Impact of Caregivers' Expressed Emotion upon Schizophrenic Patients Relapsing

تأثير إظهار المشاعر على انتكاسة مرضى انفصام الشخصية

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الاهداف: قيم اثر إظهار   الأسرة تجاه مريض الفصام وعلاقة الالتزام في اخذ العلاج وحجم الاسرة والدخل الشهري اظهار المشاعر الاسرية عند اسرة المريض مع معدل الانتكاسة للمريض.

المنهجية: أجريت الدراسة على عينة قصدية (غير احتمالية)   (100)   المرضى المصابين بالفصام في مدينة بغداد. الاستبانة لتحقيق هدف   42   . حدد صدق وثبات الاستبانة عن طريق مجموعة الخبراء والدراسة الاستطلاعية. 11 ايلول 2011   11 تشرين الأول 2011   حللت المعلومات عن طريق الاحصاء الوصفي كالتكرارات والنسب المئوية والوسط الحسابي   .

: أظهرت   هناك علاقة قوية   صائية بين اظهار المشاعر الاسرية لاسرة مريض الفصام و الدخل .

:   الدراسة ان اظهار المشاعر الاسرية عند اسرة مريض الفصام له التاثير الفاعل في شدة الانتكاسة عند المريض.

التوصيات: تعليمية   ة المريض في كيفية التعامل مع سلوك المريض بالفصام لزيادة معارفهم حول مرض لهم لمرضى الفصام.

Abstract

Objectives: To assess the expressed emotions of family members toward the schizophrenic patients, and to estimate the relationship between treatment compliance, family monthly income, family size with, and the families expressed emotions with patients' relapse intensity.

Methodology: The study carried out on a purposive "non probability" sample of (100) schizophrenic patients and their family members were selected from Psychiatric Hospitals in Baghdad City. A questionnaire is constructed for the purpose of the present study from 42 items. Validity and reliability of the questionnaire were determined through the review of a panel of experts and the pilot study respectively. Data were collected through the period from September 11th 2011 to October 11th 2011. It was analyzed through the descriptive statistics (frequency, percentage, and mean of score) and inferential statistics.

Results: The results revealed that were a significant relationship was found in family expressed emotion with schizophrenic patient relapse intensity, family size, and monthly income.

Conclusions: The study concluded that caregiver's expressed emotions appear to have a strong effect on schizophrenic patient relapse intensity.

Recommendation: Family Educational programs about how to deal with schizophrenic patient's behavior should be implemented to increase their knowledge about schizophrenia and accepting to schizophrenic patients.

Keywords: **Impact, Caregivers, Express, Emotion, Schizophrenic Patients, Relapsing**

INTRODUCTION:

Schizophrenia is a serious form of mental illness that has a debilitating effect on both the patients and their families. In essence, schizophrenia is understood as a form of psychosis, where patients suffering from the syndrome often experience considerable distress from a myriad of symptoms such as hallucinations, delusions, and bizarre thought processes. Most of the time, these patients will experience a distortion of their thought processes and perceptions, leading to a loss of boundaries between the person

and the external world (Walker et al., 2005). Early empirical evidence had suggested that the family environment plays a crucial part in influencing the onset, as well as course of mental illness, particularly that of schizophrenia and other related psychotic disorders (Brown et.al, 2005). Expressed emotion (EE) is established as a reliable measure of some of the emotional aspects of family life (Brown et al., 2005). The construct of expressed emotion is based on how relatives of a psychiatric patient spontaneously talk about the patient. Relatives are classified as being high in EE if they make more than a specified threshold number of critical comments or show any signs of hostility or marked emotional over involvement (Vaughn and Duda, 2003).The relationship of expressed emotion to psychiatric relapse raises the question about how psychosocial factors affect the treatment outcome of an illness. With the current global trend of deinstitutionalization of care for the schizophrenic patients, vast majority of them are expected to return to live with the family, after receiving treatment for a psychotic relapse (Peterson and Docherty, 2004). Barrowclough et al. (2006) have acknowledged that express emotion may represent the complex interactions between patients and family caregivers and indeed the patients' illness and behaviors are an important part of the process contributing to the origins and changes of express emotion within a family over time. The present study focused on the impact of family expressed emotion on the relapse intensity of schizophrenic.

