Appendix F. Evidence Tables for Key Questions 1 and 2

Key Question 1

Table F1. Key Question 1: psychiatric symptoms

| Types of Therapies | Study | Group | Outcome | Baseline Score  Mean (SD) | Post-Treatment Score  Mean (SD) | Followup Score  Mean (SD) | EPC-Calculated Between-Group Effect Size  SMD (95% CI), p‑Value | Authors’ Reported Results |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pharmacologic Therapies | Balbuena et al., 201068 | Clozapine (65) | Brief Psychiatric Rating Scale (BPRS) total score | 42.0 (14.8) | NR | 6 months: 38.5 (14.6) | SMD: -0.287 (‑0.707 to 0.134) , p=0.182 | BPRS scores decreased significantly for both groups after drug treatment, but significantly more so for the nonclozapine group. |
| Other antipsychotics (33) | 37.8 (12.8) | NR | 6 months: 30.4 (5.8) |
| Pharmacologic Therapies | Martin et al., 200869 | Clozapine (47) | Clinical Global Impression Scale | NR | NR | NR | Odds ratio (very much plus much improved) 0.55 (0.20 to 1.514), p=0.247 | 12 (25%) very much improved, 14 (29%) much improved, 17 (36%) minimally improved, 3 (6.0%) unchanged, and 1 (2.0%) worse |
| Other antipsychotics (26) | NR | NR | NR | 9 (35%) very much improved, 9 (35%) much improved, 4 (15%) minimally improved, 4 (15%) unchanged, and 0 (0%) worse |

| Table F1. Key Question 1: psychiatric symptoms (continued) | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Types of Therapies** | **Study** | **Group** | **Outcome** | Baseline Score  **Mean (SD)** | Post-Treatment Score  **Mean (SD)** | Followup Score  **Mean (SD)** | EPC-Calculated Between-Group Effect Size  **SMD (95% CI), p‑Value** | **Authors’ Reported Results** |
| Pharmacologic Therapies | Tavernor et al., 200070 | High dose chlorpromazine (>1,400 mg, 32) | BPRS total score (number of patients in each group was 25 for this outcome) | NR | NR | 36 (9) | 0.744 (0.171 to 1.317), p=0.011 | The total BPRS score was significantly higher for the high dose group than the standard dose group (p=0.013) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 30 (7) |
| Pharmacologic Therapies (continued) | Tavernor et al., 200070 (continued) | High dose chlorpromazine (>1,400 mg, 32) | Nurses Observation Scale for Inpatient Evaluation (NOSIE) social interest | NR | NR | 29 (10) | 0.631 (0.129 to 1.133), p=0.014 | The NOSIE score for social interest was significantly higher for the high dose group than the standard group (p=0.035) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 23 (9) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | NOSIE social competence | NR | NR | 45 (11) | 0.299 (-0.194 to 0.791), p=0.235 | No significant difference between groups on the NOSIE social competence score. |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 48 (9) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | NOSIE personal neatness | NR | NR | 8 (5) | 0.200 (-0.291 to 0.691), p=0.425 | No significant difference between groups on the NOSIE personal neatness score. |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 9 (5) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | NOSIE psychotic depression | NR | NR | 8 (4) | 0.750 (0.243 to 1.257), p=0.004 | The NOSIE score for psychotic depression was significantly higher for the high dose group than the standard group (p=0.023) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 5 (4) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | NOSIE manifest psychosis | NR | NR | 8 (5) | 0.883 (0.370 to 1.397), p=0.001 | The NOSIE score for manifest psychosis was significantly higher for the high dose group than the standard group (p=0.004) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 4 (4) |
