UNDERSTANDING THE NATURE OF THERAPEUTIC RELATIONSHIPS IN SEVERE MENTAL ILLNESS

A thesis submitted to the University of Manchester for the degree of Doctor of Clinical Psychology (ClinPsyD) in the Faculty of Biology, Medicine and Health

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Thesis Abstract

This thesis forms part of the examination for the degree of Doctor of Clinical Psychology (ClinPsyD), in the Faculty of Biological Medicine and Health at the University of Manchester. The thesis has been written by Lucy Shattock and submitted in July 2016 for examination in September 2016.

Paper 1 provides a systematic review of studies investigating therapeutic alliance in the context of psychological interventions for people with psychosis. Twenty-six studies were identified that satisfied the inclusion criteria. The review comments on the nature of alliance across studies, the extent to which alliance predicted outcome, as well as client, therapist and therapy-related factors associated with alliance. Clinical implications are discussed and research recommendations are made.

Paper 2 details an investigation into the relationships between attachment, therapeutic alliance and service engagement in a Black sample with psychosis. Twenty-eight participants with non-affective psychosis were recruited across a number of outpatient and inpatient services. Participants completed measures of attachment, alliance and service engagement. Staff completed measures of alliance and service engagement. Psychotic symptoms and perceived racial/ethnic discrimination were measured as potential confounders. Results indicated that higher attachment anxiety was associated with poorer client-rated alliance but not staff-rated alliance, except on the goal agreement component. Attachment avoidance was not related to alliance. Attachment was not associated with service engagement. Attachment ratings were also compared to secondary data collected from a large White sample. Clinical implications are discussed and areas for future research are highlighted.

Paper 3 provides a critical appraisal of the design, implementation and interpretation of findings for Papers 1 and 2. Strengths and limitations of both papers are discussed, and personal reflections about the research process are included.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Acknowledgements

Firstly, I would like to thank my research supervisors, Katherine Berry and Dawn Edge, for all their help, support and guidance throughout the research process. I am very grateful for your knowledge, experience and encouragement.

A special thank you goes to Amy Degnan for all her support and friendship during the process. It has been a real pleasure working with you.

I want to thank the 2013 cohort ClinPsyD trainees for their friendship and support throughout training, particularly during the last stages.

Thank you to all the people who took part in the study. Without you, the study simply would not have been possible. I would also like to extend thanks to staff and volunteers for supporting the research in various ways.

I am so grateful for the unwavering support of my wonderful family. Mum and dad, I could not ask for more loving and thoughtful parents. Ettie, you are the most wonderful sister. Your support throughout has been vital and you have really encouraged me to ‘dig deep’ during hard times. You three have always believed in me and encouraged me to do my best- thank you, thank you, thank you!

I also want to thank my extended family and friends for their encouragement, love and understanding.

Last but by no means least, a very special thank you goes to Steve. I could not have done the last three years without you by my side. I will forever be grateful for your love and unwavering encouragement throughout this process. ‘Thank you’ does not cut it.
Paper 1: Systematic Review

Therapeutic alliance in psychological therapy for people with schizophrenia and related psychoses: a systematic review

The following paper has been prepared for submission to ‘Psychological Medicine’. Author guidelines can be found in Appendix A. To ease readability, Figures and Tables are included in the main text. The maximum word count for the journal is 4,500. To provide contextual information, this was exceeded slightly for this paper.

Word count: 4,768 (excluding Tables, Figures, References)
Abstract

Therapeutic alliance is a predictor of therapy outcomes. Alliance is particularly important for people with schizophrenia and related psychoses due to early adverse experiences, problems with interpersonal relationships, and high levels of disengagement. This review is the first to synthesise studies investigating alliance during therapy with people with psychosis. It summarises the quality of alliance, determines the relationship between alliance and therapy outcomes, and identifies factors associated with alliance. Databases were searched up to April 2015. The search yielded 4,586 articles, resulting in 26 studies involving 18 independent samples that met inclusion criteria. Weighted average Working Alliance Inventory-short form (WAI-SF) total scores for clients and therapists were 64.51 and 61.26, respectively. Although heterogeneity among studies limits generalisability, there was preliminary evidence that alliance predicts overall symptomatic outcomes and rehospitalisation, medication use, and self-esteem outcomes. Findings were mixed regarding whether client-related factors, such as insight, social functioning, and depression predicted alliance. Studies investigated therapist and therapy-related factors and found preliminary evidence for therapists’ genuineness, trustworthiness, and empathy, and better suitability for therapy and homework compliance predicting better quality alliance. Key implications of this paper include, i) the need to monitor alliance throughout therapy, ii) enhancing alliance should focus on factors amenable to change including developing client insight and positive therapist quality, and iii) the need for more longitudinal studies with advance statistical techniques to further understanding of alliance predictors and the relationship between alliance and outcome.

Abstract word count: 235
Introduction

Therapeutic alliance is a predictor of therapy outcomes (Martin et al. 2000; Horvath et al. 2011). Alliance is most commonly conceptualised according to Bordin’s (1979) pan-theoretical model that considers goal agreement, tasks agreement and therapeutic bond. Alliance may be particularly relevant to people with schizophrenia and related psychoses as they are likely to have early traumatic experiences impacting on adult relationships and difficulties with service engagement (Kreyenbuhl et al. 2009; Varese et al. 2012).

Hewitt and Coffrey (2005) reviewed studies investigating alliance and reported a definitive role of alliance in recovery from schizophrenia, although the review lacked systematic rigour. A second review investigated alliance and outcomes and found some evidence for alliance predicting fewer hospitalisations, fewer symptoms and improved functioning (Priebe et al. 2010). Only one of the nine included studies considered alliance in psychological therapy. Remaining studies reported on alliance within psychiatric or health settings.

There is good evidence that psychological interventions are effective at treating schizophrenia (Turner et al. 2014). There has been a growth in the number of studies that have looked at alliance as an important variable in therapy for this group either in terms of what predicts good alliance or its role in predicting outcome (e.g. Goldsmith et al. 2015).

It is therefore timely to review and synthesise the current knowledge base. The aims of this review are to: (i) identify the nature of alliance by finding the average alliance ratings across studies and assesses the development of alliance over the course of therapy, (ii) examine whether alliance predicts therapy outcomes, and (iii) identify variables associated with alliance. Findings will enable a better understanding of factors pertinent to alliance and allow comparison to alliance in therapy for other diagnostic groups. The review will also assess methodological quality of included studies to inform future research.

Method

Search Strategy

The databases Medline, Web of Science and PsycINFO were searched from inception to April 2015 using the following terms:

1. (psychotic OR schizo*OR psychos*s) OR ((chronic* OR serious* OR sever*) NEAR/3 (mental*) NEAR/3 (ill* OR disorder*)) AND

2. ((therap* OR working* OR helping*) NEAR/2 (alliance* OR relation* OR process*)) OR ((staff* OR professional*) NEAR/2 (client* OR patient) NEAR/3 (alliance* OR relation* OR process*))
This resulted in 6,980 citations which were imported into the reference management programme, EndNote. Duplicates were removed leaving 4,586 citations. One third of citations (n=1,520) were independently screened at title level by the lead author and a postgraduate student. Following high levels of agreement (98% of cases; $k=.77$), the remaining citations were screened by the lead author leaving 160 citations that were all screened at abstract level by the lead author and a postgraduate student (91% of cases; $k=.79$). Discrepancies were resolved by accessing the full-text and discussions with the research team. At this stage, 55 citations remained. The lead author screened all citations at a full-text level against specified inclusion criteria. Inclusivity was discussed with the research team, resulting in 26 included articles (see Figure 1 for PRISMA diagram).

**Inclusion Criteria**

The inclusion criteria were: (i) presence of non-affective psychosis, (ii) included a validated measure of alliance between client and therapist, (iii) alliance was measured for clients receiving psychological therapy, (iv) English language, and (v) peer-reviewed.

Criterion (i) included samples with severe mental illness (SMI) where >60% of the sample had non-affective psychosis. Preliminary searches revealed that studies using SMI samples may represent a high proportion of people with non-affective psychosis. Not incorporating ‘SMI’ would risk excluding relevant samples, therefore samples where >60% of the sample included non-affective psychosis to reflect the type of interventions being considered. Diagnostic information was checked for studies with SMI samples resulting in one paper being excluded as this could not be provided. Criterion (iii) ‘psychological therapy’ was defined as “…meeting with a therapist (a healthcare professional competent in giving psychological therapy to people with psychosis or schizophrenia) to talk about your feelings and thoughts and how these affect your behaviour and wellbeing” (NICE, 2014). If it was unclear whether this criterion was met (n=6), authors were contacted. Four authors responded with information which informed decisions about inclusivity. Excluded interventions included assertive outreach (e.g. Cunningham et al. 2007) and vocational rehabilitation (e.g. Catty et al. 2011).

**Data Synthesis**

A narrative synthesis of the literature was completed. Marked heterogeneity between studies and types of relationships measured prevented a meta-analysis (Mays et al. 2001).
Quality Assessment

Methodological quality of studies was assessed using the Effective Public Health Practice Project (EPHPP) Quality Assessment Tool for Quantitative Studies (Thomas, 2003; Thomas et al. 2004). The tool can be applied to different designs and has good reliability and validity (Thomas et al. 2004; Armijo-Olivo et al. 2012). Similar to other systematic reviews (e.g. Safavi et al. 2015), the tool was amended (appendix B) by excluding domains relating to study design, blinding, and intervention integrity as they were not relevant to the included papers (study design is described elsewhere). The tool included five relevant rating domains: (i) Selection Bias, (ii) Confounders, (iii) Data Collection Methods, (iv) Withdrawals and Drop-outs, (v) Analysis (two of the four domain items). Each domain was rated either ‘weak’, ‘moderate’ or ‘strong’. Papers were assigned an overall rating of ‘strong’ (no ‘weak’ domain ratings), ‘moderate’ (one ‘weak’ domain rating) or ‘weak’ (more than one ‘weak’ domain rating). The quality assessment tool does not include the Analysis domain in final ratings (Thomas, 2003). The lead author and a postgraduate student independently rated all papers, with substantial agreement for overall ratings (92% level of agreement; $k = .781$).
Figure 1: Search Results (based on PRISMA flow diagram).

Results

Quality Assessment

An overall ‘moderate’ rating was given to 13 studies (see Table 1). Nineteen studies applied additional selection criteria to secondary data (e.g. only including participants who had at least three measures of alliance) were rated ‘moderate’ for selection bias. Studies received a ‘weak’ rating of selection bias due to lack of recruitment and selection detail (n=4), no details of trial given (n=2), participants self-referred (n=1) or less than 60% of selected individuals consented to participate (n=3). Most studies (n=19) considered confounders either in their design and/or
analyses. Seven studies received a ‘weak’ rating as they did not report controlling for confounders in their design or analyses. ‘Strong’ ratings were given to 22 studies for Data Collection Methods, as they used reliable and valid measures. Studies received a ‘weak’ rating on Withdrawal and Dropouts due to lack of detail about withdrawals or drop outs (n=7) or because <60% of participants completed measures at the last time point (n=1). The ‘Analysis’ domain considered whether appropriate analyses were carried out. It was also adapted to include the reporting and management of missing data. Nineteen studies were rated ‘moderate’ because the analyses seem appropriate to the research aims, but they may not have discussed management of missing data.
<table>
<thead>
<tr>
<th>Author</th>
<th>Selection Bias</th>
<th>Confounders</th>
<th>Data collection methods</th>
<th>Withdrawal and dropouts</th>
<th>Analyses</th>
<th>Global Rating</th>
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<tbody>
<tr>
<td>Barrowclough et al. 2010</td>
<td>M</td>
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<td>Berry et al. 2015</td>
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<tr>
<td>Cechnicki et al. 2000</td>
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<td>W</td>
<td>M</td>
<td>N/A</td>
<td>W</td>
<td>W</td>
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<td>Chadwick et al. 2003</td>
<td>W</td>
<td>W</td>
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<td>Couture et al. 2006</td>
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<td>S</td>
<td>S</td>
<td>W</td>
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<tr>
<td>Davis et al. 2011</td>
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<td>Davis &amp; Lysaker 2004</td>
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<td>Dunn et al. 2006</td>
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<td>Evans-Jones et al. 2009</td>
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<td>M</td>
<td>S</td>
<td>N/A</td>
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<td>Frank &amp; Gunderson, 1990</td>
<td>M</td>
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<td>Goldsmith et al. 2015</td>
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<td>W</td>
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<tr>
<td>Johansen et al. 2013a</td>
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<td>W</td>
<td>S</td>
<td>N/A</td>
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<td>Johansen et al. 2013b</td>
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<td>Jung et al.</td>
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<td>Jung et al.</td>
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<td>Kvrgic et al.</td>
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<td>N/A</td>
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<td>Lecomte et al.</td>
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<td>Lecomte et al.</td>
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<td>Lysaker et al.</td>
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<td>S</td>
<td>S</td>
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<td>Lysaker et al.</td>
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<tr>
<td>Mulligan et al.</td>
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<tr>
<td>Smerud &amp; Rosenfarb, 2011</td>
<td>M</td>
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<td>Svensson &amp; Hansson, 1999a</td>
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<tr>
<td>Wittorf et al.</td>
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<td>Wittorf et al.</td>
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</table>

Note: W, weak; M, moderate; S, strong; N/A, not applicable.
**Study Characteristics**

Table 2 includes study characteristics. Five studies were cross-sectional with all study measures completed at the same point in time. There were two types of longitudinal designs which are termed ‘alliance baseline’ and ‘alliance outcome’. Eight studies measured variables prior to therapy and measured alliance early (e.g. session 3) in therapy (*alliance baseline*). Thirteen studies measured alliance and/or other variables at multiple time points (*alliance outcome*). Alliance was most frequently assessed (n=11) using the Working Alliance Inventory-short form (WAI-SF; Tracey & Kokotovic, 1989). Alliance was client and therapist-rated (n=21), client-rated (n=3), therapist-rated (n=1) and observer-rated (n=1). Therapy was delivered in individual (n=23), group (n=2), and family (n=1) settings. Eight pairs of studies used samples drawn from the same larger sample (e.g. data from a larger trial), resulting in 18 independent samples across 26 studies.
### Table 2: Study characteristics and key findings

