Family Intervention in First-Episode Psychosis: A Qualitative Systematic Review

Anvar Sadath¹, D. Muralidhar², Shivarama Varambally², Justin P. Jose³, and B. N. Gangadhar²

Abstract

Family interventions have produced benefits on clinical and family outcomes in long standing psychosis. However, little is known about the efficacy of such interventions in the early stages of psychosis. This article reviews published research over the last two decades on family intervention in first-episode psychosis. Electronic databases, such as PubMed, PsycINFO, and ScienceDirect, have been systematically searched. In addition, an exhaustive Internet search was also carried out using Google and Google Scholar to identify the potential studies that evaluated family interventions in first-episode psychosis. We have identified seven reports of five randomized controlled trials (RCTs) and five non-randomized and uncontrolled studies of family intervention. Our review on 12 reports of family intervention studies has shown mixed effects on outcomes in first-episode psychosis. Most of the reports showed no added benefits or very short-term benefits on primary clinical or family outcome variables. There is a dearth of family intervention studies in first-episode psychosis. More RCTs are needed to reach reliable conclusions.

Keywords
caregivers, family intervention, first-episode psychosis, early psychosis, systematic review

Background

The role of families in treatment of psychiatric patients has become increasingly important, mainly due to two reasons. First, some factors in family members’ behavior and attitude to patients such as criticality, hostility, and over-involvement, known as expressed emotion (EE), significantly predict relapse in individuals with prolonged psychosis (Barrowclough & Hooley, 2003; Pharoah, Mari, Rathbone, & Wong, 2010; Roseliza-Murni, Oei, Fatimah, & Asmawati, 2014) and first-episode psychosis (King & Dixon, 1999). Second, literature shows that providing care to a person with severe mental illness can adversely affect the mental health and well-being of family caregivers (Hayes, Hawthorne, Farhall, O’Hanlon, & Harvey, 2015; Hernandez & Barrio, 2015). Family members of individuals experiencing their first episode of psychosis have a higher risk of distress compared with family members of individuals with a prolonged course of illness (Martens & Addington, 2001; Sadath, Muralidhar, Varambally, Jose, & Gangadhar, 2014). Furthermore, the stress experienced by caregivers during the first episode can sometimes hamper recovery and even lead to a relapse (Tennakoon et al., 2000). Hence, there is a growing understanding among mental health professionals about the need to help the family caregivers along with the patients. Consequently, family interventions are now strongly recommended in many standard clinical practice guidelines for the treatment of schizophrenia (Kreyenbuhl, Buchanan, Dickerson, & Dixon, 2010) and early psychosis (International Early Psychosis Association Writing Group, 2005).

Over the last two or three decades, there has been an increased trend in identifying and treating psychosis, especially schizophrenia, in the early course of illness (Lieberman & Fenton, 2000). It is based on the rationale that significant clinical and psychosocial dysfunction in psychosis occurs in the first 5 years after the onset of illness (Reed, 2008), and many of such deteriorations are irreversible in later stages. Longer untreated psychosis is associated with greater risk of declining performance at school or work, social isolation, depression, suicide, drug or alcohol abuse, and aggressive behaviors (Onwumere, Bebbington, & Kuipers, 2011). Thus, early

¹St. John’s Medical College, Bengaluru, India
²National Institute of Mental Health and Neuro-Sciences, Bengaluru, India
³Rabindranath Tagore Centre for Human Development Studies, Institute of Development Studies Kolkata

Corresponding Author:
Anvar Sadath, Lecturer in Psychiatric Social Work, Department of Psychiatry, St. John’s Medical College, Bangalore 560 034, India.
Email: ani00711@yahoo.com
intervention is critical to achieve better clinical and functional outcome (“International Clinical Practice Guidelines for Early Psychosis,” 2005) and prevents long-term disability associated with psychosis (Reed, 2008). However, medication alone is not enough to prevent long-term disability or guarantee functional recovery from psychosis (Killackey, 2009).

The evidence for the effectiveness of family interventions in psychosis with prolonged course is well established through systematic reviews and meta-analysis of outcome studies. Such reviews report that family interventions reduce the risk of relapse and hospital readmissions (Pharoah, Mari, Rathbome, & Wong, 2006; Pharoah et al., 2010; Pitschel-Walz, Leucht, Bauml, Kissling, & Engel, 2001) improve compliance with medication, enhance general social functioning, decrease in levels of EE within the family (Pharoah et al., 2006) and improvements in knowledge and coping (Okpokoro, Adams, & Sampson, 2014) have been documented. However, most of the previous research has been conducted in caregiver populations associated with a more prolonged exposure to schizophrenia, and the effects of family interventions in the early stages are largely unknown (Askey, Gamble, & Gray, 2007).

To date, there are a limited number of studies that have examined the use of family intervention with first-episode psychosis. Situating within this knowledge gap, the current article aimed at reviewing the published research on family intervention in early psychosis. This review is different from the other systematic reviews in this area with respect to the focus and the number of reports reviewed.

