Assessment of Social Support, Expressed Emotion and Compliance to Treatment among Hospital Admitted Schizophrenic Patients in Malaysia

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Abstract

One of the important factors that may predict the relapse in schizophrenia is having poor social support, high Expressed Emotion (EE) and poor compliance. The family is an important factor that affects the patient’s mental well-being and outcome, this study aimed to assess the social support, expressed emotion and treatment compliance among hospital admitted schizophrenic patients. A cross sectional study conducted among a sample of 162 patients diagnosed with schizophrenia admitted in psychiatric ward.

Various factors were being assessed including age, gender, ethnicity monthly income, duration of the illness, number of admissions to the psychiatric ward, assessment of expressed emotion and compliance with treatment. The multidimensional scale of perceived social support (MSPSS) was used to measures perceived social support.

Although there was no significant association between males and female in total scale social support, only the friend subscale social support was found significantly higher in males (p=0.038). Males have significant better compliance to medication than females (p=0.000). The prevalence of concurrent substance abuse was 14.8 % and it is significantly higher among male schizophrenic patients than female patients (p=0.000). There was no significant association between gender and high EE level. Having no history of co-morbid drug misuse (mean=4.39; p=0.039), and having high level of psychoeducation within the family (mean=4.48; p=0.004) were significantly associated with higher mean scores in total scale social support.

Efforts to improve social support are essential in managing patients with schizophrenia competently. The level of psychoeducation within the family is a very important factor in relation to patients’ social support. Early detection and intervention toward co-morbid substance use disorder among schizophrenic patients is vital as it has been associated with poor social support. There is no difference between male or female patients in relation to high EE and family intervention should include steps to reduce it in both genders.


Keywords: Social support, schizophrenia, expressed emotion, compliance, Malaysia.

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Introduction

Schizophrenia is a term used to describe a major and serious psychiatric disorder that is characterized by impaired reality testing and alteration in individual’s perception, thought, affect and behavior. The expression of these manifestations varies across patients and over time but the effect of the illness is always severe and is usually long lasting. There is variation in the distribution of schizophrenia around the world leading to heterogeneity in schizophrenia prevalence and incidence rates. The lifetime prevalence of schizophrenia in the United States is about 1 percent and about 0.05 percent of the total population is treated for schizophrenia in any single year, and only about half of all patients with schizophrenia obtain treatment, despite the severity of the disorder. In Malaysia, a systematic review of the incidence of schizophrenia done by the National Mental Health Unit (2012) revealed that the incidence rate is about 1.2 per 1000 people per year, with a range of 0.6 to 1.8 per 1000 people per year. This variation may be due to differences in the population characteristics, methods of diagnosis, and the availability of treatment services.
Health Registry (NMHR) found that the median incidence rate was 15.2 per 100,000 (range of 7.7 to 43.0 per 100,000).\textsuperscript{3}

In schizophrenia, there is a progressive impairment of previous functions in relation to employment, social relationships, and inability to care for others and themselves. Although about one-third of all schizophrenia patients have some marginal or integrated social existence, most have lives characterized by aimlessness; inactivity; frequent hospitalizations; and, in urban settings, homelessness and poverty.\textsuperscript{1,4}

Pre-existing studies reported extensive social dysfunction in people with severe mental illness including schizophrenia\textsuperscript{5,6} as patients with schizophrenia have impairment in areas of intimate relationships, occupational activity, living situation, qualifications and specialist mental health service use despite evidence-based pharmacological treatment.\textsuperscript{7} Their interactions with others and social networks can be quite limited and they spent most of their time alone that is provoked by the feelings of loneliness and being socially isolated which as a result make them dissatisfied with social support they received.\textsuperscript{8,9}

Schizophrenic patients have numerous needs concerning social support, welfare benefits, education about the illness, and psychiatric distress. Also, they have deteriorating relations and careers resulting in increased isolation and loss of social support and high pressure such as changing of jobs, and interpersonal conflicts were found to be associated with lower quality of life.\textsuperscript{10,11}

Family is the essential element in maintaining the integrity for its members by providing emotional, financial and social support to them. A high functioning family helps in maintaining the dimensions of communication, emotional and behavior control, and also helps in problem solving and coping behaviors of its members. Research has shown that a family with a schizophrenic patient does suffer from network contraction and condensation, which in turn, increases the vulnerability of the family to stressors due to lack of social support.\textsuperscript{11,12}

In addition to family support, the patient’s social support may be provided by several other sources for example friends, residential or daycare providers, shelter operators, roommates, and others.\textsuperscript{9,13} One of the important factors that may predict the relapse in schizophrenia is having high Expressed Emotion (EE), which is defined as the critical, hostile, and emotionally over-involved attitude that relatives have toward a family member with a disorder.\textsuperscript{1,14}

Based on that, the family is an important factor that affects the patient’s mental well-being and outcome, so this study aimed to assess the social support, expressed emotion and treatment compliance among hospital admitted schizophrenic patients.