<table>
<thead>
<tr>
<th>Author, year; country</th>
<th>Design</th>
<th>Setting</th>
<th>N</th>
<th>Age; years (SD)</th>
<th>Gender; % male</th>
<th>% non-affective psychosis</th>
<th>Alliance Measure</th>
<th>Alliance Perspective</th>
<th>Key Measures</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrowclough et al. 2010; UK</td>
<td>Alliance baseline</td>
<td>Therapy arms (MI and CBT) of RCT for people with psychosis and substance misuse; outpatient.</td>
<td>116</td>
<td>37.7 (9.8)</td>
<td>89%</td>
<td>100%</td>
<td>WAI-SF</td>
<td>Therapist and client-rated alliance predicted by client’s living situation ($\beta=.28$, $p=.004$), depression ($\beta=.23$, $p=.013$), insight ($\beta=1.664$, $p=0.004$) and attitude towards medication ($r=.25$, $p=.004$). Better therapist-rated alliance working with White clients (relative to Black clients; $\beta=-7.312$, $p=.006$). Client-rated alliance predicted by insight ($\beta=-1.664$, $p&lt;.001$).</td>
<td></td>
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</tr>
<tr>
<td>Berry et al. 2015; UK</td>
<td>Alliance outcome</td>
<td>Therapy arms (MI and CBT) of RCT for people with psychosis and substance misuse; outpatient (drawn from same sample as Barrowclough et al. 2010).</td>
<td>164 (baseline; 135 post-therapy; 129 at 12 month follow-up)</td>
<td>NR</td>
<td>NR</td>
<td>100%</td>
<td>WAI-SF</td>
<td>Therapist and client-rated alliance did not predict symptomatic outcome post-therapy or at 12 month follow-up ($p&lt;.05$).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Country</td>
<td>Design</td>
<td>Sample Description</td>
<td>Sample Size</td>
<td>Intervention</td>
<td>Measures</td>
<td>Summary</td>
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<tr>
<td>Cechnicki et al. 2000; Poland</td>
<td>Poland</td>
<td>Cross-sectional</td>
<td>Two therapies (SWT and LTIP) for people with schizophrenia; outpatient.</td>
<td>57</td>
<td>Polish version of Stark’s questionnaire for client and therapist's alliance.</td>
<td>PANSS; BPRS</td>
<td>'Acceptance' domain of client-rated alliance significantly associated with overall psychotic symptoms (r=-.59, p&lt;.01).</td>
<td></td>
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</tr>
<tr>
<td>Chadwick et al. 2003; UK</td>
<td>UK</td>
<td>Alliance outcome</td>
<td>CBT for clients with drug-resistant distressing positive symptoms; outpatient</td>
<td>15</td>
<td>Client and therapist's alliance measured using HADS and semi-structured interview. Case formulation presented.</td>
<td>HADS; semi-structured interview; Case formulation</td>
<td>Therapist-rated alliance significantly changed after presentation of case formulation (T=-2.12, p&lt;.05); confirmed by interviews. Non-significant differences in client-rated alliance when case formulation was presented (non-significant differences between times 2 and 3 and/or 2 and 4 when formulation was presented).</td>
<td></td>
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<tr>
<td>Couture et al. 2006; USA</td>
<td>USA</td>
<td>Alliance baseline</td>
<td>Therapy arms (CBT and psychoeducation) of RCT for people with chronic schizophrenia; outpatient.</td>
<td>30</td>
<td>Client and therapist's alliance measured using PANSS and SFS.</td>
<td>PANSS; SFS</td>
<td>Therapist-rated alliance associated by baseline measures of social functioning (r=.411, p=.041) and autistic preoccupation (r=-.490, p&lt;.05) and activation (r=-.563, p&lt;.008). Client-rated alliance not predicted by any measures.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Study</td>
<td>Alliance Outcome</td>
<td>Therapy arms (CBT or ST) of larger study investigating therapy on work outcomes for people with schizophrenia; outpatient</td>
<td>Sample Size</td>
<td>Mean (SD)</td>
<td>Client-rated Alliance</td>
<td>Therapist-rated Alliance</td>
<td>Additional Measures</td>
<td>Findings</td>
<td></td>
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<tr>
<td>Davis et al. 2011; USA</td>
<td>Alliance outcome</td>
<td>Therapy arms (CBT or ST) of larger study investigating therapy on work outcomes for people with schizophrenia; outpatient</td>
<td>63</td>
<td>46.89 (8.10)</td>
<td>84%</td>
<td>100%</td>
<td>WAI-SF</td>
<td>Client</td>
<td>IPI; MAS; PANSS; WAIS-III subscale; HVLT</td>
<td>Clients with ‘high’ or ‘intermediate’ mastery ability significantly associated with better client-rated alliance than client with ‘minimal’ mastery ability (overall group effect $F=3.25$, $p=0.046$). Results approached significance when controlling for neurocognitive factors ($F=2.25$, $p=0.068$).</td>
</tr>
<tr>
<td>Davis &amp; Lysaker, 2004; USA</td>
<td>Alliance baseline</td>
<td>Therapy arms (CBT or ST) of larger study investigating therapy on work outcomes for people with schizophrenia; outpatient (drawn from same sample as Davis et al. 2011)</td>
<td>24</td>
<td>47</td>
<td>100%</td>
<td>100%</td>
<td>WAI-SF</td>
<td>Client and therapist</td>
<td>HVLT; WAIS-III subtests; WCST; CPT-II</td>
<td>Better client-rated alliance associated with poorer performance on verbal memory ($r=-.49$, $p=.05$). Better therapist-rated alliance associated with better performance on visual spatial reasoning ($r=.50$, $p=.05$).</td>
</tr>
<tr>
<td>Dunn et al. 2006; UK</td>
<td>Alliance outcome</td>
<td>Effectiveness study (CBT); outpatient</td>
<td>29 session 3; 21 session 9</td>
<td>38 (11.7)</td>
<td>76%</td>
<td>100%</td>
<td>CAPLAS</td>
<td>Client and therapist</td>
<td>PANSS; Suitability for Cognitive Therapy measure; homework compliance measure</td>
<td>Lower client suitability for therapy ($r=.47$, $p&lt;.01$) and lower insight ($r=-.41$, $p&lt;.05$) at session 3 significantly predicted with lower alliance. Therapist-rated alliance significantly associated with</td>
</tr>
</tbody>
</table>
Evans-Jones et al. 2009; UK | Cross-sectional | CBT; outpatient | 24 | 39.5 (8.4) | 70% | 100% | WAI | Client and therapist |
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</thead>
<tbody>
<tr>
<td>Frank &amp; Gunderson, 1990; USA</td>
<td>Alliance outcome</td>
<td>Therapy arms (EIO and RAS) of trial for people with non-chronic schizophrenia; outpatient</td>
<td>143 at baseline, 95 receiving systematic follow-up.</td>
<td>NR; Range 18-35</td>
<td>NR</td>
<td>100%</td>
<td>PSR</td>
<td>Therapist</td>
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</tbody>
</table>

 Clients rated as having ‘good’ alliance in first 6 months of therapy significantly associated with better symptomatic outcomes ($R= .50$, $p<.05$); ‘Good’ alliance significantly associated with fewer hospitalisations ($r=.18, p<.05$) and were more likely to

level of homework compliance ($r = 0.66, p < 0.001$).

No client variables related to therapist or client-related alliance. Therapist characteristics, including empathy ($r=.64, p=.001$), expertness ($r=.714, p=.001$), trustworthiness ($r=.786, p=.001$) significantly associated with client-rated alliance. Association between therapy factors (presentation of formulation) and client-rated alliance approached significance ($t (22) = -2.23, p = .036$).
Taking their medication (r=.37, p<.01).

Goldsmith et al. (2015, UK) Alliance outcome Therapy arms (CBT and SCI) of RCT; inpatient and outpatient 207 (in therapy arms) NR; Range 21-35 NR 100% CALPAS Client PANSS; years of education

Improving the alliance improves symptomatic outcome. With a good alliance, attending more sessions cases a significantly better outcome (Causal estimands: -2.66, p<.001).

Poorer alliance was considered detrimental (causal estimands: 7.74, p=.007).

Johansen et al. (2013a; Norway) Cross-sectional Data from Thematically Organised Psychosis study; inpatient and outpatient 42 27.5 (5.6) 66.7% 100% WAI-SF Client and therapist PANSS, NEO-FFI; IPP-64C Client-rated alliance was predicted by submissive/hostile interpersonal problems (β=-.39, p=.006), age (β=.27, p=.049) and excitative symptoms (β=.25, p=.06). Therapist-rated alliance was associated with negative symptoms (Spearman’s ρ=-.338, p<.05), client-rated alliance was associated with negative symptoms (Spearman’s ρ=-.39, p=.006).
agreeableness ($r = 0.317, p < 0.05$), client neuroticism ($r = -0.325, p < 0.05$), and client insight ($r = -0.338, p < 0.05$), but only predicted by insight ($\beta = -0.36, p = 0.015$) in multivariate analysis.

Client-rated alliance was predicted by age ($\beta = 0.36, p = 0.015$) and excitative symptoms ($\beta = -0.28, p = 0.05$). Therapist-rated alliance was significantly associated with insight ($\beta = -0.41, p = 0.008$).

Client-rated alliance was positively associated with therapist characteristics such as perceived genuineness ($r = 0.63, p < 0.01$) and perceived therapist competence ($r = 0.41, p < 0.01$). Client characteristics did not predict alliance.

Better client (Spearman’s $\rho = 0.32, p < 0.01$) and therapist-rated alliance (Spearman’s $\rho = -0.32, p < 0.01$) significantly associated with lower negative

<table>
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<tr>
<th>Study</th>
<th>Design</th>
<th>Sample Description</th>
<th>Sample Size</th>
<th>Mean Age (SD)</th>
<th>Employment Dunja</th>
<th>Instruments</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johansen et al. 2013b; Norway</td>
<td>Cross-sectional</td>
<td>Inpatient and outpatient (drawn from same sample as Johansen et al. 2013a)</td>
<td>42</td>
<td>27.5 (5.6)</td>
<td>66.7%</td>
<td>100%</td>
<td>WAI-SF</td>
</tr>
<tr>
<td>Jung et al. 2015</td>
<td>Alliance baseline</td>
<td>Therapy arm (CBT) of trial; outpatient</td>
<td>48</td>
<td>37.31 (12.84)</td>
<td>54%</td>
<td>100%</td>
<td>HAQ; PSBS (self-generated scale)</td>
</tr>
<tr>
<td>Jung et al. 2014, Germany</td>
<td>Alliance outcome</td>
<td>Therapy arm of trial (CBT); outpatient (drawn from the same sample as Jung et al. 2015)</td>
<td>56</td>
<td>33.4 (10.4)</td>
<td>100%</td>
<td>Three items from the STEP</td>
<td></td>
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</tbody>
</table>

Johansen et al. 2013b; Norway Norway Cross-sectional study; inpatient and outpatient (drawn from same sample as Johansen et al. 2013a) 42 27.5 (5.6) 66.7% 100% WAI-SF Client and therapist PANSS; WAIS-III subscales; CVLT-II; WCST; CPT-II Data from Thematically Organised Psychosis study; inpatient and outpatient (drawn from same sample as Johansen et al. 2013a)
<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Design</th>
<th>Setting</th>
<th>Sample Size</th>
<th>Mean (SD)</th>
<th>Alliance Measure</th>
<th>Client-rated Alliance</th>
<th>Therapist-rated Alliance</th>
<th>P-values</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kvrgic et al.</td>
<td>2013</td>
<td>Cross-sectional</td>
<td>ST; outpatient</td>
<td>156</td>
<td>44.5 (11.67)</td>
<td>65.4%</td>
<td>100%</td>
<td>STAR-P</td>
<td></td>
<td>Better client-rated alliance predicted by more recovery orientation (β=.39, p&lt;.01), less self-stigma (β=-.15, p&lt;.05) and more insight (β=0.161, p&lt;0.05)</td>
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<td></td>
<td>Certain therapist-rated alliance subscales predicted fewer psychotic symptoms post-therapy (β=-.18, p&lt;.01). At 6 month follow-up fewer symptoms were predicted by different subscales of therapist-rated alliance (β=-.22, p&lt;.01).</td>
</tr>
<tr>
<td>Lecomte et al.</td>
<td>2014</td>
<td>Alliance</td>
<td>Group CBT for early psychosis; outpatient</td>
<td>66</td>
<td>26 (6)</td>
<td>70%</td>
<td>95%</td>
<td>WAI-SF</td>
<td></td>
<td>Client rated alliance predicted total symptoms ($R^2=.17$,</td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>Outcome</td>
<td>Therapy arms (CBT group and group)</td>
<td>36</td>
<td>25 (4.8)</td>
<td>75%</td>
<td></td>
<td>WAI-SF; client and therapist</td>
<td></td>
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</tr>
</tbody>
</table>

Client and therapist PANSS; CDSS; SCL-90-R; GAF; RFS; task to assess Theory of Mind symptoms. Client-rated depression significantly associated with depression ($r=-.26$, p<0.05). Social functioning was significantly associated with therapist-rated alliance $r=.20$, p<.05). General functioning was associated with client-rated alliance ($r=.27$, p<.05).
skills training) of RCT for early psychosis; outpatient (drawn from the same sample as Lecomte et al. 2014)
<table>
<thead>
<tr>
<th>Study</th>
<th>Alliance Type</th>
<th>Sample Size</th>
<th>Client-rated Alliance</th>
<th>Therapy-rated Alliance</th>
<th>Measures (Client)</th>
<th>Measures (Therapist)</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mulligan et al. 2014; UK</td>
<td>Therapy arm of participant preference trial for people with psychosis; outpatient</td>
<td>22</td>
<td>36.7 (7.32)</td>
<td>68%</td>
<td>100%</td>
<td>WAI-SF</td>
<td>No time differences (F(5,185) = 1.63, p=.15) or group differences (F(1,37) = 1.69, p=.20) in therapist-rated alliance between clients with or without sexual assault.</td>
</tr>
<tr>
<td>Smerud &amp; Rosenfarb, 2011; USA</td>
<td>Therapy arm of TSS study (BFM); inpatient and outpatient</td>
<td>28</td>
<td>30.2 (7.5)</td>
<td>57%</td>
<td>100%</td>
<td>SOFTA</td>
<td>Therapist alliance significantly higher when working with Black compared to White families ( t(26) = 2.49, p&lt;.05). When relative were observed having a good alliance, patients were less likely to show signs of relapse and be hospitalised over 2 years. Better client alliance associated with less overall...</td>
</tr>
</tbody>
</table>
psychotic symptoms ($r = -.55$, $p < .01$).

Depth of session was significantly associated with client ($r = .688$, $p < .001$) and therapist-rated ($r = .569$, $p < .01$) alliance more during the early phases, whereas ‘smoothness’ of sessions was significantly associated with client (working $r = .592$, $p < .01$; discharge $r = .587$, $p < .01$) and therapist-rated (working $r = .463$, $p < .05$, discharge $r = .459$, $p < .05$) alliance in the working and discharge phases.

Client-rated alliance associated with general psychopathology ($r = .84$, $p < .05$). Social functioning associated with therapist-rated alliance ($r = .51$, $p < .05$). Therapist-rated alliance associated with social relationships ($r = .51$, $p < .05$). Non-significant associations between client-rated alliance
and symptom change scores. Therapist-rated alliance significantly associated with general functioning change scores ($r=.42$, $p<.05$) but not symptom outcome.

Clients classified as ‘low’ alliance showed significantly less insight ($z=-2.611$, $p=0.009$) and scored higher positive symptoms compared to clients in ‘high’ alliance group. Therapist rated alliance showed that clients in ‘low’ alliance group scored higher negative symptoms compared to clients in ‘high’ alliance group ($t (65) = 3.49$, $p=.039$).

Higher client-rated alliance was predicted by more insight ($r=-.233$, $p=0.038$) into psychosis. Higher therapist-rated alliance was predicted by less positive ($r=-.308$, $p=.006$) and negative ($r=-0.253$, $p=.023$) symptoms.
NR, not reported; MI, motivational interviewing; CBT, Cognitive Behaviour Therapy; RCT, randomised controlled trial; SWT, sheltered workshops therapy; LTIP, long-term individual programme; ST, supportive therapy; EIO, exploratory-insight-orientated psychotherapy; RAS, reality-adaptive-supportive psychotherapy; SC, supportive counselling; TSS, Treatment Strategies in Schizophrenia; BFM, behavioural family management; CT, cognitive therapy; WAI-SF, Working Alliance Inventory - short version; WAI, Working Alliance Inventory; CAPLAS, California Psychotherapeutic Alliance Scales; PSR, Psychotherapy Status Report; HAQ, Helping Alliance Questionnaire; PSBS, Psychosis Specific Bond Scale; STEP, Short Inventory for Individual Psychotherapy and Counselling; STAR-P, Scale of Assess the Therapeutic Relationship-Patient Version; SOFTA, System for observing family therapy alliances; PSR, Patient Rejection Scale; BSQ, Bern Session Questionnaire; TSQ, Therapy Session Questionnaire; PSQ, Patient Session Questionnaire; PANSS, Positive and Negative Syndrome Scale; GAF, Global Assessment of Functioning; CDSS, Calgary Depression Rating Scale for Schizophrenia; PAM, Psychosis Attachment Measure; BPRS, Brief Psychotic Symptom Rating Scale; HADS, Hospital Anxiety and Depression Scale; IPII, Indiana Psychiatric Illness Interview; MAS, Metacognition Assessment Scale; WAIS-III, Wechsler Adult Intelligence Scale - III; HVLT, Hopkins Verbal Learning Test; WCST, Wisconsin Card Sorting Test; CPT-II, Conners Continuous Performance Test II; SENS, Subjective Experience of Negative Symptoms; BCIS, Beck Cognitive Insight Scale; CRF, Counselor Rating Form; RI, Relationship Inventory- Empathy Scale; SAPS, Scale for Assessment of Positive Symptoms; PSYTRATS, The Psychotic Symptom Rating Scales; PAF, Pre-Admission Functioning; RTHC, Reaction to Hypothetical Contradiction; PSS, Psychiatric Status Schedule; IMPS, Inpatient Multidimensional Psychiatric Scales; MHI-5, Menninger Health-Sickness Rating Scales; CDAS, Camarillo Dynamic Assessment Scales; WAIS, Wechsler Adult Intelligence Scale; KAS, Katz Adjustment Scales; SATIQ, Soskis Attitudes Toward Illness Questionnaire; NEO-FFI, NEO-Five Factor Inventory; IIP-64C, Inventory of Interpersonal Problems; CVLT-II, California Verbal Learning Test II; SCL-90-R, Symptom Checklist-90-Revised; BIS, The Role Functioning Scale; PAS; BIS, Birchwood Insight Scale; SPS, Social Provisions Scale; SERS-SF, Self-Esteem Rating Scale Short-Form; CASIG, Client Assessment of Strengths Interests and Goals; SUMD, Scale to Assess Unawareness of Mental Disease; CTS-R, Revised Cognitive Therapy Scale; TAA, Trauma Assessment for Adults- Brief Revised Version; CDS, Calgary Depression Scale; PSP, Personal and Social Performance Scale; PRS, Patient Rejection Scale; SAS-II, Social Adjustment Scale-II; CFQ, Curative Factors Questionnaire; SEQ, Session Evaluation Questionnaire; HSCL-90, Hopkin’s Symptom Check-List-90; TC, Target Complaints.
**Nature of Therapeutic Alliance**

Mean alliance ratings were reported in 22 studies, with two studies reporting ratings for identical samples at the same point in time (Johansen et al. 2008a, 2008b). The weighted average of alliance ratings across studies was calculated for measures comparable in at least two studies. In studies drawn from the same sample, the alliance rating from the earlier dated study was used. The weighted average of WAI-SF ratings across cross-sectional studies for clients (n=5) and therapists (n=4) was 64.51 (SD=10.04, range of average ratings= 63.70-70.8) and 61.26 (SD= 8.76, range of average ratings= 60.75-64.2), respectively. The weighted average CALPAS rating (n=2) for initial client-rated alliance was 5.32 (SD=1.01, range of average ratings= 5.27-5.50).


