Mental Health Practitioners Collaboration with the Families of Individuals with Schizophrenia: A Mixed Method Study

Blake Beecher, PhD, LCSW

The purpose of this mixed methods study was to further the understanding of mental health practitioners level of collaboration with the families of individuals with schizophrenia in association with the rates of psychiatric hospitalizations and residential crisis. Findings indicate that practitioners of all disciplines ($N = 120$) rarely collaborate with families of individuals with schizophrenia, and when they do, it frequently is in a time of crisis/hospitalization. The hospitalization rates of individuals with schizophrenia on the practitioners’ caseloads ($N = 1,183$) had significantly higher hospitalization and residential crisis usage rates and more mean hospitalization and residential crisis days than clients with all other diagnoses ($N = 4,715$), indicating a need for interventions that reduce hospitalization rates and shift from a reactive paradigm of treatment to a more proactive and preventative paradigm of treatment. [Brief Treatment and Crisis Intervention 8:342–351 (2009)]

KEY WORDS: families, collaboration, mental health practitioners, hospitalization.

Prior to the deinstitutionalization movement in the 1950s and 1960s, people with schizophrenia frequently spent most of their lives in institutions and were often separated from their families as part of treatment (Krieg, 2001; Mechanic & Rochefort, 1990). During and post-deinstitutionalization, mental health systems perpetrated therapeutic models primarily focused on the negative influence of the family system. Over these decades, the concept of the mental health therapist being their client’s advocate from the destructive influences of their family became entrenched in mental health practice (Goldstein, 1987).

Deinstitutionalization enacted a shift in the care of persons with mental illness from long-term care psychiatric institutions to more independent living situations, frequently with family members. Family involvement with individuals with schizophrenia, the family advocacy movement, and the current etiological research, indicating a strong genetic basis for schizophrenia, have allowed the family to become a partner in treatment (Axelrod, Geismar, & Ross, 1994; Perreault, Tardif, & Provencher, 2005; Rhoades, 2000).

Despite extensive research supporting collaboration between practitioners and families of individuals with schizophrenia, families are usually not involved as a positive contributor to the treatment process. In a 15-year outcome
study, it was found that family caregivers rarely reported that they received effective support from mental health providers (Rhoades, 2000). A representative national Medicare sample of 15,425 persons with schizophrenia, found that less than 1% had an outpatient claim for family therapy. In the same study, a field sample of 530 clients, who had family contact, found that only 30% of these families had received facts about the family member’s mental illness or received practitioner support in a family session about their family member’s illness, and only 8% of the families had attended an educational or support program (Dixon et al., 1999).

The involvement of the families of individuals with schizophrenia as a partner in treatment has shown improved outcomes for both the family and the ill member including reduced hospitalization rates and decreased cost of client care (Chien & Wong, 2007; McFarlane, Dixon, Lukens, & Lucksted, 2003; Mino, Shimodera, & Inoue, 2007) and has been identified as an evidence-based practice (Lehman & Steinwachs, 2003; Murray-Swank & Dixon, 2004). Because reduced hospitalization rates are frequently a researched outcome for family/practitioner collaboration, client hospitalization/crisis rates will also be addressed in this study.

A meta-analysis of intervention programs for families of individuals with schizophrenia found that client relapse (rehospitalization) rates could be reduced by 20% if families of persons with schizophrenia are included in treatment. If the family interventions continued for more than 3 months, there was a 30% reduction in relapse rates (Pitschel-Walz, Leucht, Bauml, Kissling, & Engel, 2001). The authors also found that an approach offering psychosocial support to families and clients in addition to medication treatment “was clearly superior to medication treatment alone” (p. 73). Dixon et al. (2001) report that family psychoeducation reduces the relapse rate of family members with schizophrenia from 20% to 50% over 2 years, with the longer lasting interventions having the most successful outcomes. Along with the decrease in relapse rates, there are other improvements in employment, cost of care, and family well-being.

