A STUDY OF INNER VOICES IN SCHIZOPHRENICS

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SUMMARY

Twelve schizophrenics with inner voices were examined and were compared to 12 schizophrenics with external voices. The inner voice group was largely heterogeneous. The inner voice group had shorter interval between onset of illness and onset of hallucinations, higher intensity of emotions outside the hallucinatory episodes but concerning the voices and longer duration of individual episodes of hallucinations.

The voices can be localised anywhere within the body. The reason for the localisation is mostly obvious. For example, familiar voices are localised in the chest or heart. But such a reason is not always describable (Bleuler, 1950). Sedman (1966) reviewed the literature on inner voices and attempted to differentiate between pseudo-hallucinations and true hallucinations among inner voices in a sample of 14 cases belonging to various diagnostic categories. Havens (1962) found that positioning of hallucinations was related to different affective states. If the hallucinated person was inside the patient's body, he was berated, hated, accused, admired or treated as a friend. In the International Pilot Study of Schizophrenia, hallucination from body was classified under 'characteristic' hallucinations and its scoring had low reliability (W.H.O., 1973). Hallucinations from body were found in less than 1% of the total cases i.e. less than 12 cases out of the total 1202 cases. This symptom, though rare, was found to be predictive of favourable outcome (W.H.O., 1979). It was reported that the position of voice was not significantly associated with its experienced reality (Ramanathan, 1983). Inner voice is an interesting phenomenon and it is necessary to study this symptom in detail.

The present study aims at examining the inner voices in a sample of schizophrenics and comparing them with patients manifesting voices outside the body.

MATERIAL AND METHOD

12 Schizophrenics with voices originating from within the body and 12 schizophrenics with voices located outside the body, who attended the Out-Patient Department of the Institute of Mental Health, Madras during the period October-December 1982 were selected for the study. Following are the inclusion criteria.

1. Patient should be 'definitely' schizophrenic as per the criteria of Feighner et al. (1972).
2. He/she should be currently having verbal auditory hallucinations with or without hallucinations of other varieties.
3. He/she should not have undergone psycho-surgery.
4. He/she should not have been treated with electro-convulsive therapy in the month prior to the interview.
5. He/she should be co-operative for the interview and be willing for testing. These 24 patients were urban residents. The 'Inner voice' group had 8 males and 4 females. Mean age and S.D. of the group was 33.58 years and 9.98 years respectively. Educational status ranged from 3rd Standard to graduation. Socio-economic status varied between very low and middle class as scored with the help of socio-economic scale devised by Gupta.
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& Sethi (1978). Tamil was the mother-tongue for 11 patients and Telugu for one. 9 Patients were Hindus and 3 were Christians. Mean duration of illness was 5.2 years with S.D. 5.54. Mean duration of voice was 4.95 years with S.D. 5.67. The group with voices outside the body did not differ from the 'Inner voice' group in age, sex-ratio, religion, mother-tongue, duration of illness and duration of hallucinations.

An interview schedule was constructed and each patient was interviewed in detail along with one or more family members for obtaining reliable information. These patients were instructed to score their level of anxiety prior to hallucination, interference due to the voices in self-care, occupation, social activity, and leisure time activity, the effect of physical methods of treatment on hallucinations and emotional intensity during and outside the hallucinatory episodes on a 4 point scale (0-3 scores). Loudness, pitch and clarity of the voice and environmental noise-level at the time of hallucinations were scored on a 3 point scales (1-3 scores). Family history of schizophrenia, delusions related to hallucinations, language of the voice, frequency of the voice, duration of each episode of voice, time-sense during the voice, position of voice, details of the 'speakers', content of voice, provoking agents, presence of other hallucinations, effects of physical illness on the voice, details of treatment, coping behaviour during, outside and immediately prior to the voice were recorded. Coping behaviour included emotions, overt activities and covert non-physical mental activities. The opinions of patients on the causation of voices were also recorded. Reality of the voice was assessed with the clinical technique described by Aggernaeus et al (1976). Reality testing ability was measured by F+% in Rorschach test as it is the best single indicator of reality testing ability (Carr, 1975). Personality dimensions were measured with the help of a Tamil version of Eysenck's Personality Questionnaire (1976). Insight was measured with the help of Present State Examination Schedule (Wing et al, 1974). Each patient was engaged for 2-2½ hours in interview and testing.

FINDINGS

Details of the Inner voice Group (N=12).

Family history of schizophrenia was reported in 6 cases. Uni-lateral clinical deafness was noticed in only one case. Mean F+% was 40.31 with S.D. 20.79. Mean psychoticism score was 5.67 with S.D. 3.11. Mean neuroticism score was 17.87 with S.D. 4.38. Mean extraversion score was 9.75 with S.D. 5.29. Mean 'Lie' score was 14.92 with S.D. 3.26. Delusions associated with hallucinations

| Variables | Inner voice Group (N=12) | Group with external voices (N=12) | 't' Value | Level of significance |
|-----------|--------------------------|----------------------------------|-----------|----------------------|
| Interval between onset of illness and onset of voices in years. | Mean = 0.26 4.59 2.95 | p<.01 |
| S. D. = 0.49 5.02 | |
| Duration of each episode of voice in minutes. | Mean = 56.33 15.87 2.19 | p<.05 |
| S. D. = 56.64 33.66 | |
| Score for intensity of emotions outside the voices but concerning the voices. | Mean = 2.08 0.83 3.02 | p<.01 |
| S. D. = 1.08 0.94 | |
were found in 3 cases. In these cases the persecutor was the speaker or caused the voice or the voice revealed about the persecutor. Insight was preserved in only one case.

