

# **AFRICAN JOURNAL OF MEDICINE** and medical sciences

**VOLUME 32, NO 1**

**MARCH 2003**



**EDITOR**  
**B. O. OSOTIMEHIN**

**ASSISTANT EDITOR**  
**A. O. UWAIFO**

ISSN 1116-4077



## Emotional reactions of relatives to schizophrenic patients in Lagos, Nigeria

B Reicher, JD Adeyemi, RA Lawal\*, OO Famuyiwa, AY Haruna\* and MO Jibodu

Dept. of Psychiatry, College of Medicine, University of Lagos, Lagos, Nigeria and \*Psychiatric Hospital, Yaba, Lagos, Nigeria

### Summary

Unlike what obtains in the developed countries, not much is known about the expressed emotions (EE) of the family to mental illness in developing nations, including Nigeria. Therefore, the objective of this study is to investigate the EE among family members to schizophrenics in Lagos, Nigeria. The Camberwell Family Interview was conducted with Nigerian family members of 19 schizophrenics whose symptoms were further ascertained using the Present State Examination [9]. Sixty-three percent of the family sample showed high expressed emotions (HEE). The proportion of HEE families increased progressively with the number of previous hospitalization ( $r = 1$ ,  $p = 0.000$ ). The mean ratings of Critical Comment, Warmth and Positive Remarks were, respectively,  $6.1 (\pm 3.8)$ ,  $2.6 (\pm 0.9)$  and  $2.2 (\pm 0.9)$  and  $2.2 (\pm 1.3)$ . The proportions of relatives showing Emotional Over-Involvement and Hostility were, respectively, 26.3% and 31.6%. The correlation between Warmth and Critical Comment was -0.39. The findings were compared with those of a key cross-cultural study of EE and the implications highlighted.

**Keywords:** *Expressed emotions, schizophrenia, families, previous hospitalization, developing nations.*

### Résumé

Lion de ce qui est obtenu des pays développés, rien n'est connu de l'émotion exprimée (EE) de la famille à la maladie mentale en pays sous-développés inclus le Nigeria. L'objectif de cette étude est d'investiguer sur l'émotion exprimée (EE) parmi les membres de la famille en schizophréniques à Lagos au Nigeria. Un interview à la famille Camberwell a été conduite avec 19 membres de la famille schizophréniques avec des symptômes confirmés. 60% des familles montrait une grande émotion exprimée. La proportion des familles augmentait progressivement avec le nombre des précédents hospitalisations ( $r : 1$ ,  $P + 0.000$ ). Le taux moyen des commentaires critiques, modérés et remarques positives étaient de  $6.1 \pm 3.8$ ,  $2.6 \pm 0.9$  et  $2.2 \pm 1.333$  respectivement. Les proportions relatives montraient une excess d'activité émotionnelle et d'hostilité étaient

26.30% et 31.0% respectivement. La corrélation entre les commentaires modérés et critiques était de -0.39. Ces données étaient comparées avec ceux d'une étude culturelle croisée de l'émotion exprimée et les implications ont été illuminées.

### Introduction

Major cross-cultural studies sponsored by the World Health Organization have shown beyond reasonable doubt that the outcome of schizophrenia is better in the developing countries than what obtain in the developed ones even when allowance has been made for some of the diagnostic problems in the former [1, 2]. Probable explanations given for the observation are the pathogenic effects of western culture [3], the supportive attitude of family members and the tolerance of the respective communities to mental illness [1]. An opportunity to investigate the effect of the family on the course and outcome of mental disorders scientifically is provided by expressed emotions (EE) study. Many of such studies confirm the likelihood that the emotional atmosphere of the family contributes to relapse and the outcome of disease [4, 5] in the indexed communities. Unfortunately, there are only few studies of expressed emotions outside of the developed countries of the world [6, 7, 8]. One of the few studies from developing nations seems to suggest that there is some cultural influence in the expressed emotion profile in India compared to what obtains in the industrialised world [9]. Of particular relevance is the fact that Leff et al [10] provided further evidence that locally trained raters achieved a reliable score for the more predictive items of expressed emotions, namely critical comments and hostility, when the Camberwell Family Interview (CFI) ratings were conducted in Hindi. But, hostility did not contribute much to the EE profile of the Indian families [9] unlike what obtained in the industrialised countries.

