APPENDIX 11. FOREST PLOTS

ASSERTIVE COMMUNITY TREATMENT

1.1 Assertive community treatment compared with treatment as usual

Mental health

1.1.1 Brief Psychiatric Rating Scale (24-item)

| | | АСТ | | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|-----------------------------------|----------|----------|-------|------|------|-------|--------|----------------------|-------------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 1.83 | 0.76 | 47 | 1.83 | 0.62 | 24 | 49.0% | 0.00 [-0.49, 0.49] | |
| Fletcher 2009b | 1.85 | 0.77 | 53 | 1.83 | 0.62 | 24 | 51.0% | 0.03 [-0.46, 0.51] | - |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | 0.01 [-0.33, 0.36] | • |
| Heterogeneity: Tau ² = | | | | | | | | | |
| Test for overall effect: | Z = 0.08 |) (P = 0 |).94) | | | | | | Favours ACT Favours TAU |

1.1.2 Depression (Depressive Symptom Scale)

| | Enhanced ca | ise manage | ement | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|-------------|------------|-------|------|------|-------|--------|----------------------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Striley 2013 | 3.13 | 2.04 | 64 | 3.35 | 2.25 | 56 | 100.0% | -0.10 [-0.46, 0.26] | |
| Total (95% CI) | | | 64 | | | 56 | 100.0% | -0.10 [-0.46, 0.26] | • |
| Heterogeneity: Not ap Test for overall effect: | • | 58) | | | | | | Favou | -4 -2 0 2 4 rrs case management Favours TAU |

1.1.3 Mental Health Treatment Index (MHTI)

| | Enhanced ca | ase manage | ement | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|-------------|------------|-------|------|------|-------|--------|----------------------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% Cl |
| Striley 2013 | 0.02 | 0.07 | 64 | 0.01 | 0.03 | 56 | 100.0% | 0.18 [-0.18, 0.54] | |
| Total (95% CI) | | | 64 | | | 56 | 100.0% | 0.18 [-0.18, 0.54] | - |
| Heterogeneity: Not ap Test for overall effect: | | 33) | | | | | | Favour | -1 -0.5 0 0.5 1 s case management Favours TAU |

1.1.4 Homicidal-Suicidal Thought Index (HSTI)

| | Enhanced ca | ase manage | ement | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|-------------|------------|-------|------|------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Striley 2013 | 0.32 | 0.81 | 64 | 0.34 | 0.75 | 56 | 100.0% | -0.03 [-0.38, 0.33] | |
| Total (95% CI) | | | 64 | | | 56 | 100.0% | -0.03 [-0.38, 0.33] | |
| Heterogeneity: Not ap Test for overall effect: | | 89) | | | | | | Favours En | -1 -0.5 0 0.5 1 hanced case management Favours TAU |

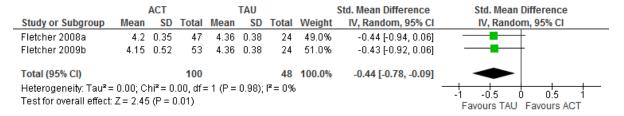
Substance use

1.1.5 Severity of alcohol and drug use

| | | АСТ | | 1 | TAU | | | Std. Mean Difference | Std. Mean Difference |
|-----------------------------------|--------|----------|-------|------|-----|-------|--------|----------------------|-------------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 2.73 | 1.25 | 47 | 2.44 | 1.2 | 24 | 48.9% | 0.23 [-0.26, 0.73] | -+ |
| Fletcher 2009b | 2.58 | 1.11 | 53 | 2.44 | 1.2 | 24 | 51.1% | 0.12 [-0.36, 0.60] | |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | 0.18 [-0.17, 0.52] | • |
| Heterogeneity: Tau ² = | | | | | | | | | |
| Test for overall effect: | Z=1.00 |) (P = (|).32) | | | | | | Favours ACT Favours TAU |

Acceptability of services

1.1.6 Service user satisfaction



Adaptive functioning

1.1.7 Housing (days living in stable housing)

| | | ACT | | Stan | dard ca | are | | Std. Mean Difference | Std. Mean Difference |
|-----------------------------------|--------|-----------|-------|-------|---------|-------|--------|----------------------|-------------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 15.99 | 12.49 | 47 | 11.81 | 14.25 | 24 | 48.8% | 0.32 [-0.18, 0.81] | |
| Fletcher 2009b | 13.55 | 13.45 | 53 | 11.81 | 14.25 | 24 | 51.2% | 0.13 [-0.36, 0.61] | |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | 0.22 [-0.13, 0.56] | - |
| Heterogeneity: Tau ² = | | | | | | | | | |
| Test for overall effect: | Z=1.24 | (P = 0.1) | 22) | | | | | | Favours TAU Favours ACT |

Service utilisation

1.1.8 Mean number of days of contact with assigned treatment programme

| | | АСТ | | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|-----------------------------------|------------|--------|---------|------|------|-------|--------|----------------------|-------------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 4.56 | 3.48 | 47 | 2.45 | 3.64 | 24 | 49.4% | 0.59 [0.09, 1.09] | |
| Fletcher 2009b | 5.13 | 3.81 | 53 | 2.45 | 3.64 | 24 | 50.6% | 0.71 [0.21, 1.20] | |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | 0.65 [0.30, 1.00] | • |
| Heterogeneity: Tau ² = | • | | | | | | | | |
| Test for overall effect | : Z = 3.61 | (P = t | 1.0003) | | | | | | Favours TAU Favours ACT |