**Relationship Between Alliance and Outcome**

Eight studies investigated alliance and symptomatic outcomes (see Table 4) (Frank & Gunderson, 1990; Svensson & Hansson, 1999; Dunn et al. 2006; Lecomte et al. 2012; 2014; Jung et al. 2014; Berry et al. 2015; Goldsmith et al. 2015). Two group therapy studies found that client-rated and therapist-rated alliance measured at the end of therapy predicted overall but not positive or negative symptoms, possibly reflecting fluctuations in positive symptoms as samples were recently diagnosed (Lecomte et al. 2012; 2014). Change in psychopathology was predicted by better therapist-rated alliance and levels of psychopathology (both measured at six months) but neither variable independently predicted change (Frank & Gunderson, 1990). Considered methodologically sound and with a large sample, this study was considered robust. Goldsmith et al. (2015) used structural equation modelling (SEM) and controlled for randomisation and baseline covariates. They found good client-rated alliance resulted in better overall symptoms at 18 months and poorer alliance predicted poorer outcomes in a first episode psychosis (FEP) sample. Using SEM, the authors suggests that this provides evidence that alliance has a causal effect on outcome (Goldsmith et al. 2015). Four studies reported non-significant findings; three with small samples suggesting low statistical power. The other used a co-morbid substance misuse sample where
alliance and outcome findings are mixed (Meier et al. 2005). Overall, preliminary evidence exists for alliance predicting overall symptomatic improvement.

Studies considered other outcomes: general functioning (n=3), social functioning (n=2), rehospitalisation and medication (n=2), and self-esteem (n=1). Alliance did not predict general functioning in two studies, one of which was underpowered (Jung et al. 2014) and the other using a comorbid substance misuse sample (Berry et al. 2015) potentially accounting for lack of findings. Another study, considered methodologically robust, found client-rated alliance predicted improvements in general functioning (Svennson & Hansson, 1999b). There was no support for alliance predicting social functioning (Frank & Gunderson, 1990; Jung et al. 2014). Therapist-rated alliance (Frank & Gunderson, 1999) and relative alliance (observer-rated) (Smeurd & Rosenfarb, 2011) were related to reduced rehospitalisation and medication usage. Studies investigating social functioning, rehospitalisation and medication usage as outcomes were all either rated ‘strong’ and ‘moderate’ in the quality appraisal, suggesting these findings may be fairly robust. Self-esteem was significantly predicted by client-rated alliance in a therapeutic group for people with recent-onset psychosis (Lecomte et al. 2012). In a limited number of studies, evidence exists that good quality alliance predicts reduced rehospitalisation, medication use and increased self-esteem but not improvements in social functioning.
<table>
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<tr>
<th>Study</th>
<th>Alliance</th>
<th>Alliance measured</th>
<th>Symptomatic outcome</th>
<th>Outcome measured</th>
<th>Correlation</th>
<th>Other relevant statistic</th>
<th>Other outcomes</th>
<th>Outcome measured</th>
<th>Correlation (r)</th>
<th>Other relevant statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berry et al. 2015</td>
<td>Client (WAI-SF)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>Post-therapy</td>
<td>-.18</td>
<td>General functioning (GAF)</td>
<td>Post-therapy</td>
<td></td>
<td>-.13</td>
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<tr>
<td>Berry et al. 2015</td>
<td>Client (WAI-SF)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>12 month follow-up</td>
<td>-.13</td>
<td>General functioning (GAF)</td>
<td>12 month follow-up</td>
<td></td>
<td>β=2.96</td>
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<tr>
<td>Berry et al. 2015</td>
<td>Therapist (WAI-SF)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>Post-therapy</td>
<td>.059</td>
<td>General functioning (GAF)</td>
<td>Post-therapy</td>
<td></td>
<td>.16</td>
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<tr>
<td>Berry et al. 2015</td>
<td>Therapist (WAI-SF)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>12 month follow-up</td>
<td>.16</td>
<td>General functioning (GAF)</td>
<td>12 month follow-up</td>
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<td>.04</td>
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<tr>
<td>Dunn et al. 2006</td>
<td>Client (CALPAS)</td>
<td>Session 3</td>
<td>Change in PANSS</td>
<td>Post-therapy</td>
<td>-.20</td>
<td>General functioning (GAF)</td>
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<tr>
<td>Study</td>
<td>Client/Therapist</td>
<td>Timepoints</td>
<td>Outcome</td>
<td>Effect Size</td>
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<tr>
<td>Frank &amp; Gunderson, 1990</td>
<td>Therapist (PSR)</td>
<td>Six months</td>
<td>Global Psychopathology (check)</td>
<td>Post-therapy</td>
<td>.50*</td>
<td></td>
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<tr>
<td>Frank &amp; Gunderson, 1990</td>
<td>Therapist (PSR)</td>
<td>Six months</td>
<td>Social functioning</td>
<td>24 month study period</td>
<td>.18*</td>
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<tr>
<td>Frank &amp; Gunderson, 1990</td>
<td>Therapist (PSR)</td>
<td>Six months</td>
<td>Medication usage</td>
<td>24 month study period</td>
<td>.37**</td>
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<tr>
<td>Goldsmith et al. 2015</td>
<td>Client (CALPAS)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>18 month follow-up</td>
<td>Causal estimate (effect of sessions at best alliance) 2.91**</td>
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<tr>
<td>Goldsmith et al. 2015</td>
<td>Client (CALPAS)</td>
<td>Session 4</td>
<td>PANSS total</td>
<td>18 month follow-up</td>
<td>Causal estimate (effect of sessions at worse alliance) 7.74*</td>
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<tr>
<td>Jung et al. 2014</td>
<td>Client (STEP)</td>
<td>Average initial alliance</td>
<td>PANSS positive symptoms</td>
<td>Post-therapy</td>
<td>-.41</td>
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<tr>
<td>Jung et al. 2014</td>
<td>Therapist (STEP)</td>
<td>Average initial alliance</td>
<td>PANSS positive symptoms</td>
<td>Post-therapy</td>
<td>-.35</td>
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</tr>
<tr>
<td>Jung et al. 2014</td>
<td>Therapist (STEP)</td>
<td>Average initial alliance</td>
<td>PANSS positive symptoms</td>
<td>Post-therapy</td>
<td>.025</td>
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</tbody>
</table>

Goldsmith et al. 2015 | Client (CALPAS) | Session 4 | PANSS total | 18 month follow-up | Causal estimate (effect of sessions at best alliance) 2.91** |
<p>| Goldsmith et al. 2015 | Client (CALPAS) | Session 4 | PANSS total | 18 month follow-up | Causal estimate (effect of sessions at worse alliance) 7.74* |
| Jung et al. 2014 | Client (STEP) | Average initial alliance | PANSS positive symptoms | Post-therapy | -.41 |
| Jung et al. 2014 | Therapist (STEP) | Average initial alliance | PANSS positive symptoms | Post-therapy | -.35 |
| Jung et al. 2014 | Therapist (STEP) | Average initial alliance | PANSS positive symptoms | Post-therapy | .025 |</p>
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<tr>
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<th>Group 1</th>
<th>Measure 1</th>
<th>Measure 2</th>
<th>Measure 3</th>
<th>Note</th>
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<tbody>
<tr>
<td>Jung et al. 2014</td>
<td>Client</td>
<td>Average initial alliance</td>
<td>PANSS negative symptoms</td>
<td>Post-therapy -.49</td>
<td></td>
</tr>
<tr>
<td>Jung et al. 2014</td>
<td>Therapist</td>
<td>Average initial alliance</td>
<td>PANSS negative symptoms</td>
<td>Post-therapy .11</td>
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<tr>
<td>Lecomte et al. 2014</td>
<td>Therapist (bond; WAI-SF)</td>
<td>Post-therapy</td>
<td>BRPS total</td>
<td>Post-therapy -.18**</td>
<td></td>
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<tr>
<td>Lecomte et al. 2014</td>
<td>Therapist (Task; WAI-SF)</td>
<td>Post-therapy</td>
<td>BRPS total</td>
<td>Six month follow-up -.33**</td>
<td></td>
</tr>
<tr>
<td>Lecomte et al. 2012</td>
<td>Client</td>
<td>Overall ratings</td>
<td>BPRS total</td>
<td>Post-therapy -.39*</td>
<td></td>
</tr>
<tr>
<td>Lecomte et al. 2012</td>
<td>Client and therapist (WAI-SF)</td>
<td>Overall ratings</td>
<td>BPRS positive and negative symptoms</td>
<td>Post-therapy NS</td>
<td></td>
</tr>
<tr>
<td>Smeurd &amp; Rosenfarb, 2011</td>
<td>Relatives (SOFTA; Observer-rated)</td>
<td>Approx. session 6</td>
<td>Time until rehospitalisation</td>
<td>24 month period Wald’s $x^2(1)$= 4.85*</td>
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<tr>
<td>Smeurd &amp; Rosenfarb, 2011</td>
<td>Relatives (SOFTA; Observer-rated)</td>
<td>Approx. session 6</td>
<td>Time until use of emergency medication</td>
<td>24 month period Wald’s $x^2 (1) = 6.52**</td>
<td></td>
</tr>
</tbody>
</table>
Svensson & Hansson, 1999b

| Client & Therapist (PSR) | Initial Residual change in SCL-90-R score | Post-therapy NS | General functioning Post therapy | .56* |

Note: Effect size was calculated from β using Peterson & Brown’s (2005) formula: \( r = \beta + .5\lambda \), where \( \lambda = 1 \) on occasions when \( \beta \) is a positive value, in cases where \( \beta \) value was ±0.5.

WAI-SF, Working Alliance Inventory-short version; PANSS, Positive and Negative Symptom Scale; GAF, General Assessment of Functioning Scale; CALPAS, California Psychotherapy Alliance Scale; BRPS, Brief Psychotic Symptom Rating Scale; SERS, Self-esteem Rating Scale; STEP, Short Inventory for Individual Psychotherapy and Counseling; RFS, Role Functioning Scale; PSR, Psychotherapy Status Report; SOFTA, Scale of Assess the Therapeutic Relationship; NS, non-significant (cases where statistics was not reported).

*p<.05; **p<.01
Factors Associated with Alliance

Client-related factors

Demographic variables

Eleven studies examined alliance and demographics (Svensson & Hansson, 1999; Evans-Jones et al. 2009; Wittorf et al. 2009; Barrowclough et al. 2010; Lysaker et al. 2011; Smerud & Rosenfarb, 2011; Lecomte et al. 2012; Johansen et al. 2013a, 2013b; Kvgic et al. 2013; Jung et al. 2014), most of which found non-significant associations. Ethnicity and therapist alliance was considered in two studies; one found better alliance associated with working with Black families (Smerud & Rosenfarb, 2011) and the other when working with White clients (Barrowclough et al. 2010). As therapists’ ethnicity was not reported, findings are inconclusive with regards to ethnic matching.

Psychopathology

Fifteen studies investigated alliance and psychopathology at baseline (Svensson & Hansson, 1999; Couture et al. 2006; Dunn et al. 2006; Evans-Jones et al. 2009; Barrowclough et al. 2010; Wittorf et al. 2009, 2010; Lysaker et al. 2011; Smerud & Rosenfarb, 2011; Johansen et al. 2013a, 2013b; Kvgic et al. 2013; Jung et al. 2014, 2015; Mulligan et al. 2014). Two studies, considered moderately robust, found alliance was associated with psychopathology at baseline (Svensson & Hansson, 1999b; Smerud & Rosenfarb, 2011). Most studies failed to find significant associations between alliance and psychopathology with a few exceptions. Notably, therapist-rated alliance was significantly associated with negative baseline symptoms in four studies (Wittorf et al. 2009, 2010; Johansen et al. 2013b; Jung et al. 2014) but not in three studies (Couture et al. 2006; Evans-Jones et al. 2009; Mulligan et al. 2014), although one study found an association with PANSS preoccupation items (Couture et al. 2006) and all were possibly underpowered. Four studies (Barrowclough et al. 2010; Kvgic et al. 2013; Jung et al. 2014; Mulligan et al. 2014) examined baseline depression and early alliance with mixed findings and significant associations in opposite directions for depression and client-rated alliance (Jung et al. 2014; Mulligan et al. 2014). Only one study, whose sample was comorbid substance misuse, reported a relationship between therapist-rated alliance and depression (Barrowclough et al. 2010). Mixed findings may be due to heterogeneous samples (e.g. schizophrenia vs. comorbid substance misuse samples).

Insight and cognitive factors

Ten studies looked at insight and alliance (Dunn et al. 2006; Wittorf et al. 2009, 2010; Barrowclough et al. 2010; Lysaker et al. 2011; Lecomte et al. 2012; Johansen et al. 2013; Kvgic et al. 2013; Jung et al. 2014, 2015; Mulligan et al. 2014). Two studies, considered moderately robust, found alliance was associated with psychopathology at baseline (Svensson & Hansson, 1999b; Smerud & Rosenfarb, 2011). Most studies failed to find significant associations between alliance and psychopathology with a few exceptions. Notably, therapist-rated alliance was significantly associated with negative baseline symptoms in four studies (Wittorf et al. 2009, 2010; Johansen et al. 2013b; Jung et al. 2014) but not in three studies (Couture et al. 2006; Evans-Jones et al. 2009; Mulligan et al. 2014), although one study found an association with PANSS preoccupation items (Couture et al. 2006) and all were possibly underpowered. Four studies (Barrowclough et al. 2010; Kvgic et al. 2013; Jung et al. 2014; Mulligan et al. 2014) examined baseline depression and early alliance with mixed findings and significant associations in opposite directions for depression and client-rated alliance (Jung et al. 2014; Mulligan et al. 2014). Only one study, whose sample was comorbid substance misuse, reported a relationship between therapist-rated alliance and depression (Barrowclough et al. 2010). Mixed findings may be due to heterogeneous samples (e.g. schizophrenia vs. comorbid substance misuse samples).

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et al. 2014, 2015). Studies that reported better insight associated with better initial client-rated alliance included samples with chronic symptoms (e.g. persistent positive symptoms) (Dunn et al. 2006; Wittorf et al. 2009, 2010; Barrowclough et al. 2010; Lysaker et al. 2011), whereas three studies did not find significant associations (Johansen et al. 2013; Jung et al. 2014, 2015). Similarly, findings were mixed regarding therapist-rated alliance and insight. Differences may be because of the range of insight measures used. Three studies considered cognitive factors such as mastery and verbal memory (Davis & Lysaker, 2004; Johansen et al. 2013b, Davis et al. 2011) and reported mixed findings, which may reflect the limited samples in two studies (Davis & Lysaker, 2004; Davis et al. 2011). Taken together, mixed findings for insight and cognitive factors may be due to heterogeneity across samples and measures.

**Psychosocial factors**

Five studies considered baseline social functioning or social contact (Svensson & Hansson, 1999b; Couture et al. 2006; Evans-Jones et al. 2009; Jung et al. 2014; Mulligan et al. 2014). Studies found no relationship between client-rated alliance and social functioning or social contacts. Three studies reported significant associations with therapist-rated alliance all of which used different measures of social functioning (Couture et al. 2006; Jung et al. 2014; Svensson & Hansson, 1999b). The two studies reporting no association had limited statistical power (Evans-Jones et al. 2009; Mulligan et al. 2014). Different measures used across all studies may reflect mixed findings. Two studies investigated alliance and general functioning at baseline. While therapist-rated alliance was not associated with general functioning, client-rated alliance was in one study (Jung et al. 2014) but not in another (Barrowclough et al. 2010). However, general functioning may share variance with negative symptoms as Jung et al. (2014) found it did not predict alliance in multivariate analysis. Adverse experiences (n=1) and attachment style (n=2) were investigated. Clients with sexual assault histories rated poorer alliance compared to those with no such histories which remained after controlling for positive symptoms (Lysaker et al. 2010). Therapist-rated alliance did not differ between clients groups. Contrary to predictions, two studies found non-significant association between client attachment style and alliance (Kvrgic et al. 2013; Berry et al. 2015).