Since the International Pilot Study of Schizophrenia (IPSS) [1] and the Determinants of Outcome of Severe Mental Disorders (DOSMED) [3] showed that the outcome of schizophrenia is similar in Nigeria to that of India, it should be of interest to investigate if similar EE factors operate in the Nigerian environment compared to what obtains in the Indian location.



Except in a few locations [8, 6, 7], EE studies have been very difficult to come-by in developing countries presumably because of non-availability of appropriately trained manpower. The originators of the CFI have always insisted on training the would-be raters and monitoring closely their work. These are pragmatic steps in ensuring the validity and reliability of EE assessments based on the CFI. Unfortunately, the economic situation in developing countries makes it difficult for interested researchers to easily procure the 3 or more weeks of training in the United Kingdom to achieve the necessary proficiency to conduct CFI and rate it. However, the brief tenure in Nigeria of a social worker of foreign nationality who was trained and certified in the use of the CFI provided a rare opportunity to investigate the EE of family members to schizophrenia among Nigerian subjects resident in Lagos.

### Method

The study took place in two psychiatric facilities, the department of Psychiatry of the Lagos University Teaching Hospital and the Psychiatric Hospital, Yaba, Lagos. Lagos is a cosmopolitan city which, until 1992, was the capital of Nigeria. The Yorubas of west, the Ibos of east and the minority tribes of southern Nigeria dominate the population of the city whose boisterous economic drive provides an ideal environment for the study of family reactions to a chronic disabling disorder such as schizophrenia. Like many economic capitals of the world, Lagos metropolis is exposed to the influences of rapid urbanization. The consequences of urbanization on the emotional aspect of family life in this location should be interesting because there is greater differentiation and individuation in Lagos than in the traditional, and more supportive rural interior of the country.

The growth rate of Lagos state is estimated to be about 300,000 per annum with a population estimate of 8,181,991 [11]. The majority reside in the city with attendant overcrowding. Our sample was drawn from the population of patients receiving treatment in the above-mentioned hospitals who were diagnosed as suffering from schizophrenia according to the tenth edition of the International Classification of Diseases [12]. The clinical state of subjects was further ascertained using the present state examination (PSE) [13]. Because the CFI interviewer and rater (BR) could only communicate in English, only subjects who have significant relatives that were of sufficient literacy were admitted to the study. This undoubtedly contributed to the very slow recruitment rate of subjects albeit enhancing the validity of evaluations.

The Camberwell Family Interview (CFI) is a semi-structured interview designed to measure expressed emotions in the significant relatives of patients from the way they respond to questions about the patients and their

illness. The interview which is usually recorded on audio-tape lasts about one hour on the average per subject. The scoring of the audio-tape record of each subject takes another 3 to 4 hours to complete. Only people who have had a valid training on the EE construct based on the CFI and are certified can conduct a valid interview for clinical or research purposes and their work is rigorously monitored to ensure that standards are maintained. The instrument allows the classification of the content of the interview with the significant relative into Critical Comments (CC), Emotional Over-Involvement (EOI), Hostility (H), Warmth and Positive Remarks. High scores in CC, EOI and H items indicate high expressed emotions (EE) toward the subject by the significant relative which gives some insight into the family atmosphere and the attitude of the family member to the patient as well as the illness. The CFI remains the gold standard in the measurement of expressed emotions till date all over the world.

Unfortunately, the CFI and its rating could not enjoy further local validation and reliability because the trained rater, BR, needed further certification to train individuals in Nigeria. However, her audiotapes have been preserved for further cross-validation at the centre where the CFI emanated with her primary trainers as recommended by the originator of the instrument.

The procedure of the study involved identifying suitable patients by the psychiatrists working in each centre. A researcher who was conversant with the use of the PSE then conducted a clinical interview with the patient using the instrument, in order to document the symptoms currently present and in the past month in order to confirm diagnosis. Subsequently, appointments were made in the base hospital for the CFI interview by BR. In many instances, home visits were made by BR for the interviews. A number of subjects were dropped from the survey because of the difficulty encountered in tracing their homes due to wrong addresses or unco-operative attitude of family members. However, the majority of families were quite receptive and co-operative.

Descriptive and inferential statistics were employed in the analysis of the data. The data was compared with the results of a previous cross-cultural study by Wig et al [9].