METHODOLOGY:

A descriptive analytical study was conducted at (2) Psychiatric Hospitals distributed throughout Baghdad City. One Ibn–Rushed psychiatric hospital it is located in AL-Rusafa sector and it consist of two words for men and two for female and one for adduction. In addition, the data was selected from patients and family member in psychiatric unit at Baghdad teaching hospital for males and females at the 10th Floor. A questionnaire of Kazarian and Cole (1988) The Level of Expressed Emotion Scale (LEE scale) was developed and used to achieve the purpose of the present study after simple modification was made on its items. It is a self-report measure of patient's perceptions of the amount of expressed emotion in family interaction. In order to test the validity of the questionnaires, instruments were forwarded to the panel of experts (12 experts) in different fields for their opinion and suggestions to investigate the face validity of items, Then the questionnaire was considered valid after taking into consideration their suggestions and recommendation for modification. A pilot study was carried out for the period of August 8th 2011 to August 30th 2011 and conducted on 20 schizophrenic patient who were selected from the Psychiatric Hospitals in Baghdad City for the purpose of the questionnaire reliability determination. Estimates of The reliability were determined through the use of Cronbach alpha correlation co-efficient. The result revealed that the reliability for the section of family expressed emotion scale was r = 0.74.

A semi-structured interview technique was used for data collection through the period from September 2nd 2011 to October 2nd 2011.

Data were collected through the use of the questionnaire; schizophrenic patient and their family hilled the questionnaire as semi- structured interview after receiving the information and instructions required from the investigator to filling the questionnaire and the investigator stay with the patient and their family in the room during process of data collection. The investigator gathered the patient responses through the employment of the application of the semi-structured as mean of data

collection. The items were rated according to 3 level of Likert rating scale, (never 1, some time 2, and always 3).

A non- probability (purposive) sample of 100 schizophrenic patients and their family members those who were coming with their patients to the hospitals from two Psychiatric hospital in Baghdad City (Baghdad Teaching Hospital and Ibn–Rushed Psychiatric Hospital).

The respondents were selected according to the following Criteria:
1. Both sex, male and female (for the patient and their family members).
2. Patients was diagnosed by psychiatrists as schizophrenic patients.
3. Respondent who have relapsed and admission to psychiatric hospital for treatment.
4. Family members who associated with patients.
5. Family members who provide care and attached to schizophrenic patients.

Exclusion Criteria:
1. Respondent who did not fill the questionnaire completely or refuse to answer.
2. Respondent who did not have relapse.

Data analysis

Data was analyzed through the application of the following statistical data analysis approaches:

1.Descriptive statistical data analysis approach was used for describing the sample (Frequencies (F), Percentages (%)Mean (M): A mean concerning section of family expressed emotion, greater than 2 was considered highly significant, from 1 -2 was considered significant, while it was non-significant when the scores was less than 1, And Standards deviations (SD).

2. Inferential statistical data analysis approach:

This approach was performed through the application of the following method**:**

a. Cronbach alpha correlation co-efficient

Alpha correlation co-efficient was employed for the determination of the questionnaire's internal consistency and reliability.

b. t- test:

Is used to compare between groups of men and women variable with regard expressed emotions (Polit and Hangler, 1995)

d. Logistic regression (LR) analysis.

LR is an analysis method for the analysis of the relationships between one or more independent variables and a categorical dependent variable. This statistic is used when the independent variables are categorical (or not normally distributed interval variables) LR allows can estimate a series of independent variables for the identification of indicators for the outcome. This provides an output of Odds Ratio's (OR) and 95% Confidence Interval (CI) for each analysis. Interpretation of the OR is as follows. An OR of 1, it the null hypothesis; an OR that does not contain 1, is a statistically significant predictor of the outcome. If the OR is less than 1, the independent variable is protective of the outcome; it the OR is greater than 1, suggests that the variable increases the risk of the outcome. (Polit and Beck, 2012).