**Therapist-related Factors**

Two studies investigating therapist characteristics found that client-rated therapist characteristics; empathy, expertness, trustworthiness and perceived genuineness, was significantly associated with alliance (Evans-Jones et al. 2009; Jung et al. 2015). Therapists’ confidence in their abilities (Evans-Jones et al. 2009; Mulligan et al. 2014) and number of years qualified (Evans-Jones et al. 2009) was not associated with alliance but perceived therapist competence was (Jung et al. 2015). Therapists’
positive, humanistic qualities are linked to client-rated alliance, whereas number of years qualified was not associated with alliance.

**Therapy-related Factors**

Four studies considered therapy-related factors (Chadwick et al. 2003; Evans-Jones et al. 2009; Lecomte et al. 2012; Mulligan et al. 2015). There were no differences in alliance when a psychological formulation was presented (Evans-Jones et al. 2009). Therapists’ perception of the formulation was not associated with therapist-rated alliance (Mulligan et al. 2015). However, both studies had small samples and the association approached significance in one study (Evans-Jones et al. 2009), suggesting studies were underpowered. Chadwick et al. (2003) found significant improvements in therapist-rated alliance before and after a formulation was presented but not for client-rated alliance. Lower levels of suitability for therapy assessed by therapists and lower levels of homework compliance were both significantly related to poorer therapist-rated alliance (Dunn et al. 2006). Client and therapist-rated alliance predicted attendance and level of participation during sessions (Lecomte et al. 2012).

**Discussion**

**Summary of Findings**

This review aimed to determine the quality of alliance, examine the relationship between alliance and outcome, and identify factors associated with alliance in people with a diagnosis of schizophrenia and related psychoses. Findings across the reviewed studies consistently showed that alliance was established early and either maintained or improved over the course of therapy. Weighted average alliance scores (Total WAI-SF) were 64.51 and 61.26 for clients and therapist, respectively. Clients consistently rated better alliance compared to therapists. There was preliminary evidence for alliance predicting overall symptomatic outcomes as well as outcomes relating to general psychopathology, self-esteem, rehospitalisation, and medication usage. There were mixed findings regarding the link between alliance and client-related factors, such as insight, social functioning, and depression were reported. A limited number of studies investigated therapist and therapy-related factors and found preliminary evidence for more therapist genuineness, trustworthiness, and empathy, and better suitability for therapy and better homework compliance predicting better quality alliance.

Findings clearly demonstrated that alliance can be developed, maintained or improved during therapy. This firmly discounts the notion that engaging clients with psychosis in psychological intervention is dangerous or impossible (Repper, 2002). Clients rated better alliance than therapists, consistent with Tyron et al.’s (2007) meta-analysis findings of alliance across psychological therapies. Different frames of reference, for example, therapists may draw
comparisons to alliance with other clients (Tryon et al. 2007) may explain the discrepancy, or that therapists and clients value different aspects of the alliance (Bachelor, 2013).

This review established weighted average ratings of WAI-SF. No other systematic reviews citing the WAI-SF quoted the average levels of alliance. Although comparisons are limited, the average ratings found in this review are not dissimilar to ratings documented in studies of psychological interventions using samples other mental health diagnoses (e.g. Ramnero & Ost, 2007; Kramer et al. 2009; Keller et al. 2010). Previous research also suggests that diagnosis did not predict alliance (Hersoug et al. 2002).

There was some evidence for alliance predicting symptomatic outcomes, with significant results demonstrating a moderate effect size, in keeping with previous meta-analysis of psychological therapies (e.g. Martin et al. 2000; Horvath et al. 2011). There was no evidence that alliance predicted positive or negative symptoms, but some evidence for alliance predicting overall psychotic symptom outcome. This may be due to specific symptoms fluctuating throughout the course of illness (Lecomte et al. 2012). Other reviews have found that initial client-rated alliance is the strongest predictor of outcome across psychological therapies (e.g. Martin et al. 2000). The limited studies included in this review considering alliance and outcome prevented conclusion about which alliance perspective is most relevant to outcome. Interestingly, significant results linking alliance and outcome were mostly found in samples experiencing initial onset of psychosis which may be a particularly distressing time where developing a good quality therapeutic relationship can support recovery.

Using advance statistical procedures, one study (Goldsmith et al. 2015) reported a causal relationship between client-rated alliance and symptom outcome concluding that good alliance caused better symptomatic outcomes and poorer alliance was detrimental to outcome (Goldsmith et al. 2015). This suggests that there may be a threshold whereby poorer alliance predicts harmful outcomes that warrants further investigation. However, a number of studies did not find a predictive role of alliance, although most non-significant effect sizes were similar in direction and magnitude of significant results, suggesting they may be underpowered. Other clinical outcomes were considered in a handful of studies. Better alliance significantly predicted fewer hospitalisations and reduced medication usage, consistent with Priebe et al.’s (2010) review study that investigated alliance and outcomes in psychiatric settings. Interestingly, in the current review rehospitalisation and medication use were predicted by therapist or relatives’ alliance, but not from the client’s perspective. Alliance also significantly predicted self-esteem and there was preliminary evidence to suggest it predicted general functioning.

Mixed findings were reported for the relationship between alliance and specific psychotic symptoms. Positive symptoms may fluctuate, particularly in first-episode samples (Lecomte et al. 2012) which may account for differences across studies. There was preliminary evidence for an
association between negative symptoms and therapist-rated alliance. This might suggest that therapists find clients with negative symptoms more challenging to engage therapeutically or that negative symptoms are interpreted as poor alliance (Wittorf et al. 2009). Findings also pointed to a significant relationship between therapist alliance and depression, although the nature of this relationship differed across studies. Measures of insight all assessed the perceived need for psychiatric treatment for a mental disorder which presumes a medical model of mental health problems. Understandably, differences between clients’ and professionals’ explanatory models for psychosis have implications for a collaborative engagement, especially if clients perceive they are not in need of psychiatric treatment (Lysaker et al. 2013). Few studies considered cognitive factor had non-significant or mixed findings suggesting a need for further research.

There was some evidence for baseline measures of social functioning being related to therapist but not client-rated alliance. This may reflect all studies using different measures of social functioning. Other studies have reported therapist-rated alliance being associated to pre-treatment interpersonal functioning in a large psychotherapy study (Gibbons et al. 2003). Experience of sexual assault was associated with poorer client-rated alliance. High rates of sexual adversity may prevent the client from trusting those in a position of power (Lysaker et al. 2010). This has important clinical implications and warrants further investigation. Surprisingly, attachment was not significantly associated with alliance in two studies. However, authors suggest this may be due to sample characteristics (i.e. stable symptoms in maintenance phase of treatment) or therapists’ abilities to develop good alliances with clients (Kvrigic et al. 2011; Berry et al. 2015).

Only a few studies considered the impact of therapist and therapy-related factors on alliance. This may reflect an assumption that alliance is influenced to a greater extent by client-related factors. Consistent with previous research (Ackerman & Hilsenroth, 2002), this review found that baseline measures of client-rated therapist qualities, such as genuineness, empathy, and trustworthiness were significantly associated with better initial therapeutic alliance. Genuineness and trustworthiness may be particularly important for clients with positive symptoms, such as suspiciousness or paranoia. Establishing trust in therapy is fundamental for engagement and may be facilitated when therapy is viewed as a shared effort (Bachelor, 2013).

Therapists’ confidence was not predictive of alliance and suggests that therapists with less confidence (associated with less clinical experience) can still form good therapeutic relationships (Johnson & Caldwell, 2011). Lower suitability for therapy and lower levels of homework compliance were positively associated with alliance highlighting the importance of facilitating good engagement and collaboration on therapy tasks. This may reflect an emphasis on the ‘active ingredients’ of therapy, for example the role of homework in CBT.
Limitations

Limitations of included studies and the review itself should be considered. Rating the quality of studies require adaptations to the quality assessment tool (EPHPP). This was partly because the included studies often superimposed additional inclusion criteria to secondary data which needed to be taken into account as these studies were more vulnerable to socially desirability bias. Additionally, although the EPHPP can be applied to a wide range of studies, it is best suited to rating Randomised Controlled Trials. Due to these challenges, quality assessment ratings should be interpreted cautiously. There was considerable diversity in study designs within the alliance literature. Future reviews should consider using alternative quality assessment tools such as the Quality Assessment Tool for Studies with Diverse Designs (QATSDD, Sirriyeh et al. 2012) to account for diverse study designs.

Studies utilising client-rated alliance measures are indicative of clients who are currently engaged in services and thus excludes people who have disengaged. Higher disengagement is linked to poorer therapeutic alliance (Lecomte et al. 2008) suggesting that alliance results are positively skewed. This is important as clients and therapists predominantly use the top 20-30% of available ratings scale points of alliance measures, including the WAI, WAI-S and CALPAS (Tyron et al. 2008). While this could genuinely reflect how alliance is perceived, it may also suggest difficulties in discriminating between lower ratings points and/or increased social desirability bias. Despite clients and therapists using a restricted range of scores on alliance measures, significant relationships between alliance and outcome are detected (Tyron et al. 2008). Studies using observer-rated alliance measures (n=1 in review) negate this problem but rely on behavioural and/or verbal indications of alliance quality and omit subjective experience. Another limitation relates to high levels of missing alliance data common across alliance studies (e.g. up to 55% missing data in Goldsmith et al. 2015). This can result in bias interpretation of findings and reduce power. Furthermore, if missing data are non-random, sensitivity analysis is required (Sterne et al. 2009). Many studies did not report on the handling of missing data despite having small sample sizes. Additionally many studies used secondary data.

Limitations associated with the review itself include the difficulty in determining the competency criteria included in the NICE (2014) definition of psychological therapy. While some studies included data from larger trials where therapists’ training was reported, others included trainee therapists and some did not provide this information. As an association between therapist competency and alliance is suggested in this review, it is important to measure the level of training when examining this relationship. However, most studies (n=18) used standardised therapies with specialist training as a prerequisite. As studies were published in peer-reviewed journals, standards of quality assessment are expected. Furthermore, this review included samples with SMI which limits the application and generalizability of findings to populations that exclusively have non-
affective psychosis. However, including samples with SMI may more accurately reflect clinical populations, particularly within Community Mental Health Teams.

**Research and Clinical Implications**

These findings have a number of clinical implications. Establishing good quality alliance may prevent disengagement from services- a key issue for people with psychosis (O’Brien *et al.* 2009). There is preliminary evidence to suggest that there is a role of alliance in predicting outcomes in psychological therapy, especially in recent onset samples. This suggests a crucial time to engage clients in a good therapeutic relationship to promote better recovery. Additionally, there was evidence for poorer alliance predicting poorer outcomes. Understanding and avoiding non-helpful therapeutic relationships is integral to preventing potentially harmful therapeutic outcomes (Ljungberg *et al.* 2015). Enhancing alliance by focusing on predictors that are amenable to change is of clinical important, such as improving client insight and ensuring therapists provide an empathic approach. Therapist-related factors are under-researched (Nissen-Lie *et al.* 2014) but this review suggests they are important for client-rated alliance. Therapist variables, such as therapists’ attachment styles, might influence alliance development (Degnan *et al.* 2015). The review suggests that inexperienced therapists can develop good therapeutic relationships implying that humanistic therapeutic qualities as well as specific therapeutic skills and competencies should be encouraged in training.

The review found heterogeneity across studies in their design and relationships investigated. Future research should consider uniformity across measures of psychological outcomes and alliance, particularly as alliance has undergone a number of conceptual changes making it difficult to compare across different measures of alliance (Elvins & Green, 2008). Using longitudinal rather than cross-sectional studies assessing alliance over time offers the opportunity to determine what stage of therapy alliance formation is crucial and whether it predicts outcomes over the course of therapy. This review highlighted varied and mixed findings regarding factors predicting alliance. To clarify this, future research needs to consider employing advance statistical procedures, like those used in Goldsmith et al. (2015) to better understand the potential causal relationship between alliance and outcome. In doing so, it will provide greater certainty about what factors are most important to alliance. Finally, studies should consider what factors predict alliance across different stages of illness (FEP vs. chronic schizophrenia).

**Conclusion**

This is the first review to summarise studies investigating alliance in psychological therapy for people with psychosis. It makes an important contribution to the literature by demonstrating that alliance can be successfully established early on in therapy and be maintained or improved over the
course of therapy. Some evidence suggests that better alliance predicts better clinical outcomes. A range of client, therapy and therapist-related variables were associated with client and/or therapist-rated alliance. These findings suggest establishing a good quality alliance and building engagement might be crucial for positive outcomes of therapy. The findings from this review warrant further research and have implications for enhancing alliance during therapy.
Acknowledgments

References


Paper 2: Empirical Paper

Associations between attachment, therapeutic alliance and engagement in Black people with psychosis living in the UK

The following paper has been prepared for submission to ‘Schizophrenia Research’. Authors’ guidelines can be found in Appendix C. To ease readability, Tables are place within the text.

Word Count: 2,999 (excluding Tables and References)
Abstract

Compared to other ethnic groups in the UK, Black people have the highest rates of psychosis and the most difficult relationships with mental health services. Attachment theory has been applied to understanding engagement and therapeutic relationships for people with psychosis. However, this is the first study to empirically examine the associations between attachment (anxiety and avoidance), therapeutic alliance and service engagement in a Black sample with psychosis living in the UK. This is also the first study to compare attachment between different ethnic groups with psychosis. Twenty-eight participants with non-affective psychosis, recruited from outpatient and inpatient settings, completed a self-report measure of attachment. Alliance was assessed from both participant and staff perspectives. Staff also completed a measure of service engagement. Psychotic symptoms and perceived ethnic/racial discrimination in services were measured as potential confounds. Results indicated that higher attachment anxiety was related to poorer client-rated alliance but not staff-related alliance with the exception of the goal agreement subscale. Attachment avoidance was non-significantly associated with alliance. Attachment anxiety and attachment avoidance were non-significantly related to service engagement. Attachment avoidance was lower in the Black sample compared to secondary data from a White sample. Findings suggest that attachment anxiety is particularly important for alliance. Non-significant associations between attachment and engagement may reflect measures used. Findings have implications for staff’s ability to understand and support service users with anxious attachment behaviours and to develop mutually agreed treatment goals. Future research would benefit from investigating attachment, alliance and engagement longitudinally in different ethnic groups.
1. Introduction

In the UK, Black-Caribbean and Black-African people are nine and five times, respectively, more likely to be diagnosed with psychosis compared to White British people (Morgan et al., 2010). Mental health service engagement is particularly difficult for people with psychosis, irrespective of ethnicity (O’Brien et al., 2009). However, these difficulties are compounded for Black people, who experience more coercive pathways to care, such as compulsory hospital admissions, often involving police, and are less likely to receive psychological interventions compared to White British people (e.g. Oluwatayo and Gater, 2004). Such experiences result in fear, disengagement and greater mistrust of services independent of symptom severity or hospital admissions (Henderson et al., 2015, Keating and Robertson, 2004).

Adversity increases the risk of psychosis (Varese et al., 2012) and specific adversities, including parental separation, isolation, racial discrimination and perceived disadvantage, are more common in Black than White people with psychosis (e.g. Mallet et al., 2002; Tortelli et al., 2015). Childhood adversity can disrupt attachment relationships (Bentall et al., 2012). Developed during childhood, the attachment system acts as a template for regulating distress and interpersonal functioning during adulthood (Bowlby, 1977). Adult attachment is conceptualised along two dimensions; ‘anxious’ and ‘avoidant’ attachment (Mikulincer and Shaver, 2007). Anxious attachment is characterised by a negative self-image, overly demanding interpersonal style, fear of rejection and greater levels of negative affect. Avoidant attachment is characterised by minimisation of affect, interpersonal hostility, social withdrawal and negative beliefs about others.

A review of attachment and psychosis included studies from predominantly White samples and linked greater attachment difficulties to poorer service engagement, poorer alliance, and more severe psychiatric symptoms (Gumley et al., 2015). Attachment theory explains and predicts interpersonal functioning and behaviours, offering a way to conceptualise service engagement and alliance development. Despite significant difficulties with engagement, relationships between attachment, service engagement and therapeutic alliance have not been investigated in Black people with psychosis.

The study therefore aimed to identify the relationships between attachment, alliance and service engagement in a Black UK-based sample with psychosis, while controlling for potentially confounding factors of severity of symptoms and perceived ethnic/racial discrimination. In line with existing literature, we hypothesised that attachment avoidance and attachment anxiety would be associated with poorer alliance with staff and poorer service engagement.

As most research focuses on White samples, a secondary exploratory aim was to compare ratings from this study to ratings in a large (n= 552) White sample with a similar demographic...
composition pooled from eight UK-based studies of people with psychotic disorders (see appendix D for sample details).

