

EXPRESSION OF SCHIZOPHRENIA IN BLACK XHOSA-SPEAKING AND WHITE ENGLISH-SPEAKING SOUTH AFRICANS

K Ensink, B A Robertson, O Ben-Arie, P Hodson, C Tredoux

Objective. To investigate whether schizophrenia manifests itself differently in Xhosa-speaking South Africans, compared with English-speaking white South Africans.

Design. A comparative study of the presentation of schizophrenia in two groups of patients.

Settings and subjects. A sample of 63 patients (43 Xhosa-speaking and 20 English-speaking) admitted to a large psychiatric hospital for the first time with a diagnosis of schizophrenia.

Outcome measures. The Present State Examination (PSE) was used to confirm the clinical diagnosis of schizophrenia. The Relatives' Rating of Symptoms and Social Behaviour (KAS-R) was used to obtain information on the behavioural and emotional expression of schizophrenia.

Results. A significantly higher prevalence of aggressive and disruptive behaviour was reported by relatives of Xhosa-speaking patients with schizophrenia of recent onset compared with English-speaking patients. The PSE elicited significantly more delusions of persecution, sexual and fantastic delusions, self-neglect and irritability in the Xhosa-speaking patients.

Conclusion. Significant differences in the presentation of schizophrenia, but not its core symptoms, were identified in Xhosa-speaking blacks and English-speaking whites.

S Afr Med J 1998; **88**: 883-887.

Significant differences in the presentation, course and outcome of schizophrenia have been documented in many societies,^{1,3} but have received surprisingly little attention in South Africa. Given the misuse of social and cultural differences for political purposes, many South African researchers have been critical of

Department of Psychiatry, University of Cape Town

K Ensink, BSocSc Hons (Psych), MA (Clin Psych)

B A Robertson, MB ChB, Dipl Psych, MD

C Tredoux, BA Hons (Psych), MA, PhD

Faculty of Medicine, Queen's University, Kingston, Ontario, Canada

O Ben-Arie, MB ChB, DPM, FRC Psych, FRCPC

Valkenberg Hospital, Cape Town

P Hodson, MB ChB, MRCP, FF Psych



such studies. Swartz and Foster⁴ stress the importance of recognising that many other factors besides culture influence the beliefs and practices of individuals, and that generalisations about an ethnic group such as black Africans are often inaccurate and offensive when applied to individuals. Nevertheless the neglect of cultural differences is also discriminatory.^{2,5,6} For instance, an awareness of possible socio-cultural differences in the expression of schizophrenia would be an important requirement for accurate diagnosis and effective treatment.

Differences in the behavioural and emotional expression of schizophrenia described in worldwide studies include extreme suspiciousness and withdrawal in a Hawaii-Japanese population, aggression and hyperactivity in Hawaii-Filipinos, affective features in Caucasians, a 'self-centred' orientation in Indians and a suspicious, bizarre, anxious quality in Nigerians.⁷ Hallucinations, particularly tactile and coenesthetic hallucinations, have been reported to be more frequent in black Africans with schizophrenia.^{1,8-9} Furthermore data³ suggest that in developing countries, acute and catatonic subtypes of schizophrenia are more common than paranoid and hebephrenic subtypes,¹ whereas depressive symptoms, delusional mood and thought insertion are less frequent. The incidence and prevalence of schizophrenia vary significantly across cultural and social settings and between urban and rural populations.¹⁰⁻¹² Differences in illness attribution, labelling, and social responses have also been described¹³ and are thought to be some of the factors contributing to the better outcome of schizophrenia in developing countries.^{14,15}