### Current Review Versus Previous Reviews of Family Intervention in FEP.

| Authors                      | Review focus                                                                 | Family intervention reports reviewed (n) |
|------------------------------|------------------------------------------------------------------------------|----------------------------------------|
| Current review               | Family interventions only                                                    | 07 reports (RCTs)                      |
| Alvarez-Jimenez, Parker, Hetrick, McGorry, and Gleson (2011) | Psychological and pharmacological trials in preventing the second episode in FEP | 02 (RCTs)                              |
| Bird et al. (2010)           | Early intervention services, cognitive–behavioral therapy, and family intervention in early psychosis | 03 (RCTs)                              |
| Marshall and Rathbone (2011) |                                                                              |                                        |
| Penn, Waldheter, Perkins, Mueser, and Lieberman (2005)   | Psychosocial treatment for FEP                                                | 04 reports (RCTs)                      |

Note. FEP = first episode psychosis, RCT = randomized controlled trial.

The following is the key question addressed by this review:

What is the evidence of family interventions improving clinical and family outcome in first-episode psychosis?

### Eligibility Criteria

Articles published in English language during the last two decades were considered for the review. Studies were included if they were family intervention study reports that evaluated either clinical outcomes or family outcomes or both after family intervention in first-episode psychosis. There is no uniform definition for first-episode psychosis in scientific literature (Breitborde, Srihari, & Woods, 2009). It has been defined in terms of patients’ first treatment contact (Craig et al., 2004); duration of antipsychotic medication use (Breitborde et al., 2009); and duration of psychosis (Castro-Fornieles et al., 2007). As each definition as its own strength and weaknesses (Breitborde et al., 2009), we included all studies that fulfill any one or all the above definition for first-episode psychosis.

Multi-element intervention studies in FEP were excluded as the current review aims at understanding the evidence of a single intervention (family intervention). To clarify, family interventions were given in many early intervention trials along with patient-oriented pharmacological and non-pharmacological interventions such as social skill training, cognitive–behavioral therapy (CBT) and crisis intervention (Bertelsen et al., 2008; Craig et al., 2004; Grawe, Falloon, Widen, & Skogvoll, 2006; Jeppesen et al., 2005; Kuipers, Holloway, Rabe-Hesketh, & Tennakoon, 2004; Petersen et al., 2005; Tempier, Balbuena, Garety, & Craig, 2012). Such study reports were not included because it was difficult to isolate the efficacy of any single intervention (family intervention) effectiveness. Family-oriented non-interventional study reports were excluded as they were not meeting the review aim.

### Search Strategy

Studies were identified by searching electronic databases and scanning reference list of retrieved articles and systematic reviews. This search was applied to PubMed, PsycINFO, and ScienceDirect, with each database being searched from 1994 to 2014. An exhaustive Internet search was also carried out using Google and Google Scholar. The last search was run on July 31, 2014. The following search terms with a combination of two or more were used to identify potential studies: family intervention, family therapy, family work, family psycho education, first-episode psychosis, first-episode schizophrenia, early psychosis, and recent onset psychosis. The first author (A.S.) performed initial literature searches and screening of the articles from the electronic databases and Internet sources.
Data Extraction

Our review is a qualitative systematic review, and the data extracted from the selected studies were summarized but not statistically combined. The first author (A.S.) and the fourth author (J.P.J.) independently extracted data from the included studies. Disagreements were resolved by discussion between the two review authors. Variables extracted included the authors of the study, publication year, aim of the study, participants, setting, primary outcome measures, nature and type of intervention, number of sessions and period of intervention, comparison group details for RCTs, assessment timeline, dropout, and results. Furthermore, information necessary for evaluating methodological quality was extracted from the included RCTs (Figure 1).

Quality Assessment

There is no uniform standardized method to assess the quality of studies in systematic reviews (van Tulder, Furlan, Bombardier, & Bouter, 2003). We used a checklist recommended by van den Berg, Schoones, and Vliet Vlieland (2007), which was based on the guidelines for systematic reviews as set by the editorial board of the Cochrane Collaboration Back Review Group (van Tulder et al., 2003). This checklist consisted of 13 items that had been developed for their systematic review on Internet-based physical activity interventions. However, we have removed two items, “description of compliance with intervention” and “timing of assessment comparable” as they were not perceived relevant to family intervention studies. Methodological quality was rated independently by the first author, checked and verified by the fourth author. Each item was rated “yes,” “no,” or “unclear.” A total score was calculated by summing up all the “yes” items. Studies were rated as having good methodological quality if they score 8 or more in a total score of 11.

