# Appendix Table E-11. Data abstraction of randomized controlled trials of family interventions

| **Author, Year** | **Setting**  **Country** | **Inclusion Criteria** | **Interventions and**  **Ns per Group** | **Description of Intervention** | **Description of Comparator** |
| --- | --- | --- | --- | --- | --- |
| Dyck, 2000 | Large community health center in Spokane, Washington | Diagnosis of schizophrenia or schizoaffective disorder, 18-45 years of age, enrollment in a community outpatient facility in Spokane, residence with family of origin or regular contact with family, patients with either a history of substance abuse or current substance abuse were not excluded | Multifamily group: n=64 Standard care: n=31 | Patients assigned to multiple-family group treatment received standard care plus the group treatment. Multiple-family group treatment was intended to improve illness management, social support, and coping skills for the patient and family members. The approach was based on the previous research reported by McFarlane and colleagues. Treatment interventions were designed to educate the family and patients about the biological underpinnings of schizophrenia and engage them in the treatment process by using a standardized protocol of videotapes, lecture, and written guidelines. Treatment compoents including ongoing support, formal clinical problem solving, and expansion of social support networks. | Patients assigned to standard care received usual services, including medication management, case management, and, for some patients, therapeutic and rehabilitation services. A treatment team consisting of a case manager, a nurse, a psychiatrist, and a social worker delivered the mental health services. The team provided clinical case management services and out-of-facility services as needed. |
| Garety 2008 | Multicenter trial  in UK | Diagnosis of non-affective psychosis, age  18-65, psychotic episode starting not more than 3 months before entering trial, rate of at least 4 on PANSS | Family intervention:  n=28  Usual care: 27 | Family intervention emphasized  improving communication, offering discussion of up-to-date information about psychosis, problem-solving, reducing criticism and conflict, improving activity, and the emotional processing of grief, loss and anger. There was a particular focus on relapse prevention, including how family members might understand warning signs and agree on appropriated intervention, including medication | Usual care |

| **Author, Year** | **Duration** | **Age Gender Race/Ethnicity** | **Other Population**  **Characteristics** | **Total N** | **Benefits Outcomes** | **Harms Outcomes** | **Funding** | **Quality**  **Rating** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Dyck, 2000 | 2 years | MFG vs. Usual Care Age, mean years: 33, 30 % male: 72, 74 White, %: 94, 97 | MFG vs. Usual care previous  Lifetime hospitalizations, mean: 5, 5 Comorbid SUD %: 45, 50 | 63 | MFG vs. Usual care: MSANS baseline 7.9, 8.7 Months 1-3: 7.4, 9.1 Months 4-6: 7.2, 8.9 Months 7-9: 7.2, 8.9 Months 10-12: 7.2, 8.4 | Not reported | Grand NIMH | Poor |
| Garety 2008 | 9 months | FI vs. usual care:  Age, mean, years:  35, 38.6  % Male: 71, 68  % White: 86, 82 | FAI vs. usual care:  % Employed: 11,  14 % Unemployed:  71, 71 | 56 + 27 in  CBT group which is not included | FI vs. usual care:  Mean difference in change scores:  Total PANSS at 12 months: -  6.44 (-14.12 to 1.24)  Total PANSS at 24 months:  -6.25 (-14.77 to 2.28) Negative PANSS at 12 months: -2.42 (-5.18 to 0.35) Negative PANSS at 24 months: -1.32 (-4.42 to 1.78) BAI at 12 months:  -0.42 (-6.97 to 6.13) BAI at 24 months:  -2.36 (-9.13 to 4.40) BDI at 12 months:  3.35 (-2.46 to 9.34) BDI at 24 months:  -0.11 (-6.91 to 6.68) EuroQol at 24 months:  -7.38 (-22.07 to 7.31) | Not reported | Welcome  Trust Programme Grant | Good |