Gillis *et al.*,¹⁶ in a study of the outcome of psychiatric illness in South Africa, reported that the levels of functional impairment in blacks and whites with schizophrenia were similar. On average blacks displayed more disturbed behaviour, whereas whites had more severe symptoms at a 2-year follow-up. Black patients usually explain their schizophrenia by a combination of indigenous concepts, such as *amafufunyana*, and psychosocial causes.^{17,18} A number of studies have concluded that in black cultures distress is expressed in a more agitated manner, and that this is confusing to Western clinicians.^{19,20} Cheetham and Griffiths²¹ found that schizophrenia was overdiagnosed in black Africans as a result of the misinterpretation of cultural phenomena. Misdiagnosis may also result from the lack of equivalent terms for emotional states in English and African languages such as Xhosa,^{22,23} and from differences in conceptual and social frameworks.²⁴ Accordingly, knowledge of indigenous idioms of distress, and of the way in which indigenous explanatory categories are used, is essential to research and clinical practice.^{13,24-26} While many studies have explored indigenous conceptualisations of mental illness, there have been no comparative studies of the behavioural and emotional expression of schizophrenia in South Africa.

The aim of this study was to compare the way in which the

first episode of schizophrenia manifested itself in a group of Xhosa-speaking black and English-speaking white patients, with special emphasis on behavioural manifestations. This study focused on Xhosa speakers, as Xhosa is the most widely used African language in the city and region where this study was conducted. The present study represents a partial methodological replication of a study by Katz *et al.*,⁷ which compared the behavioural and expressive qualities of schizophrenia in two different cultural settings, India and Nigeria.

METHOD

Sixty-three consecutive patients (43 Xhosa-speaking and 20 English-speaking) admitted to Valkenberg Hospital, a large psychiatric hospital in Cape Town, for the first time with a diagnosis of schizophrenia participated in the study. The diagnosis of schizophrenia was based on *DSM-III-R* criteria²⁷ and therefore excluded organic psychosis, substance abuse, head injury, epilepsy and mental retardation. Although it would have been preferable to have had similar numbers of patients in both groups, English-speaking patients fulfilling the criteria were admitted far less frequently than Xhosa-speakers during the 2 years of the study. Two Xhosa-speaking patients were excluded after selection, one because the Relatives' Rating of Symptoms and Social Behaviour (KAS-R) questionnaire could not be completed and the other because the PSE criteria for definite pathology were not met. The final sample therefore consisted of 61 patients, 41 Xhosa-speaking and 20 English-speaking. The average age of the Xhosa sample was 30 years, and of the English sample 29 years. There were 30 males and 11 females in the Xhosa sample and 12 males and 8 females in the English sample.

The Present State Examination (PSE)²⁸ was administered as an independent diagnostic measure by a research nurse trained in its administration. With the assistance of a skilled interpreter, the Xhosa translation²⁴ was used to assess the Xhosa group.

The KAS-R²⁹ was used to examine the patient's behavioural and emotional characteristics during the several weeks prior to admission. This 127-item questionnaire was administered to a close relative familiar with the patient at his or her place of residence. The scale has been demonstrated to be both reliable and valid in diverse settings and cultural contexts. For this study a special Xhosa translation of the scale was devised by translation and back-translation.²² Difficulties in achieving conceptual equivalence on certain items were encountered, and these required a second translation.

The *t*-test was used to compare the PSE sub-syndromes for the English-speaking and Xhosa-speaking groups, and to compare the mean scores on 99 individual KAS-R items. (Twenty-eight KAS-R items were excluded, because no response variation was found within groups.) The 12 factors identified by Katz and Lyerly²⁹ were not used in the present