2. Method

2.1 Procedure

Participants were recruited from outpatient and inpatient National Health Service (NHS) and third-sector services across the North West of England. The study shared recruitment with a Culturally-adapted Family Intervention (CaFI) trial for people with schizophrenia (protocol reference: 12/5001/62). Participants completed measures for this study prior to receiving the CaFI intervention. Information about the current study was advertised across services (appendix E for Participant Information Sheet; appendix F for advert). Service users self-referred or were referred by staff. Service users met with a researcher (LS/AD) and, following written consent (appendix G for Consent Form), completed assessment measures. Participants’ key members of staff were invited to complete questionnaires (appendix H for Participant Information Sheet; appendix I for Consent Form) about participants’ engagement and alliance.

2.2 Participants

Included participants met the following criteria: primary diagnosis of non-affective psychosis confirmed in case notes, self-identify as ‘Black-Caribbean’, ‘Mixed Black-Caribbean’, ‘Black British’, ‘Black African’, or ‘Mixed Black African’, aged 18 or above, informed consent, English speaking, and under the care of a mental health staff member for minimum of one month.

Of 42 people who were referred/self-referred, 29 (69%) consented to participate. One participant withdrew consent prior to assessment, leaving 28 participants in total.

2.3 Measures

2.3.1 Attachment

The Psychosis Attachment Measure (PAM; Berry et al., 2006; appendix J) is a 16-item self-report questionnaire assessing attachment ‘anxiety’ and ‘avoidance’. Respondents rate their agreement with statements describing how they relate to key people using a four-point Likert scale. The PAM has good construct and concurrent validity (Berry et al., 2008a). Alpha values for the anxiety and avoidance scales were .78 and .44, respectively. Removing three reverse-scored items from the avoidance scale resulted in an improved alpha level of .61. The avoidance scale was calculated by omitting the three items. Alpha values for all measures can be found in appendix K.

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1 AD is completing a PhD in Psychology and is the CaFI trial manager. LS and AD shared recruitment and data collection.
2.3.2 Alliance

Client and staff versions of the Working Alliance Inventory short form (WAI; Tracey and Kokotovic, 1989; appendix L) were used to assess alliance. Respondents rate statements on the 12-item questionnaire using a seven-point Likert scale. Total scores and subscale scores (bond, goal and task) are calculated with higher scores reflecting better alliance. The WAI is commonly used with good psychometric properties (Elvins and Green, 2008).

2.3.3 Service engagement

The Service Engagement Scale (SES; Tait et al., 2002; appendix M) is a 14-item measure assessing service user engagement from the staff perspective. Respondents rate agreement with statements using a four-point Likert scale. Higher total SES scores indicate lower engagement. The SES has been well validated and has good reliability (Tait et al., 2002).

2.3.4 Symptoms of psychosis

The Positive and Negative Syndrome Scale (PANSS; Kay et al., 1997; appendix N) was used to assess psychotic symptoms. Two researchers (LS/AD) were trained to administer and score the PANSS. Intraclass correlation coefficients (ICC) ranged from .82-.95 across positive, negative and general psychopathology subscales and total scores (appendix O for all ICCs). Researchers received regular supervision and interrater reliability was monitored every three months.

2.3.5 Perceived racial/ethnic discrimination

A measure of perceived racial/ethnic discrimination (appendix P) was developed for the study as existing measures were validated in African American samples using terms not culturally relevant to the UK. The measure included the following statements: 1) “NHS mental health services discriminate against people (treat people unfairly) because of their racial/ethnic background”; 2) “NHS mental health services discriminate against me (treat me unfairly) because of my racial/ethnic background”. Respondents rate their agreement with each statement (1=‘strongly disagree’ to 5=‘strongly agree’). The second item was used as a measure of discrimination.

2.3.6 Demographics

Clients completed a sociodemographic questionnaire (appendix Q) about their age, gender, ethnicity, employment, and experiences of services.
2.4 Analysis

The Statistical Package for Social Sciences (SPSS) version 22 was used for analyses. Normality was checked by exploring descriptive statistics, histograms, skewness and kurtosis. PAM anxiety and SES total scores were slightly skewed but overall all variables were considered robust enough for parametric tests.

Preliminary analysis investigated the relationship between sociodemographic variables and assessment measures. Correlations were calculated between potential confounders and attachment, alliance and engagement measures. Partial correlations were used to investigate relationships between attachment, alliance, and service engagement while controlling for symptoms and ethnic/racial discrimination. Finally, ratings of attachment from this sample were compared to ratings from a White sample using Mann Whitney U tests, because data from the White sample were not normally distributed.

3. Results

3.1 Preliminary analyses

Demographic variables are reported in Table 1. Descriptive statistics are presented in Table 2. There were no significant gender differences between any measures and age was not significantly correlated with any measures (p<.05). Total PANSS was significantly and negatively associated with client-rated WAI total (r= -.441, p=.020), bond (r= -.435, p=.023) and goal (r= -.446, p=.023). Perceived discrimination was significantly correlated with PAM Anxiety (r= .381, p=.045) and negatively associated with client-rated WAI bond subscale (r= -.392, p=.043). Total PANSS scores were significantly associated with poorer engagement (SES scores) (r= .393, p=.040). Better staff-rated alliance (WAI scores) were significantly associated with poorer engagement (SES scores) (p<.002).

Table 1: Service user sociodemographic information

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<th>Sociodemographic description</th>
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</tr>
<tr>
<td>Gender</td>
<td>N (%)</td>
</tr>
<tr>
<td>Male</td>
<td>19 (67.9)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Black-Caribbean</td>
<td>14 (50)</td>
</tr>
</tbody>
</table>
White and Black Caribbean: 3 (10.7)
Black African: 6 (21.4)
Black British: 4 (14.3)
White and Black African: 1 (3.6)

Country of origin:
- UK (England): 16 (57.1)
- Caribbean countries (Jamaica): 6 (21.4)
- African countries (Congo, Democratic Republic of Congo, Nigeria, Rwanda): 6 (21.4)

Diagnosis:
- Schizophrenia: 5 (18)
- Paranoid schizophrenia: 8 (29)
- Treatment resistant schizophrenia: 2 (7.1)
- Schizoaffective disorder: 6 (21.4)
- Delusional disorder: 1 (3.6)
- Non-affective psychosis: 5 (17.9)
- First episode psychosis (FEP): 1 (3.6)

Education (highest qualification):
- Degree level or above: 6 (21.4)
- <18 years old: 2 (7.1)
- <16 years old: 10 (35.7)
- Other qualifications: 6 (21.4)
- Not answered: 1 (3.6)

Marital status:
- Single: 22 (78.6)
- Separated/Divorced: 2 (7.1)
- Married/civil partnership: 2 (7.1)
- Not answered: 2 (7.1)

Current mental health provision:
- Outpatient service: 21 (75)
- Inpatient service: 7 (25)
Age of first contact with services (years) 24.11 (9.8)

Duration of contact with WAI Staff

1-12 months 9 (32.1)
1-5 years 12 (42.9)
More than 5 years 6 (21.4)
Not reported 1 (3.4)

Table 2: Mean, standard deviation, range of assessment measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANSS positive</td>
<td>14.78 (6.38)</td>
<td>7-29</td>
</tr>
<tr>
<td>PANSS negative</td>
<td>16.15 (5.08)</td>
<td>8-25</td>
</tr>
<tr>
<td>PANSS general</td>
<td>33.30 (9.34)</td>
<td>17-57</td>
</tr>
<tr>
<td>PANSS total</td>
<td>64.22 (18.15)</td>
<td>34-108</td>
</tr>
<tr>
<td>PAM anxiety</td>
<td>1.04 (0.68)</td>
<td>0-3</td>
</tr>
<tr>
<td>PAM avoidance</td>
<td>1.27 (0.64)</td>
<td>0-2.4</td>
</tr>
<tr>
<td>SES total</td>
<td>9.32 (7.09)</td>
<td>0-30</td>
</tr>
<tr>
<td>WAI client total</td>
<td>61.63 (15.94)</td>
<td>47-81</td>
</tr>
<tr>
<td>WAI client bond</td>
<td>20.96 (5.4)</td>
<td>7-28</td>
</tr>
<tr>
<td>WAI client task</td>
<td>20.30 (6.21)</td>
<td>8-28</td>
</tr>
<tr>
<td>WAI client goal</td>
<td>20.37 (5.78)</td>
<td>7-28</td>
</tr>
<tr>
<td>WAI staff total</td>
<td>63.62 (9.62)</td>
<td>47-81</td>
</tr>
<tr>
<td>WAI staff bond</td>
<td>22.46 (2.89)</td>
<td>15-27</td>
</tr>
<tr>
<td>WAI staff task</td>
<td>21.04 (4.05)</td>
<td>12-28</td>
</tr>
<tr>
<td>WAI staff goal</td>
<td>20.12 (3.95)</td>
<td>14-27</td>
</tr>
<tr>
<td>Discrimination</td>
<td>2.86 (1.46)</td>
<td>1-5</td>
</tr>
</tbody>
</table>

3.2 Correlating attachment with alliance and service engagement (see Table 3)

3.2.1 Attachment and alliance

Attachment anxiety was not significantly associated with staff-rated WAI total. As predicted, attachment anxiety was negatively and significantly associated with client-rated WAI
total, remaining significant when controlling for symptoms and discrimination. Attachment anxiety was negatively and significantly associated with all client-rated WAI subscales and the staff-rated WAI goal subscale, also remaining significant when controlling for symptoms and discrimination. Attachment avoidance was not significantly associated with any WAI scores.

3.2.2 Attachment and service engagement
Attachment anxiety and avoidance were not significantly associated with SES scores.

Table 3: Correlations and partial correlations between attachment, therapeutic alliance and service engagement

<table>
<thead>
<tr>
<th></th>
<th>PAM avoidance</th>
<th>PAM anxiety</th>
<th>Partial correlation controlling for PANSS Total score</th>
<th>Partial correlation controlling for Perceived Discrimination</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAI Total client</td>
<td>-.16</td>
<td>-.62</td>
<td>-.58</td>
<td>-.56</td>
</tr>
<tr>
<td></td>
<td>.42</td>
<td>.001</td>
<td>.002</td>
<td>.004</td>
</tr>
<tr>
<td>WAI Bond client</td>
<td>-.23</td>
<td>-.54</td>
<td>-.49</td>
<td>-.45</td>
</tr>
<tr>
<td></td>
<td>.24</td>
<td>.004</td>
<td>.011</td>
<td>.024</td>
</tr>
<tr>
<td>WAI Goal client</td>
<td>-.15</td>
<td>-.67</td>
<td>-.65</td>
<td>-.63</td>
</tr>
<tr>
<td></td>
<td>.44</td>
<td>.001</td>
<td>.011</td>
<td>.001</td>
</tr>
<tr>
<td>WAI Task client</td>
<td>-.066</td>
<td>-.49</td>
<td>-.44</td>
<td>-.45</td>
</tr>
<tr>
<td></td>
<td>.74</td>
<td>.01</td>
<td>.025</td>
<td>.025</td>
</tr>
<tr>
<td>WAI Total staff</td>
<td>-.26</td>
<td>-.33</td>
<td>.12</td>
<td>.99</td>
</tr>
<tr>
<td></td>
<td>.20</td>
<td>.12</td>
<td>.80</td>
<td>.99</td>
</tr>
<tr>
<td>WAI Bond staff</td>
<td>.052</td>
<td>.001</td>
<td>.059</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>.80</td>
<td>.99</td>
<td>.032</td>
<td>.017</td>
</tr>
<tr>
<td>WAI Goal staff</td>
<td>-.37</td>
<td>-.49</td>
<td>-.43</td>
<td>-.47</td>
</tr>
<tr>
<td></td>
<td>.059</td>
<td>.01</td>
<td>.032</td>
<td>.017</td>
</tr>
<tr>
<td>WAI Task staff</td>
<td>-.29</td>
<td>-.29</td>
<td>.15</td>
<td>.15</td>
</tr>
<tr>
<td>SES Total</td>
<td>-.002</td>
<td>.11</td>
<td>.99</td>
<td>.55</td>
</tr>
</tbody>
</table>
Note; WAI, Working Alliance Inventory; PAM, Psychosis Attachment Measure; SES, Service Engagement Scale

3.3 Comparison to White sample data

Black and White samples did not differ on gender (X²(1)=3.32, p=.068) or age (U= 6098.50, p=.067). Attachment anxiety scores were not significantly different between the Black (median=0.88, IQR=0.72) and White (median=1.00, IQR=1.13) samples (U=6682.5, p=.44). Attachment avoidance was significantly lower in the Black (median 1.2, IQR=.95) compared to the White (median=1.5, IQR=.88) sample (U=5,164, p=.009).

4. Discussion

4.1. Summary of findings

This study investigated associations between attachment, alliance and service engagement in a Black sample with psychosis living in the UK. A secondary exploratory aim compared attachment ratings with a large White sample. Attachment anxiety was significantly related with all aspects of client-rated alliance, and staff-rated goal agreement- all of which remained significant after controlling for symptoms and perceived ethnic/racial discrimination. Attachment avoidance was not significantly associated with alliance. Neither attachment anxiety nor attachment avoidance were significantly associated with service engagement. Attachment avoidance was significantly lower in the Black compared with the White sample, but there were no group differences in attachment anxiety.

The finding that client-rated alliance was related to attachment anxiety but not attachment avoidance contrasts previous research. In a predominantly White British (91.7%) sample, Berry et al. (2008a) reported that avoidant attachment but not anxious attachment was associated with staff and client-rated alliance after controlling for symptoms. The authors argued that people with anxious attachment styles are more likely to seek help and develop positive relationships with service providers than people with avoidant attachment styles who are more socially and emotionally withdrawn. Arguably, when Black people with higher levels of attachment anxiety seek help, service providers may experience more difficulties in meeting their needs resulting in poorer therapeutic relationships. Staff ethnicity was not recorded but 79.6%-89.2% of referring NHS staff identify as White British (Healthcare Workforce Statistics, 2015). Cultural differences between staff and service users might mean it is harder for staff to meet their needs and develop positive alliances. Cultural differences aside, service users with high levels of attachment anxiety may find it harder to maintain positive therapeutic relationships with staff due to higher dependency in relationships and sensitivity to rejection.
Attachment anxiety was not related to staff-rated alliance with the exception of the goal agreement alliance subscale. Although non-significant, associations between anxious attachment and alliance, with the exception of bond, were in the expected direction. Examples of items assessing the bond subscale include staff rating confidence in their ability to help service user and whether they appreciate them as individuals. Staff may be biased towards providing socially desirable responses and underreport ‘poor’ bonds. This may be particularly evident in this study as key staff members (often nurses and social workers) may be less open to report negative feelings about clients than therapists.

Lower goal agreement suggests staff and service users struggle to have mutually shared ideas about the direction of treatment, possibly reflecting different causal and treatment beliefs. More social and supernatural causal beliefs are reported in Black samples compared to more biological causal beliefs in White samples (McCabe and Priebe, 2004). Psychosocial causal beliefs were associated with greater engagement with therapy and spiritual causes linked to fewer experiences of stigma (Cater et al., 2016). However, research with samples from different ethnic groups suggests non-biological models of psychosis are associated with less satisfaction with care and poorer therapeutic alliance (Cater et al., 2016; McCabe and Priebe, 2004).

Although associations between attachment avoidance and alliance did not reach significance, they were in the expected direction (Berry et al., 2008a). Lower levels of attachment avoidance in our sample may help explain the negative findings. Arguably relatively milder levels of attachment avoidance may have less of an adverse impact on therapeutic alliance.

To our knowledge this is the largest study to report attachment anxiety and avoidance scores in a Black sample. Our sample and the White comparator may not be representative of Black and White populations in the UK so generalisation of findings is limited. People with higher levels of attachment avoidance may have self-selected out of the study due to mistrust of others and avoidant interpersonal styles. Despite similar ages and gender, the samples were not matched. Therefore, we cannot rule out that group differences in attachment might be explained by other unassessed differences between the groups. Nonetheless, our exploratory analyses do suggest that there may potentially be lower levels of attachment avoidance in Black compared to White samples, with previous research concluding a high prevalence of avoidant attachment across predominantly White samples with psychosis (e.g. Ponizovsky, et al., 2007). Differences in attachment patterns may be explained by lower levels of attachment avoidance may reflect culturally embedded interpersonal strategies, such as interdependence (Greenfield et al., 2003), that favour less avoidant strategies. For example, higher proportions of anxious-resistant attachment and lower levels of avoidant attachment have been found across non-clinical native African samples (Cowan and Cowan, 2007). This is important to consider as the premise of ‘secure’ attachment rests on Western values of autonomy and individuation (Keller, 2012; Rothbaum et al., 2000). Alternatively,
lower avoidant attachment in the Black sample may reflect a sampling bias towards those more willing to engage in research. On the other hand, the current sample may generally be avoidant of services rather than avoidant in relationships with staff. The established differences in rates of psychosis across different ethnic groups and the potentially different attachment patterns in Black and White psychosis samples raises questions about the pathway from interpersonal and relational adversity and the development of psychosis. It may be that social and psychological risk factors of psychosis that are specific to certain ethnic groups, for example social disadvantage and ethnic density within African Caribbean populations in the UK (Tortelli et al., 2015) may impact engagement and relationships with staff in different ways.