RESULTS:
Table 1: Patient demographic data (N=100)

Patient Variable	No.	%
Age in years 20-29	41	41
30-39	**46**	**46**
40	13	13
Total	100	100
Gender male	**57**	**57**
Female	43	43
Total	100	100
Marital status: Married	**45**	**45**
Single	23	23
Divorced/Widowed/ Separated	32	32
Total	100	100
Education: Illiterate	10	10
Reads & Writes	10	10
Primary School	**45**	**45**
Secondary School	21	21
Institute	11	11
College	3	3
Total	100	100
Employment: Employed	**55**	**55**
Unemployed	20	20
Housewife	25	25
Total	100	100
Income: Adequate	21	21
Somewhat Adequate	33	33
Inadequate	**46**	**46**
Total	100	100
Caring responsibility Patient	22	22
Another Person	30	30
Both	**48**	**48**
Total	100	100

No. = number ; %= percentage;   Equal or more than

This table shows that most (46%) of the subjects are in the age group of 30-36; 58% are males, 45% are married,40% had completed primary school education; and 55% were employed. A total of 46% viewed their income as inadequate, and care responsibility was shared by patients and caregiver in 48% of the study sample.

Table 2: Demographic characteristics of the caregivers

Caregiver Variable	N.	%
Age in years: 20-29	31	31
30- 39	**42**	**42**
40	27	27
Total	**100**	**100**
Gender: male	32	32
female	68	68
Total	**100**	**100**
Marital status: Married	**37**	**37**
Single	36	36
Divorced/Widowed/ Separated	27	27
Total	**100**	**100**
Kinship: Wife	**42**	**42**
Mother	21	21
Father	6	6
Himself	25	25
Brother	6	6
Total	**100**	**100**
family Size 1-3	28	28
4-6	**48**	**48**
7-9	15	15
10	9	9
Total	**100**	**100**
Education: Illiterate	18	18
Reads & Writes	**36**	**36**
Primary School	20	20
Secondary School	10	10
Institute	10	10
College	6	6
Total	**100**	**100**
Employment: Employed	**65**	**65**
Unemployed	30	30
Housewife	5	5
Total	**100**	**100**
Residence: Urban	20	20
Rural Close	13	13
Rural Public	**67**	**67**
Total	**100**	**100**

This table revealed that 42% of the caregiver are in the age group of 30-39 years old; 68% are females, 37% are married, whereas wives was 42% of kinship, 48% have 4-6 family member, 36% were able to read and write, while 65% of caregiver employed, and 67% of them living in rural public.

Table 3: Clinical data for patients with relapse (N=100).

Clinical data	%
Number of Relapses(last year): 2	9
3	15
4	22
5	**30**
6	10
7	7
8	7
Total	**100**
Duration of Hospitalization: 2-4 (days)	25
5-7 (days)	**36**
8-10(days)	30
10 (days)	9
Total	**100**
Signs of Relapse: Delusions	20
Isolation	10
Illusions	**42**
Agitation	28
Total	**100**
Compliance: No Compliance	35
Irregular Compliance	**48**
Regular Compliance	17
Total	**100**
Type of Treatment: Medications	15
ECT*	22
Both	**48**
Psychotherapy	10
Occupational therapy	5
Total	**100**
Common Signs: Agitation	65
Nervousness	35
Total	**100**

*(ECT) = Electroconvulsive Therapy

This table describes between two to eight relapse episodes during the last year were reported by the patients, and 30% having 5 relapses. The duration of hospitalization ranged from 2 to more than 10 days, with 36% endorsing the five to 7 day category. Out of the four types of signs of relapse: Illusions ranked first (42%); 28% agitation; 20% delusions and isolation was the least frequent category as 10%. A total of 83% admitted to complying to medication taking only irregularly or not at all. The most common (48%) treatment that the schizophrenic patients received was a combination of medications and electroconvulsive therapy. Common clinical complaints included agitation in 65% and nervousness by 35%.

Table 4: Expressed emotions (EE) of family members toward the schizophrenic patient (N=100).