Table I. Significant KAS-R item mean differences

Item	White		Black		df	t	P-value
	Mean	SD	Mean	SD			
Curses at people							
50	1.05	0.23	1.71	0.81	51.5	-4.76	0.0001
Stubborn							
48	1.16	0.38	1.70	0.68	56.1	-4.02	0.0002
Gets annoyed easily							
55	1.32	0.58	2.05	0.86	50.1	-3.86	0.0003
Is co-operative							
46	2.79	0.71	2.00	0.78	37.9	+3.88	0.0004
Talks to himself							
29	2.21	0.63	2.85	0.57	32.3	-3.78	0.0006
Resentful							
52	1.05	0.23	1.59	0.63	58.0	-4.77	0.0008
Acts as if he doesn't care about other people's feelings							
36	1.21	0.42	1.73	0.74	55.6	-3.46	0.0010
Does strange things without reason							
26	2.26	0.56	2.76	0.49	31.1	-3.29	0.0025
Acts as if he sees people or things that aren't there							
25	1.37	0.60	1.98	0.88	49.8	-3.13	0.0029
Gets angry and breaks things							
28	1.21	0.54	1.85	0.82	58.0	-3.62	0.0029
Gets into fights with people							
45	1.16	0.50	1.68	0.85	54.4	-2.99	0.0042
Obedient							
65	2.90	0.88	2.17	0.92	36.8	+2.93	0.0057
Argues							
44	1.37	0.59	1.90	0.83	47.5	-2.83	0.0068
Speaks very fast							
101	1.05	0.23	1.29	0.46	57.6	-2.69	0.0093
Gets very excited for no reason							
34	1.21	0.42	1.56	0.63	50.8	-2.54	0.0142
Friendly							
54	2.84	0.90	2.24	0.66	58.0	+2.59	0.0150
Moves about in a hurried way							
77	1.16	0.37	1.48	0.64	54.5	-2.50	0.0151
Generous							
39	2.32	0.67	1.83	0.74	38.4	+2.53	0.0156
Very quick to react to something you say or do							
79	1.32	0.48	1.71	0.72	50.4	-2.50	0.0157
Says that people are talking about him							
107	1.42	0.51	1.83	0.74	49.3	-2.49	0.0161
Lies							
59	1.10	0.32	1.37	0.49	51.5	-2.48	0.0164
Behaviour is childish							
73	1.16	0.37	1.51	0.75	57.5	-2.45	0.0174
Talks about how angry he is at certain people							
110	1.11	0.32	1.37	0.54	54.5	-2.35	0.0222
Says that something terrible is going to happen							
123	1.05	0.23	1.29	0.60	56.6	-2.23	0.0298
Critical of other people							
56	1.37	0.50	1.71	0.68	47.0	-2.18	0.0344
Laughs or cries at strange times							
31	1.42	0.51	1.76	0.70	47.2	-2.10	0.0412
Pleasant							
57	2.53	0.77	2.10	0.63	29.4	+2.12	0.0426
Does not argue (talk) back							
64	2.95	0.97	2.37	1.11	39.9	+2.06	0.0460

study as the exclusion of 28 of the items effectively ruled out the use of factor scores.

RESULTS

The PSE confirmed the clinical diagnosis of schizophrenia in all cases.

Significant KAS-R item differences

Significant differences were found in 28 items (Table I). The majority of items with significant differences have negative interpersonal behaviour and belligerence in common, and there is also a small cluster of items suggestive of bizarreness (these are 3 of the 12 clusters or factors identified in the original evaluation of the instrument). In general, the Xhosa-speaking patients were rated by their relatives as displaying significantly more psychiatric symptoms and problematic behaviour, while English-speaking patients were rated as more compliant and amenable.

Non-significant KAS-R item means

Although there was no significant statistical variation for 71 KAS-R items, there was a trend towards higher item score ratings by Xhosa-speaking relatives in 48 out of 71 items. While also not significantly different, the 19 items on which English-speaking subjects were rated higher comprised mainly symptoms and behaviours related to depression and anxiety (scores were the same on 4 items). This is in contrast to the more disruptive and aggressive behaviour noted for the Xhosa-speaking group.

PSE results

Xhosa-speaking patients, on average, scored higher on the following PSE sub-syndromes: delusions of persecution ($t = 2.80$, $df = 34.6$, $P < 0.001$), sexual and fantastic delusions ($t = 3.07$, $df = 46.8$, $P < 0.001$), self-neglect ($t = 4.54$, $df = 53.0$, $P < 0.001$) and irritability ($t = 4.26$, $df = 55.7$, $P < 0.001$).