Contrary to predictions, attachment and service engagement were not significantly associated. Total engagement was measured combining the domains of the availability, collaboration, help-seeking, and treatment compliance. Other factors, including stigma, illness beliefs and attitudes about the effectiveness of treatments may impact engagement (Tait et al., 2002) to a greater extent than attachment style. These factors may be considerably different for Black compared to White people. Participating in the study may demonstrate some level of engagement in services, reflecting the minority of participants (35.7%) with ‘poor’ engagement (SES score >11; Tait et al., 2002). Interestingly, SES was strongly linked to staff-rated alliance. Staff may perceive successful engagement (characterised by the aforementioned domains) as the cornerstone of a good quality alliance, or vice versa. A lack of association between client-rated alliance and service engagement may suggest that these aspects of engagement are not integral to service users’ alliance.

4.2 Limitations and future research implications

The small sample size limits the generalisability of findings and may prohibit the detection of smaller effect sizes. Replication with a larger sample is needed. Relying on self and staff-referrals increases potential selection bias of those more willing to engage. However, recruitment spanned a number of services resulting in a sample with varied characteristics. No inferences regarding causality are possible due to the correlational design, although relationships between attachment, alliance and symptoms are likely to be bi-directional (Berry et al., 2008a). The authors generate a simple measure of perceived racial/ethnic discrimination that must be interpreted cautiously, particularly because it may be vulnerable to socially desirable responding and demand characteristics. To minimise the risk of social desirability bias of self-report measures, and given the difficulties with developing relationships pertinent to this client group (Keating and Robertson, 2004), participants were reassured that assessments would not be shared with staff involved in their care. This study conceptualised attachment using the PAM along two dimensions (avoidant and anxious attachment) which does not measure ‘secure’ attachment. To improve internal
reliability of the PAM, three items were removed from the avoidant attachment subscale. It may be that participants struggled to grasp certain items, which may call into question the cultural sensitivity of the measure. However, all other studies with the exception of Owen et al (2013) that have used the PAM have reported higher alpha values for this subscale. The above limitation needs to be considered in light of the reported findings.

Ethnic group differences in attachment require further investigation in studies with larger, more representative and well-matched samples to enable attachment styles across different groups to be investigated with the maximum number of sources of variance controlled. Rates of psychosis across Black-African, Black-Caribbean, and ‘Mixed’ ethnic groups differ therefore warranting further investigation between specific Black ethnic groups. Longitudinal designs would enable investigation of attachment, alliance and engagement at first contact and over time which would clarify predictors of these variables. Additionally, given the higher rates of adverse experiences found in Black ethnic groups, future studies should consider including a measure of trauma and adversity, which would help clarify pathways from relational disruption and development of psychosis.

4.3 Clinical implications

Findings suggest that attachment anxiety may be more important for alliance than attachment avoidance in Black people with psychosis in UK. Staff may benefit from considering attachment processes in their relationship with service users. A long-term goal for supporting service users with anxious attachment is to increase their abilities to manage/tolerate emotions independently of others. Over time, staff may achieve this by creating a ‘therapeutic distance’ to reduce the focus on emotional distress (Daly and Mallinckrodt, 2009; Tyrell et al. 1999), while recognising the importance of developing a trusting bond during early engagement. Supporting service users to explore and reflect on their state of mind may facilitate greater awareness of interpersonal patterns.

The relationship between attachment anxiety and goal agreement seems particularly relevant in this sample. Identifying goals should reflect a shared understanding of the clients’ difficulties. Dissonance between staff and service users’ explanatory models may reflect inter-cultural misunderstandings and culturally insensitive practice (Bhui & Bhugra, 2002; Islam et al., 2015). Often staff resist conversations with service users regarding race and culture out of a fear for ‘getting it wrong’ (Keating, 2009) and culturally sensitive staff training can improve service users’ experiences of care (Bhui et al., 2016).

Participants may identify with different national and cultural as well as ethnic backgrounds (57% identifying England as their country of origin). Ethnicity and country of origin impact on cultural variation in adult attachment (Agishtein and Brumbaugh, 2012) and rates of psychosis in
first and second generation Black-Caribbean people differ (Cantor-Graae and Selton, 2005). Considering the increasingly multi-ethnic society within the UK, future research would benefit from considering the impact of acculturation on attachment and engagement. Finally, this study looked at current engagement rather than likelihood of re-engaging. This may be an important consideration for populations with engagement difficulties (Keating et al., 2004).

Understanding cultural subtleties in attachment has implications for the management and treatment of clients with psychosis. Staff responses to clients also depend on their own appraisals and behaviour which are likely influenced by their own attachment styles (Berry et al., 2015; Degnan et al., 2014). Anxious or avoidant staff attachments may hinder identification or understanding of clients’ interpersonal needs (Berry et al., 2008b). Consideration of both client and therapist attachment styles is important for alliance development (Berry et al., 2008b).

4.4. Conclusion

This was the first study to examine attachment, alliance and service engagement in a Black sample with psychosis in the UK. Attachment anxiety, but not attachment avoidance, was related to client-rated alliance and staff-rated goal agreement, while controlling for symptoms and discrimination. Attachment was not significantly related to service engagement. Exploratory analysis suggested that, compared to a large White sample, attachment anxiety ratings were similar, whereas attachment avoidance was significantly lower in the Black sample. Findings highlight the importance of assessing relationships between Black people and services and alliance with staff to inform effective strategies of engagement.

Acknowledgement

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References


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Paper 3: Critical Appraisal

Critical Appraisal and Reflections

The following paper has not been prepared for submission. The author uses APA referencing throughout and adheres to the 5,000 word limit.

Word count: 4,979 (excluding References)
1. Introduction

This paper is a critical appraisal of the systematic review and empirical paper. Studies’ designs, implementation and implications are discussed. Strengths and limitations are considered as well as personal reflections about the research process.

2. Paper 1: Systematic Literature Review

2.1 Choice of Research Area

Schizophrenia is associated with poorer quality of life, increased physical health problems, increased isolation and stigma, and a reduced life expectancy (Schizophrenia Research Commission, 2012). Empirical and seminal documents highlight the increased risk of certain Black and Minority Ethnic (BME) groups, particularly African Caribbean people, developing schizophrenia (e.g. The Sainsbury Centre for Mental Health, 2006; Tortelli, Errazuriz, Coudance, Morgan, Murray, Jones, et al., 2015). National guidelines recommend that psychological interventions be offered routinely to those with psychosis and schizophrenia (NICE, 2014). As good therapeutic alliance has been linked to good psychological intervention outcomes across different psychological therapies (Horvath, Del Re, Flückiger, & Symonds, 2011), evaluating the literature on therapeutic alliance for people with schizophrenia from BME groups seemed clinically relevant. National guidelines informing the delivery and design of mental health services highlight the need for more culturally informed psychological interventions for African Caribbeans with schizophrenia (National Collaborating Centre for Mental Health, 2010). However, a scoping exercise identified a scarcity of literature - perhaps reflecting that this group is less likely to be offered psychological therapy (Bhui, Stansfeld, Hull, Priebe, Mole & Feder, 2003).

The original topic area was thus broadened to predictors of alliance for people with schizophrenia and related psychoses with two reviews examining therapeutic alliance for people with psychosis (Priebe, Richardson, Cooney, Adedeji, & McCabe, 2011; Hewitt & Coffrey, 2005). Although the latter lacked systematic rigour, Priebe et al.’s (2011) review searched the literature using ‘psychosis’, ‘outcome’, and ‘therapeutic alliance’ with the primary aim of examining whether alliance predicts outcome and found nine included studies. As neither review specifically identified alliance in relation to psychological therapy, it seemed important to synthesise the literature on alliance for people with schizophrenia and psychosis in the context of psychological therapy, especially as therapies often emphasise and make use of the alliance during treatment.

Discussion with the research team concluded the topic was clinically relevant, considering the challenges with engagement and accessing interventions that are pertinent to people with psychosis (Kreyenbuhl, Nossel, & Dixon, 2009). Three key aims were identified: i) establish the nature of alliance and identify average ratings of alliance, ii) identify whether alliance predicts therapy outcomes, (iii) identify factors associated with alliance.
2.2 Search Terms

Search terms were developed iteratively (Boland, Cherry, & Dickson, 2013). Synonyms of ‘therapeutic alliance’ and ‘psychosis’ were identified through other relevant systematic reviews and key terms in published studies. Boolean operators and truncation were reviewed by the wider research team, changing ‘psycho*’ to ‘psychos*s’. Search terms were then sent to the Systematic Review Service provided by the University of Manchester Library. Feedback confirmed relevant MeSH headings and the appropriateness of terms. One recommendation to reduce the adjacency span was acted on. The search was then conducted, resulting in a manageable number of papers (6,980). EndNote was used to import references and remove duplicates, which was then checked manually.

One potential criticism in investigating the relationship between outcome and alliance is that the search terms did not include synonyms of ‘outcome’. However, Priebe et al.’s (2010) systematic review included this term which appeared to result in a smaller number of papers being identified. It was considered important to not use ‘outcome’ as a search term because it would have excluded studies that investigated pre-treatment correlates of alliance (e.g. Couture, Roberts, Penn, Cather, Otto, & Goff, 2006), preventing one of the study aims being addressed sufficiently.

2.3 Inclusion and Exclusion Criteria

Identifying criteria relating to therapeutic alliance was discussed extensively. Applying a definition of alliance was considered, with one option to adopt Bordin’s (1979) pan-theoretical definition of alliance, the most commonly used definition empirically. However, therapeutic alliance has undergone a number of conceptual changes, apparent in the range of available measures (Elvins & Green, 2008). A single definition would not reflect this, risking significant bias in papers included. Therefore, studies using at least one validated measure of alliance were included.

Alliance is most commonly assessed in therapy dyads: the alliance between client and therapist. Group alliance involves interpersonal processes between a group member and the group as a whole (Yalom, 2005). As it is subject to influence from people other than the therapist, it was considered to be distinctly different so studies assessing group alliance were excluded. However, studies assessing dyadic alliance between therapist and client in therapeutic group settings were included. On reflection, including group alliance would have been clinically informative: therapeutic groups are frequently used because they are cost-effective and less resource-intensive. Only two papers (Romeo, Meyer, Johnson, & Penn, 2014; Johnson, Penn, Bauer, Meyer, & Evans, 2008) measuring group alliance were identified and excluded, suggesting that the majority of the alliance literature measures individual alliance, even in group settings. Interestingly, a systematic review of the conceptualization and measurement of therapeutic alliance did not comment on individual vs. group alliance distinctions (Elvins & Green, 2008).
The diagnostic criterion was initially expanded from ‘schizophrenia’ to ‘psychosis’ to include studies using samples with first-episode psychosis, reflecting the clinical need for early service intervention (NICE, 2014). Discussion with the research team highlighted the increased empirical interest of identifying samples with severe mental illness (SMI): an umbrella term for chronic mental health problems including schizophrenia, personality disorder, and bipolar disorder. Studies using SMI samples may represent a high proportion of people with non-affective psychosis. Not incorporating ‘SMI’ would risk excluding relevant samples so a decision was made to include samples where >60% of the sample included non-affective psychosis to reflect the type of interventions being considered. Sixty percent is a relatively arbitrary cut-off but ensures the majority of the sample had non-affective psychosis, enabling conclusions about this client group. Six studies were identified with SMI samples, four of which were included based on the criteria used. The two excluded studies (McCabe & Priebe, 2003; Loos, Arnold, Slade, Jordan, Del Vecchio, Sampogna, 2015) included 41% and 45% of participants with non-affective psychosis. Although interpretation of findings warrants consideration of the selection of samples used, it confirmed the importance of considering SMI samples in the review.

After reviewing various definitions of ‘psychological interventions’, including those from the British Association for Counselling & Psychotherapy, American Psychological Association, Department of Health, and various Cochrane reviews and meta-analyses (e.g. Turner, van der Gaag, Karyotaki, & Cuijpers, 2014), it was apparent that there was no agreed standard or definition. This may reflect the varied form, focus, setting and theoretical background which different psychological therapies emphasise. Some definitions highlight the need for trained professionals to deliver the intervention but with little further detail. The NICE (2014) definition of psychological intervention/therapy (see page 13 for definition) was considered robust and relevant and was therefore used. There was a degree of uncertainty when determining inclusivity, with papers not providing sufficient details of interventions and in one study an intervention included ‘family treatment and social skills training’ (Melau, Harder, Jeppesen, Hjorthoj, Jepsen, Thorup, et al., 2015) which clearly did not confirm inclusivity. The wider research team discussed inclusivity in all papers where there was doubt and as required, authors were contacted (see next section). Additionally, ‘therapist competency’ in the definition was hard to assess but all studies were published in peer-reviewed journals which provided a standard of quality assessment. On reflection, contacting all authors regarding therapist competency would have been a systematic attempt to address this, adding richness to the evaluation, and is recognised as a limitation of the review.

Finite resources prevented translation of non-English studies. Additionally, studies were only included if they were published in peer-reviewed journals. Thus there is an increased risk of publication bias (Dwan, Gamble, Williamson, Kirkham, 2013) as exclusion of ‘grey literature’ may
reflect the findings in the systematic review being under or overpowered (as findings not published in peer-reviewed journals may be significantly different).

2.4 Contacting Authors

Authors were contacted during the review process reflecting the lack of reporting detail in papers. If the research team was unsure about a study's inclusion criteria, authors were contacted (n=7) and five authors responded with further information on inclusivity. Two authors were asked if total alliance ratings could be re-calculated using an alternative method for comparability but neither provided this information.

2.5 Meta-analysis

One aim was to identify the extent to which alliance predicts therapeutic outcomes. The possibility of a meta-analysis was guided by considerations outlined by Boland and colleagues (2013): studies should be similar in terms of their samples and outcomes to sufficiently compare results. Studies investigating alliance and outcome had relatively similar samples yet there was considerable heterogeneity of outcomes. Therefore, a statistical synthesis of results was not justified and a narrative synthesis was conducted.

2.6 Quality Assessment

An integral part of a systematic review is assessing the quality of included studies (Boland et al., 2013). Assessment tools used in similar reviews and reviews of assessment tools (e.g. Jarde, Losilla, & Vives, 2012) were considered. The Effective Public Health Practice Project (EPHPP) Quality Assessment Tool (Thomas, Ciliska, Dobbins, & Micucci, 2004) and the Newcastle-Ottawa Quality Assessment Scale (NOS; Wells, Shea, O’Connell, Peterson, Welch, Losos et al., 2012) were relevant as they could be applied to a range of study designs. The EPHPP was more suited to the systematic review because the single EPHPP tool can be applied to a variety of study designs, as opposed to different versions of the NOS. The EPHPP tool has been successfully amended to suit the aims of other systematic reviews (e.g. Safavi, Berry & Wearden, 2015), by including the most relevant scales. Guidelines (appendix B) were produced to ensure that both raters assessed papers in a uniform way. This initially required extensive discussions regarding the applicability of the tool. For example, when studies used secondary data from a larger trial, they often applied additional inclusion criteria (participants completed at least three alliance measures) increasing selection bias. Despite being resource intensive, this fundamental process ensured a high standard of quality assessment and was a strength of the review.
2.7 Implications

Review findings have important clinical and research implications. Identifying that overall alliance was established early and remained throughout therapy strengthens the feasibility of clients with psychosis engaging successfully in therapeutic interventions, as recommended by NICE guidance (2014). Significant barriers to implementation of these guidelines are identified (Berry & Haddock, 2008; Prytys, Garety, Jolley, Onwumere, & Craig, 2011) including negative attitudes of staff regarding recovery. Tackling negative staff attitudes would help ameliorate inequalities in access to psychological therapy and mental health related stigma. As assessing alliance is important for intervention research (Medical Research Council, 2000), the average Working Alliance Inventory (WAI-SF; Tracey & Kokotovic, 1989) scores across studies, provided a benchmark for research into psychological interventions for people with psychosis.

The review found some evidence for alliance predicting symptomatic outcome post-therapy and at follow-up, particularly when therapy was delivered in a group format and alliance measured post-therapy. The large number of outcomes measured (e.g. specific and overall psychotic symptoms, psychopathology, rehospitalisation, medication use, self-esteem, general functioning and social functioning) prevents conclusions being drawn about non-significant findings, suggesting the need for consistency in future research on the selection of alliance and outcome measure. The measures may reflect the different emphases interventions place on therapy outcomes which warrants further investigation.