| Pharmacologic Therapies (continued) | Tavernor et al., 200070 (continued) | High dose chlorpromazine (>1,400 mg, 32) | NOSIE irritability | NR | NR | 13 (8) | 0.587 (0.087 to 1.088), p=0.021 | The NOSIE score for irritability was significantly higher for the high dose group than the standard group (p=0.039) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 8 (9) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | NOSIE cooperation | NR | NR | 8 (4) | 0.250 (-0.242 to 0.742), p=0.319 | No significant difference between groups on the NOSIE cooperation score. |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 9 (4) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | Global Assessment Scale (GAS) | NR | NR | 36 (15) | 0.664 (0.161 to 1.167), p=0.010 | The mean score on the GAS was significantly lower for the high dose group than the standard dose group (p=0.006) |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 47 (18) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | Social Dysfunction and Aggression Scale (SDAS) general | NR | NR | 10 (8) | 0.532 (0.034 to 1.031), p=0.036 | The general and peak levels of aggression were higher for the high dose group than for the standard- dose group. |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 6 (7) |
|  |  | High dose chlorpromazine (>1,400 mg, 32) | SDAS peak | NR | NR | 18 (9) | 0.631 (0.125 to 1.137), p=0.014 | The general and peak levels of aggression were higher for the high dose group than for the standard-dose group. |
|  |  | Standard dose chlorpromazine (<1,000 mg, 32) | NR | NR | 12 (10) |
| Pharmacologic Therapies | Beck et al., 199771 | Risperidone (10) | Time-Sample Behavioral Checklist (TSBC) | NR | NR | NR | NR | MANOVA analysis indicated that the group main effect failed to achieve significance (F=1.77, df=16,139, p<0.18), as did the interaction between group and time (F=0.48, df=18,139, p<0.96). The main effect of time was significant (F=3.55, df=18,139, p<0.001). |
| Traditional neuroleptics (10) | NR | NR | NR |
| Psychological Therapies | Rees-Jones et al., 201266 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 67) | Maudsley Violence Questionnaire (MVQ) Total Score | 16.25 (12.61) | 12.30 (10.10) | 11.87 (10.06) | Pre to posttreatment:0.38 (0.02 to 0.75), 0.04  Pre to followup:  0.38 (0.02 to 0.74), p=0.04 | The R&R group scored significantly lower than TAU on MVQ total score and subscales at post-treatment. At the 3 month followup, the R&R group showed persistent significant improvement on the total score and subscale. |
| TAU (54) | 14.35 (11.28) | 14.72 (10.43) | 14.24 (10.70) |
| Psychological Therapies | Rees-Jones et al., 201266 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 67) | Locus of Control (LoC) Scale | 16.13 (5.32) | 15.76 (5.25) | 14.78 (4.57) | Pre to posttreatment: 0.04 (-0.32 to 0.40), p=0.83  Pre to followup:  0.23 (-0.13 to 0.59), p=0.21 | There was no significant between group differences on LoC at post-treatment. At the 3 month followup, the R&R group had moved toward a more normal LoC. |
| TAU (54) | 16.04 (5.51) | 15.88 (5.89) | 15.90 (5.79) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | Social Problem-Solving Inventory (SPSI) total score | 12.6 (2.7) | 13.4 (2.2) | 13.2 (2.5) | Pre to posttreatment: 0.409 (-0.058 to 0.875), p=0.086  Pre to followup: 0.281 (-0.183 to 0.746), p=0.235 | Results of regression analysis indicated statistically significant larger improvement in the R&R group compared with the TAU group on the total SPSI score and on the impulsive/carelessness style and avoidant style subscales at posttreatment. At 12 months followup, the R&R group demonstrated significant improvements on the SPSI impulsive/carelessness style and avoidant style subscale. |