Xhosa-speaking patients, on average, also scored higher on the following, but at lower levels of significance: hysteria ($t = 2.55$, $df = 49.9$, $P < 0.05$), nonspecific psychotic syndrome ($t = 2.28$, $df = 51.8$, $P < 0.05$) and special features of depression ($t = 2.54$, $df = 54.1$, $P < 0.05$). At this level of significance the Xhosa-speaking patients were also rated as having a less adequate interview with more misleading answers ($t = 4.1$, $df = 54.7$, $P < 0.05$). The index of definition (ID) was generally high — 40 cases had an ID of 8 and all were higher than 6.

DISCUSSION

The findings in the study sample indicate that significantly more Xhosa-speaking than English-speaking patients with a recent onset of schizophrenia had marked behavioural



problems, particularly aggressive and disruptive behaviour. Relatives also reported more bizarre behaviour among the former. The PSE does not explore behaviour in the same way as the KAS-R, but the significantly higher scores in the Xhosa-speaking patients in respect of sub-syndromes such as irritability and hysteria would appear to support the above findings.

Leff³⁰ argues that the reported higher incidence of aggression in black African patients may be because their families are more likely to refer those who are aggressive and disruptive. This would mean that a smaller percentage of blacks than whites with schizophrenia are referred to psychiatric services, and assumes that both are admitted without further selection (whereas in practice, both Xhosa-speaking and English-speaking patients are more likely to be admitted if they have high levels of aggression). Neither assumption would appear to be warranted. Xhosa-speaking patients do not appear to be under-represented in Valkenberg Hospital relative to the general population. The higher rate of recruitment of Xhosa-speaking patients in the present study also seems to argue against a smaller percentage of Xhosa-speakers than English-speakers being referred to psychiatric services, although we cannot be sure how many Xhosa-speaking patients originate from outside the hospital's customary drainage areas. Another possible explanation, but one which the study did not investigate, is that the increased aggressive behaviour in Xhosa-speakers is due to their being referred later in the course of the illness than white patients. Alternatively, a belief that the illness is due to bewitchment may underlie the increased aggressive behaviour in Xhosa-speaking patients with schizophrenia. Such a belief is likely to be associated with markedly increased anxiety levels in both patient and family, which may well contribute to aggressive and disruptive behaviour.¹⁷ This hypothesis needs to be explored further through research.

The study cannot answer the question whether these findings can be applied to Xhosa-speakers, or even blacks, in general. Generalisations cannot be taken for granted without considering differences both across and within African linguistic groups.

The PSE results support the finding of the International Pilot Study of Schizophrenia³ that the core symptoms of schizophrenia do not differ significantly internationally. Differences with regard to the PSE sub-syndromes 'delusions of persecution' 'sexual and fantastic delusions', 'irritability' and 'hysteria' suggest that there are cultural differences in the presentation of schizophrenia. Thus the higher scores among Xhosa-speakers on the PSE sub-syndromes, 'delusions of persecution' and 'sexual and fantastic delusions', may result from the widely accepted belief among black Africans that mental illness is caused in fantastic ways by witchcraft, jealousy or poisoning. The higher scores on the sub-syndromes 'irritability' and 'hysteria' in Xhosa-speaking patients with

schizophrenia are not surprising in that selective amnesia, conversion symptoms, irritability and histrionicity are all common features in this population of indigenous illnesses such as amafufunyana, i.e. they reflect idioms of distress and help-seeking behaviour commonly used by Xhosa-speakers, as well as other black Africans.³¹⁻³³

The significance of the findings in respect of the sub-syndromes 'self-neglect' and 'nonspecific psychotic syndrome' is difficult to interpret, because both require an objective rating of affect. Gillis *et al.*²⁴ have observed that it may be difficult for the interviewer to interpret dress codes and rate incongruent affect in the absence of professional familiarity with socio-economic differences, and with cultural norms and practices concerning the expression of affect.