Given studies’ differences in findings on alliance and psychotic symptoms measured at baseline and post-therapy, the relationship between these variables is complex. A reciprocal-causal model proposes that alliance influences future symptom outcomes but also that current symptoms can influence alliance (Falkenstrom, Granström, & Holmqvist, 2013; Xu & Tracey, 2015). Although developed in non-psychotic samples, support for this model has been found by investigating the impact of fluctuations in the therapeutic alliance on subsequent levels of symptoms in a large sample from a primary care psychotherapy service (Falkenstrom et al., 2013). This suggests a bi-directional relationship between alliance and symptoms that warrants further investigation in samples with psychosis.

Most studies looked at client and therapist-rated alliance. While some factors were associated with alliance from both perspectives, certain factors were significantly associated more with the alliance for one perspective, therapist-rated but not client-rated alliance was significantly associated with severity of the clients’ negative symptoms at baseline. These subtleties have implications for designing and delivering psychological interventions. Consideration is required regarding what factors to target in order to strengthen alliance, depending on the alliance perspective. With an increased focus on designing person-centred mental health services, addressing factors more pertinent to client-rated alliance may be appropriate. However, therapist-
rated alliance does provide an insight into factors considered important by those delivering of therapy. These differences should be considered in the delivery of therapeutic interventions.

3. Paper 2: Empirical Paper
3.1 Study Design and Contribution

Investigating relationships between attachment and therapeutic relationships within a psychosis sample was developed from personal interests. Supervisors from the wider research team were conducting a feasibility study of Culturally-adapted Family Intervention for African Caribbeans diagnosed with schizophrenia and their families (CaFI). Sharing recruitment offered an opportunity to develop this research within an African Caribbean population (including Mixed African and Black Caribbean). This was of great clinical importance because African Caribbean people have a higher rate of psychosis compared to White British and other BME groups within the UK (e.g. Fearon, Kirkbride, Morgan, Dazzan, Morgan, Lloyd, et al., 2006). National guidance specifically recommends understanding and improving the experiences of African Caribbean people with psychosis (NICE, 2014). A larger sample in the doctoral study was hoped for than the CaFI study’s 30 participants so a decision was made to include Black African people (including people who identify as Black British or Mixed Black African). Expanding the population would increase feasibility of the study and its clinical importance as people from Black African backgrounds have the second highest rates of psychosis (Fearon et al., 2006).

The study’s main challenge was recruitment, given that the primary outcome of CaFI was feasibility. Despite African and Caribbean groups being over-represented across mental health services (Fearon et al., 2006), they are at high risk of disengagement and have poorer relationships with services (NICE, 2014; Keating, 2009). To reduce participant burden and maximise recruitment and data collection, the trainee (LS) and PhD student (AD) shared recruitment with the CaFI study jointly collected data. The research process was therefore collaborative; a single ethics application for one study encompassing both researchers’ aims and measures was completed. Recruitment spanned three NHS Trusts with referrals from two of them reflecting finite time to raise awareness about the study. Thus people meeting the inclusion criteria were geographically concentrated in the catchment areas of two Trusts. LS and AD managed recruitment by first meeting teams and then with time constraints, AD continued recruitment while LS conducted research assessments with participants. AD was also the CaFI research manager enabling a regular point of contact (office base) and consistent communication. Data input, analysis of results, and writing the empirical paper was done separately.

Sharing the research process offered numerous advantages: maximising recruitment through the flexibility and availability of two researchers, reduced burden on services and participants, facilitating easier discussion of any encountered difficulties, and offering support.
There were also limitations: sharing data collection meant careful consideration of measures to minimise participant burden which limited the measures each researcher included and a high degree of coordination and effective communication was required. Overall there were considerable benefits in sharing the research process.

3.2 Recruitment

To determine feasibility, information about diagnosis and ethnicity across different services came from the R&D departments of two NHS Trusts. This information supported feasibility (n=442) and highlighted geographic areas/teams with higher rates of people with inclusion criteria.

Two NHS Trusts and one third sector organisation provided referrals: a third trust and many third sector organisations did not. Past trainees advised on communications through networks in these organisations notably preparing for team presentations (ensuring a ‘punchy summary’ of the study), and developing links with services (identifying ‘research champions’ who recognised the utility of research).

Challenges of recruitment included ‘getting into’ the service and meeting teams face-to-face: they were ‘research-saturated’, with little capacity to present at meetings. Encouraging staff to make referrals was also challenging, although recruiting in conjunction with CaFI (a research council portfolio study which had the added support in one Trust of Clinical Studies Officers to identify participants) by offering clients a psychological intervention was helpful. These recruitment issues did not reflect a lack of interest, but rather demanding caseloads and research as a second priority. Asking staff to identify eligible clients after presentations with email follow-up was effective.

The biggest hurdle was gaining consent from the participant through professionals and required polite persistence. However, it was important to make clients aware of the study and the opportunity to participate. Clinical training had provided good preparation for communicating with staff teams in a sensitive and professional manner.

Of the 42 service users approach directly by the research team, the trainee completed 24 initial meetings (information giving, consenting). Overall, 29 participants consented to take part. The trainee completed 12 assessments (for further details see appendix R). Clients who declined to participate were either ‘not interested’, had ‘too much going on’ or ‘just wanted therapy’ (CaFI). The final sample involved 28 participants from 18 different teams/services demonstrating the importance of targeting a wide range of services and the good links developed with them. Participants were largely positive about the study, agreeing with the need to improve relationships between clients and staff. One participant believed the research could be interpreted as ‘racist’ for targeting particular ethnic groups but explanation of the rationale for targeting specific ethnic group relayed the participants concern resulting in them taking part.
3.3 Measures

When choosing measures, one priority was to minimise participant burden. Feedback from the University Research Ethics Committee and the Community Liaison Group (CLG) led to measures for this study being included as part of CaFl baseline if clients agreed to participate in both studies, as some measures overlapped.

Measuring adult attachment has two general approaches: narrative and questionnaire-based. The most frequently used narrative approaches method is the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1997) which elicits a narrative from the client about their experiences of being parented. The client’s attachment states of mind are then observer-rated. The questionnaire approach measures client’s self-reported experiences of thoughts, feelings and behaviours within attachment relationships. The Psychosis Attachment Measure (PAM; Berry, Wearden, Barrowclough, & Liversidge, 2006), a questionnaire developed for clients with psychosis does not rely on the client’s experience of romantic relationships, which is advantageous given high rates of isolation and difficulties in interpersonal functioning associated with psychosis. Furthermore, PAM data from a large White sample (n=552) enabled comparisons.

There are limitations to using questionnaire measures of attachment. Some items are synonymous with psychotic experiences; for example, suspiciousness and feeling insecure in relationships (Gumley, Taylor, Schwannauer & MacBeth, 2013). Additionally, self-report measures require people to have insight and recognition of insecurities; for example, those with higher levels of avoidance attachment may minimise or downplay their own insecurities (Gumley et al., 2013; Read & Gumley, 2010). On balance, the PAM was considered the most appropriate measure. Using all scale items, the internal consistency of the PAM avoidance scale was considerably low but removal of three reversed items resulted in an acceptable alpha value. The measure normed on a predominantly White British sample might explain this, although the alpha value (.60) was similar in another study in a predominantly White (91.8%) sample (Owens, Haddock, & Berry, 2013).

The Working Alliance Inventory-short form (WAI-SF; Tracey & Kokotovic, 1989) was chosen to assess the therapeutic alliance from both the client’s and professional’s perspective. The WAI-SF has been widely used in research, is well triangulated, has good validity (Elvins & Green, 2008) and has been widely used in samples with psychosis (Elvins & Green, 2008).

Despite being a key outcome measure for services, service engagement is rarely defined (O’Brien, Fahmy & Singh, 2009). Beyond attendance, engagement with services can be understood as the client’s active participation in treatment (O’Brien et al., 2009; Tetley, Jinks, Huband, & Howells, 2011). The Service Engagement Scale (SES; Tait et al., 2002) was chosen because it considers availability, collaboration, help-seeking and treatment adherence, reflecting subtleties of service engagement. The SES is completed from the professional’s perspective and has been validated using samples with severe mental illness in community psychiatric settings.
The Positive and Negative Symptoms Scale (PANSS; Kay, Flszbein, & Opfer, 1987) was selected to assess psychotic symptoms as extensively used in research to assess positive, negative and general psychotic symptoms. The trainee was trained to ‘gold standard’, received regular supervision, and reliability was assessed every three months. The researchers designed a PANSS manual (appendix N) for the purpose of CaFI and their study providing rating decisions advice and highlighting culturally sensitive issues from PANSS supervision such as awareness of culturally relevant meanings (i.e. having ‘visions’) and unfamiliar proverbs.

A measure of perceived racial/ethnic discrimination was included following feedback from the University’s Research Ethics Committee, (supported by the CLG) as perceived racial discrimination may be an important confounding factor. Several potential measures were identified using searches including the Perceived Devaluation and Discrimination Measure (PDDM; Link, Mirotznik, & Cullen, 1991), Perceived Ethnic Discrimination Questionnaire (PEDQ; Contrada et al., 2001), Schedule of Racist Events (SRE; Landrine & Klonoff, 1996) and General Ethnic Discrimination Scale (GEDS; Landrine, Klonoff, Corral, Fernandez & Roesch, 2006). All identified measures were not considered appropriate, including inappropriateness of language used (SRE) and some measures reflected exposure to events in addition to racial discrimination (e.g. PEDQ-CV). A systematic review found no measures validated in African Caribbean samples or within mental health settings (Kressin et al., 2008). These issues questioned the cultural validity of including one of the existing measures in the study. Following discussions with the wider research team, a simple, self-generated measure of perceived discrimination was created. While time constraints did not permit validation of the measure, it did include simple definitions of discrimination (‘being treated unfairly’) and there were no reported issues with its utility from clients.

3.4 Data Analysis

The final recruited sample was smaller than planned resulting in the decision to use correlational analysis rather than multiple regressions. Analysis involved multiple comparisons increasing risk of Type I error (a false positive result). To minimise this risk, Bonferroni adjustment can be used but it risks increasing the chances of Type II error (obtaining a false negative result). As the research was exploratory in nature, a p-value of .05 was adopted. With a larger sample, the aim was to consider positive, negative and overall symptoms because confounding variables, as specific psychotic symptoms are associated with attachment anxiety and avoidance (Berry, Barrowclough & Wearden, 2008). The smaller sample size prevented all three variables being used. The trainee controlled for positive and negative variables separately, with no significant differences found across results.
3.5 Implications

This was the first study to establish average ratings of attachment, alliance and engagement and to investigate associations between these variables in a Black sample with psychosis. Similar to the systematic review, this provides a benchmark and a comparison for future research.

Interestingly attachment anxiety was related to all aspects of client-rated alliance and only the goal subscale of staff-rated alliance, whereas attachment avoidance was not associated with alliance. As mentioned, this is contrary to previous research where attachment avoidance is most strongly linked to engagement and alliance (Berry et al., 2008). These differences warrant further, larger-scale research to understand attachment across different ethnic groups. The difference in association between attachment and alliance from each perspective echoes findings from the review paper; it cannot be assumed alliance perspectives are concordant highlighting the importance to services of measuring client-rated alliance in order to better meet their needs.

Findings demonstrated that goal agreement seemed particularly linked to attachment in this sample. One hypothesis is that disagreement on treatment goals may reflect different causal beliefs of psychosis. A recent systematic review looked at studies with psychosis samples which investigated causal beliefs about psychosis and found that psychosocial and spiritual beliefs, rather than biological beliefs, of psychosis were not commonly reported by clients (Carter, Read, Pyle & Morrison, 2016). Interestingly, there was evidence of protective aspects of non-biological causal beliefs such as spiritual beliefs reducing the impact of stigma (Carter et al., 2016). Too often staff are fearful of discussing cultural aspects of mental health with clients (Keating, 2009), but these findings suggest that conversations to understand causal beliefs may highlight client strengths and resources as well as moving towards mutually agreed treatment/recovery goals.

Attachment in the sample was compared to secondary data from a White sample. Levels of attachment anxiety were not dissimilar across ethnic groups, but attachment avoidance was significantly lower in this sample: reasons for this are explored in the empirical paper. Interestingly, despite Black people with psychosis being more likely to experience specific adversities (lone parenthood, poor engagement, isolation and greater perceived discrimination), there was no evidence for higher rates of attachment avoidance and anxiety compared to the large White sample. Again, this may point to resilience factors that are pertinent to Black ethnic groups.

Engagement was not linked to attachment in the sample but was associated with more severe symptoms, suggesting that clients who are more symptomatic or come into service at crisis are more vulnerable to disengagement. One hypothesis is that greater symptoms, particularly positive symptoms of paranoia increases mistrust of service and increase the likelihood of disengagement: attention could be given to engaging Black people sensitively during these times.

The research team considered comparing engagement and alliance scores to other White samples; however, a review of all papers which sited the SES or WAI either did not record sample
ethnicity in great detail, or included mixed ethnic groups where comparisons were not feasible. The trainee compared the SES scores from the study's sample to those in a large sample (Tait et al., 2002) and found that the Black sample was significantly better engaged than Tait et al.'s (2002) sample. This may be due to differences in samples: our sample had experienced more chronic psychosis whereas the other sample was drawn from a first-episode psychosis population. This sample may be accustomed to engaging in treatment and accessing support compared to those first diagnosed.

4. Personal Reflections and Implications

The area of psychosis was relatively new to the trainee, with limited experience as a support worker and no clinical experience during training. The trainee's initial apprehensions about lacking knowledge were replaced by excitement at learning about a new area. Considering mental health through a cultural lens during the research process and having a final year, systemically informed placement which drew on social constructionism, the trainee frequently reflected on the utility of diagnosis, especially ‘schizophrenia’ which is regarded as particularly contentious. Implications for personal practice was the need to remain sensitive to clients’ illness beliefs, such as hearing voices may be culturally acceptable within certain communities, and that each client will have their own narrative about the meaning of such events. Whilst awareness of this is important during individual therapy, advocating these meanings to colleagues from other disciplines will raise awareness and care that is truly person-centred.

This research highlighted responsibilities of clinicians to improve access to interventions and services for people at higher risk of disengaging. This shaped the trainee’s Small Scale Research Project evaluating satisfaction and access to a CAMHS service for White clients and clients from BME backgrounds. In the context of cuts to services, pressure on resources and high clinical caseloads, clients who disengage or have an ambivalent relationship with services can be overlooked.

At the start of training, perhaps naively, the trainee considered cultural sensitivity as developing an awareness of different cultural backgrounds, mainly in terms of clients’ ethnic identities. During the research process this has developed to recognise the value of considering cultural identity which may not be dependent on race or ethnicity and someone living in the UK who identifies as Mixed White and Black-Caribbean may assume various cultural identities beyond the descriptor given. This identity may change over time due to personal, social and political influences. The trainee experienced this herself during the EU referendum as her affiliation with a European vs. an English identity changed (reflecting her experience growing up in three European counties). In the role as a researcher it was important to be self-reflective to consider potential power dynamics as a White British researcher working with people from different cultural and ethnic backgrounds.
Identity is very important in mental health. The trainee became aware of this throughout training: working with a client with borderline personality difficulties where an unstable sense of self was a hypothesised maintaining mechanism, changes to role and purpose were discussed at length with a client struggling to adjust to intestinal failure, and changes in perceptions of the self and body were key to mood and eating fluctuations for an adolescent with eating difficulties. Interestingly, rates of psychosis for African-Caribbeans living in African-Caribbean countries are equal to rates for White British people living in the UK (Morgan, Charalambides, Hutchinson & Murray, 2010). Therefore, increased risk of psychosis in Black people living in the UK may be connected with the process of acculturation and identity.

The trainee reflected on her own alliances with clients seen on placements and in supervision, especially when the trainee felt ‘stuck’ in terms of a progression in therapy. This offered an opportunity to reflect on whether the process was truly collaborative, whether client’s and therapist’s goals were aligned, and having discussions with the client if in doubt. Attachment theory has had implications for the trainee’s practice, using it more to inform formulations and, when appropriate, have conversations about patterns of interpersonal behaviours. It also helped to reflect on the therapist as an ‘attachment figure’ for clients (Mikulincer, Shaver, & Berant, 2013) to provide an alternative attachment experience built on predictability, consistency and unconditional positive regard.

References


Appendices
Appendix A - Authors’ Guidelines

Psychological Medicine

Editorial Policy

Psychological Medicine is a journal aimed primarily for the publication of original research in clinical psychiatry and the basic sciences related to it. These include relevant fields of biological, psychological and social sciences. Review articles, editorials and letters to the Editor discussing published papers are also published. Contributions must be in English.

Submission of manuscripts

Manuscripts should be submitted online via our manuscript submission and tracking site, http://www.editorialmanager.com/psm/. Full instructions for electronic submission are available directly from this site. To facilitate rapid reviewing, communications for peer review will be electronic and authors will need to supply a current e-mail address when registering to use the system.