### Results

#### *The patients*

The 19 patients (10m, 9f) whose relatives were evaluated with the CFI had an age range of 17 to 54, with a mean of 32.1 ( $\pm$  10.8) years.

#### *Relatives and CFI scores*

The CFI interview was conducted with at least a single member of the family with whom the patient lives. In three instances the interview was conducted with two members



**Table 1:** Number of admissions versus Camberwell family interview (CFI) scores of families.

No of Admissions	Overall	EE	Critical	Hostility	Emotional Over	Warmth	Positives
	Ratings		Comment		-Involvement		Remarks
	High	Low	X <sub>1</sub> (SD <sub>1</sub> )	%	%	X <sub>2</sub> (SD <sub>2</sub> )	X <sub>3</sub> (SD <sub>3</sub> )
1	1	4	4.6(2.0)	0	0	3.2(0.4)	2.8(1.0)
2	4	1	5.8(2.0)	10.5	10.5	2.4(1.0)	1.2(1.0)
3	7	2	7.0(4.5)	21.1	15.8	2.3(0.8)	2.3(1.3)
ALL	12	7	6.1(3.8)	31.6	26.3	2.6(0.9)	2.2(1.3)

of the family individually. Thus a total of 22 individuals were interviewed. When more than one individual was interviewed, the higher CFI rating was used in categorising the expressed emotions of the family. In the 16 families where single literate relatives were interviewed, 8 of those interviewed were the mothers, 3 fathers, 2 husbands, 2 sibs and 1 grown-up child of a patient.

The mean rate of Critical Comments making by the family members was 6.1 ( $\pm 3.8$ ) per session. The mean scores for Warmth and Positive Remarks were 2.6 ( $\pm 0.9$ ) and 2.2 ( $\pm 1.3$ ), respectively. The proportion of relatives showing Hostility was 31.6%, while 26.3% showed emotional over-involvement. High expressed emotions were recorded in 63.2% of the family sample.

#### *Number of admissions and CFI characteristics*

The number of admission on account of new episodes of psychiatric illness for which the patient had presented

revealed an interesting pattern (Table 1). Out of the 12 subjects rated as having high EE, only one was in his first admission, 4 were on admission for the second time following relapse of a previously remitted illness, while the remaining 7 were having, at least, their third hospitalisation. Thus, higher EE rating of relatives was associated with higher number of hospitalisation among the patients. The correlation was statistically significant ( $r = 1$ ,  $p = 0.000$ ). Expectedly, similar distribution pattern of scores was reflected in the most important items of the subscales of the CFI rating required for categorising families as manifesting high EE namely Critical Comment, Hostility and Emotional Over-involvement. Patients admitted for first episodes of illness seem to be better favored in terms of Positive Remarks and Warmth by relations.

#### *Transcultural comparision*

**Table 2:** Comparisons of EE components scores in Lagos with London Aarrhus and Chandigarh (Wig et al. 1987)<sup>y</sup>

	Lagos	London	Aarrhus	Chandigarh
Critical Comment mean scores	6.1	8.4	4.5	1.9
Proportion of relatives Showing hostility (%)	31.6%	18%	21%	16%
Proportion of relatives showing emotional over involvement (%)	36.3%	36%	-	4%
Warmth mean scores	2.6	2.3	2.5	2.0
Positive remarks mean scores	2.2	2.6	3.1	0.8
Pproportion of families with high expressed emotions (%)	63.2%	54%	54%	23%
Proportion of hostile relatives with low criticism	0%	0%	0%	29%
Correlation between warmth and critical comment	-0.39	-0.44	-0.57	0.10
Number of patients	19	37	28	78

Footnote: <sup>y</sup>With permission of the copyright holder – The British Journal of Psychiatrists



Table 2 shows the results of this study in comparison with those reported by Wig et al [9]. It is a surprise to observe that the Lagos sample had a greater proportion of high EE rating than what obtained in the three other centres. This is clearly reflected in all the three key items necessary for high EE rating. If the results of the IPSS were anything to go by, the EE scores of the Nigerian sample should be more comparable to those of Chandigarh, India. Instead, our finding seems more comparable to those of the European figures in terms of overall EE ratings. However the path to the EE rating differs from one nation to the other. Whereas relatives showing hostility made the greatest contribution to high EE rating in Lagos, Aarhus and Chandigarh; relatives showing Emotional Over-involvement and those making Critical Comments were by far the greatest contributors to high EE in London.