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| --- | --- | --- | --- | --- | --- |
| Kopeolwicz  2012 | Two community  mental health centers in Los Angeles, California | Diagnosis of schizophrenia or  schizoaffective disorder, 18-50 years of age, of Mexican origin and spoke  Spanish fluently, history of nonadherence (had been without antipsychotic medication without medical authorization for 1 continuous week in the month prior to study enrollment), lived with their  family of origin, had at least 1 family member willing to participate in the family treatment | MFG-A, n=64  MFG-S, n=54  Usual care, n=60 | Culturally adapted, multifamily group therapy based on McFarlane's model that combines psychoeducation and skills training. MFG-S consisted of 3 initial "joining sessions" conducted separately with each family, a 6 hour "survival skills" educational workshop, and multifamily group sessions. Modified therapy in the MFG-A arm was to target improved adherence using principles of the Theory of Planned Behavior. MFG arms convened twice monthly in 90 minute sessions. | All study participants received treatment as usual. Rigid medication protocols were not used. Patients received all services as needed from the Mental Health Department of Los Angeles County. After inpatient discharge, patients received a psychiatric evaluation and medication, and if clinically stable, received monthly 20-minute sessions. If patients needed additional services or rehospitalization, that was accommodated. |
| Mayoral, 2015 | Four mental  health centers  Spain | Age >18 years of age; confirmed  diagnosis of schizophrenia according to the DSM-IV criteria; live with, at least, one relative; understand and speak Spanish; no admission within the  6 months prior to the beginning of the study; treatment with antipsychotic drugs; and capacity to sign an informed consent | Family group therapy  (n=44)  Treatment as usual  (n=44) | 24 weekly 60-minute sessions (in home  or at a health center) of practical and role- playing exercises, with modules on disease and treatment, assessment of needs and family relations,  communication skills training, and problem facing and solving | Usual care in specialized mental  health centers |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Kopeolwicz  2012 | Intervention and  followup: 1 year | MFG-A vs. MFG-S vs.  usual care  Age, mean years: 33,  30, 33  % male: 67, 68, 61  Ethnicity Mexican  American, %: 100,  100, 100 | MFG-A vs. MFG-S  vs. usual care  % inpatient at entry:  88, 83, 84  Age at onset, years:  25, 23, 23  Lifetime hospitalizations, mean: 5.5, 5.6, 7.1  BPRS total score, mean: 87.5, 85.8,  81.1 | 178 | BPRS:  No differences at baseline among 3 groups, p=0.18  No differences at 12 month followup among 3 groups, p=0.32  All groups improved significantly at 12 month followup compared to baseline, p<0.001 | Dropped out of treatment  immediately after undergoing baseline assessments and before engaging in outpatient care: 26% (45/174) overall  Attrition (leaving treatment before a 12-month assessment could be made):  MFG-A 27% vs. usual care 51%, p=0.007  MFG-S 37% vs. usual care 51%, p=0.11 | National  Institute of Mental Health | Poor |
| Mayoral, 2015 | Intervention: 12  months Followup: 18 months | Family therapy vs.  treatment as usual Age, mean years: 30 vs. 30 years  % male: 85% vs. 78% Ethnicity: NR | Family therapy vs.  usual care Previous admissions, mean:  2.83 vs. 2.17  Suicide attempts, mean: 1.3 vs. 3.0  BPRS total score, mean: 2.07 vs. 2.13 | 88 | Family therapy vs. usual care  End of treatment (12 months)  BPRS total, mean: 1.66 vs. 2.14 (p=0.0046)  Hospitalization: 0% vs. 21% (8/38); RR 0.06 (95% CI 0.004 to 1.04)  Post-intervention followup (18 months)  BPRS total, mean: 1.70 vs. 2.05 (p=0.44) | NR | Spain's  Ministry of  Health | Fair |