The voices were positioned in chest in 6 cases, inside the head in one case, inside the ear in one case, inside the throat in one case, behind the eyebrow in one case, in the abdomen in 3 cases and in upper and lower limbs in one case. Only in 2 cases was the localisation in more than one part of the body, and in these the ‘speakers’ were shifting positions inside the body from one site to the other. In 3 cases there was sidedness i.e. from inside left ear, from behind the left eyebrow and from the left side of abdomen. The patient whose voice was located behind the left eyebrow heard it only in the left ear. In one case the external voice was replaced by the inner voice in course of time. Language of the voice was Tamil in all the 12 cases, Burmese in one case, Telugu in one another and English in yet another. All the patients hallucinated in their mother-tongue. Nobody heard an unfamiliar language. The duration of each episode of voice ranged from 2 minutes to 5-6 hours. The frequency ranged from one episode only to daily occurrence and to about 100 episodes per day. Time-sense during the voice was not altered in 6 cases, fast in 3 cases and slow in 3 cases. The noise-level of the environment during the voice was non-specific in 8 cases and specifically low in 3 cases. In one case the appearance of the voice was not related to environmental noise-level, but the loudness of the voice was inversely related to the noise-level. The clarity of the voice was good in all cases. Level of anxiety prior to the voice and loudness and pitch of the voice varied. The mean interval between the increase in anxiety level prior to the voice and appearance of the voice was 1.5 minutes with S. D. 4.26. One patient reported that specific persons, hunger and own house provoked the voices and others did not report any such provocation. The total number of ‘speakers’ ranged from 1 to 1000 as reported by the patients. The number of speakers in a single episode ranged from 1 to 6. The ‘speakers’ were only males in 5 cases, only females in 2 cases and belonged to both sexes in 5 cases. The ‘speakers’ were known living persons in 6 cases, known but dead persons in 2 cases, unknown in 5 cases and God or Gods in 4 cases. The identity of the ‘speaker’ was assumed by one patient and he could not make definite statements about the identity. One patient felt that the inner voice might be his own and he referred to it as his ‘friendly enemy’. The social status of the ‘speakers’ varied. Among the 6 patients whose voices were localised in the chest, 3 patients heard the voices of known persons, living or dead, one patients heard his own voice, 3 patients heard the voices of unknown persons and one patient heard God. Among the 7 patients who heard voices of known persons living or dead, only 3 heard them from the chest. The relation between localisation in the chest and familiarity of the ‘speaker’ was not very strong. In one patient the voice arose from behind the left eyebrow after surgery in that eye. In another patient the voice was localised in the deaf left ear. In other cases such obvious reasons could not be elicited.

Non-verbal content was not reported. There was no naming or calling. The verbal content was clearly heard by all patients. The voices were speaking sentences in all cases. The varieties of content we.e not related to the varieties of emotions of the patients. Audible thoughts were found in 2 cases.
Voice commenting on thoughts or actions of the patient in third person was found in 3 cases, voices commenting on thoughts or actions in third person in one case, voice or voices talking about the patient in third person in 3 cases (suggesting in one case, quarrelling among themselves about the patient in one case and praise in another), voices speaking to the patient in second persons (abusing in 9, advising in 6, questioning in 7, commanding in 4, criticizing in 2, threatening in 6, praising in 5 and blessing in one case) in 11 patients. In 5 cases the voices were answering the articulated or sub-vocal questions put up by the patients. None of the cases had pleasant voices.

Movements of lips, tongue or pharynx during voices were reported in 7 cases and witnessed by the author in 2 cases.

The experienced reality of inner voices also showed variations. For all patients the voice was a sensation and not an idea or image. The voice in all cases was relevant to the emotions or activities during the episodes. Only 3 patients felt at the time of hallucinations that the voice could have been heard by others standing nearby. One patient had doubts about it and the remaining 8 patients felt that the voices could not have been heard by others. 10 patients felt that the 'speaker' could potentially be perceived in at least two modalities of sensation and 2 patients did not feel so. 10 patients felt that the source of the voice existed even when the voice was not heard. One patient did not feel so and another patient had doubts about it. 5 patients felt that the experience was due to 'bad nerves'. One patient felt that it was possible to dismiss the experience by mere wish but others did not feel so. All patients felt that it was not possible to alter the quality of the voice by mere wish.

In 4 patients physical illness (fever, headache, dysentery etc.) reduced the frequency of inner voices. In terms of causation weakness of heart was reported in 2 patients, wrath of God in one, inferiority in 1, excessive religiosity in 2 and 'nerve trouble' in one patient. 2 patients gave delusions as explanations and 3 patients did not offer any explanation.