In Lagos, London, and Aarhus there were no relatives that showed hostility but low criticism. This was a remarkable attribute of the Indian sample. Furthermore, the high negative correlation between warmth and critical comment observed in Lagos, London and Aarhus differentiated these samples from the Indian one.

## Discussion

In this study, the CFI used in the rating of EE among the multi-ethnic Lagos community members who are relatives of schizophrenics seems to have an impressive face validity given the range of scores, which are comparable to those from other parts of the world. However, the pattern of scores in this study is worthy of remarks. Contrary to hypothetical expectations concerning the very accepting attitudes of the environment to psychopathology [1], Lagos residents have higher rates of high EE compared to what obtained in the four centers with which the result of this study has been compared. Given the bias of our sample for literate Nigerians, it is not impossible that we might have selected individuals for interview who have a higher achievement drive than the generality of the population, and who would be more likely to be less tolerant of mental disorder because of the potential of its deleterious effects on ability to achieve. There is marked pressure for achievement among residents of urbanized Lagos, more individuation, more anomie and greater differentiation than what obtains in the more traditional and rural areas where the majority of Nigerians reside. Since the acquisition of western education to some extent is bound to impact on the culture of the educated, it may have some bearing on their attitude to an illness that many perceive to be capable of significantly limiting the cognitive ability of the sufferers [11, 12].

Given the similarity of the outcome of schizophrenia in India and Nigeria in the IPSS and the more recent DOSMED studies, even when chronic and insidious illness

was considered [1], the EE results from the two locations ought to be comparable. The observed EE differences reflected in this study may not be unconnected with the environmental factors at play at the respective study locations. Chandigarh was compared with Ibadan in the IPSS study. Lagos, the site of our study, is a more boisterous cosmopolitan city which is encumbered with the problem of rapid urbanisation and westernisation than the more traditional ancient Yoruba city of Ibadan where cultural ties and pace of life may not be in such a high flux. There are indications from the transcultural study of EE that the more modern city dwellers may show higher EE than those in the more culturally stable traditional locations [3, 10]. Our finding is consistent with the report that the outcome of schizophrenia and possibly its determinants might not be as favorable in Lagos as what obtains in the nearby city of Ibadan [16] which is some 130 kilometers away.

It is difficult to know how much the very harsh economic pressures in the country affected families and their emotional reaction to their members who suffered from major psychiatric disorders at the time of the study. But the reality of a recurring illness might be quite frustrating, thereby generating more adverse emotional reactions from the family as indicated by our finding that those who were admitted for a first episode of illness were less likely to attract high EE than those who have suffered repeated admissions for psychiatric disorders. This finding is consistent with clinical experience as family members often look for quick and permanent cures irrespective of how well informed they are about the prognosis of an illness, hence the tendency to patronize various models of health care delivery by such patients in Nigeria in rapid successions [17]. An association between HEE among family members and recurrent hospitalization was reported using the Family Environment Scale by Schnur et al. [18]. Furthermore, the higher warmth and positive remarks towards those on admission for a first episode of illness compared to those who have had 2 or more episodes observed seems to be a pointer to the good internal consistency of CFI.

This study seems to indicate that relatives of schizophrenics do show high Expressed Emotions towards patients in Nigeria, just like what obtains in the other parts of the world. But, due to the limitations of our study one must be cautious in stressing the importance of the prevalent proportions of the various indices of high EE in this environment. None-the-less, there may be reasons to begin to look for other mechanisms for the better outcome of schizophrenia in third world countries other than the famed supportive and accepting attitudes of families previously canvassed. Lately, absence of the vestiges of stable culture and tradition which distinguish western from



more traditional set ups have been advocated as the potential pathogen of poor outcome in developed countries[3].

In conclusion, it appears that schizophrenia may benefit from family interventions with regard to EE in some Nigerian homes. More EE studies, possibly in local languages, in traditional and rapidly acculturating societies, as well as urban and rural locations are required to determine the role of expressed emotions in the pathogenesis and outcome of chronic illnesses in developing countries. Obvious limitations of our study include the fact that the CFI interviewer was foreign to the culture yet lacked the opportunity for local reliability and validation exercise apart from the construct validity guaranteed by her training. The small sample size and the bias for literate family members are also draw backs in this work. It is however hoped that these limitations will be addressed in future research efforts following this pioneering work.

