217-31.
2. Cutting J. The Right Cerebral Hemisphere and Psy- chiatric Disorders. Oxford: Oxford University Press. 1990.
3. Margo A, Hemsley DR, Slade PD. The effects of vary- ing auditory input on schizophrenic hallucinations. Br J Psychiatry 1981; 139: 122-7.
4. Schneider K. Clinical Psychopathology. New York: Grune & Straton; 1958.
5. Cutting J. Two Worlds, Two Minds, Two Hemispheres

– A Reinterpretation of Psychopathology. Oxford: Ox- ford University Press. 1996.

1. Rubert SL, Hollender MH, Mehrhof EG. Olfactory hal- lucinations. Arch Gen Psychiatry 1961; 5: 313-8.
2. Cutting J. The Psychology of Schizophrenia. Edinburgh : Churchill Livingstone; 1985.
3. West LJ. Hallucinations. New York: Grune & Straton; 1962.
4. American Psychiatric Association. Diagnostic and sta- tistical manual of mental disorders. 4th ed. Washing- ton, D.C.: American Psychiatric Association, 1994.
5. Mauri MC, Valli I, Ferrari VM, Regispani M, Cerveri G, Invernizzi G. Hallucinatory disorder – preliminary data for a clinical diagnostic proposal. Cognit Neuropsy- chiatry 2006; 11: 480-92.
6. Freeman D. Suspicious minds – the psychology of persecutory delusions. Clin Psychol Rev 2007; Jan 25 (Epub ahead of print).
7. Mintz S, Alpert M. Imagery vividness, reality testing and schizophrenic hallucinations. J Abnorm Psychol 1972; 79: 310-6.
8. Mahendran R. The psychopathology of musical hal- lucinations. Singapore Med J 2007; 48: 68-70.
9. Waters FA, Badcock JC, Michie PT, Maybery MT. Au- ditory hallucinations in schizophrenia – intrusive thoughts and forgotten memories. Cognit Neuropsy- chiatry 2006; 11: 65-83.