1.1.9 Mean number of days discussing substance use problems with assigned programme

| | | АСТ | | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|--|--|------|-------|------|------|-------|--------|----------------------|----------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 0.88 | 1.53 | 47 | 0.69 | 2.46 | 24 | 49.3% | 0.10 [-0.39, 0.59] | |
| Fletcher 2009b | 0.27 | 0.72 | 53 | 0.69 | 2.46 | 24 | 50.7% | -0.28 [-0.76, 0.20] | |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | -0.09 [-0.46, 0.28] | - |
| Heterogeneity: Tau ² = Test for overall effect | -1 -0.5 0 0.5 1 Favours TAU Favours ACT | | | | | | | | |

1.1.10 Mean number of days they had speaking with assigned programme on the phone

| | | АСТ | | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|-----------------------------------|-------------|----------|---------|------|------|-------|--------|----------------------|-------------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Fletcher 2008a | 4.69 | 5.22 | 47 | 0.82 | 1.46 | 24 | 49.5% | 0.88 [0.37, 1.39] | |
| Fletcher 2009b | 4.06 | 3.76 | 53 | 0.82 | 1.46 | 24 | 50.5% | 0.99 [0.48, 1.50] | |
| Total (95% CI) | | | 100 | | | 48 | 100.0% | 0.94 [0.58, 1.30] | • |
| Heterogeneity: Tau ² = | -2 -1 0 1 2 | | | | | | | | |
| Test for overall effect: | Z = 5.08 |) (P < 0 | 0.00001 | 1) | | | | | Favours TAU Favours ACT |

INTEGRATED TREATMENT¹

1.2 Integrated treatment compared with treatment as usual

Mental health

1.2.1 Mental health (composite score based on scores from: Brief Psychiatric Rating Scale, Wing Negative Symptom Scale, Raskin Depression Scale and Covi Anxiety Scale)

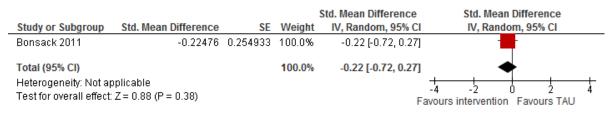
| | Inte | rventio | on | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|-------|---------|-------|-------|-------|-------|--------|----------------------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Eack 2015 | 64.14 | 13.6 | 22 | 61.43 | 11.19 | 9 | 100.0% | 0.20 [-0.57, 0.98] | |
| Total (95% CI) | | | 22 | | | 9 | 100.0% | 0.20 [-0.57, 0.98] | • |
| Heterogeneity: Not ap Test for overall effect: | • | |).61) | | | | | Fa | -10 -5 0 5 10 avours intervention Favours TAU |

1.2.2 Psychotic symptoms (PANSS total)

| Study or Subgroup | Std. Mean Difference | SE | | Std. Mean Difference IV, Random, 95% Cl | Std. Mean Difference IV, Random, 95% Cl |
|---|--|---------------|--------|--|---|
| Barrowclough 2001 | -0.47 | 0.377551 | 13.4% | -0.47 [-1.21, 0.27] | |
| Barrowclough 2010 | 0.2 | 0.109694 | 53.6% | 0.20 [-0.01, 0.41] | +∎- |
| Hjorthøj 2013 | -0.03502 | 0.198083 | 33.0% | -0.04 [-0.42, 0.35] | |
| Total (95% CI) | | | 100.0% | 0.03 [-0.27, 0.33] | + |
| Heterogeneity: Tau² = Test for overall effect: | 0.03; Chi² = 3.57, df = 2 Z = 0.21 (P = 0.83) | (P = 0.17); I | ²= 44% | Fa | -1 -0.5 0 0.5 1 vours intervention Favours TAU |

¹ Integrated treatment here refers to any intervention which was delivered in the context of a multidisciplinary team in combination with usual care

1.2.3 Psychotic symptoms (PANSS positive scale)



1.2.4 Psychotic symptoms (PANSS negative scale)

| | | | | Std. Mean Difference | Std. Mean Difference |
|--|----------------------|----------|--------|----------------------------|---|
| Study or Subgroup | Std. Mean Difference | SE | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Bonsack 2011 | -0.2952 | 0.255511 | 100.0% | -0.30 [-0.80, 0.21] | |
| Total (95% CI) Heterogeneity: Not ap Test for overall effect: | | | 100.0% | -0.30 [-0.80, 0.21] Fav | -1 -0.5 0 0.5 1 vours intervention Favours TAU |

1.2.5 Relapse (number of people with an exacerbation of symptoms for ≥2 weeks or hospital admission)

| | Intervention TAU | | J | | Risk Ratio | Risk Ratio | |
|--|------------------|-------|--------|-------|------------|---------------------|----------------------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Barrowclough 2001 | 7 | 18 | 12 | 18 | 100.0% | 0.58 [0.30, 1.13] | |
| Total (95% CI) | | 18 | | 18 | 100.0% | 0.58 [0.30, 1.13] | - |
| Total events | 7 | | 12 | | | | |
| Heterogeneity: Not ap | plicable | | | | | | |
| Test for overall effect: Z = 1.59 (P = 0.11) | | | | | | F | Favours intervention Favours TAU |

