

# RELATIONSHIP OF EXPRESSED EMOTION WITH RELAPSE OF SCHIZOPHRENIA PATIENTS IN KELANTAN

M Z Azhar, S L Varma

## ABSTRACT

*The families of 83 schizophrenic patients were studied to find out the level of expressed emotion in them leading to the relapse of these patients. The patients were having more than two episodes of schizophrenia (DSM-III-R). The most salient finding was the virtual absence of high level of expressed emotion as the cause of relapse. It was found that the majority of the families (72.3%) had low expressed emotion while only 25.3% had high expressed emotion and only 2.4% families were equivocal in this respect. This finding is in contrast with various other findings in this area. The most likely explanation for this disagreement is the cultural differences between Malaysian patients and Western patients.*

**Keywords:** *expressed emotion, schizophrenia, critical comments, dissatisfaction, hostility.*

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## INTRODUCTION

Expressed emotion is currently among the most thoroughly investigated psychosocial research constructs in psychiatry<sup>(1-4)</sup>. Developed some three decades ago by George Brown and his colleagues, the term "expressed emotion" (EE) refers to a global index of particular emotions, attitudes, and behaviours expressed by a relative about a family member diagnosed with schizophrenia. The specific factors that make up the construct of expressed emotion are criticism, hostility, and emotional overinvolvement. Several naturalist studies have demonstrated<sup>(5-8)</sup> that patients in families having high levels of expressed emotion are significantly more likely to experience a clinical relapse than patients residing in households with low levels of expressed emotion<sup>(9-12)</sup>.

Some studies have suggested that it might not always be desirable for schizophrenic patients to return to the close emotional ties often existing with parents and spouse<sup>(13,14)</sup>. Several studies<sup>(8,15-21)</sup> have all purported to provide support for the association between EE and relapse. But some studies<sup>(22-26)</sup> offer evidence at odds with the association.

Moline et al<sup>(16)</sup> reported a significant association between household EE and relapse in 24 mainly young schizophrenics. Leff et al's Chandigarh study<sup>(17)</sup> reports a relative absence of high EE (23% compared with over 50% in the Anglo-American studies), and a very low rate of relapse; 14% – 18% depending on the diagnostic criteria applied. While Tarrier et al's study<sup>(19)</sup> of 9 months follow-up data appears to support an association between EE and relapse, the 24-month follow-up of the same cohort fails to replicate this finding. Barrelet et al<sup>(21)</sup> have recently reported a significant relationship between EE and relapse rates for their cohort of 36 first admission schizophrenics, although when their analysis is restricted to patients who live with their families during follow up (n=30), the association fails to reach

significance.

Several studies, however, have also failed to support the EE/relapse association. Kottgen et al<sup>(22)</sup> found a non-significant trend in the opposite direction. MacMillan et al's study<sup>(23)</sup> generated apparently supportive findings (of higher rate of relapse among high EE subjects) that were confounded by length of illness prior to index admission, and drug/placebo administration. Taking these factors into account, the authors argued that the EE/relapse association diminished to the point of non-significance.

Parker et al's Australian study<sup>(24)</sup> speculate about the extent to which EE may comprise a reactive component in addition to a constitutional one. In her recent review Vaughn<sup>(27)</sup> also alludes to state and trait elements of EE.

Such is the nature of this type of research that fault can usually be found with some aspects of design, procedure, or method. This is apparent in the studies reviewed here, and on several occasions, the authors themselves have been the first to point out weaknesses. Thus there is a need to be extremely cautious in interpreting results. Parker et al<sup>(24)</sup> remarked that many EE research studies have proceeded with an apparent commitment more to confirmation than falsifiability; an approach that has sometimes been coupled with a readiness to criticise studies in which results fail to support, or even go against the hypothesis, and a reluctance to consider alternative interpretations of affirmative findings.

Another issue is that of direction of causality. The view that relapse is (at least in part) a consequence of frequent contact with high EE relatives is not shared universally even by those research groups who have published positive findings. The alternative interpretation that high EE is a reaction by some key relatives to living in close contact with a psychiatrically disordered individual, has also been mooted. Brown et al<sup>(28)</sup> noted that in about one-third of relatives, the level of criticism dropped appreciably following a marked improvement in the patient's condition. Hirsch<sup>(29)</sup> for example, wrote that his study substantiated the causal effects of relatives' expressed emotion on the relapsing schizophrenic. Nuechterlein et al<sup>(16)</sup> similarly interpreted their data as supporting a directional causative role of EE on relapse. Thus it is seen that the relationship between family EE and relapse has yet to be fully resolved. This study was aimed to establish the relationship of Expressed Emotions with the relapse rate in cases of schizophrenia and to find the extent of high/low EE in their families.