Results

Methodological Quality of the Family Intervention RCT’s

The results of the methodological quality assessment are described in Table 1. This assessment included five RCTs (Gleeson et al., 2009; Leavey et al., 2004; Linszen et al.,...
1996; McCann et al., 2013; Zhang, Wang, Li, & Phillips, 1994) for this quality assessment and excluded two reports (Lenior, Dingemans, Linszen, de Haan, & Schene, 2001; Lenior, Dingemans, Schene, Hart, & Linszen, 2002) as those were the follow-up assessments of one RCT.

Of the 5 studies included, 3 (Gleeson et al., 2009; Leavey et al., 2004; McCann et al., 2013) were scored 9 or above and rated as having good methodological quality, whereas 3 studies (Linszen et al., 1996; Zhang et al., 1994) scored 6 and 5, and therefore, these studies could not fulfill the current study’s criteria for having good methodological quality.

**Study Characteristics**

As per the selection criteria, a total of 12 reports from 10 studies were selected and reviewed. The designs of these studies included five RCTs (Lenior, Dingemans, Linszen, de Haan, & Schene, 2001; Lenior, Dingemans, Schene, Hart, & Linszen, 2002) as those were the follow-up assessments of one RCT.

Of the 5 studies included, 3 (Gleeson et al., 2009; Leavey et al., 2004; McCann et al., 2013) were scored 9 or above and rated as having good methodological quality, whereas 3 studies (Linszen et al., 1996; Zhang et al., 1994) scored 6 and 5, and therefore, these studies could not fulfill the current study’s criteria for having good methodological quality.

**Overview of Family Interventions**

The interventions of the randomized trials were family psychoeducation mostly with the components of education, support, communication and problem-solving techniques (Leavey et al., 2004; Linszen et al., 1996; Zhang et al., 1994), problem-solving bibliotherapy (McCann et al., 2013), and relapse prevention therapy with psychoeducational therapy, CBT, and family therapy components (Gleeson et al., 2009). In the majority of the family intervention trials, both families and patients participated in intervention programs (Gleeson et al., 2009; Leavey et al., 2004; Linszen et al., 1996; Zhang et al., 1994).

The number of intervention sessions varied across studies. In the study by Zhang et al. (1994), the intervention was provided for 18 months and families received a minimum of 1 session every 3 months. Linszen et al. (1996) used an 18-session treatment protocol for 12 months, sessions were provided bi-weekly during the first 5 months and monthly during the remaining 7 months. Leavey et al. (2004) used brief intervention package and provided over seven sessions and each session lasting an hour. McCann et al. (2013) used problem-solving bibliotherapy intervention, and caregivers worked independently through the module over 5 weeks. In this intervention, the caregivers were instructed not to finish more than one module per week. Finally, the study of Gleeson et al. (2009) used relapse prevention therapy for 7 months, and sessions were provided fortnightly (see Table 4).

Among the non-randomized uncontrolled trials, a longitudinal cohort used 3 years of long-term family intervention (Addington, McCleery, & Addington, 2005). In this study, on average, families received seven sessions during the first year, two to four sessions in the second year, and two to three sessions in the third year. The intervention sessions in other non-randomized and uncontrolled studies were very brief and time-limited with a minimum of 1 session in a week for a period of 4 weeks (Mullen, Murray, & Happell, 2002) and 6 weeks (Cabral & Chaves, 2010) to a maximum of eight weeks.
sessions in 4 months (Gonzalez-Blanch et al., 2010; see Table 5).

Clinical or Family Outcome

Of the six reports that examined the efficacy of family intervention on clinical outcomes, only three reports showed significant benefits. One report (Zhang et al., 1994) showed benefits on hospital readmission, hospital-free period, clinical status, and overall functioning of the patients, over 18 months follow-ups. A 5-year follow-up assessment of Linszen et al.’s (1996) study by Lenior et al. (2001) reported some benefits on duration of stay in hospital for patients. The other report (Gleeson et al., 2013) showed short-term benefits (12 months) in relapse rate and long-term benefits (30 months) in medication adherence.

Four reports examined the caregiver/family-related outcomes, of which only 1 report (McCann et al., 2013) showed benefits on EE (6 weeks), care giving experience, and caregivers’ psychological distress (16 week). However, the follow-up assessment of this trial was just 16 weeks; therefore, it is difficult to comment on the longer benefits.