1.2.6 Relapse (number of people with an exacerbation of symptoms for ≥2 weeks)

| | Intervention | | TAU | J | | Risk Ratio | Risk Ratio |
|--------------------------|--------------|-------|--------|-------|---------------------------------|---------------------|---------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% CI |
| Barrowclough 2010 | 63 | 161 | 61 | 161 | 100.0% | 1.03 [0.78, 1.36] | |
| Total (95% CI) | | 161 | | 161 | 100.0% | 1.03 [0.78, 1.36] | - |
| Total events | 63 | | 61 | | | | |
| Heterogeneity: Not ap | plicable | | | | | | |
| Test for overall effect: | 2) | | | F | avours intervention Favours TAU | | |

1.2.7 Hospital admission (number of people admitted)

| | Intervention TAU | | | Risk Ratio | Risk Ratio | | |
|---|------------------|-------|--------|------------|------------|---------------------|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Barrowclough 2010 | 38 | 163 | 33 | 163 | 75.6% | 1.15 [0.76, 1.74] | |
| Bonsack 2011 | 9 | 30 | 11 | 32 | 24.4% | 0.87 [0.42, 1.80] | |
| Total (95% CI) | | 193 | | 195 | 100.0% | 1.08 [0.75, 1.54] | + |
| Total events | 47 | | 44 | | | | |
| Heterogeneity: Tau² = Test for overall effect: . | | | | = 0.51 |); I² = 0% | | 0.1 0.2 0.5 1 2 5 10 avours intervention Favours TAU |

Substance use

1.2.8 Substance use (mean % of days abstinent from main drug)

| | Intervention TAU | | | Std. Mean Difference Std. Mean Difference | | | | | |
|---|------------------|------|-------|---|-------|-------|--------|--------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Barrowclough 2010 | 51.29 | 39.8 | 129 | 48.77 | 39.69 | 117 | 100.0% | 0.06 [-0.19, 0.31] | - |
| Total (95% CI) | | | 129 | | | 117 | 100.0% | 0.06 [-0.19, 0.31] | + |
| Heterogeneity: Not applicable Test for overall effect: Z = 0.49 (P = 0.62) | | | | | | | | Fa | -1 -0.5 0 0.5 1 vours intervention Favours TAU |

1.2.9 Substance use (mean % of days abstinent from any drug)

| | Intervention | | | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|--------------|-------|-------|-------|---|-------|--------|----------------------|----------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Barrowclough 2010 | 44.25 | 38.36 | 130 | 37.18 | 36.89 | 117 | 100.0% | 0.19 [-0.06, 0.44] | │ |
| Total (95% CI) | | | 130 | | | 117 | 100.0% | 0.19 [-0.06, 0.44] | ► |
| Heterogeneity: Not applicable Test for overall effect: Z = 1.46 (P = 0.14) | | | | F | -1 -0.5 0 0.5 1 Favours intervention Favours TAU | | | | |

1.2.10 Substance use (abstinence from drugs or alcohol by the end of the study)

| Study or Subgroup | Std. Mean Difference | SE | | Std. Mean Difference IV, Random, 95% Cl | Std. Mean Difference IV, Random, 95% Cl |
|---|----------------------|----------|--------|--|---|
| Eack 2015 | -0.37825 | 0.398589 | 100.0% | -0.38 [-1.16, 0.40] | |
| Total (95% CI) | | | 100.0% | -0.38 [-1.16, 0.40] | |
| Heterogeneity: Not ap Test for overall effect: | | | | Fa | -1 -0.5 0 0.5 1 vours Intervention Favours TAU |

Adaptive functioning

1.2.11 Global assessment of functioning

| | | | | Std. Mean Difference | Std. Mean Difference |
|---|--|---------------|--------|----------------------|---|
| Study or Subgroup | Std. Mean Difference | SE | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Barrowclough 2001 | 0.4 | 0.375 | 8.0% | 0.40 [-0.33, 1.13] | |
| Barrowclough 2010 | -0.02 | 0.112245 | 75.1% | -0.02 [-0.24, 0.20] | -#- |
| Bonsack 2011 | -0.25484 | 0.255161 | 16.9% | -0.25 [-0.75, 0.25] | |
| Total (95% CI) | | | 100.0% | -0.03 [-0.24, 0.18] | • |
| Heterogeneity: Tau ² = Test for overall effect: | : 0.00; Chi ² = 2.10, df = 2 Z = 0.24 (P = 0.81) | (P = 0.35); I | ²= 5% | | -1 -0.5 0 0.5 1 urs intervention Favours TAU |
| | | | | Favo | uis intervention Favouis TAO |