## METHODOLOGY

The study was done at the Department of Psychiatry, Hospital

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Department of Psychiatry  
School of Medical Sciences  
University Sains Malaysia  
16150, Kubang Kerian  
Kelantan  
Malaysia

M Z Azhar, MD, MPM  
Associate Professor

S L Varma, MBBS, MD, PhD  
Lecturer

Correspondence to: Dr M Z Azhar

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University Science Malaysia and General Hospital, Kota Bharu, from 1991 to 1993. Patients with schizophrenia from both departments formed the sample of the study. The records of patients in both hospitals were screened and patients were selected according to the following criteria: (i) a diagnosis of schizophrenia based on the DSM-III-R<sup>(30)</sup> classification, (ii) the patients must have had at least two episodes of the illness, (iii) the patients must be from nearby districts of Kelantan or Trengganu only, for a better follow-up.

Altogether 83 patients were identified and home visits were made to interview the relatives. The relatives living with the patients were first interviewed at their homes. Their interviews were recorded on tape. The tape was then played individually by the researchers who rated the EE accordingly. If there was any discrepancy, the researchers would then make home visits to clarify the items. The interrater reliability between the researchers was more than 90%.

The following criteria were used for the interviews: (i) main family interview must be carried out at home; (ii) if married, the spouse was always seen, otherwise parents were interviewed; (iii) family members were seen alone also; (iv) the items queried were those three months prior to admission; and (v) the emphasis was on events and feelings expressed during the interview towards patient.

The ratings that were made were: (i) number of critical comments, one comment was counted as one unit; (ii) hostility, whether present or absent; (iii) dissatisfaction on a 4-point scale; (iv) warmth on a 6-point scale; (v) emotional over-involvement (EOI). Self-reports of emotion and the spontaneous expression of feeling during the interview were both noted, although the emphasis was on the latter. The criteria of relapse used were: (i) change from normal/non-schizophrenic to schizophrenic state; (ii) marked exacerbation of resistant schizophrenic symptoms. The questionnaire comprised 30 questions: critical comments<sup>(2)</sup>, hostility<sup>(5)</sup>, dissatisfaction<sup>(5)</sup>, warmth<sup>(1)</sup> and emotional over-involvement<sup>(17)</sup>. Each question was rated as follows: Yes response = 2 points; No = 0 points and Indefinite = 1 point.

## RESULTS

The score of critical comments was 0 in 38.6% of the families, indicating a relatively high proportion of relatives having low EE (Table I). The total hostility score was 0 in 31 (37.3%) of the families (mean 1.89±2.07). Only 3 (3.6%) of the families scored 8 on hostility, again indicating that the majority of the families had low expressed emotions towards the patient.

The total satisfaction score was 0 in 38 (46.3%) families and 44 (53.7%) of them scored 1-2. The mean was 1.01±0.97, indicating an equal proportion of families with both low and high EE towards the patient. The total dissatisfaction score was 0 in 16 (19.3%) families and 8 (1.2%) in one. Those with scores of 0 to 3 are 65.1% (mean 2.59±1.93) of the group. This again indicates that the majority of the families have low EE.

The total score for warmth was between 1-2 (mean 1.72±0.67) in 73 (88.0%) of the families and only 10 (12%) of the families have scores of 0. This means that 88.0% of the families had low expressed emotion.

There was no 0 score in the positive emotional-over-involvement category. The lowest score was 5 and the highest score was 18. Most of the families had a score of 12 and 13 (mean 12.86±3.44).

The majority of the families had a score of 5-6 (36.1%) and 73.5% of them had scores between 0 to 6 (mean 5.59±2.8) in the negative over involvement score. This shows that most families have positive overinvolvement although a substantial number have negative over involvement with the patients.

Tabulating all the scores, it is seen that the majority of the families (72.3%) have low EE while only 25.3% of them have high EE and only 2.4% families were equivocal with their emotions (Table II).

## DISCUSSION

An important conclusion which can be derived from this study is the virtual absence of high levels of expressed emotion in schizophrenic relapses. This finding differs from those reported recently in the literature. Indeed, Leff et al<sup>(31)</sup> reminded readers that Kottgen et al's study<sup>(21)</sup> had failed to support the association. The review of the recent literature makes us less confident about the EE/relapse association, and hence the predictive value of EE for the course of schizophrenia, especially if it is considered in isolation from other potentially important factors, such as neuroleptic compliance, duration and severity of illness<sup>(23)</sup>. The consensus emerging from studies up to and including the Californian replication study by Vaughn et al<sup>(7)</sup>, pointed strongly towards the importance of EE in shaping the course of schizophrenic illness. Koenigsberg and Handley<sup>(32)</sup> reported EE/relapse association was sex specific and did not hold for females, for whom the 9-month relapse rates were 14% and 17% for high and low EE subjects respectively. The authors acknowledged that it was male subjects who were responsible for the significant EE/relapse association, but argued that this in turn could be