The Agency for Healthcare Research and Quality, reporting on hospitalization in the United States for the year 2002 (Merrill & Elixhauser, 2005), reported that affective disorders have the most admissions/discharges (2.3 times greater than admissions for schizophrenia), but individuals with schizophrenia have a longer mean length of stay (13.0 days compared to 7.9 days). A study in England showed similar results for a 1-year period from 1999 to 2000 (Thompson et al., 2004). Depression and anxiety together were the most frequent diagnosis leading to hospitalization; however, the mean length of stay for individuals with schizophrenia was twice as long as those with depression and/or anxiety (28 days compared to 14 days). These rates are reported in order to provide a basis for comparison in the present study.

The lack of collaboration between practitioners and families, despite its effectiveness, seems to indicate a disconnect in what has been shown effective in the research and what is actually done in clinical practice. The purpose of this mixed-methods exploratory study was to examine the level of collaboration between mental health practitioners and the families of individuals with schizophrenia and the relationship of crisis involvement.

**Methods**

A mixed-methods approach using both quantitative and qualitative methodology was used in order to more fully answer the research questions. A concurrent triangulation mixed-method research design was chosen, a type of
design in which qualitative and quantitative data were collected and analyzed at the same time with equal priority, no advocacy lens was used, and analysis was separate but converged in the data interpretation stage (Creswell & Plano Clark, 2007). The components of this exploratory study were (a) quantitative data analysis on mental health center database information and (b) qualitative responses from mental health practitioners. Mixed-method research was used to increase the validity of the study as it enriches the results in ways that one form of data does not allow and it helps gain a deeper understanding of the phenomenon of interest (Hanson, Creswell, Plano Clark, Petska, & Cresswell 2005).

The quantitative research questions addressed in this study are (a) what are the relationships among the number of clients on caseload with schizophrenia, caseload size, and number of crisis contacts with the amount of billed family codes? and (b) what are the relationships among number of clients with schizophrenia on caseload, amount of family contacts, and the amount of client crisis contacts? The qualitative methods were used to explore practitioners’ experiences and views about collaboration with families of individuals with schizophrenia.

Quantitative database information about the research participants was obtained from the mental health center research department. This secondary data included information listed by practitioner ($N = 120$) and by client ($N = 5,898$) for the 2004 calendar year. Variables included: the number of billed family codes, the types of codes billed (including client crisis contacts and hospitalizations), number and type of billed codes by discipline, and caseload size per practitioner. Clients with schizophrenia and clients with other diagnoses were both included in the study for contextual and comparison purposes.

The qualitative portion of the study includes two main components: (a) qualitative responses by 43 practitioners who completed a quantitative survey on family views and schizophrenia (not discussed in this article) and (b) qualitative responses from eight purposefully selected mental health practitioners who completed a structured qualitative question guide. These practitioners were purposefully selected in order to gather views of practitioners from different disciplines. The guide was formulated by the researcher to address the gaps in knowledge in the database information and was administered electronically and was from a mix of practitioners from a variety of disciplines (see Appendix).

The qualitative data were analyzed using thematic analysis incorporating guidelines for thematic analysis as described by Braun and Clarke (2006). Initially, a detailed reading of the transcripts/notes was performed and broad themes noted. The data were then divided into smaller sections allowing more in-depth analysis and review using an inductive and deductive process of constant comparisons, especially focusing on patterns, differences, and similarities. The strategy of analysis adhered to the idea of maintaining a dialogue between theories/ideas and evidence. Common themes and links between emerging concepts were noted, and similarities and differences were analyzed leading up to main themes and subthemes with clear names and definitions (Braun & Clarke).