#### Acknowledgements

Dr. P. O. Olonade assisted in data collection for which authors are grateful. We are grateful to Dave Jago of the British Journal of Psychiatry for the permission to use an aspect of the publication of Wig et al 1987 in this write-up.

#### References

1. Sartorius N, Jablensky A, Shapiro R. Preliminary Communication: Two-year follow-up of the patients included in the WHO International Pilot Study of Schizophrenia. *Psychol Med* 1977; 7: 529-541.
2. Jablensky A, Sartorius N, Ernberg G et al Schizophrenia; manifestation, incidence and course in different cultures – A World Health Organization ten-country study. *Psychol med monogr suppl* 1992; 20: 15
3. Jilek WG. Transcultural Psychiatry – Quo Vadis? Development in our expanding field: Transcultural Psychiatry Newsletter, Ed Jilek WG, Transcultural Psychiatry Section World Psychiatric Association; Vol. XVI No. 1, January 1998.
4. Vaughn CE, Leff JP. The measurement of expressed emotions in the families of psychiatric patients. *B J Soc Clin Psychol* 1979 (b); 15: 125-137.
5. Vaughn CE, Synder KS, Jones S, Freeman WB, Falloon IR. Family factors in schizophrenic relapse: a California replication of the British research on expressed emotion. *Arch Gen Psychiatry* 1984; 14: 1169-1177.
6. Okasa A, El Akabawai AS, Synder KS, et al. Expressed emotion, perceived criticism and relapse in depression: A replication in an Egyptian community. *Amer J Psychiatry* 1994; 151: 1001-1005.
7. Kalafi Y, Torabi M. The role of parental "Expressed Emotion" in Relapse of Schizophrenia. *Im J Med. Sci* 1996; 21(1&2): 46-51.
8. Leff J, Wig NN, Ghosh A, Bedi H, Menon DK, Kuipers L, Korten A, Ernberg G, Day R, Sartorius N, Jablensky A. III. Influence of Relatives' Expressed Emotion on the Course of Schizophrenia in Chandigarh. *Br J Psychiatry* 1987; 151-173.
9. Wig NN, Menon DK, Bedi H, Ghosh A, Kuipers L, Leff J, Korten A, Day R, Sartorius N, Ernberg G, Jabensky A. Expressed Emotion and Schizophrenia in North India I: Cross-Cultural Transfer of Ratings of Relatives' Expressed Emotion. *Br J Psychiatry* 1987; 151: 156-173.
10. Uthman B. Profile on Lagos State Local Governments; In Lagos Government Ed Hamzat, A.A. and Shobowale O.O. (First edition) Public Information Department, Lagos State Ministry of Information, Culture and Sports; 1995:13-14.
11. World Health Organization. The ICD-10 Classification of Mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines. WHO Geneva, Oxford University Press; 1992: 86-95.
12. Wing Jk, Cooper JE, Sartorius N. Measurement and Classification of Psychiatric Symptoms. New York: Cambridge University Press; 1974.
13. Keefe KSE, Silva SG, Perkins DO, Lieberman JA. The effect of Atypical Antipsychotic drugs on Neurocognitive Impairment in Schizophrenia: A Review and Meta-analysis. *Schizophr Bull* 1999; 25 (2): 201-222.
14. Meltzer HY, McGurk SR. The effect of Clozapine, Risperidone, and Olanzapine on the Cognitive Function in Schizophrenia. *Schizophr Bull* 1999; 25 (2): 233-255.
15. Obembe A, Famuyiwa OO, Bebbington P. Preliminary study on the outcome of functional psychoses in metropolitan Lagos, Nigeria. *East Afr Med J* 1995c; 72 (4): 31 -34.
16. Adeyemi JD, Famuyiwa OO. First Ever Consultees of a Psychiatric Out-patient Clinic: A Pilot Study. Proceedings of the 9<sup>th</sup> Pan-African Psychiatric Conference, 20<sup>th</sup> to 26<sup>th</sup> November, 1994: 123-144.
17. Schnur DB, Friedman S, Dorman, Redford HR, Kesselman M. Assessing the environment of schizophrenic patients with multiple hospital admissions. *Hosp Comm. Psychiatry* 1986; 37 (3): 249-52.