Table I – Expressed emotion scores on different variables

Score	Critical comments N (%)	Hostility N (%)	Satisfaction N (%)	Dissatisfaction N (%)	Warmth N (%)	+ve EOI N (%)	-ve EOI N (%)
0.0	32 (38.6)	31 (37.3)	38 (46.3)	16 (19.3)	10 (12.0)	–	1 ( 1.2)
1.0 – 2.0	32 (38.6)	27 (32.5)	44 (53.7)	28 (33.7)	73 (88.0)	–	12 (14.4)
3.0 – 4.0	19 (22.8)	19 (22.9)	–	26 (31.3)	–	–	18 (21.7)
5.0 – 6.0	–	2 ( 2.4)	–	12 (14.4)	–	5 ( 6.0)	30 (36.1)
7.0 – 8.0	–	4 ( 4.8)	–	1 ( 1.2)	–	4 ( 4.8)	11 (13.2)
9.0 – 10.0	–	–	–	–	–	12 (14.4)	5 ( 6.0)
11.0 – 12.0	–	–	–	–	–	19 (22.9)	5 ( 6.0)
13.0 – 14.0	–	–	–	–	–	15 (18.0)	1 ( 1.2)
15.0 – 20.0	–	–	–	–	–	23 (26.7)	–
Mean	1.52	1.89	1.01	2.59	1.72	12.86	5.59
Standard deviation	1.49	2.07	0.97	1.93	0.67	3.44	2.80

EOI = emotional over involvement

**Table II – Final scores of expressed emotions**

Final scores	Freq	Percentage
Negative	21	25.3%
Positive	60	72.3%
Zero	2	2.4%
Total	83	100.0%

attributed to structural differences in households with male and female relapsing patients. Secondly, their criteria for defining relapse ignored the 37% (11/30) of non relapsers who required re-hospitalisation for conditions other than positive symptom schizophrenia.

Our findings clearly indicate that positive emotions are very high among the family members of schizophrenic patients who have relapsed. This means that high negative expressed emotions which have been linked to frequency of relapse in schizophrenic patients in western studies reviewed above is not seen in our patients. What could possibly account for these very dramatic findings? In spite of positive emotions, the patients are relapsing; what then is the factor in EE that contributes to relapse and if it is positive emotions, then should the relatives be trained to have negative emotions? This is of course ridiculous as negative emotions have been known to cause relapse. Is it that our patients are not really affected by EE scores in terms of relapse. The most likely cause is culture. The culture of Malaysians, and specifically people of Kelantan, are totally different from those of the west and this certainly results in a different approach to patients and EE. The people of Kelantan are simple, religious, God-fearing, non-aggressive, having strong social bonds. Aggressive outbursts of emotions are rare. This may be one of the reasons for the decrease in the negative emotions and increased positive emotions in this culture.

Cultural conceptions of mental disorder – indigenous notions of the nature, cause, and course of illness – have long been a focus of anthropological investigation<sup>(33-36)</sup>. To what extent do cultural conceptions of the illness influence expressed emotion in families? Can such conceptions create a culturally legitimate status that inhibits high levels of criticism? Is the cultural locus of the problem deemed to be a personality problem, an illness entity or an external malevolent agency? Several authors<sup>(27,37)</sup> have identified this issue as important to the formation of expressed emotion attitudes. The identification of this factor as a specifically cultural issue in psychiatric research has been slow in coming.

In studies of Mexican-descent relatives<sup>(33,34)</sup> the concept of 'nervious' served as a cultural label for schizophrenic illness. The term 'nervious' is in broad cultural use for a wide range of everyday distress. Since severe cases of nervous are not considered blameworthy or under an individual's control, the person who suffers its effects is deserving of sympathy, support, and special treatment. Moreover, severe cases of nervous are potentially curable.

Scheper Hughes' study<sup>(38)</sup> in Ireland found that patients were often harshly rejected and extruded from family settings. Ostracism by the family served to delimit the boundaries between self and others by condemning what was considered unacceptably deviant. The criticism and rejection also served to preserve the family identity as morally upstanding. Edgerton<sup>(39)</sup> has observed that although societies may allow for acceptable diversity in some human conduct, one knows "where the limits of acceptable variation have been exceeded because the result is 'trouble' in the form of complaints, disputes, accusations, recriminations, and the like". Critical comments may be viewed in this way – as complaints about the perceived violation of rules that people

with schizophrenic illness may engage in with disquieting regularity. Shweder<sup>(40)</sup> underscored Freud's identification of "criticism (and related activities such as accusing and accounting) as the primary activity associated with rules". The criticism component of the expressed emotion is valid for cross-cultural research if it is seen as a negative response to culture rule violations.

Substantial variation in EE profiles in different cultures and among different social classes are evidence against assumption of a universally shared human response to schizophrenic illness. Instead, variation in EE profiles is more properly understood within the context of psychocultural and social variation in relatives' responses to a family member who suffers from schizophrenia.

We argue that the nature of expressed emotion (in the form of verbal criticism and emotional overinvolvement) is clearly grounded in cultural conventions, that is, it is culture specific. EE consists of two principal factors: critical comments and emotional overinvolvement. Without a doubt, the nature and meaning of criticism and emotional overinvolvement are culturally specific. Thus the utilisation of EE as proposed in the west in order to reduce relapse may not apply to our patients. Another mode of culture specific treatment needs to be worked out and that requires further research.

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