**Setting and Participant Characteristics**

The study participants included primary service coordinators and prescribers who work with adults with severe mental illness in a large Western U.S. mental health center. The mental health center is typical of public mental health agencies that deliver services and treatments to a diversity of low-income client populations. The agency offers a full range of outpatient services (case management, therapy, and medication management) and partial hospitalization.
programs. These data were obtained for 120 of the 150 possible participants. Most of the data that were not available for 30 of the invited participants was because they were prescribers and did not carry a caseload. Primary coordinators consist of professionals from a variety of disciplines such as licensed clinical social workers, licensed marriage and family therapists, licensed professional counselors, psychologists, and intern practitioners for these licenses. Primary coordinators also consist of social service and registered nurses. Prescribers include advance practice registered nurses, psychiatrists, and doctors of osteopathy. These practitioners worked in a variety of different units of the larger mental health center including: an alcohol and drug unit, four different outpatient units (two large intercity and two smaller suburban), a homeless outreach unit, and two supported living/treatment housing units.

Quantitative Findings

Billed Family Contacts. The data indicate that very few practitioners billed for family contacts during the 2004 calendar year. The amount of billed family contacts for all clients and clients with schizophrenia are reported in Table 1. The mental health center billing data indicate that of the 5,898 clients on the practitioner’s caseloads, only 2.4% (144) of all clients had more than 1 hr of any type of billed family code for the 2004 calendar year. Only 7 clients of the 5,898 (.12%) had more than 10 billed family hours for the year. Of the practitioners in the study, 20.1% of their caseloads (N = 1183) were clients diagnosed with schizophrenia or schizoaffective disorder. The family billed codes for clients with schizophrenia indicate that 22 of the 1,183 (1.86%) clients had more than 1 hr of billed family codes for the 2004 calendar year. Only one client with schizophrenia had more than 10 hr of billed family codes during 2004. Clients with schizophrenia had significantly fewer (F(1, 367) = 4.361, p = .037) mean hours of billed codes per client .096 hr (5.76 min) compared to .124 hr (7.44 min) for clients with other diagnoses. Mann–Whitney nonparametric tests also showed significant results (p < .001). Practitioners from all disciplines had few billed family contacts.

Caseload, Hospitalizations, and Crisis Stays. Correlation coefficients were computed in order to assess the associations between total caseload size, number of clients with schizophrenia on the caseload, the mean number of total inpatient days, the mean number of total crisis days with the amount of billed family codes of clients with schizophrenia. Using the Bonferroni approach to control for Type I error across the five correlations, a p value of less than .01 (.05/5) was required for significance. Pearson r and Spearman’s rho correlational tests were run, indicating significant but slightly different results. Because of violations to parametric assumptions, the results of the Spearman’s rho test will be discussed. The amount of billed family codes variable was

<table>
<thead>
<tr>
<th>Client diagnosis</th>
<th>Number of clients on participants’ caseloads</th>
<th>Amount of clients with billed family codesa</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schizophrenia/schizoaffective</td>
<td>1,183</td>
<td>22</td>
<td>1.86</td>
</tr>
<tr>
<td>Other diagnoses</td>
<td>4,715</td>
<td>122</td>
<td>2.59</td>
</tr>
<tr>
<td>Total</td>
<td>5,898</td>
<td>144</td>
<td>2.44</td>
</tr>
</tbody>
</table>

aWith more than 1 hr billed for the 2004 calendar year.
included in the analysis even though it was very low because it is the primary outcome variable. All variables were significant at the .01 level (see Table 2), indicating that individuals with schizophrenia were frequently working with practitioners with the largest caseloads \((r = .683, p < .001)\), inpatient \((r = .271, p = .003)\), and crisis residential days \((r = .348, p < .001)\) increased as caseloads increased, and a larger number of clients with schizophrenia on a practitioner’s caseload was also significantly correlated with an increase in the number of residential crisis days \((r = .543, p < .001)\) and inpatient hospitalization days \((r = .562, p < .001)\).