1.2.12 Quality of life (Manchester Short Assessment of Quality of Life)

| | | | | Std. Mean Difference | Std. Mean Difference |
|---|----------------------|----------|--------|----------------------|---|
| Study or Subgroup | Std. Mean Difference | SE | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Hjorthøj 2013 | -0.2107 | 0.198616 | 100.0% | -0.21 [-0.60, 0.18] | |
| Total (95% CI) | | | 100.0% | -0.21 [-0.60, 0.18] | - |
| Heterogeneity: Not ap Test for overall effect: | | | | Fa | -1 -0.5 0 0.5 1 vours intervention Favours TAU |

1.2.13 Social functioning (composite score based on scores from: Social Adjustment Scale-II, Major Role Adjustment Inventory and the Global Assessment Scale)

| | Intervention | | | TAU | | | | Std. Mean Difference | Std. Mean Difference |
|---|-----------------------------|--------|--|-------|--------------------|---|--------|----------------------|--|
| Study or Subgroup | Mean SD Total Mean SD Total | | al Weight IV, Random, 95% Cl IV, Rando | | IV, Random, 95% CI | | | | |
| Eack 2015 | 60.15 | 12.031 | 22 | 57.56 | 10.77 | 9 | 100.0% | 0.22 [-0.56, 0.99] | |
| Total (95% CI) | | | 22 | | | 9 | 100.0% | 0.22 [-0.56, 0.99] | + |
| Heterogeneity: Not ap Test for overall effect: | • | | 9) | | | | | Fa | -4 -2 0 2 4 avours intervention Favours TAU |

1.2.14 Social functioning (Social Functioning Scale)

| | Intervention | | | TAU | | | Std. Mean Difference | Std. Mean Difference | |
|---|--------------|--------|-----------------|--------|--------|-------|----------------------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Barrowclough 2001 | 106.6 | 28.157 | 15 | 100.23 | 37.491 | 14 | 100.0% | 0.19 [-0.54, 0.92] | |
| Total (95% CI) Heterogeneity: Not ap Test for overall effect: | | | 15 I) | | | 14 | 100.0% | 0.19 [-0.54, 0.92] | -4 -2 0 2 4 Favours TAU Favours intervention |

1.2.15 Social and occupational functioning (Social and Occupational Functioning Assessment Scale)

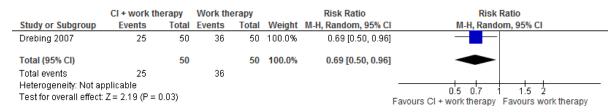
| Study or Subgroup | Std. Mean Difference | SE | Weight | Std. Mean Difference IV, Random, 95% Cl | Std. Mean Difference IV, Random, 95% Cl |
|--|----------------------|----------|--------|--|---|
| Bonsack 2011 | -0.16446 | 0.254561 | 100.0% | -0.16 [-0.66, 0.33] | |
| Total (95% CI) Heterogeneity: Not ap Test for overall effect: | | | 100.0% | -0.16 [-0.66, 0.33] Fa | -1 -0.5 0 0.5 1 vours intervention Favours TAU |

OTHER INTERVENTIONS

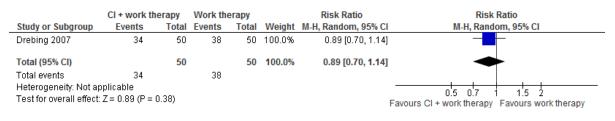
1.3 Contingency management combined with compensated work therapy compared with compensated work therapy alone

Substance use

1.3.1 Substance use relapse (16 weeks' follow-up)



1.3.2 Substance use relapse (39 weeks' follow-up)



Adaptive functioning

1.3.3 Employment

| | CI + work th | erapy | Work the | егару | | Risk Ratio | Risk Ratio | | |
|---|--------------|-------|----------|-------|--------|---------------------|----------------------------------|------------------------|--------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Rand | om, 95% Cl | |
| Drebing 2007 | 25 | 50 | 14 | 50 | 100.0% | 1.79 [1.06, 3.02] | | | |
| Total (95% CI) | | 50 | | 50 | 100.0% | 1.79 [1.06, 3.02] | | ◆ | |
| Total events | 25 | | 14 | | | | | | |
| Heterogeneity: Not ap Test for overall effect: | | 0.03) | | | | | 0.01 0.1 Favours work therapy | 1 10 Favours CI + w | 100 ork therapy |

1.4 Time-limited care co-ordination compared with a matched attention control

Substance use

1.4.1 Alcohol use (in the previous 30 days)

| | Interver | ntion | Contr | ol | | Risk Ratio | Risk Ratio |
|--------------------------|--|-------|--------|-------|--------|---------------------|--------------------------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Smelson 2012 | 13 | 40 | 14 | 26 | 100.0% | 0.60 [0.34, 1.07] | |
| Total (95% CI) | | 40 | | 26 | 100.0% | 0.60 [0.34, 1.07] | • |
| Total events | 13 | | 14 | | | | |
| Heterogeneity: Not ap | plicable | | | | | | |
| Test for overall effect: | Test for overall effect: $Z = 1.73$ (P = 0.08) | | | | | | Favours intervention Favours control |