**Materials and methods**

This is a cross sectional study that was conducted among a sample of patients diagnosed with schizophrenia and were admitted by a specialist psychiatrist to the psychiatric ward at the Hospital Tengku Ampuan Afzan, Pahang state, Malaysia over a period of 6 months. The selection of the subjects was based on stratified quota sampling. Raosoft sample size calculator was used to get expected sample size. Margin of error was expected 5%, whereas confidence level was 95%. Estimated number of admission was about 40 patients per month.

The inclusion criteria for the participants were patients who fulfilled the DSM-IV-TR criteria for schizophrenia admitted to psychiatric ward by specialist psychiatrist, aged between 18-65 years, and who were able to give valid written consent. Those who were not conversant either in Malay or English language were excluded from this study.

An ethical approval from relevant authorities was obtained before the study started. The researchers introduced themselves to the patients/care givers and informed them about the aim and the methodology. Informed consent was obtained from the participants after the nature of the procedure was fully explained to the patients/care givers. All participants were ensured of the confidentiality and they were able to understand that the information gathered will only be used for research purposes. The patients were informed that the data will be collected for one time only. Various factors were being assessed including age, gender, ethnicity monthly income, duration of the illness, number of admissions to the psychiatric ward, assessment of expressed emotion and compliance with treatment.

The multidimensional scale of perceived social support (MSPSS) was developed by Zimet et al\textsuperscript{15} as a self-administered tool that measures...
perceived social support. It addresses the subjective assessment of social support adequacy. It was designed to assess the perception of social support adequacy from three different sources: Family, Friends and Significant Others. The MSPSS contains 12 items, therefore it is simple to use and can be quickly administered and scored. Items are scored on a 7-point rating scale ranging from 1 (very strongly disagree) to 7 (very strongly agree) with possible scores ranging from 12 to 84. The reliability, validity and factor structure of the MSPSS have been demonstrated across a number of different samples.\(^{16,17}\)

**Statistical Analysis:** We used the statistical package for social science program, version 22.0 (SPSS 22.0) for analyzing the data. The analysis of the variables such as age group, gender, race, monthly household income, marital status, level of education, duration of illness, frequency of admissions to psychiatric ward were presented in numbers and percentages. The association between gender and perceived social support, expressed emotion, compliance with treatment, comorbid substance use, and level of psychoeducation within the family were assessed using Pearson Chi-squared test followed by Fisher's exact test. Mann-Whitney U test and Kruskal-Wallis test were used to determine the association of the important socio-demographic characteristics with the perceived social support. A P-value of less than 0.05 was considered statistically significant.

**Results**

A total number of 162 participants who fulfilled the inclusion criteria were recruited in the study. About 62.3% of the patients aged 30-50 years and the mean age of total patients was 38.46 and male patients had significant lower mean of age than females (p = 0.010). The majority of the patients were males (55.6%), Malay (76.5%), unmarried (66.7%), unemployed (79%), about 58.3% were with educational level up to secondary school, low monthly income (95.3%), and about 95.3% were having the illness more than 5 years (mean was 9.58). (Table 1)

Regarding the assessment of total scale social support, about 29.6% (N=48) were found to have good support. In further assessment of each subscale, this study revealed that good support in family, friends, and other subscales were 42.6% (N=69), 32.1% (N=52) and 38.9% (N=63) respectively. (Table 2)
compliance to medication than females (p=0.000). The prevalence of concurrent substance abuse was 14.8 % and it is significantly higher among male schizophrenic patients than female patients (p=0.000).

In the assessment of EE, although the rates of patients who responded positively to domains including hostility, overt criticism (critical comments) and emotional over involvement toward a person with schizophrenia were 7.4%, 6.2%, and 73.5% respectively, about 39.5% of the patients were exposed to high EE level and further assessment revealed that there was no significant association between gender and high EE level.