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| --- | --- | --- | --- | --- | --- |
| Sellwood 2001  Sellwood 2007  Barrowclough  1999 | 2 centers  United Kingdom | ICD-10 diagnosis of schizophrenia,  schizoaffective disorder or delusional disorder of at least 2 years’ duration; at least one relapse of psychotic symptoms leading to in patient admission in the 2 years preceding study entry and a minimum duration of illness of 2 years; aged between 18 and 65 years; at least  10 hours of face-to-face contact with a career for each week over the previous month. | Family CBT: n=39  Standard care: n=38 | Family CBT: 10 to 20 sessions over 24  weeks aimed at delivering problem- solving techniques, cognitive-behavioral intervention for families, and cognitive- behavioral interventions with patients to reduce psychotic symptoms | Standard care: Standard psychiatric  management by the clinical team, maintenance neuroleptic medication, monitoring through out-patient and community followup and the care programmed approach to case management. |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Sellwood 2001  Sellwood 2007  Barrowlough  1999 | 12 months | *Data not stratified by*  *intervention group* Mean age 36 (SD 10) years  35% female  Race-  85% White  9% Black  6% Southeast Asian | Family CBT vs.  standard care  Mean PANSS:  59.10 vs. 53.89  Mean score, Social  Functioning scale:  99.61 vs. 101.12  Mean score, Global Assessment of Function: 43.00 vs.  45.79 | 79 (80%  [63/79] included at final followup) | Family CBT vs. standard  care  Overall symptoms, PANSS, total score: 62.40 (95% CI  57.10 to 67.70) vs. 52.32 (47.92 to 56.72); p=0.005; mean change from baseline  1.08 (0.99 to 1.17) vs. 0.98 (0.89 to 1.06); p=0.09  Relapse: 16% (6/38) vs.  49% (19/39)  Overall function, Social Functioning scale: 102.93 (SD 10.69) vs. 101.03 (SD  11.04); p=NS; mean change from baseline 1.29 vs. 2.42; p=NS  Overall function, GAF: 42.67 (SD 10.88) vs. 48.50 (SD  8.81); p=0.02; mean change from baseline 1.50 vs. 1.50; p=NS | Not reported | National  Health Service Tameside and Glossop Community Priority Care trust | Fair |

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| --- | --- | --- | --- | --- | --- |
| Valencia, 2007 | Single center  Mexico | Outpatients age 16 to 50 with DSM-IV  schizophrenia; taking antipsychotic medication; clinically stable in terms of psychotic symptoms (PANSS score <60); completed at least 6 years of elementary education; lived with their families and resided in Mexico City or the metropolitan area | SST: n=49  Usual care: n=49 | SST: 48 weekly group sessions (75  mins/session) composed of seven sequential treatment areas (each area includes a specific set of skills) as follows: (1) symptom management; (2) medication  management; (3) social relations; (4) occupational; (5) money management; (6) couple relations; and (7) family relations  Additional component of 8 group and 4 individual family therapy sessions for relatives | Usual care: Monthly appointments  (20 mins/session) with clinical psychiatrist who  controlled the prescription  of their AP medication based upon the assessment  of their psychotic symptoms, checked their medication compliance, recorded their consultation attendance. |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Valencia, 2007 | 1 year | SST vs usual care  Mean age 30 vs. 30 years  30% vs. 15% female  Race not reported | SST vs. usual care  Mean age at onset of illness 21 vs. 21 years  Mean duration of illness: 9 vs 9 years Total PANSS: 115.2 (SD 30.5) vs. 107.9 (SD 22.6)  Negative PANSS:  29.7 (SD 8.5) vs.  28.7 (SD 6.3) | 98 | SST vs. usual care  Overall symptoms, total  PANSS: 46.9 (SD 14.6) vs.  60.4 (SD 18.2); SMD -0.65 (95% CI -1.06 to -0.24) Negative symptoms, PANSS: 13.0 (SD 5.7) vs.  17.9 (SD 6.2); SMD -0.82 (95% CI -1.23 to -0.40) Function, GAF: 66.0 (SD  8.9) vs. 44.9 (SD 11.6);  p<0.001; SMD 2.02 (95% CI  1.53 to 2.52)  Relapse 5/49 vs.10/49; RR  0.50 (95% CI 0.18 to 1.36) Treatment maintenance:  88% (43/49) vs. 80% (39/49); RR 1.10 (95% CI  0.92 to 1.31) | Not reported | National  Institute of Psychiatry Ramón de la Fuente; National Council on Science and Technology | Fair |

**Please see Appendix B. Included Studies for full study references**

CI=confidence interval, MD=mean difference, MFG-A=multifamily group therapy-adherence, MFG-S=multifamily group therapy-standard, SD=standard deviation