Service utilisation

1.4.2 Attending an outpatient appointment

| | Interver | ntion | Cont | rol | | Risk Ratio | Risk Ratio |
|--------------------------|-----------|----------|--------|-------|--------|---------------------|--------------------------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Smelson 2012 | 27 | 39 | 8 | 24 | 100.0% | 2.08 [1.14, 3.80] | |
| Total (95% CI) | | 39 | | 24 | 100.0% | 2.08 [1.14, 3.80] | |
| Total events | 27 | | 8 | | | | |
| Heterogeneity: Not ap | oplicable | | | | | | |
| Test for overall effect: | Z= 2.37 (| P = 0.02 | 2) | | | | Favours control Favours intervention |

1.5 Shelter-based psychiatric clinic compared with treatment as usual

Adaptive functioning

1.5.1 Employment (number of participants)

| | Shelter base | l clinic | Standard | l care | | Risk Ratio | Risk Ratio |
|---|--------------|----------|----------|--------|--------|---------------------|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% CI |
| Bradford 2005 | 17 | 50 | 10 | 49 | 100.0% | 1.67 [0.85, 3.27] | +=- |
| Total (95% CI) | | 50 | | 49 | 100.0% | 1.67 [0.85, 3.27] | • |
| Total events | 17 | | 10 | | | | |
| Heterogeneity: Not a Test for overall effect | | 14) | | | | | 0.01 0.1 1 10 100 Favours standard care Favours shelter clinic |

1.5.2 Housing (number of participants)

| | Shelter based | l clinic | Standard | l care | | Risk Ratio | Risk Ratio |
|--------------------------|-------------------|----------|----------|--------|--------|---------------------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Bradford 2005 | 22 | 49 | 18 | 47 | 100.0% | 1.17 [0.73, 1.89] | |
| Total (95% CI) | | 49 | | 47 | 100.0% | 1.17 [0.73, 1.89] | |
| Total events | 22 | | 18 | | | | |
| Heterogeneity: Not ap | plicable | | | | | | |
| Test for overall effect: | Z = 0.65 (P = 0.9 | 51) | | | | | Favours standard care Favours shelter clinic |

Service utilisation

1.5.3 Attending community mental health appointment (attending ≥1 community mental health appointments)

| | Shelter based | d clinic | Standard | l care | | Risk Ratio | Risk Ratio | | | |
|-------------------------|--------------------|----------|----------|--------|--------|---------------------|--|--|--|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl | | | |
| Bradford 2005 | 33 | 51 | 19 | 51 | 100.0% | 1.74 [1.15, 2.62] | | | | |
| Total (95% CI) | | 51 | | 51 | 100.0% | 1.74 [1.15, 2.62] | • | | | |
| Total events | 33 | | 19 | | | | | | | |
| Heterogeneity: Not ap | pplicable | | | | | | | | | |
| Test for overall effect | : Z = 2.64 (P = 0. | 008) | | | | | Favours standard care Favours shelter clinic | | | |

1.5.4 Attending community mental health appointment (attending ≥2 community mental health appointments)

| | Shelter based of | linic | Standard | l care | | Risk Ratio | Risk Ratio |
|---|------------------|-------|----------|--------|--------|---------------------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Bradford 2005 | 17 | 51 | 9 | 51 | 100.0% | 1.89 [0.93, 3.84] | ⊢ ∎ |
| Total (95% CI) | | 51 | | 51 | 100.0% | 1.89 [0.93, 3.84] | - |
| Total events | 17 | | 9 | | | | |
| Heterogeneity: Not ap Test for overall effect: | • | 3) | | | | | 0.1 0.2 0.5 1 2 5 10 Favours standard care Favours shelter clinic |

1.5.5 Attending community mental health appointment (attending ≥3 community mental health appointments)

| | Shelter based | l clinic | Standard | l care | | Risk Ratio | Risk Ratio | | | |
|--------------------------|------------------|----------|----------|--------|--------|---------------------|--|--|--|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl | | | |
| Bradford 2005 | 10 | 51 | 7 | 51 | 100.0% | 1.43 [0.59, 3.46] | | | | |
| Total (95% CI) | | 51 | | 51 | 100.0% | 1.43 [0.59, 3.46] | | | | |
| Total events | 10 | | 7 | | | | | | | |
| Heterogeneity: Not ap | oplicable | | | | | | | | | |
| Test for overall effect: | Z = 0.79 (P = 0. | 43) | | | | | Favours standard care Favours shelter clinic | | | |

1.5.6 Attending substance use programme (includes only participants who had a substance use disorder)

| | Shelter based | clinic | Standard | l care | | Risk Ratio | Risk Ratio |
|--------------------------|--|--------|----------|--------|--------|---------------------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Bradford 2005 | 19 | 37 | 4 | 32 | 100.0% | 4.11 [1.56, 10.82] | |
| Total (95% CI) | | 37 | | 32 | 100.0% | 4.11 [1.56, 10.82] | - |
| Total events | 19 | | 4 | | | | |
| Heterogeneity: Not ap | oplicable | | | | | | |
| Test for overall effect: | est for overall effect: Z = 2.86 (P = 0.004) | | | | | | Favours standard care Favours shelter clinic |