The amount of mean residential crisis days and mean inpatient days were positively correlated with each other \((r = .662, p < .001)\), indicating that as practitioners mean residential days per client increased, the mean inpatient days per client also increased. Mean residential crisis days \((r = .405, p < .001)\) and mean inpatient hospitalization days \((r = .449, p < .001)\) were positively correlated with the number of billed family codes, indicating that an increase in the number of billed family codes correlated with an increase in client residential crisis stays and hospitalizations. Thus, as hospitalization/residential days increased, family/practitioner contact also increased.

An increase in the amount of total client residential crisis days was predictive of having one or more hospitalization days using stepwise logistic regression. Regression results indicate that the overall model of two predictors (mean residential days and number of clients with schizophrenia) was statistically reliable in distinguishing between 0 and 1 or more mean inpatient days \((-2 \text{ log likelihood} = 97.57; \chi^2 (2) = 67.58, p < .001)\). The model correctly classified 83.3% of the cases (see Table 3).

Considering only clients of the practitioners who had one or more utilization day, clients with schizophrenia had significantly higher mean inpatient hospitalization days compared to clients of other diagnoses \(F(1, 404) = 29.75, p < .001\) and also had significantly more residential crisis days, \(F(1, 540) = 10.454, p = .001\) than clients with other diagnoses. Mann-Whitney nonparametric tests also showed significant results for both treatment settings \((p < .001)\). The clients with schizophrenia had a mean of 17.00 residential crisis days and a mean of 58.36 inpatient hospitalization days for 2004. Clients with other diagnoses had a mean of 13.14 residential crisis days and a mean of 32.38 inpatient hospitalization days for 2004. The mean hospitalization rate for 2004 was 10.84 and 1.40 days for clients with

| TABLE 2. Spearman’s rho Correlations between Caseload Size and Composition, Mean Inpatient Days, Mean Crisis Days, and Amount of Billed Family Codes |
|-----------------|-----------------|-----------------|-----------------|-----------------|
| Caseload size   | Number of clients with schizophrenia on caseload | Mean inpatient days | Mean crisis days | Billed family codes |
| Caseload size   | —               | .683**          | .271**          | .348**          | .444**          |
| Number of clients with schizophrenia on caseload | —               | —               | .543**          | .543**          | .608**          |
| Mean inpatient days | —               | —               | —               | .662**          | .449**          |
| Mean crisis days | —               | —               | —               | —               | .405**          |
| Billed family codes | —               | —               | —               | —               | —               |

\(^{**}p < .01\) (two-tailed tests).
schizophrenia and clients with other diagnoses, respectively, for all clients. Of all, 1,183 clients with schizophrenia on practitioner’s caseloads, 15.05%, had one or more hospitalization day in 2004 and 4.84% of all 4,715 clients with other diagnoses had one or more hospitalization day. The rate for clients with 10 or more hospitalization days in 2004 was 12.26% for clients with schizophrenia and 2.69% for clients with other diagnoses.

### Qualitative Findings

The qualitative component of the study further clarified the role of hospitalizations and residential crisis stays and family involvement. Utilizing practitioner responses, crisis involvement was a main qualitative theme and consisted of two main subthemes: (a) increased family contact during times of crisis and (b) practitioners feeling blamed by families when their ill family member decompensates. Many practitioners reported that a main factor that increased their interactions with the families of individuals with schizophrenia is “crisis intervention and hospitalization.” Practitioners frequently reported that, “many families will not be involved unless there is a major crisis.” Another stated, “most families get involved when the client is doing poorly and then drop out until the client starts doing poorly again. They do not seem to understand that if they stayed involved that the client would have fewer breaks.”

A few practitioners stated the effect that contact with families only at a time of crisis had on the quality of their relationship, “when the family has a history of ongoing support and involvement, the experience is usually positive … other times when the family is involved only at times of crisis, the experience can be less positive and strained.”

They [families] most often contact us when in crisis, or when they are so depleted [sic], they cannot continue. More work and education re: [regarding] partnership is needed. Often unrealistic expectations of what the “system” can/should do for their loved one can set up an initial discouragement that pervades future tx [treatment] encounters.