Expressed Emotion		males(N=32)		females(N=68)	
		No.	%	No.	%
Emotional support: Absent		**18**	**56.2**	**41**	**60.3**
Present		14	43.8	27	39.7
Total		32	100	68	100
Criticism: Absent		**17**	**53.1**	32	47.0
Present		15	46.9	**36**	**53.0**
Total		32	100	68	100
Irritability: Absent		13	40.6	19	27.9
Present		**19**	**59.4**	**49**	**72.1**
Total		32	100	68	100
Intrusiveness: Absent		**16**	**50**	26	38
Present		16	50	**42**	**62**
Total		32	100	68	100
Total EE: Absent		**24**	**75**	32	47
Present		8	25	**36**	**53**
Total		32	100	68	100

Expressed emotion variable: Emotional support: beneficial= 1, harmful=2; Criticism: absent= 1, present= 2; irritability: No=1, Yes= 2; intrusiveness: absent= 1, present= 2,.total expressed emotions: absent=1, present=2

Table 4 gives the expressed emotions in proportions for males and females. A crosstab comparison between males and females shows that there is a statistically significant difference between males and females in the total expressed emotions score; where the presence of expressed emotions was higher in females.

Table 5: Multivariate logistic regression analysis of patient demographic variables and expressed emotion (N=100).

Relapse rate Variables	OR	95.0% C.I. for OR		P.
		Lower	Upper	
Compliance with medication	0.31	0.090	1.07	0.06
Family size	5.02	1.74	14.81	**0.00**
Patient's income/ monthly	0.28	0.09	0.87	**0.03**
Expressed Emotion	1.21	0.43	3.39	0.72
Constant		0.78		0.87

*Patient variable: Age: 30-40+=2, 20-29=1; marital status: Single+ Divorced/Widowed/ Separated=2, married =1; education: No schooling=2, Primary School+ Secondary School+ Institute+ College=1; Employment: Unemployed=2, Employed+ Housewife=1; Patient's income/month: Inadequate=2, Adequate+ Somewhat Adequate=1.

The patient's demographics, the family demographics, the patient's clinical variables and the families expressed emotions sets were screened for statistically significant determinants. Then these variables that were statistically significant in each set were entered into a final parsimonious model that included the families expressed emotions total scores. In this model of variables two were important statistically significant independent determinants of relapse intensity. Namely, if the patient's income per month was inadequate the relapse intensity of patient was 72 times less likely to have higher relapse intensity (OR=0.28 95%CI: 0.09, 0, 87) . Furthermore, the family size was seven or greater the patient was 5 times more likely to have high relapse intensity OR=5.02 95%CI: 1.74, 14.81.

DISCUSSION:

The findings of the present study show that (46%) of the subjects are in the age group of 30-39, years old (table 1). This result comes along with Aisha etal. (2011) that the mean age of the patient was 33.84 age range (age range 20-53). The majority of the sample study 57% is males (table 1), the study of Isabel (1992) agrees with the present study finding, he find that the majority of the study sample was men. The study show that 45% of the sample was married, this result comes along with Aisha etal. (2011) that 48% of the subject was married. Result of the study shows that 40% had completed primary school education, the study of Vincent (2004) agrees with the present study finding that most subjects received some form of education. Only 11.7% did not have any formal education. The majority 55% of the study sample was employed, this result comes along with the study of Vincent (2004) that the majority of the sample was engaged in some form of employment (55%). The study finding show a total of (46%) viewed their income as inadequate. Also the study shows that care responsibility was shared by patients and caregivers in 48% of the study sample. This is from the researcher's point of view, may be due to family member spending apart of their day work outside.

The finding of the present study (Table 2) indicated that (42%) of the caregiver were in the age group of 30-39 years old (table 2) this result agrees with the study of Aisha etal. (2011) that the mean age of the caregiver was 33.84 age range (age range 20-53). The majority of the sample study (68%) is females (table 2) this result agrees with the study of Vincent (2004) that the majority caregiver distributed across the genders females 55%. (37%) of caregiver was married (table 2), this finding comes along with the study finding of Vincent (2004) that the minority of caregivers were married