Xhosa-speakers with schizophrenia, on average, scored significantly higher on the PSE sub-syndrome 'special features of depression' (self-deprecation, guilt, dulled perception and being empty of feelings), whereas relatives of the English-speakers were more likely to report depression in patients, although the difference was not statistically significant. This finding suggests that depression is expressed differently in Xhosa-speakers, and may be less easily recognised by others, especially Western-trained professionals. Guinness³⁰ observed that symptoms of depression are often not recognised, or are interpreted as laziness rather than illness by family members of black African patients, while hysterical and aggressive behaviour elicit help.

A number of methodological issues need to be addressed. Drennan *et al.*²³ cautioned that some differences identified by translated instruments may be methodological artefacts caused by the lack of equivalent terms for emotional states in English and in Xhosa. However, the distinct pattern of aggression is unlikely to be attributable to translation difficulties, given that it was consistently observed across many items, as well as across two different instruments and sets of respondents. Interviewers indicated that it was more difficult to rate responses by Xhosa-speakers with certainty, confirming the observation that for some items, the PSE does not distinguish clearly between traditional African beliefs and pathological ideas.²⁴ Difficulties are inevitable when applying Western categories cross-culturally, but the risk of misinterpretation and misclassification can be minimised. Familiarity with indigenous concepts is clearly essential.²⁴ On the basis of her work in other African countries, Stevens¹⁹ reported that the misclassification as schizophrenia of rapidly resolving affective disorders with bizarre and agitated presentation can be avoided if symptoms are recorded for a full 6-month period. For this reason, we used clinical diagnoses based on *DSM III-R* criteria (which requires symptoms to have been present for 6 months before a diagnosis of schizophrenia is made) in addition to a PSE diagnosis of schizophrenia.

The study findings suggest that while the core symptoms can be elicited in both Xhosa- and English-speaking patients with



schizophrenia, differences in the clinical presentation are likely. In the present study these differences did not appear to lead to either misdiagnosis, e.g. of affective or substance-related disorders, or overdiagnosis of schizophrenia in black African patients.

CONCLUSION

The study found that there is a significantly higher prevalence of behavioural, particularly aggressive, features in Xhosa-speaking patients with recent-onset schizophrenia, compared with English-speaking patients. These differences did not appear to be due to overdiagnosis of schizophrenia in Xhosa-speakers, or the result of misdiagnosis. The more aggressive behaviour noted in the Xhosa-speakers does not appear to be due to differences in admission practices for the two groups of patients, although this possibility⁸ cannot be ruled out. Even if these behavioural differences are found to be the result of black patients with schizophrenia being admitted to psychiatric hospitals much later in the course of the illness than white patients, the implications for accurate diagnosis at presentation remain. Finally, this study was not designed to explore the possible role of genetic and sociocultural factors in the behavioural differences noted in the two groups of patients.