|  |  | TAU (36) | 13.6 (2.5) | 13.4 (2.3) | 13.5 (2.2) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | SPSI: positive problem orientation | 12.4 (3.9) | 11.9 (3.4) | 12.2 (3.6) | Pre to posttreatment: 0.166 (-0.297 to 0.629), p=0.482  Pre to followup: 0.00 (-0.462 to 0.462), p=1.000 |
|  |  | TAU (36) | 11.5 (3.4) | 11.6 (3.7) | 11.3 (3.6) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | SPSI: negative problem orientation | 5.8 (5.3) | 5.8 (4.2) | 6.4 (4.4) | Pre to posttreatment: 0.00 (-0.462 to 0.462), p=1.000  Pre to followup: 0.251 (-0.213 to 0.714), p=0.290 |
|  |  | TAU (36) | 4.8 (4.1) | 4.8 (4.0) | 4.3 (3.4) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | SPSI: rational problem solving | 10.6 (4.3) | 11.1 (4.5) | 11.6 (4.0) | Pre to posttreatment: 0.351 (-0.114 to 0.817), p=0.139  Pre to followup: 0.245 (-0.219 to 0.708), p=0.3011 |
|  |  | TAU (36) | 10.9 (3.8) | 9.9 (4.4) | 10.9 (4.2) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | SPSI: impulsive/ careless style | 7.0 (4.3) | 4.7 (3.4) | 5.4 (4.0) | Pre to posttreatment: 0.612 (0.140 to 1.085), p=0.011  Pre to followup: 0.524 (0.054 to 0.994), p=0.029 |
|  |  | TAU (36) | 5.0 (3.8) | 5.0 (3.3) | 5.5 (3.9) |
| Psychological Therapies | Cullen et al., 201167 | Cognitive skills program—Reasoning and Rehabilitation (R&R, 36) | SPSI: avoidant style | 4.5 (4.5) | 5.0 (3.8) | 5.9 (4.3) | Pre to posttreatment: 0.557 (0.086 to 1.028), p=0.020  Pre to followup: 0.834 (0.352 to 1.315), p=0.001 |
|  |  | TAU (36) | 7.0 (4.5) | 5.2 (3.4) | 4.8 (3.9) |
| Psychological Therapies | Wilson, 199072\* | Group cognitive therapy (5) | Beck Depression Inventory (BDI) | 26.60 (12.30) | 13.00 (9.69) | NR | 0.956 (-0.353 to 2.264), p=0.152 | Both groups improved from pre to post-treatment. “A significant main effect for time was obtained across the repeated measures on the [BDI] and a trend towards significance was noted on the Hopelessness Scale.” Further analysis indicated significant improvement in depression ratings from pre- to midtreatment assessments on the BDI and between mid- and posttreatment on the MMPI D. No significant change was observed for assessments using the MAACL-D.  ECRI’s analysis does not include midtreatment assessment scores. |
| Individual supportive therapy (5) | 21.20 (4.66) | 16.20 (6.76) | NR |
| Group cognitive therapy (5) | Multiple Affect Adjective Check List D Scale (MAACL D) | 14.00 (7.42) | 8.80 (5.26) | NR | 0.812 (-0.478 to 2.102), p=0.217 |
| Individual supportive therapy (5) | 8.40 (6.54) | 8.20 (3.49) | NR |
| Group cognitive therapy (5) | Hopelessness Scale | 10.00 (6.71) | 6.80 (7.59) | NR | 0.032 (-1.207 to 1.272), p=0.959 |
| Individual supportive therapy (5) | 7.20 (5.54) | 4.20 (4.14) | NR |
| Group cognitive therapy (5) | MMPI D Scale | 82.00 (13.69) | 69.80 (14.56) | At 9 months: 61.20 (8.41) | Baseline to post: 0.344 (‑0.905 to 1.593), p=0.589  Baseline to followup: 0.200 (-1.043 to 1.443), p=0.753 |
| Individual supportive therapy (5) | 74.40 (16.99) | 57.20 (10.98) | At 9 months: 56.40 (14.22) |
| Dual Disorder Treatment | Sacks et al., 200864,65  (Both publications report on the same patients, but the second publication reports a longer-term followup period and includes an additional 154 patients.) | Therapeutic community (TC),  Baseline and 6 month post-prison data is based on the original sample only (N=163); 12 month followup is based on larger sample (N=207) | BDI total score | 17.40 (10.74) | NR | At 6 months: 11.84 (11.53)  At 12 months: 11.7 (NR) | Baseline to 6 month followup: 0.204 (-0.018 to 0.426), p=0.071  Baseline to 12 month followup: Could not be calculated. | Scores for all three measures of psychological symptoms (BDI, BSI, and PSS) showed statistically significant improvement for both the TC and IOP group from pretreatment to 6 month post-prison follow-up. The authors’ calculations show significant differential improvement favoring the TC group in the BDI total score and PSS score.  “At 12 months post-prison followup for mental health symptomatology, the comparatively greater effectiveness of TC found 6 months after prison release were attenuated at the 12 month followup. Women in the control group continued to improve long-term (through 12 months post prison) on mental health and arrest, reducing those outcomes to levels approaching the rates of women from the TC and, in those domains, attenuating the differential between the groups. |
|  |  | Intensive outpatient program (IOP)Baseline and 6 month post-prison data is based on the original sample only (N=151); 12 month followup is based on the larger sample (N=163) | 17.74 (11.19) | NR | At 6 months: 14.48 (12.11)  At 12 months: 13.2 (NR) |
|  |  | TC  Baseline and 6 month post-prison data is based on the original sample only (N=163); 12 month followup is based on larger sample (N=207) | Brief Symptom Inventory (BSI) global severity index | 58.77 (10.83) | NR | At 6 months: 53.47 (12.64)  At 12 months: 51.3 (NR) | Baseline to 6 month followup: 0.145 (-0.077 to 0.366), p=0.201  Baseline to 12 month followup: Could not be calculated. |
|  |  | IOP  Baseline and 6 month post-prison data is based on the original sample only (N=151); 12 month followup is based on the larger sample (N=163) | 58.64 (12.17) | NR | At 6 months: 55.10 (12.84)  At 12 months post-prison release:53.4 (NR) |
|  |  | TC  Baseline and 6 month post-prison data is based on the original sample only (N=163); 12 month followup is based on larger sample (N=207) | Posttraumatic Symptom Severity (PSS) Score total score | 16.16 (13.01) | NR | At 6 months: 10.22 (11.10)  At 12 months post-prison release:10.0 (NR) | Baseline to 6 month followup: 0.21 (-0.01 to 0.43), p=0.060)  Baseline to 12 month followup: Could not be calculated. |
|  |  | IOP  Baseline and 6 month post-prison data is based on the original sample only (N=151); 12 month followup is based on the larger sample (N=163) | 16.29 (14.10) | NR | At 6 months: 13.12 (13.81)  At 12 months:11.9 (NR) |
| Dual Disorder Treatment | Sullivan et al., 200763 | Modified Therapeutic Community (MTC, 75) vs. Standard Mental Health Program (MH, 64) | BSI global severity index | Combined for both groups: 44.7 (11.1) | NR | At 12 months  Combined for both groups: 40.9 (10.1) | NR | Both groups demonstrated a statistically significant decrease in BSI scores from baseline to 12 month followup, but no between group difference was observed at 12 months: Odds ratio (p-value): 0.760 (p=0.47) |
| BDI total score | Combined for both groups: 12.8 (10.2) | NR | At 12 months  Combined for both groups: 12.7 (12.5) | NR | No significant change in BDI scores were observed for either group from baseline to 12-month followup. Between group difference at 12 months was also not significant: Odds ratio (p-value): 0.615 (p=0.37) |
| Manifest Anxiety Scale (MAS) | Combined for both groups: 9.4 (5.0) | NR | At 12 months  Combined for both groups: 8.7 (5.2) | NR | No significant change in MAS scores were observed for either group from baseline to 12-month followup. Between group difference at 12 months was also not significant: Odds ratio (p-value): 0.770 (p=0.54) |

\*Author-reported change in daily mood rating. However, mood was rated using an instrument that had not been validated. Thus, these results are not reported in this report.

CI=Confidence interval; MANOVA=multivariate analysis of variance; MMPI-D=Minnesota Multiphasic Personality Inventory Depression scale; NR=not reported; SD=standard deviation; SMD=standardized mean difference; TAU=treatment as usual