1.6 Staff training compared with no training

Mental health

1.6.1 Brief Psychiatric Rating Scale (24-item)

| | Train | ing st | aff | No | trainin | g | | Std. Mean Difference | Std. Mean Difference |
|---|-------|--------|--------|------|---------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 37 | 9.8 | 109 | 41.6 | 11.2 | 97 | 100.0% | -0.44 [-0.71, -0.16] | |
| Total (95% CI) | | | 109 | | | 97 | 100.0% | -0.44 [-0.71, -0.16] | - |
| Heterogeneity: Not a Test for overall effect | | | 1.002) | | | | | | -1 -0.5 0 0.5 1 Favours training staff Favours no training |

1.6.2 Hospital admission (mean days in hospital)

| | Trai | Training staff No training | | | | | | Std. Mean Difference | Std. Mean Difference |
|---|------|----------------------------|-------|------|-------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 74.9 | 142.6 | 113 | 71.8 | 128.1 | 97 | 100.0% | 0.02 [-0.25, 0.29] | |
| Total (95% CI) | | | 113 | | | 97 | 100.0% | 0.02 [-0.25, 0.29] | 🔶 . |
| Heterogeneity: Not a Test for overall effect | | | 87) | | | | | | -1 -0.5 0 0.5 1 Favours training staff Favours no training |

1.6.3 Hospital admission (number of participants admitted)

| | Training | ning staff No training | | | | Risk Ratio | Risk Ratio |
|---|----------|------------------------|--------|-------|--------|---------------------|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Johnson 2007 | 49 | 113 | 47 | 97 | 100.0% | 0.89 [0.67, 1.20] | |
| Total (95% CI) | | 113 | | 97 | 100.0% | 0.89 [0.67, 1.20] | - |
| Total events | 49 | | 47 | | | | |
| Heterogeneity: Not applicable Test for overall effect: Z = 0.74 (P = 0.46) | | | | | | | 0.2 0.5 1 2 5 Favours training staff Favours no training |

Substance use

1.6.4 Alcohol use (total standard units)

| | Trai | ning sta | aff | No | trainin | 9 | | Std. Mean Difference | Std. Mean Difference |
|---|-------|----------|-------|-------|---------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% Cl |
| Johnson 2007 | 104.7 | 169.4 | 76 | 130.4 | 223.2 | 76 | 100.0% | -0.13 [-0.45, 0.19] | |
| Total (95% CI) | | | 76 | | | 76 | 100.0% | -0.13 [-0.45, 0.19] | |
| Heterogeneity: Not ap Test for overall effect: | | | 43) | | | | | | -1 -0.5 0 0.5 1 Favours training staff Favours no training |

1.6.5 Alcohol use (number of participants using)

| | Training | staff | No trai | ning | | Risk Ratio | Risk Ratio |
|---|----------|----------|---------|-------|--------|---------------------|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Johnson 2007 | 56 | 76 | 54 | 76 | 100.0% | 1.04 [0.85, 1.26] | |
| Total (95% CI) | | 76 | | 76 | 100.0% | 1.04 [0.85, 1.26] | + |
| Total events | 56 | | 54 | | | | |
| Heterogeneity: Not ap Test for overall effect: | • | ° = 0.72 |) | | | | 0.2 0.5 1 2 5 Favours training staff Favours no training |

1.6.6 Cannabis use (total monetary value)

| | Training staff | | | aff No training | | | | Std. Mean Difference | Std. Mean Difference |
|---|----------------|-------|-------|-----------------|-------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 35.11 | 70.26 | 76 | 32.71 | 98.07 | 76 | 100.0% | 0.03 [-0.29, 0.35] | |
| Total (95% CI) | | | 76 | | | 76 | 100.0% | 0.03 [-0.29, 0.35] | + |
| Heterogeneity: Not ap Test for overall effect: | | | 86) | | | | | | -1 -0.5 0 0.5 1 Favours training staff Favours no training |

1.6.7 Cannabis use (number of participants using)

| | Training staff | | No trai | ning | | Risk Ratio | Risk Ratio |
|---|----------------|----------|---------|-------|--------|---------------------|---|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Johnson 2007 | 24 | 76 | 27 | 76 | 100.0% | 0.89 [0.57, 1.39] | |
| Total (95% CI) | | 76 | | 76 | 100.0% | 0.89 [0.57, 1.39] | - |
| Total events Heterogeneity: Not ap Test for overall effect: | • | ° = 0.61 | 27 | | | | 0.05 0.2 1 5 20 Favours training staff Favours no training |

1.6.8 Other drug use (total monetary value)

| | Tra | ining sta | ff | No | training | | | Std. Mean Difference | Std. Mean Difference |
|---|-------|-----------|-------|--------|----------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 33.36 | 154.38 | 76 | 124.79 | 470.22 | 76 | 100.0% | -0.26 [-0.58, 0.06] | |
| Total (95% CI) | | | 76 | | | 76 | 100.0% | -0.26 [-0.58, 0.06] | - |
| Heterogeneity: Not a Test for overall effect | | | 1) | | | | | | -1 -0.5 0 0.5 1 Favours training staff Favours no training |

1.6.9 Other drug use (number of participants using)

| | Training | staff | No trai | ning | | Risk Ratio | Risk Ratio |
|---|----------|----------|---------|-------|--------|---------------------|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Johnson 2007 | 12 | 76 | 13 | 76 | 100.0% | 0.92 [0.45, 1.89] | |
| Total (95% CI) | | 76 | | 76 | 100.0% | 0.92 [0.45, 1.89] | - |
| Total events | 12 | | 13 | | | | |
| Heterogeneity: Not ap Test for overall effect: | • | P = 0.83 |) | | | | 0.1 0.2 0.5 1 2 5 10 Favours training staff Favours no training |