References

- Eisenberg L. Social construction of disease. *Psychol Med* 1988; **18**: 1-9.
- Kleinman A. Anthropology and psychiatry: The role of culture in cross-cultural research on illness. *Br J Psychiatry* 1987; **151**: 447-454.
- World Health Organisation. *The International Pilot Study of Schizophrenia*. Geneva: WHO, 1973.
- Swartz L, Foster D. Images of culture and mental illness: South African psychiatric approaches. *Social Dynamics* 1984; **10**(1): 17-25.
- Bodibe RC. What is the truth? Being more than just a jesting Pilate in South African psychology. *South African Journal of Psychology* 1993; **23**(2): 53-58.
- Gobodo, P. Notions about culture in understanding black psychopathology: Are we trying to raise the dead? *South African Journal of Psychology* 1990; **20**(2): 93-98.
- Katz MM, Marsella A, Dube KC, et al. On the expression of psychosis in different cultures: Schizophrenia in an Indian and in a Nigerian community. *Cult Med Psychiatry* 1988; **12**: 331-355.
- Ilechukwu STC. Psychiatry in Africa: Special problems and unique features. *Transcultural Psychiatry Research Review* 1991; **28**: 169-217.
- Murphy HBM, Wittkower ED, Fried J, Ellenberger H. Cross-cultural inquiry into the symptomatology of schizophrenia. *Ann N Y Acad Sci* 1990; **84**: 854-863.
- Desjarlais R, Eisenberg L, Good B, Kleinman A. *World Mental Health*. New York: Oxford University Press, 1995.
- German GA. Comparative ecological studies of the schizophrenias. In: Pedersen P, Sartorius N, Malsella A, eds. *Mental Health Services — the Cross Cultural Context*. Beverly Hills: Sage Publications, 1984.
- Jablensky A, Sartorius N. Culture and schizophrenia. *Psychol Med* 1975; **5**: 113-124.
- Kirmayer LJ. Cultural variations in the response to psychiatric disorders and emotional distress. *Soc Sci Med* 1989; **29**: 327-339.
- Sartorius N, Jablensky A, Shapiro R. Two-year follow-up of the patients included in the WHO International Pilot Study of Schizophrenia. *Psychol Med* 1977; **7**: 529-541.
- Murphy HBM, Tanmoepeau BM. Traditionalism in mental health in the South Pacific: A re-examination of an old hypothesis. *Psychol Med* 1980; **10**: 471-482.
- Gillis LS, Jakoet A, Trollip D, Sandler R, Elk R. The outcome of psychiatric illness. *S Afr Med J* 1987; **72**: 598-606.
- Ensink K, Robertson BA. Patient and family experiences of psychiatric services and African indigenous healers. *Transcultural Psychiatry Research Review* (in press).
- Lund C. Xhosa speaking schizophrenic patients' experience of their condition: Psychosis or amafufunyana? Unpublished Honours thesis, University of Cape Town, 1994.
- Stevens J. Brief reactive psychoses: Do they contribute to the good prognosis of schizophrenia in developing countries? *Br J Psychiatry* 1987; **151**: 393-396.
- Guinness EA. Relationship between the neurosis and brief reactive psychosis. *Br Psychiatry* 1992; **160**: suppl 16: 12-23.
- Cheetham RWS, Griffiths JA. Errors in the diagnosis of schizophrenia in black and Indian patients. *S Afr Med J* 1981; **17**: 71-75.
- Brislin RW, Lonner WJ, Thorndike RM. *Cross-Cultural Research Methods*. New York: John Wiley & Sons, 1973.
- Drennan G, Levett A, Swartz L. Hidden dimensions of power and resistance in the translation process: A South African study. *Cult Med Psychiatry* 1991; **15**: 361-381.
- Gillis LS, Elk R, Ben-Arie O, Tegg A. The Present State Examination: Experiences with Xhosa-speaking psychiatric patients. *Br J Psychiatry* 1982; **141**: 143-147.
- Good BJ. Culture and psychopathology: Directions for psychiatric anthropology. In: Schwartz T, White GM, Lutz CA, eds. *New Directions in Psychological Anthropology*. London: Cambridge University Press, 1992; 181-247.
- Kleinman A. *Rethinking Psychiatry: From Cultural Category to Personal Experience*. New York: Free Press, 1988.
- American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*. 3rd ed, rev. (DSM-III-R). Washington: American Psychiatric Association, 1987.
- Wing JK, Cooper JE, Sartorius N. *The Measurement and Classification of Psychiatric Symptoms*. London: Cambridge University Press, 1974.
- Katz MM, Lyerly SB. Methods for measuring adjustment and social behavior in the community: I. Rationale, description, discriminative validity and scale development. *Psychol Rep* 1963; **13**: 503-535.
- Leff J. *Psychiatry Around the Globe: A Transcultural View*. New York: Marcel Dekker, 1981.
- Ensink K, Robertson BA. Indigenous categories of distress and dysfunction in South African Xhosa children and adolescents as described by traditional healers. *Transcultural Psychiatry Research Review* 1996; **33**: 137-172.
- Ngubane H. *Body and Mind in Zulu Medicine: An Ethnography of Health and Disease in Nguni-Zulu Thought and Practice*. London: Academic Press, 1977.
- De Villiers S. *Popular medicine among Xhosa-speaking farm workers*. Unpublished MA thesis, University of South Africa, Pretoria, 1984.

Accepted 18 Oct 1997.