Practitioners also reported feeling sometimes blamed in interactions with family members at a time of crisis. A practitioner discussing increased family contact during times of crisis stated, “a number of families who have not responded to multiple attempts to engage in the ct’s [client’s] therapy, are quick to call, and often blame, when the ct decompensates.”

When cts [clients] are stable and doing well, often families have less contact. … As is true of life in general, I find many (but not all by any means) families are quick to blame or ask for help during a crisis, but are absent without comment when the ct is stable.

Another practitioner reported not feeling blamed, but being asked to take action for the family, “crisis is typically related to needing help getting services for client or them [the family] requesting an intervention because they do not want to be seen as the ‘bad guy.’”

### Discussion

Practitioners had infrequent contact with families as shown by the mean hours of billed family codes per client for 2004 of .096 hr (5.76 min)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Odds ratio</th>
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<tbody>
<tr>
<td>Mean residential days</td>
<td>5.51</td>
</tr>
<tr>
<td>Number of clients with schizophrenia on caseload</td>
<td>1.07</td>
</tr>
</tbody>
</table>

**TABLE 3. Logistic Regression Coefficients for Variables Predicting Inpatient Days**
for clients with schizophrenia and .124 hr (7.44 min) for clients with other diagnoses. Only 22 of the 1,183 (1.85%) clients with schizophrenia on the practitioners’ caseloads had more than 1 hr of billed family contact for 2004. As the literature review emphasized, this is hardly an anomaly as many mental health centers in the United States have extremely limited family collaboration. However, considering the amount of research and clinical practices that support the efficacy of family collaboration, the lack of family collaboration demonstrates the gravity of the disconnect between evidence-based practices and actual community mental health practices.

**Family Involvement at Times of Crisis**

The mean amount of residential crisis and inpatient days were positively correlated with the amount of billed family codes for clients with schizophrenia, indicating that clients with more inpatient and residential crisis days had more billed family contacts. It is likely that practitioner and family collaboration occurred when the ill family member was admitted to or discharged from a residential or hospitalization setting or contact was made to inform about or to discuss treatment/housing options for which practitioners may need the family’s help. Another factor supported by the data is that practitioners tend to collaborate with family members when the client is already in crisis, at a residential crisis unit, or hospitalized. The qualitative data found that practitioners reported that they involve family members in a time of crisis and are more reactive in their involvement with families rather than proactive or preventative—in other words, the family/practitioner contact occurred in the process of or after a crisis incident had already happened. Practitioners also reported families as the ones initiating contact rather than practitioners contacting the family. Many families may hesitate to contact practitioners due to past negative experiences with practitioners and/or the mental health system and may have also encountered difficulty collaborating with practitioners because of confidentiality issues.

**Client Residential Crisis and Inpatient Stays**

The significant logistic regression finding that an increase in the amount of client residential crisis days was predictive of an increase in hospital days may indicate that residential crisis stays are related to a need for increased supervision and structure that is provided in an inpatient setting. This finding may also indicate the ineffectiveness of the residential crisis program in preventing inpatient hospitalizations or may indicate that the residential crisis program is systematically taking clients who are discharging from an inpatient setting.

The clients with schizophrenia in this study had significantly higher hospitalization rates and higher mean hospitalization days than clients with other diagnoses. The increased hospitalization rate for clients with schizophrenia compared with clients of all other diagnoses (e.g., mood, anxiety, personality, substance abuse) is an interesting finding as it is not in agreement with the national rates of inpatient hospitalizations discussed previously. Clients with schizophrenia in this sample were three times (15.05% compared to 4.84%) more likely to be hospitalized than clients with other diagnoses. The mean amount of hospitalization days for 2004 was not specified by episode and may contain multiple hospitalization episodes throughout the year and, thus, may not be readily comparable to the mean lengths of stay in the studies discussed. With that in consideration, clients with schizophrenia had about two times (58.36 compared to 32.38) more hospitalization days than clients with other diagnoses. This is about the same length of stay as the National and English studies (Merrill &
Elixhauser, 2005; Thompson et al., 2004). Because of the large discrepancy between the hospitalization rates, the effectiveness of the treatment for clients with schizophrenia needs further evaluation, with an awareness of programs that have been shown to reduce relapse rates, such as family psychoeducation/collaboration.