Adaptive functioning

1.6.10 Social functioning (Life Skills Profile)

| | Training staff | | | No training | | | | Std. Mean Difference | Std. Mean Difference |
|---|----------------|------|-------|-------------|------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 121 | 16.3 | 109 | 120.5 | 15.8 | 97 | 100.0% | 0.03 [-0.24, 0.30] | |
| Total (95% CI) | | | 109 | | | 97 | 100.0% | 0.03 [-0.24, 0.30] | • • • • |
| Heterogeneity: Not ap Test for overall effect: | | | 1.82) | | | | | | -2 -1 0 1 2 Favours no training Favours training staff |

1.6.11 Quality of life (Manchester Short Assessment of Quality of Life)

| | Trair | ning st | aff | No | trainin | g | | Std. Mean Difference | Std. Mean Difference |
|---|-------|---------|-------|------|---------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 53.4 | 12.1 | 109 | 50 | 12.8 | 97 | 100.0% | 0.27 [-0.00, 0.55] | |
| Total (95% CI) | | | 109 | | | 97 | 100.0% | 0.27 [-0.00, 0.55] | ◆ |
| Heterogeneity: Not ap Test for overall effect: | • | | 1.05) | | | | | | -1 -0.5 0 0.5 1 Favours no training Favours training staff |

Acceptability of services

1.6.12 Service user satisfaction (Client Satisfaction Questionnaire)

| | Training staff | | | No training | | | 1 | Std. Mean Difference | Std. Mean Difference |
|---|----------------|--------|-------|-------------|-----|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 23.5 | 6.5 | 109 | 23.4 | 6.3 | 97 | 100.0% | 0.02 [-0.26, 0.29] | |
| Total (95% CI) | | | 109 | | | 97 | 100.0% | 0.02 [-0.26, 0.29] | 🔶 |
| Heterogeneity: Not ap Test for overall effect: | • | (P = 0 | .91) | | | | | | -2 -1 0 1 2 Favours no training Favours training staff |

1.6.13 Treatment satisfaction (Treatment Perceptions Questionnaire)

| | Training staff | | | No training | | | | Std. Mean Difference | Std. Mean Difference |
|---|----------------|--------|--------|-------------|------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Johnson 2007 | 21.5 | 0.8 | 109 | 21.1 | 0.75 | 97 | 100.0% | 0.51 [0.23, 0.79] | |
| Total (95% CI) | | | 109 | | | 97 | 100.0% | 0.51 [0.23, 0.79] | ▲ · · · · · · · · · · · · · · · · · · · |
| Heterogeneity: Not ap Test for overall effect: | • | (P = 0 | .0003) | | | | | | -2 -1 0 1 2 Favours no training Favours training staff |

1.7 Supportive housing compared with treatment as usual

Mental health

1.7.1 Mental health (Colorado Symptom Index)

| | Suppor | tive hou | sing | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|--------|-----------|-------|-------|-------|-------|--------|----------------------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Aubry 2015 | 33.26 | 11.9 | 469 | 34.51 | 12.48 | 481 | 100.0% | -0.10 [-0.23, 0.02] | |
| Total (95% CI) | | | 469 | | | 481 | 100.0% | -0.10 [-0.23, 0.02] | • |
| Heterogeneity: Not ap Test for overall effect: | • | P = 0.11) |) | | | | | | -0.5 -0.25 0 0.25 0.5 Favours housing Favours TAU |

Substance use

1.7.2 Substance use (≥2 substance-use problems in the past month)

| | Supportive ho | TAU | J | | Risk Ratio | Risk Ratio | |
|--------------------------|------------------|-------|--------|-------|------------|---------------------|-----------------------------|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl |
| Aubry 2015 | 188 | 469 | 192 | 481 | 100.0% | 1.00 [0.86, 1.17] | - |
| Total (95% CI) | | 469 | | 481 | 100.0% | 1.00 [0.86, 1.17] | + |
| Total events | 188 | | 192 | | | | |
| Heterogeneity: Not ap | oplicable | | | | | | |
| Test for overall effect: | Z = 0.05 (P = 0. | .96) | | | | | Favours housing Favours TAU |

Adaptive functioning

1.7.3 Housing (number of participants in stable housing)

| | Supportive housing | | | | | Risk Ratio | Risk Ratio | | |
|-------------------------|--------------------|----------|--------|-------|--------|---------------------|-----------------------------|--|--|
| Study or Subgroup | Events | Total | Events | Total | Weight | M-H, Random, 95% Cl | M-H, Random, 95% Cl | | |
| Aubry 2015 | 316 | 433 | 124 | 400 | 100.0% | 2.35 [2.01, 2.75] | | | |
| Total (95% CI) | | 433 | | 400 | 100.0% | 2.35 [2.01, 2.75] | • | | |
| Total events | 316 | | 124 | | | | | | |
| Heterogeneity: Not ap | pplicable | | | | | - | | | |
| Test for overall effect | : Z=10.69 (P ≺ | 0.00001) | | | | | Favours TAU Favours housing | | |