There was no significant difference in gender with both frequency of hospital admissions and level of psychoeducation within the family. (Table 3, 4)

<table>
<thead>
<tr>
<th>Table 3. Assessment of different factors such social support, expressed emotion, compliance with treatment and other important socio-demographic factors based on gender.</th>
<th>Total Scale Social Support</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males N (%)</td>
<td>Females N (%)</td>
</tr>
<tr>
<td>Total scale social support</td>
<td>Good</td>
<td>31 (34.4)</td>
</tr>
<tr>
<td>Poor</td>
<td>56 (60.6)</td>
<td>55 (76.4)</td>
</tr>
<tr>
<td>Family subscale</td>
<td>Good</td>
<td>36 (43.3)</td>
</tr>
<tr>
<td>Poor</td>
<td>51 (56.7)</td>
<td>42 (58.3)</td>
</tr>
<tr>
<td>Friends subscale</td>
<td>Good</td>
<td>35 (38.9)</td>
</tr>
<tr>
<td>Poor</td>
<td>55 (61.1)</td>
<td>55 (76.4)</td>
</tr>
<tr>
<td>Others subscale</td>
<td>Good</td>
<td>34 (37.8)</td>
</tr>
<tr>
<td>Poor</td>
<td>56 (62.2)</td>
<td>43 (59.7)</td>
</tr>
<tr>
<td>Expressed emotion</td>
<td>High</td>
<td>37 (41.1)</td>
</tr>
<tr>
<td>Low</td>
<td>53 (58.9)</td>
<td>45 (62.5)</td>
</tr>
<tr>
<td>Compliance to medication</td>
<td>Good</td>
<td>69 (76.7)</td>
</tr>
<tr>
<td>Poor</td>
<td>21 (23.3)</td>
<td>30 (40.0)</td>
</tr>
<tr>
<td>Co-morbid substance abuse (other than tobacco)</td>
<td>Abusers</td>
<td>22 (24.4)</td>
</tr>
<tr>
<td>Non-abusers</td>
<td>68 (75.6)</td>
<td>70 (97.2)</td>
</tr>
<tr>
<td>No. of admissions</td>
<td>Less than 3 times</td>
<td>26 (21.1)</td>
</tr>
<tr>
<td>3 and more admissions</td>
<td>62 (68.9)</td>
<td>44 (61.1)</td>
</tr>
<tr>
<td>Level of psychoeducation within the family</td>
<td>Good</td>
<td>62 (68.9)</td>
</tr>
<tr>
<td>Poor</td>
<td>35 (31.1)</td>
<td>27 (37.5)</td>
</tr>
</tbody>
</table>

**Table 4. Factors determining significant social support among schizophrenic patients.**

Data was analyzed using Mann–Whitney U test for two independent variables and Kruskal–Wallis one-way analysis of variance for more than two independent variables. P values less than 0.05 was considered statistically significant.

**Discussion**

In this study, more male schizophrenic patients were admitted than females, this was consistent with the finding of the NMHR in which more than 60% schizophrenia cases in Malaysia were males also it may be contributed to previous findings that females have milder course with fewer number of rehospitalizations. In addition to that, it may be related to cultural factors as one probable reason for the discrepancy in gender ratio is that culture wise, males are more aggressive and unmanageable in their home environment or community they tend to present more to mental health facilities compared to females which warranted them to be admitted while families tend to be more tolerant to females who are less aggressive also male patients had significantly lower mean age than females which was consistent with previous study done in Malaysia. However the mean of age of total patients is slightly higher in our
Although in our study there was no significant difference in the total social support scale which was consistent with previous study, only friends subscale was significantly higher in male schizophrenic patients while other study concluded that females reported higher levels of social support. This discrepancy in gender maybe attributed to the sample size, method of assessment of social support and cultural differences.

In our study, male patients were significantly having better compliance with medication compared to women while other previous studies revealed the reverse as males were significantly more likely to be non-compliant.

The better male adherence to treatment was in line with results of previous studies of the first episode of psychosis in both adults and adolescence showing that males received more help from their families, in particular in terms of health, psychotic symptoms, and psychological distress.

About 14.8% of the patients in our study had comorbid substance abuse (other than tobacco) which was lower than that of previous studies in which the lifetime prevalence of drug abuse (other than tobacco) was greater than 50%, and the prevalence of substances misuse in a study in Malaysia among patients with schizophrenia in general (including alcohol) was 24.7%. However, our rate was consistent with other study done in Malaysia in which the co-morbid use of substance was found to be 13.4%. The rate was significantly higher in male than female patients which was consistent with the findings in previous studies.

In our study, the gender of the patients was not significantly associated with high EE level in relatives towards the schizophrenic patients which was consistent with previous study done in United States of America and another study in Italy.

There was no difference in gender in relation to number of rehospitalization in our study. This was not consistent with previous studies in which male patients were found to have more frequent rehospitalization while a study in Malaysia revealed that there was no significant association between gender and early readmission.
Conclusions

Efforts to improve social support are essential in managing patients with schizophrenia competently. Level of psychoeducation within the family is very important factor in relation to patients’ social support. Early detection and interventions toward co-morbid substance use disorder among schizophrenic patients is vital as it has been associated with poor social support.

There is no difference between male or female patients in relation to high EE and family intervention should include steps to reduce it in both genders.

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Declaration of Interest

The authors report no conflict of interest.

References