(38.3%). Result of the study shows that (42%) of caregiver was wife (table2), this study agrees with the study finding of Brown, et al.(2005) that about 50% of patient's caregiver was found spouses. Nearly half of the sample (48%) has 4-6 family members (table 2), this result comes along with the study finding of Aisha et al. (2011) that 42% were family less than 6 members. Result of the study shows that (36%) of caregivers was only read and write (table 2), this finding agrees with the study of Vincent (2004) he find that many of the caregivers received primary education (41.7%).The study result also show that (65%) of caregiver were employed, this result comes along with study finding of Vincent (2004) that the majority of the sample were engaged in some form of employment (55%).And also the study result show that (67%) of caregiver living in rural public, as the investigator's point of view this is because the people in rural public more contact with each other than in other area, and also we said schizophrenia spread in the poor families, those who can't take rest or pay for the expensive medication.

The patient reported (30%) having 5 relapses, this result finding agree with the study of Fenton et al. (1997) they reported that most of the study population were patients who relapsed 41.8% (i.e. had a history of at least 3 relapse). Result of the study shows that the duration of hospitalization enduring the 5 to 7 day category with (36%) (table 3) this finding comes along with the study finding of Vincent (2004), he find that the number of admissions to hospital in the during 12 months for the sample ranged from 0 to 4 times for 3 to 7 days with an average of 1.40. The study finding indicated that out of the four types of signs of relapse Illusions ranked first (42%),this finding comes along with study finding of Almond, etal. (2004) they find that approximately 46% of those who relapsed had comorbid psychiatric disorders. The study result revealed that (48%) admitted to complying with medication taking only irregularly. This result comes along with the study finding of Almond, etal. (2004) they find that two thirds of the study population did not adhere to their treatment. Result of the study show that the most common (48%) treatment that the schizophrenic patients received was a combination of medications and electroconvulsive therapy, and of the common clinical complaints included agitation in (65%) and nervousness by (35%). The study of Isabel (1992) reported that critical comments were recorded during the interview was slightly higher (30%). On the other hand, the frequency of hostility (25%)

The expressed emotions in proportions for males and females (table 4). A comparison between males and females shows that there is a statistically significant difference between males and females in the total expressed emotions score; where the presence of expressed emotions was higher in females. The study of Mottaghipour et al.,(2001) agrees with the present study finding that female patients were significantly more likely to presence in the expressed emotion group (P = 0.05). And as the investigator point of view families were equivocal in this respect clearly illustrates that it is entirely possible for expressed emotion to have entirely different effects depending on the culture in which it takes place.

The patient's income per month was inadequate the relapse intensity in patient was 72 times less likely to have a high relapse intensity {OR=0.28 95%CI: 0.09, 0, 87)]. Furthermore, the family size was seven or greater, the patient was 5 times more likely to have high relapse intensity (OR=5.02 95%CI: 1.74, 14.81) (table 5).

CONCLUSIONS:

1. Caregiver's expressed emotions appear to have a strong effect on schizophrenic patient relapse intensity.
2. Findings from this study suggest that expressed emotion may influence how criticism from relatives is perceived and experienced by patients.
3. Household size is associated with schizophrenic patient's relapse
4. Larger household size may lead to low socioeconomic status, and insufficient financial means may lead to relapse in schizophrenic patient.
5. Conceivably poverty may play a role in families those who cannot pay for the expensive medication needed to control the schizophrenic patients clinical status.
6. Males more frequently reported that their income was inadequate compared to females.
7. A statistically significant difference between males and females was found in the total expressed emotions score; where the presence of expressed emotions was higher in females.

RECOMMENDATIONS:

1. Collaboration between family members and mental health professional in the treatment of schizophrenic patient.
2. Family Education Program about how to deal with schizophrenic patient's behavior should be implemented to increase their knowledge about schizophrenia and accepting to schizophrenic patients.
3. Listening to family caregivers, acknowledging, and respecting the important role that they play in the life of the patients' illness.
4. Clinicians should look to the emotional atmosphere in the home to find reasons for medication failures.
5. Family Education Programs that focus on how to deal with schizophrenic patients behavior should be implemented to increase the family members of schizophrenic patients' awareness about schizophrenia and acceptance of the schizophrenic patients.

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