Outcomes of Non-Randomized and Uncontrolled Studies

A longitudinal cohort study by Addington et al. (2005) assessed the effectiveness of individualized family intervention integrated within a comprehensive treatment program for first-episode psychosis. The results showed improved psychological well-being and care giving experiences in follow-up at 36 months. Most of the single group pretest and posttest studies and one posttest-only study reported favorable outcomes. These studies evaluated the usefulness of a multifamily group psychoeducation in improving family members’ knowledge and understanding about psychosis and related management strategies. The result showed improvement in the family members’ knowledge (Cabral & Chaves, 2010), understanding, and management of psychosis from pretest to posttest (McWilliams et al., 2010; Mullen et al., 2002). An exception to the above trend, the pretest and posttest study of Gonzalez-Blanch et al. (2010) evaluated the effect of eight sessions of multifamily group psychoeducation on carers’ burden and EE. However, this study could not

---

**Table 2. Family Intervention Randomized Controlled Trials.**

| Study                        | Aim                                                                 | Participants                  | Setting                                                                 | Primary outcome variables/measures |
|------------------------------|----------------------------------------------------------------------|-------------------------------|------------------------------------------------------------------------|-----------------------------------|
| Zhang, Wang, Li, and Phillips (1994) | To confirm the usefulness of family intervention in rehabilitation of first-episode schizophrenic patients | 78 male patients and carers  | Outpatient psychiatry unit, China                                      | BPRS and global assessment of functioning |
| Linszen et al. (1996)         | To study whether adding a behavioral family intervention to the psychosocial intervention would benefit for patients from high EE homes | 76 patients with recent onset schizophrenia or related disorder and carers | Outpatient adolescent psychiatry, the Netherlands                      | EE and BPRS                         |
| Lenior, Dingemans, Linszen, de Haan, and Schene (2001; follow-up study of Linszen et al., 1996) | Follow-up assessment of social functioning in young patients with schizophrenia during 5-year period after behavior family interventions | 73 patients and carers       | Outpatient adolescent psychiatry, the Netherlands                      | Life chart schedule (course of illness and social functioning) |
| Leaver et al. (2004)          | To assess the impact of a brief education and support service on carers of patients with FEP | 106 patients and carers of FEP | Two large psychiatric services, North London                           | Carers satisfaction                |
| McCann et al. (2013)          | To evaluate whether carers of young patients with FEP who completed problem-solving bibliotherapy intervention report better experience of caring and less distress as compared with TAU | 124 carers of non-affective FEP | Two FEP services, Melbourne, Australia                                 | Experience of caring and psychological distress |
| Gleeson et al. (2013)         | Effectiveness of psychosocial treatment to prevent second episode of psychosis | 81 patients of FEP and carers | Two FEP services, Melbourne, Australia                                 | Relapse rate                        |

Note. BPRS= brief psychiatric rating scale, EE = expressed emotion, TAU= treatment as usual.
demonstrate any benefits of the intervention on caregivers’ burden or EE.

Discussion

Although many systematic reviews have reported positive outcomes of family interventions for caregivers and patients with prolonged psychosis (Pharoah et al., 2006, 2010; Pitschel-Walz et al., 2001), the present review of RCTs on family interventions in first-episode psychosis shows mixed results. The majority of family intervention RCT reports showed that the intervention had no added benefit on any of the primary clinical or family outcome variables (Leavey et al., 2004; Lenior et al., 2001; Lenior et al., 2002; Linszen et al., 1996) or showed only short-term benefits on either clinical or family outcomes (Gleeson et al., 2013; McCann et al., 2013), and most such benefits were not sustained at follow-ups, the periods ranging from 4 months (McCann et al., 2013) to 5 years (Lenior et al., 2001; Lenior et al., 2002).

Some of the plausible explanations for such mixed results are discussed here. In some trials (Gleeson et al., 2013; McCann et al., 2013), the family members were recruited from established early intervention services whereas family intervention was compared with specialist first-episode psychosis care. It was observed that these special clinics followed structured intervention programs including family interventions. Hence, the possibility of an unintentional exposure of similar intervention in control group cannot be ruled out completely. A similar problem was observed with another trial also (Linszen et al., 1996).

Although we could not find any major impact of the number of sessions on study outcomes, the favorable outcome reported in many studies were not sustained for a long period after the interventions ended (Gleeson et al., 2013; McCann et al., 2013). It was also observed that a few trials (Leafy et al., 2004; McCann et al., 2013) had very brief interventions, which were far below the treatment recommendation developed by the Schizophrenia Patient Outcome Research Team, who suggested that the family psychosocial interventions be offered for a minimum period of 6 to 9 months (Kreyenbuhl et al., 2010). Furthermore, many family intervention studies that reported favorable outcome in long standing psychosis used the interventions ranging from 9 months to 2 years (Barrowclough et al., 2001; Carra, Montomoli, Clerici, & Cazzullo, 2007; Dyck, Hendryx, Short, Voss, & McFarlane, 2002).