Interference due to the voices in self-care was reported by 5 patients, in occupation by 8 patients, in social activities by 8 patients and in leisure-time activities by 6 patients. Emotionality outside the hallucinatory episodes but concerning the hallucinations was high and the emotions were fear, anger and sadness.

Olfactory hallucinations in 1 case, tactile hallucinations in 3 cases, visual hallucinations in 4 and external auditory hallucinations in 3 cases were found independent of inner voices. One patient saw the small-sized hazy figure of her dead mother-in-law and felt vibrations from behind her eyebrow when she heard the voice of the mother-in-law arising not from the figure outside but from behind the eyebrow. One patient reported that he could feel, hear and also see through the skin of his persecutors. Nobody heard inner and external voices simultaneously. In only one case the 'speakers' were the same for inner and external voices --speaking from within and from without at different times. In 2 cases the reality of inner voice was different from that of the outer voice. For 1 patient the external voice was heard by others, was not dismissed by a mere wish and was due to 'bad nerves' whereas the inner voice was contrary to the external voice in such qualities of experienced reality. For another patient the source of the external voice would not be perceived in another sensory modality but the source of the inner voice was potentially to be perceived in another modality of sensation.
They all were treated with phenothiazines and anticholinergic drugs. Electro-convulsive therapy was given to 3 patients. The physical methods of treatment had no appreciable effect on the voice in 7 cases and had some effect in others. One patient reported that the external voice better responded to treatment than the inner voice.

These patients reported different styles in coping with inner voices. Their activities immediately prior to the inner voices were self-distraction in the form of initiating conversation with others, working, looking elsewhere or singing, manipulation with the site of the voice such as closing or pressing the eye and anticipation of voice (5 patients). Six patients did not report any activity prior to the voice and they did not have any appreciable interval between the increase in anxiety level prior to the voice and appearance of the voice. These 6 patients did not anticipate the voice. 2 patients reported that they were able to have some control over the voices by self-distraction and their activities were working and conversing. They anticipated the voice. The coping behaviour during the hallucinatory episodes were abusing the voice, arguing with the voice, replying to the voice sub-vocally, obeying the voice, passive and active listening, beating oneself, beating others, praying, changing posture, destroying pictures of Gods, analysing the content of the voice, clenching the teeth, and begging the voice to stop. 4 patients reported self-injury during the hallucinations and their voices were located behind the eyebrow, abdomen, inside the head and limbs. The injuries inflicted were not grievous. The sites of injuries were the sites of voices. 4 patients reacted more to the phenomenon than to the content of the voice. The emotions during the episodes were sadness, fear and anger. Coping behaviour outside the hallucinatory episodes were discussing with and seeking help from others, ritualistic intake of prescribed tablets, physical exercises, increase in leisure time activity, shifting residence, avoiding contacts, alcohol intake and praying. 2 patients were inactive outside the hallucinatory episodes. 5 patients had suicidal ideas. One had already made a suicidal attempt. 5 patients reported that their strategies were helpful to some extent and their activities were alcohol intake, dependency on prescribed drugs and exercises. 4 patients reported that they were giving up their resistance to the voices. 2 patients reported differences between coping strategies for inner voices and those for external voices. 1 patient who felt that the external voice, not inner voice, could be heard by others avoided contacts with friends and relatives in order to avoid their knowledge of the voices. Another patient searched for the 'speakers' of external voices and not the emitters of inner voices.

Comparison between the 'Inner voice' Group and patients with External voices:

12 patients with inner voices were compared to 12 patients with external voices for all the variables mentioned already. The 'inner voices' group had shorter interval between the onset of illness and onset of voices, longer duration of each episode of hallucination and higher emotional intensity outside the hallucinatory episodes but concerning hallucinations in comparison to the group with external voices. The figures are given in the Table.

DISCUSSION

The group of patients with inner voices was largely heterogeneous though some general characteristics were seen. It was difficult to differentiate between pseudo-hallucinations and true
hallucinations as there were grades of differences in the experienced reality of inner voices. The factors associated with the variations in experienced reality of schizophrenic auditory hallucinations were discussed earlier (Ramanathan et al., 1981; Ramanathan, 1982; 1983). One patient felt that the inner voice might be his own and probably it was a pseudo-hallucination. The reasons for the controversies regarding hallucinations and pseudo-hallucinations were discussed by Iothane (1982).

The reasons for localisation of voices were obvious in some cases only. The longer duration of individual episodes of inner voices, the higher emotional intensity outside the hallucinatory episodes and the shorter interval between onset of illness and onset of hallucination alert one to the possibility of physiological variables involved. The movements of lips, tongue and pharynx associated with voices are important. “Sub-vocal speech” is associated with ‘voices’ and these movements can be misdiagnosed as tardive dyskinesia (Falloon and Talbot, 1981).

The inner voice might be chronic. The emotional intensity outside the voice was high. Self-injury and suicidal ideas were found to be associated with inner voices. Hence the phenomenon of inner voice claims attention of the therapist.

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