**Study Limitations**

The main limitations of the quantitative data used in this study are uncertain accuracy and precision in client and provider data, the outcomes of greatest interest may not be reported (e.g., symptom relief), the data are at times not in a meaningful format, and little is known about the strengths and weaknesses of the data collection process used (Huston & Naylor, 1996). As the secondary data were for the 2004 calendar year, it also includes data on practitioners who worked part of the year, which likely increased the variability in the data. Billed family codes also may not indicate what is actually being done, just what was billed. The qualitative methodology is with a small, specific, nonrandom population that makes the findings limited and difficult to generalize to the larger population. Qualitative research is also more prone to researcher bias and limitations in the knowledge base of the researcher. Other limitations are that the study does not contain family viewpoints, and convergent findings in mixed-method studies may be a result of researcher bias rather than evidence of increased validity.

**Conclusion**

The families of individuals with schizophrenia were rarely involved in the treatment process and if collaboration with practitioners occurred, it usually was at a time of crisis or hospitalization. Practitioners were reactive in their involvement with families of individuals with schizophrenia, instead of preventative and proactive. Previous studies found that consistent family collaboration reduces hospitalization rates (Pitschel-Walz et al., 2001). However, in this study, family collaboration was infrequent and correlated with an increase in crisis stays and hospitalizations. Individuals with schizophrenia on the caseloads of practitioners in this study had higher rates of hospitalizations/residential stays, more hospitalization/residential days than clients with other diagnoses, and were also maintained on the largest caseloads. The purpose and role of crisis residential centers should be evaluated as the data indicated that residential crisis stays predicted inpatient hospitalizations.

This study has implications at the administrative and clinical levels of mental health practice. Due to the lack of family involvement by practitioners, it is recommended that mental health administrators support and implement long-term family collaboration and/or psychoeducation programs. It is recognized that collaboration is a mutual process; however, due to past prejudice against families by mental health systems, practitioners should be proactive in contacting families. Family psychoeducation implementation kits have been formulated and distributed by the Substance Abuse and Mental Health Services Administration, which would simplify and facilitate the implementation of such programs. Increasing practitioner and family collaboration would require: (a) administrative support and understanding, (b) designated and trained staff who are assigned to facilitate practitioner training or specific program implementation, and (c) adequate time (smaller caseloads) and resources for staff to collaborate with families.

The recommendations for mental health practitioners in this study at the micro level are similar to those stated by Riebschleger (2001). Practitioners can maximize the opportunities currently present within the existing treatment system by: (a) using a flexible definition of
family that is guided by the client, (b) regularly obtaining releases of information to speak with family members within the assessment and treatment process, (c) gathering information about family members and regularly inviting and including family members in assessments, treatment sessions, and treatment team meetings, and (d) ensuring that family collaboration occurs on a consistent basis, not only at a time of crisis or hospitalization.

Acknowledgments

Conflict of Interest: None declared.

Appendix

Families and Schizophrenia

Qualitative Guide. What is your experience in working with the families of clients with schizophrenia?
When you do collaborate with the families of individuals with schizophrenia, what helps you or influences you to do so?
What factors prevent you from involving families in treatment more frequently?
What do you think would help you to increase your collaboration with families?
Do you feel supported by your supervisor/unit manager to include the families of individuals with schizophrenia in the treatment process? Please explain.
Do you feel supported by [the organization] to involve families? Please explain.
In your experience, what factors tend to increase interactions among mental health practitioners and family members?
In your experience, what factors tend to decrease interactions among mental health practitioners and family members?
Any other comments or thoughts about this topic?

References