It was observed that the outcome variables across studies reviewed here were varied. Consistently, family interventions (mostly with prolonged psychosis) reported to have benefits on relapse rate, medication compliance, reduced hospital admission, and improvement in family atmosphere (Pharoah et al., 2010). Although some of these outcomes had already been evaluated in a few of the family intervention FEP studies, there is a need to measure those outcomes in more studies to establish evidences. We also compared the differences in intervention techniques

### Table 3. Family Intervention Non-Randomized and Uncontrolled Studies

| Study | Aim | Participants | Design | Setting | Primary outcome measures |
|-------|-----|--------------|--------|---------|-------------------------|
| Mullen, Murray, and Happell (2002) | To evaluate multifamily group education program for families of patients with FEP | 24 family members | Pre- and posttest | Mental health service center, Melbourne, Australia | Knowledge and understanding about mental illness and treatment |
| Addington, Mc Cleery, and Addington (2005) | To test the real life acceptability and effectiveness of family intervention embedded within a multidisciplinary treatment approach | 185 family members | Longitudinal cohort | Calgary Early Psychosis Programme, Canada | Psychological well-being and experience of care giving |
| Cabral and Chaves (2010) | To survey caregivers’ satisfaction with multifamily intervention | 65 family members | Posttest only | Outpatient units of Psychosis Episode Programme, Brazil | Knowledge about mental illness and treatment |
| McWilliams et al. (2010) | To measure whether psychoeducation program would improve caregivers’ knowledge and attitude | 31 carers | Pre- and posttest | Community-based FEP services, Ireland | Knowledge about psychosis and treatment |
| Gonzalez-Blanch et al. (2010) | To observe whether the level of EE and family burden change after a brief psychoeducational group interventions | 23 patient and their carers | Pre- and posttest | Cantabria FEP Programme, Spain | EE and family burden |

Note. EE = expressed emotion.
Table 4. Family Intervention of Randomized Controlled Trials.

| Study                                      | Nature and type of intervention                                                                 | Number of sessions and period of intervention | Comparison group                                         | Assessment timeline | Dropout | Results                                                                                                                                 |
|---------------------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------|----------------------------------------------------------|---------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------|
| Zhang, Wang, Li, and Phillips (1994)        | Education about the illness and treatment Individual and multiple family group sessions          | A minimum of 6 session over 18 months       | Medication only                                         | 18 month            | 3 in experimental and 2 in control | Significantly less hospital readmission, better clinical status, and overall functioning |
| Linszen et al. (1996)                       | Psychoeducation, communication, and problem-solving skill training Each family treated by 2 therapists | 2 sessions of psychoeducation, 6 sessions of communication training, and 9 sessions problem-solving training over 12 months | Patient-oriented psychosocial intervention without behavioral family intervention | 12 months           | unclear | No difference in EE or relapse rate                                                                                                    |
| Lienier, Dingemans, Linszen, de Haan, and Schene (2001; follow-up study of Linszen et al., 1996) | Psychoeducation, communication, and problem-solving skill training Each family treated by 2 therapists | 2 sessions of psychoeducation, 6 sessions of communication training, and 9 sessions problem-solving training over 15 months | Patient-oriented psychosocial intervention without behavioral family intervention | 5 years              | unclear | No difference on the course of the illness                                                                                           |
| Lienier, Dingemans, Schene, Hart, and Linszen (2002; follow-up study of Linszen et al., 1996) | Psychoeducation, communication, and problem-solving skill training Each family treated by 2 therapists | 2 sessions of psychoeducation, 6 sessions of communication training, and 9 sessions problem-solving training over 15 months | Patient-oriented psychosocial intervention without behavioral family intervention | 5 years              | unclear | No effects on EE or psychotic episodes                                                                                               |
| Leavey et al. (2004)                        | Psychoeducation and problem-solving techniques Home-based interventions                           | 7 sessions                                  | Usual support from the psychiatric services              | 4 months and 9 months | 33 in experimental and 12 in control | No difference on carers’ satisfaction                                                                                                    |
| McCann et al. (2013)                        | Problem-solving bibliotherapy intervention: The manual contained 5 modules- strengthening carers’ well-being and coping, how to access support services, promoting the recovery of patients and two modules for dealing with the effects of the illness | Intervention comprised 5 phases and provided fortnightly over 7 month | Specialist FEP care                                      | 7, 12, 18, 24, and 30 months | 11 in experimental and 10 in control | Improved care giving experience up to 16 week Reduction in distress up to 6 week                                                                 |
| Gleeson et al. (2013)                       | Psychoeducation, communication, and problem-solving skill training based on the behavioral family intervention model of Linszen et al. Individual and family CBT sessions for relapse prevention | Intervention comprised 5 phases and provided fortnightly over 7 month | Specialist FEP care                                      | 7, 12, 18, 24, and 30 months | 11 in experimental and 10 in control | Reduced relapse rate up to 12 months Improved medication adherence up to 30 months                                                                 |