1.7.4 Quality of life (Quality of Life Interview-20)

| | Suppo | Supportive housing | | | TAU | | 1 | Std. Mean Difference | Std. Mean Difference | | |
|---|-------|--|-------|-------|------|-------|--------|----------------------|----------------------|--|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI | | |
| Aubry 2015 | 90.48 | 20.75 | 469 | 83.97 | 6.94 | 481 | 100.0% | 0.42 [0.29, 0.55] | | | |
| Total (95% CI) | | | 469 | | | 481 | 100.0% | 0.42 [0.29, 0.55] | • | | |
| Heterogeneity: Not ap Test for overall effect: | | -1 -0.5 0 0.5 1 Favours TAU Favours housing | | | | | | | | | |

1.7.5 General functioning

| | Suppor | tive hou | sing | | TAU | | | Std. Mean Difference | Std. Mean Difference |
|---|--------|-----------|-------|-------|------|-------|--------|----------------------|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Aubry 2015 | 62.46 | 8.66 | 469 | 60.34 | 9.09 | 481 | 100.0% | 0.24 [0.11, 0.37] | |
| Total (95% CI) | | | 469 | | | 481 | 100.0% | 0.24 [0.11, 0.37] | ◆ |
| Heterogeneity: Not ap Test for overall effect: | | P = 0.001 | 02) | | | | | | -1 -0.5 0 0.5 1 Favours TAU Favours housing |

1.8 Supportive text messaging compared with control messages

Mental health

1.8.1 Depression (Beck Depression Inventory-II)

| | Supportive | Control | | | | Std. Mean Difference | Std. Mean Difference | | |
|---|------------|---------|-------|-------|-------|----------------------|--|---------------------|--------------------|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Agyapong 2013 | 13.28 | 8.7 | 26 | 15.08 | 11.37 | 28 | 100.0% | -0.17 [-0.71, 0.36] | |
| Total (95% CI) | | | 26 | | | 28 | 100.0% | -0.17 [-0.71, 0.36] | |
| Heterogeneity: Not ap Test for overall effect: | | | | | | Fa | -2 -1 0 1 2 avours text message Favours control | | |

Substance use

1.8.2 Drink related beliefs (Obsessive-compulsive drinking scale)

| | Supportive | text mes | sage | Co | ontro | 1 | | Std. Mean Difference | Std. Mean Difference | |
|---|------------|----------|-------|------|-------|-------|--------|----------------------|---|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI | |
| Agyapong 2013 | 7.7 | 4.9 | 26 | 10.7 | 7.7 | 28 | 100.0% | -0.45 [-1.00, 0.09] | | |
| Total (95% CI) | | | 26 | | | 28 | 100.0% | -0.45 [-1.00, 0.09] | • | |
| Heterogeneity: Not ap Test for overall effect: | | D.10) | | | | | | Fa | -2 -1 0 1 2 vours text message Favours control | |

1.8.3 Alcohol use (mean days abstinent)

| | Supportive | Supportive text message | | | | | | Std. Mean Difference | Std. Mean Difference | | |
|---|------------|-------------------------|---|-------|-------|-------|--------|----------------------|----------------------|--|--|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI | | |
| Agyapong 2013 | 84.14 | 9.2 | 26 | 74.73 | 28.97 | 28 | 100.0% | 0.42 [-0.12, 0.97] | + | | |
| Total (95% CI) | | | 26 | | | 28 | 100.0% | 0.42 [-0.12, 0.97] | → | | |
| Heterogeneity: Not ap Test for overall effect: | • | | -2 -1 0 1 2 Favours control Favours text message | | | | | | | | |

1.8.4 Confidence in abstaining from alcohol (alcohol abstinence self-efficacy scale)

| | Supportive | Control | | | 1 | Std. Mean Difference | Std. Mean Difference | | |
|---|------------|---------|-------|------|----|----------------------|----------------------|--------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Agyapong 2013 | 75.6 | 11 | 26 | 71.1 | 14 | 28 | 100.0% | 0.35 [-0.19, 0.89] | |
| Total (95% CI) | | | 26 | | | 28 | 100.0% | 0.35 [-0.19, 0.89] | ◆ 1 |
| Heterogeneity: Not ap Test for overall effect: | • | 0.20) | | | | | | - | -4 -2 0 2 4 Favours control Favours text message |

Adaptive functioning

1.8.5 Global assessment of functioning

| | Supportive text message | | | С | ontrol | | | Std. Mean Difference | Std. Mean Difference |
|--|-------------------------|-------|-------|------|--------|-------|--------|----------------------|---|
| Study or Subgroup | Mean | SD | Total | Mean | SD | Total | Weight | IV, Random, 95% CI | IV, Random, 95% CI |
| Agyapong 2013 | 83.81 | 12.34 | 26 | 74.1 | 21.8 | 28 | 100.0% | 0.53 [-0.01, 1.08] | |
| Total (95% CI) Heterogeneity: Not ap Test for overall effect: | | 0.05) | 26 | | | 28 | 100.0% | 0.53 [-0.01, 1.08] | -2 -1 0 1 2 Favours control Favours text message |