Note: EE = expressed emotion; CBT = cognitive–behavioral therapy.
| Study                        | Nature and type of intervention                                                                 | Number of sessions and period of intervention       | Assessment                | Dropout (n)                  | Results                                                                 |
|------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------|-----------------------------|-------------------------------------------------------------------------|
| Mullen, Murray, and Happell (2002) | Multifamily group Education about psychosis and treatment Interactive group sessions           | 1 session a week for a period of 4 weeks with each session about 2 hr | Before and after the intervention | 9 participants did not attend the entire 4 sessions | Knowledge and understanding about psychosis and its treatment have improved |
| Addington, McCleery, and Addington (2005) | Education, support, communication, and problem-solving skill training Individual and group sessions Patients also participated in group sessions | 3 years’ program. 6 to 8 sessions in first year. Group interventions were provided from 6 months to 18 months. Support and help for discharge planning in third year | Baseline, 6, 12, 24, and 36 months | 20 families | Improvement in psychological well-being over 3 years Improvement in experience of care giving up to 24 months |
| Cabral and Chaves (2010)     | Multifamily group interventions. Separate group sessions for patients and carers               | 1 session per week Each family attended a minimum of 6 sessions | After the intervention program | 4 families did not return back the questionnaire | Majority of the carers reported improvement in knowledge and rated the program as very helpful in improving their coping |
| McWilliams et al. (2010)     | Multifamily group. Education about the illness, rehabilitation inputs, and relapse prevention techniques | 90-min session, once in a week over 6 weeks. Booster sessions after 6 months | Before and after the intervention | 5 family members | Knowledge about psychosis and medication has improved but no improvement in caregivers’ attitude to treatment |
| Gonzalez-Blanch et al. (2010) | Multifamily group interventions Education about the illness and treatment and communication skill training | 8 sessions in 4 months | before and after | Nil | No significant change in EE or burden |

Note. EE = expressed emotion.
used in prolonged psychosis and first-episode psychosis. Although we could not identify any major differences in intervention, some of the interventions used in prolonged psychosis such as motivational interviewing, crisis-oriented family intervention, and relaxation training were not well utilized in FEP.

Furthermore, the interventions used in studies were not based on the identified needs of the family members. A few trials (Leavey et al., 2004; Linszen et al., 1996) used established family intervention packages for prolonged schizophrenia, and it is unclear as to whether the needs of the families in the early period of psychosis are similar to that in prolonged psychosis. It should also be noted that we have not excluded any RCTs based on the methodological quality assessment. One trial (Linszen et al., 1996), which scored less as compared with other trials, had two follow-up reports (Lenior et al., 2001; Lenior et al., 2002), and all three reports had shown no significant benefits. Furthermore, the majority of the family intervention trials that did not describe their sample size calculation had fewer participants. Hence, we are unsure whether these studies had enough statistical power to detect intervention effect.

The majority of the non-randomized and uncontrolled studies primarily evaluated families’ knowledge and understanding about the illness and its management. These studies have reported benefits of improved knowledge and understanding (Cabrál & Chaves, 2010; McWilliams et al., 2010; Mullen et al., 2002). However, whether the enhanced knowledge translates into benefits such as reduction of distress, improved coping, or relapse prevention is not clear.

**Recommendations**

Future studies may need to address the aforesaid issues and limitations. First, the family intervention needs to be provided at least 6 to 9 months to sustain significant clinical or family-related outcome benefits. Second, there should be some additional or unique intervention components for the family intervention group, which is not provided as the part of standard care or treatment as usual. To clarify, most of the family intervention trials that we have reviewed here received psychoeducation with the components of education, support, and communication skill training. As we have discussed elsewhere, there may be chances that the comparison group also would have received similar intervention as part of comprehensive early intervention services. Third, the studies need to explore the specific needs of caregivers and the family intervention to be provided according to their identified needs. Finally, qualitative feedback can be collected from the family caregivers after family intervention. This would help us to understand and modify our intervention strategies based on what components of interventions were helpful/not helpful and what area they feel improved or not improved.

**Conclusion**

It is evident that there is a dearth of studies on family interventions in first-episode psychosis as only 12 relevant papers was found to have been completed on the topic over the last two decades. In the absence of well-substantiated evidence base, it is difficult to take empirically informed decisions in clinical practice. Furthermore, there is also little available material on specific needs of patients and caregivers in first-episode psychosis. Therefore, it is vital to develop and validate a need-based family intervention framework to guide clinical practice in first-episode psychosis.

**Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The author(s) received no financial support for the research and/or authorship of this article.

**References**

Addington, J., McCleery, A., & Addington, D. (2005). Three-year outcome of family work in an early psychosis program. *Schizophrenia Research, 79*, 107-116. doi:10.1016/j.schres.2005.03.019

Alvarez-Jimenez, M., Parker, A. G., Hetrick, S. E., McGorry, P. D., & Gleeson, J. F. (2011). Preventing the second episode: A systematic review and meta-analysis of psychosocial and pharmacological trials in first-episode psychosis. *Schizophrenia Bulletin, 37*, 619-630. doi:10.1093/schbul/sbp129

Askey, R., Gamble, C., & Gray, R. (2007). Family work in first-onset psychosis: A literature review. *Journal of Psychiatric and Mental Health Nursing, 14*, 356-365. doi:10.1111/j.1365-2850.2007.01093.x

Barrowclough, C., Haddock, G., Tarrier, N., Lewis, S. W., Moring, J., O’Brien, R., . . . McGovern, J. (2001). Randomized controlled trial of motivational interviewing, cognitive behavior therapy, and family intervention for patients with comorbid schizophrenia and substance use disorders. *The American Journal of Psychiatry, 158*, 1706-1713.

Barrowclough, C., & Hooley, J. M. (2003). Attitudes and expressed emotion: A review. *Clinical Psychology Review, 23*, 849-880.

Bertelsen, M., Jeppesen, P., Petersen, L., Thorup, A., Øhenschlæger, J., le Quach, P., . . . Nordentoft, M. (2008). Five-year follow-up of a randomized multicenter trial of intensive early intervention vs standard treatment for patients with a first episode of psychotic illness: The OPUS trial. *Archives of General Psychiatry, 65*, 762-771.

Bird, V., Premkumar, P., Kendall, T., Whittington, C., Mitchell, J., & Kuipers, E. (2010). Early intervention services, cognitive-behavioural therapy and family intervention in early psychosis: Systematic review. *The British Journal of Psychiatry, 197*, 350-356. doi:10.1192/bjp.bp.109.074526

Breithorde, N. J., Srihari, V. H., & Woods, S. W. (2009). Review of the operational definition for first-episode psychosis. *Early Intervention in Psychiatry, 3*, 259-265. doi:10.1111/j.1751-7893.2009.00148.x
Cabral, R. R., & Chaves, A. C. (2010). Multi-family group intervention in a programme for patients with first-episode psychosis: A Brazilian experience. International Journal of Social Psychiatry, 56, 527-532. doi:10.1177/0020764009102754

Carra, G., Montomoli, C., Clerici, M., & Cazzullo, C. L. (2007). Family interventions for schizophrenia in Italy: Randomized controlled trial. European Archives of Psychiatry and Clinical Neuroscience, 257, 23-30. doi:10.1007/s00406-006-0677-z

Castro-Fornieles, J., Parrallada, M., Gonzalez-Pinto, A., Moreno, D., Graell, M., Baeza, I., . . . Arango, C. (2007). The child and adolescent first-episode psychosis study (CAFEPS): Design and baseline results. Schizophrenia Research, 91, 226-237. doi:10.1016/j.schres.2006.12.004

Craig, T. K., Garety, P., Power, P., Rahaman, N., Colbert, S., Fornells-Ambrojo, M., & Dunn, G. (2004). The Lambeth Early Onset (LEO) Team: Randomised controlled trial of the effectiveness of specialised care for early psychosis. British Medical Journal, 329(7474), 1067.

Dyck, D. G., Hendryx, M. S., Short, R. A., Voss, W. D., & McFarlane, W. R. (2002). Service use among patients with schizophrenia in psychoeducational multiple-family group treatment. Psychiatry, 53, 749-754.

Gleeson, J. F., Cotton, S. M., Alvarez-Jimenez, M., Wade, D., Dee, D., Crisp, K., . . . McGorry, P. D. (2013). A randomized controlled trial of relapse prevention therapy for first-episode psychosis patients: Outcome at 30-month follow-up. Schizophrenia Bulletin, 39(2), 436-448. doi:10.1093/schbul/sbr165

Gonzalez-Blanch, C., Martin-Munoz, V., Pardo-Garcia, G., Martinez-Garcia, O., Alvarez-Jimenez, M., Rodriguez-Sanchez, J. M., . . . Crespo-Facorro, B. (2010). Effects of family psychoeducation on expressed emotion and burden of care in first-episode psychosis: A prospective observational study. The Spanish Journal of Psychology, 13, 389-395.

Grawe, R., Falloon, I., Widen, J., & Skogvoll, E. (2006). Two years of continued early treatment for recent-onset schizophrenia: A randomised controlled study. Acta Psychiatrica Scandinavica, 114, 328-336.

Hayes, L., Hawthorne, G., Farhall, J., O’Hanlon, B., & Harvey, C. (2015). Quality of life and social isolation among caregivers of adults with schizophrenia: Policy and outcomes. Community Mental Health Journal, 51, 591-597. doi:10.1007/s10597-015-9848-6

Hernandez, M., & Barrio, C. (2015). Perceptions of subjective burden among Latino families caring for a loved one with schizophrenia. Community Mental Health Journal, 1-10. doi:10.1007/s10597-015-9881-5

International Early Psychosis Association Writing Group. (2005). International clinical practice guidelines for early psychosis. The British Journal of Psychiatry, 187(48), s120-s124.

Jeppesen, P., Petersen, L., Thorup, A., Abel, M.-B., Øehlenschlæger, J., Christensen, T. Ø., . . . Nordentoft, M. (2005). Integrated treatment of first-episode psychosis: Effect of treatment on family burden OPUS trial. The British Journal of Psychiatry, 187(48), s85-s90.

Killacky, E. (2009). Psychosocial and psychological interventions in early psychosis: Essential elements for recovery. Early Intervention in Psychiatry, 3(Suppl. 1), S17-21. doi:10.1111/j.1751-7893.2009.00126.x

King, S., & Dixon, M. J. (1999). Expressed emotion and relapse in young schizophrenia outpatients. Schizophrenia Bulletin, 25, 377-386.
first-episode psychosis: A research update. The American Journal of Psychiatry, 162, 2220-2232. doi:10.1176/appi.ajp.162.12.2220

Petersen, L., Jeppesen, P., Thorup, A., Abel, M.-B., Ohlenschlæger, J., Christensen, T. O., . . . Nordentoft, M. (2005). A randomised multicentre trial of integrated versus standard treatment for patients with a first episode of psychotic illness. British Medical Journal, 331(7517), 602.

Pharoah, F., Mari, J., Rathbone, J., & Wong, W. (2006). Family intervention for schizophrenia. Cochrane Database of Systematic Reviews, No. 4, Article CD000088. doi:10.1002/14651858.CD000088.pub2

Pharoah, F., Mari, J., Rathbone, J., & Wong, W. (2010). Family intervention for schizophrenia. Cochrane Database of Systematic Reviews, No. 12, Article CD000088. doi:10.1002/14651858.CD000088.pub2

Pitschel-Walz, G., Leucht, S., Bauml, J., Kissling, W., & Engel, R. R. (2001). The effect of family interventions on relapse and rehospitalization in schizophrenia—a meta-analysis. Schizophrenia Bulletin, 27(1), 73-92.

Reed, S. I. (2008). First-episode psychosis: A literature review. International Journal of Mental Health Nursing, 17, 85-91. doi:10.1111/j.1447-0349.2008.00515.x

Roseliza-Murni, A., Oei, T. P., Fatimah, Y., & Asmawati, D. (2014). Schizophrenia relapse in Kuala Lumpur, Malaysia: Do relatives’ expressed emotion and personality traits matter? Comprehensive Psychiatry, 55, 188-198. doi:10.1016/j.comppsych.2012.12.026

Sadath, A., Muralidhar, D., Varambally, S., Jose, J., & Gangadhar, B. N. (2014). Caregiving and help seeking in first episode psychosis: A qualitative study. Journal of Psychosocial Rehabilitation and Mental Health, 1, 47-53. doi:10.1007/s40737-014-0013-2

Tempier, R., Balbuena, L., Garety, P., & Craig, T. J. (2012). Does assertive community outreach improve social support? Results from the Lambeth Study of early-episode psychosis. Psychiatric Services, 63, 216-222.

Tennakoon, L., Fannon, D., Doku, V., O’Ceallaigh, S., Soni, W., Santamaria, M., . . . Sharma, T. (2000). Experience of caregiving: Relatives of people experiencing a first episode of psychosis. The British Journal of Psychiatry, 177, 529-533.

van den Berg, M. H., Schoones, J. W., & Vliet Vlieland, T. P. (2007). Internet-based physical activity interventions: A systematic review of the literature. Journal of Medical Internet Research, 9(3), e26. doi:10.2196/jmir.9.3.e26

van Tulder, M., Furlan, A., Bombardier, C., & Bouter, L. (2003). Updated method guidelines for systematic reviews in the Cochrane collaboration back review group. Spine (Phila Pa 1976), 28, 1290-1299. doi:10.1097/01.brs.0000065484.95996.af

Zhang, M., Wang, M., Li, J., & Phillips, M. R. (1994). Randomised-control trial of family intervention for 78 first-episode male schizophrenic patients. An 18-month study in Suzhou, Jiangsu. The British Journal of Psychiatry. Supplement, 24, 96-102.

Author Biographies

Anvar Sadath, PhD, is currently a Lecturer in Psychiatric Social Work, St. John’s Medical College, Bengaluru, India. His research interests include Social Work interventions on patients and family caregivers of early psychosis and schizophrenia.

D. Muralidhar, PhD, is currently a Professor in Psychiatric Social Work, National Institute of Mental Health and Neurosciences, Bengaluru, India. His research interests include support group interventions for patients and families of schizophrenia and psychosocial issues of transgender.

Shivarama Varambally, MD, is currently an Additional Professor of Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, India. His research interests include management of psychosis and application of Yoga in psychiatric disorders.

Justin P Jose, PhD, is currently a Post Doctoral Research Fellow, Rabindranath Tagore Centre for Human Development Studies, Institute of Development Studies Kolkata, India. His research interests include psychology of social marginalization and health.

B. N. Gangadhar, MD, DSc, is currently a Dean of Behavioural Science and Professor of Psychiatry, National Institute of Mental Health and Neurosciences, Bengaluru, India. His interests include application of Yoga in psychiatric disorders and neurobiology of schizophrenia.