Papers for publication from Europe, (except those on genetic topics, irrespective of country), and all papers on imaging topics, should be submitted to the UK Office.

Papers from the Americas, Asia, Africa, Australasia and the Middle East, (except those dealing with imaging topics), and all papers dealing with genetic topics, irrespective of country, should be sent to US Office.

All enquiries should be directed to the Editorial Office at psychmed@cambridge.org.
Please see the below table for the types of papers accepted:

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<th>Article Type</th>
<th>Usual Max word count*</th>
<th>Abstract</th>
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<tr>
<td>Original article</td>
<td>4500</td>
<td>150 words, structured, using subheadings: Background, Methods, Results, Conclusions</td>
<td>Harvard style – see elsewhere in this document for full details</td>
<td>Usually up to 5 total</td>
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<tr>
<td>Review article</td>
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* Editors may request shortening or permit additional length at their discretion in individual cases
** May be adjusted in individual cases at Editors’ discretion

NOTE:

1. Figures should be submitted as discrete files, not embedded in the text of the main document.
2. Supplementary material for online only should be submitted as discrete files, not as part of the main text.

Generally papers should not have text more than 4500 words in length (excluding abstract, tables/figures and references) and should not have more than a combined total of 5 tables and/or figures. Papers shorter than these limits are encouraged. For papers of unusual importance the editors may waive these requirements. Articles require a structured abstract of no more than 250 words including the headings: Background, Methods, Results, Conclusions. Review Articles require an unstructured abstract of no more than 250 words. The name of an author to whom correspondence should be sent must be indicated and a full postal address given in the footnote. Any acknowledgements should be placed at the end of the text (before the References section).

Contributors should also note the following:
1. SI. units should be used throughout in text, figures and tables.
2. Authors should spell out in full any abbreviations used in their manuscripts.
3. Foreign quotations and phrases should be followed by a translation.

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For papers concerning neuropsychopharmacological treatments, Psychological Medicine encourages authors to utilize the ‘Neuroscience-based Nomenclature’ developed by the ECNP Taskforce on Nomenclature. The need for such a change arose to address a longstanding concern within the neuropsychopharmacological community that the nomenclature of psychotropic drugs did not properly reflect the underlying neuroscience of these compounds, as well as being unhelpful to clinicians and confusing to patients (e.g. the prescription of ‘antipsychotics’ for depression).

More information about the nomenclature can be found on the ECNP website here, and in the paper here. The Neuroscience-based Nomenclature (NBN) itself is available free of charge as a mobile app (for both Android and iOS devices).
References

(1) The Harvard (author-date) system should be used in the text and a complete list of References cited given at the end of the article. In a text citation of a work by more than two authors cite the first author’s name followed by et al. (but the names of all of the authors should be given in the References section). Where several references are cited together they should be listed in rising date order.

(2) The References section should be in alphabetical order. Examples follow:


Note: authors' names should be in bold font; journal titles should always be given in full.

(3) References to material published online should follow a similar style, with the URL included at the end of the reference, with the accession date, if known. Authors are requested to print out and keep a copy of any online-only information, in case the URL changes or is no longer maintained. Examples follow:


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Only essential figures and tables should be included and should be provided in black and white except in exceptional circumstances, e.g., PET scan images etc. If you request colour figures in the printed version, you will be contacted by CCI-RightLink who are acting on our behalf to collect Author Charges. Please follow their instructions in order to avoid any delay in the publication of your article. Further tables, figures, photographs and appendices, may be included with the online version on the journal website.

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Online Supplementary Material

Relevant material which is not suitable for print production, such as movies or simulations/animations, can be uploaded as part of the initial submission. Movies should be designated as 'Movie' and each individual file must be accompanied by a separate caption and a suitable title (e.g., Movie 1). Accepted formats are .mov, .mpg, .mp4, and .avi, though they should be archived as a .zip or .tar file before uploading. Each movie should be no more than 10MB. Upon publication these materials will then be hosted online alongside the final published article. Likewise, should there be detailed tables or figures which are likely to take up excessive space in the printed journal, these can also be published online as supplementary material [designated as 'Other supplementary material']. Note that supplementary material is published 'as is', with no further production performed.

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Acknowledgements

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(Revised 20 January 2016)
Appendix B- Adapted Quality Assessment Tool

Effective Public Health Practice Project (EPHPP)

QUALITY ASSESSMENT TOOL FOR QUANTITATIVE STUDIES (ADAPTED*)

Common types of design include: (A) non-randomized controlled trials, and (B-C-D) observational analytic study or component where the intervention/exposure is defined/assessed, but not assigned by researchers.

A. Non-randomized controlled trials
   The intervention is assigned by researchers, but there is no randomization, e.g., a pseudo-randomization. A non-random method of allocation is not reliable in producing alone similar groups.

B. Cohort study
   Subsets of a defined population are assessed as exposed, not exposed, or exposed at different degrees to factors of interest. Participants are followed over time to determine if an outcome occurs (prospective longitudinal).

C. Case-control study
   Cases, e.g., patients, associated with a certain outcome are selected, alongside a corresponding group of controls. Data is collected on whether cases and controls were exposed to the factor under study (retrospective).

D. Cross-sectional analytic study
   At one particular time, the relationship between health-related characteristics (outcome) and other factors (intervention/exposure) is examined. E.g., the frequency of outcomes is compared in different population sub-groups according to the presence/absence (or level) of the intervention/exposure.

*This measure has been adapted for use in a review of studies including cross-sectional and cohort (prospective, longitudinal) analytical designs

*The following subscales have been omitted:

- B – STUDY DESIGN
- D – BLINDING Q1 AND Q2
- G – INTERVENTION INTEGRITY Q1, Q2 AND Q3
- H – ANALYSES Q1, Q2, AND Q4
COMPONENT RATINGS

A) SELECTION BIAS

(Q1) Are the individuals selected to participate in the study likely to be representative of the target population?

Very likely
Somewhat likely
Not likely
Can’t tell

(Q2) What percentage of selected individuals agreed to participate?

1. 80 – 100%
2. 60 – 79%
3. Less than 60% agreement
4. Not applicable
5. Can’t tell

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DICTIONARY: SELECTION BIAS

(Q1) Participants are more likely to be representative of the target population if they are randomly selected from a comprehensive list of individuals in the target population (score very likely). They may not be representative if they are referred from a source (e.g. clinic) in a systematic manner (score somewhat likely) or a non-systematic manner (score not likely) or self-referred (score not likely). If there are two groups (e.g. clinical and control) then answer question with relevance to both.

(Q2) Refers to the % of subjects in the control and intervention groups that agreed to participate in the study before they were assigned to intervention or control groups. This includes declines only and does not include those who were approached but do not meet inclusion criteria.

Additional Guidance Notes (from 18/03/2016 meeting with Katherine and Lucy)

Q1 Consider if participants were randomised (then will have less selection bias)

HOWEVER: often papers taken from RCT sample will have additional criteria attached to them (e.g. participants included only if they provided 3 or more ratings of therapeutic alliance) in which case they will have a higher selection bias (e.g. only ppt willing to complete measures included). Consider following for guidance:

- If from RCT (and this is representative of target population and no additional criteria added) then rate ‘very likely’.
- If from RCT but additional criteria were included, consider the criteria (and how much this narrowed down the sample) and score ‘somewhat likely’.

Q2 For samples drawn from RCT paper, consider what the potential number of eligible participants are (e.g. treatment arm of trial). If so, look at original paper if accessible to calculate % of those who agreed to participate. In some trials, consent occurs prior to
thorough eligibility screening (Barrowclough et al paper). If so disregard the dictionary guidance above and calculate those who gave consent but were not eligible. Rate ‘can’t tell’ if details of original recruitment (trial) are not given. If paper directs you to a different paper, still rate using above guidelines (but make a note that you had to look at other paper).

B) CONFOUNDERS

(Q1) Were important differences between groups taken into account (controlled for) in the analysis or design?

Yes
No
Can’t tell

The following are examples of confounders

Ethnic group (therapist and client), Gender (therapist and client), Sex (therapist and client), Marital status (therapist and client), Social class/socioeconomic factors (client)
Education/employment (client), Training/experience (therapist), Marital status (client)
Diagnosis (client), Substance misuse, Duration/severity of mental health problem (client)
Service/accommodation (inpatient, outpatient, community service etc.), Baseline score on follow-up score
General psychopathology factors (motivation; levels of depression; anxiety and shame), Symptoms (particularly positive symptoms; insight; excitation on PANSS), Functioning, Neurocognitive abilities (e.g. capacity for social functioning, emotional reactivity)

(Q2) If yes, indicate the percentage of relevant confounders that were controlled (either in the design (e.g. stratification, matching) or analysis?
80 – 100% (most)
60 – 79% (some)
Less than 60% (few or none)
Can’t Tell
Not applicable

RATE THIS SECTION | STRONG | MODERATE | WEAK
See dictionary | 1 | 2 | 3

DICTIONARY: CONFOUNDERS

By definition, a confounder is a variable that is associated with both the independent variable and the dependent variable. The authors should indicate if confounders were controlled in the design [by randomisation, stratification, matching] or in the analysis [by controlling for them and including as covariates in correlational or regression analyses]. There should be no obvious dissimilarities between groups that may account for differences in outcomes.
While specific definitions may vary, in essence a confounding variable fits the following four criteria, here given in a hypothetical situation with variable of interest "V", confounding variable "C" and outcome of interest "O":

1. C is associated (inversely or directly) with O
2. C is associated with O, independent of V
3. C is associated (inversely or directly) with V
4. C is not in the causal pathway of V to O (C is not a direct consequence of V, not a way by which V produces O)

Where one paper includes two analyses, both will be rated and the rating for the most complex analysis will be used. Where one paper includes more than two analyses, each individual analysis will be rated and the mode rating will be used.

For Q1, where there are more than two analyses in one paper, score yes if controlled for confounders in some way across all analyses. For Q2, the rating for percentage of confounders will be analysed across all analyses.

Additional Guidance Notes (from 18/03/2016 meeting with Katherine and Lucy)
Please note: Q1 asks about ‘in the analysis’ but I’ve amended this to include ‘in the analysis or research design’. Examples of controlling for confounders in analysis include comparing groups (e.g. t-test) to check for differences if one group not included in analysis; partial correlation; controlling for variables in regression; covariates in ANCOVAs.

Q1 If some confounders are controlled for by design or by analysis then rate as ‘yes’
Q2 Rating of 80-100% (most) = randomised (design) & controlling for 1+ in analysis; or no confounders by design but controlled for 2+ in all analyses
Rating 60-70% (some) = not controlled for in design but 1+ confounders controlled for in analysis
Rating less than 60% (few or none) = No attempt to control for confounders in design or analysis

C) DATA COLLECTION METHODS

(Q1) Were data collection tools for outcome measures shown to be valid?
Yes
No
Can’t tell

(Q2) Were data collection tools for outcome measures shown to be reliable?
Yes
No
Can’t tell

<table>
<thead>
<tr>
<th>RATE THIS SECTION</th>
<th>STRONG</th>
<th>MODERATE</th>
<th>WEAK</th>
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<td>See dictionary</td>
<td>1</td>
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</table>

DICTIONARY: DATA COLLECTION METHODS
Tools for primary outcome measures must be described as reliable and valid. If ‘face’ validity or ‘content’ validity has been demonstrated, this is acceptable. Some sources from which data may be collected are described below:

Self- reported data includes data that is collected from participants in the study (e.g. completing a questionnaire, survey, answering questions during an interview, etc.).

Assessment/Screening includes objective data that is retrieved by the researchers. (e.g. observations by investigators).

Medical Records/Vital Statistics refers to the types of formal records used for the extraction of the data.

Reliability and validity can be reported in the study or in a separate study. For example, some standard assessment tools have known reliability and validity.

This question will be answered in reference to both therapeutic alliance measure and the outcome of interest.

Additional Guidance Notes (from 18/03/2016 meeting with Katherine and Lucy)
If papers have used reliable and validated measures but have translated these into another language, they will still be valid and reliable if they have used forward-backward procedures. If they have not, then not as valid/reliable.

D) WITHDRAWALS AND DROP-OUTS (if applicable)

(Q1) Were withdrawals and drop-outs reported in terms of numbers and/or reasons per group?
Yes
No
Can’t tell
Not Applicable (i.e. one time surveys or interviews)

(Q2) Indicate the percentage of participants completing the study. (If the percentage differs by groups, record the lowest).
80 -100%
60 - 79%
less than 60%
Can’t tell
Not Applicable (i.e. Retrospective case-control)

<table>
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<tr>
<th>RATE THIS SECTION</th>
<th>STRONG</th>
<th>MODERATE</th>
<th>WEAK</th>
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<td>See dictionary</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Not Applicable</td>
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</table>

**DICTIONARY: WITHDRAWALS AND DROP-OUTS**

Score YES if the authors describe BOTH the numbers and reasons for withdrawals and drop-outs.
Score NO if either the numbers or reasons for withdrawals and drop-outs are not reported.

The percentage of participants completing the study refers to the % of subjects remaining in the study at the final data collection period.

If withdrawals are not referred to in the paper, and the ‘n’ included in the analysis is the same as the ‘n’ for the original sample, presume there are no drop outs.

Additional Guidance Notes (from 18/03/2016 meeting with Katherine and Lucy)
Include cases where cross-sectional study, or part of a larger prospective study but cross-sectional analyses conducted, and only complete data for certain % of full sample but unclear why? E.g. additional criteria added, missing data, dropped out after consent, refused to interview etc
Q1 Remember the dictionary definition: rate yes ONLY when BOTH reason and number is identified.
Q2 Consider what the potential number of participants in (e.g. intervention arm of RCT) and how many were included in the analysis: Are reasons documented?
For longitudinal studies, see if they report missing data (numbers) and consider how it is managed e.g. prorating. If they don’t quote missing data, can you ascertain from degrees of freedom

(E) ANALYSES – NOT USED IN GLOBAL SCORING

(Q1) Was the quantitative analysis appropriate to the research question and the statistical methods appropriate for the study design?

    Yes
    No
    Can’t tell

Rate as strong, moderate or weak but not included in overall rating.

Additional Guidance Notes (from 18/03/2016 meeting with Katherine and Lucy)
Consider the following:
Was the analysis appropriate for question asked- consider sample size, type of Did authors account for Type I error e.g. using Bonferroni adjustment (if multiple comparisons calculated)?
How did authors handle missing data was handled and reported: if no mention of missing data (and you’re unsure if there was any missing then rate down on this item).
SCORING

COMPONENT RATINGS

Please transcribe the information from the gray boxes on pages 1-4 onto this page. See dictionary on how to rate this section.

<table>
<thead>
<tr>
<th></th>
<th>Component Description</th>
<th>Strong</th>
<th>Moderate</th>
<th>Weak</th>
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<tbody>
<tr>
<td>A</td>
<td>Selection bias</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>B</td>
<td>Confounders</td>
<td>1</td>
<td>2</td>
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<tr>
<td>C</td>
<td>Data collection method</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>D</td>
<td>Withdrawals and dropouts</td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>E</td>
<td>Analysis</td>
<td>1</td>
<td>2</td>
<td>3</td>
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</tbody>
</table>

GLOBAL RATING FOR THIS PAPER (circle one):

Do not include E in global rating – only A-D

1 STRONG (no WEAK ratings)
2 MODERATE (one WEAK rating)
3 WEAK (two or more WEAK ratings)

With both reviewers discussing the ratings:

Is there a discrepancy between the two reviewers with respect to the component (A-D) ratings?

If yes, indicate the reason for the discrepancy

1 Oversight
2 Differences in interpretation of criteria
3 Differences in interpretation of study
Final decision of both reviewers (circle one):

1 STRONG
2 MODERATE
3 WEAK
Component Ratings of Study:

For each of the six components A – E, use the following descriptions as a roadmap.

A) SELECTION BIAS

**Strong:** The selected individuals are very likely to be representative of the target population (Q1 is 1) and there is greater than 80% participation (Q2 is 1).

**Moderate:** The selected individuals are at least somewhat likely to be representative of the target population (Q1 is 1 or 2); and there is 60 - 79% participation (Q2 is 2). ‘Moderate’ may also be assigned if Q1 is 1 or 2 and Q2 is 5 (can’t tell).

**Weak:** The selected individuals are not likely to be representative of the target population (Q1 is 3); or there is less than 60% participation (Q2 is 3) or selection is not described (Q1 is 4); and the level of participation is not described (Q2 is 5).

B) CONFOUNDERS

**Strong:** will be assigned to those articles that controlled for at least 80% of relevant confounders (Q1 is 2); or (Q2 is 1).

**Moderate:** will be given to those studies that controlled for 60 – 79% of relevant confounders (Q1 is 1) and (Q2 is 2).

**Weak:** will be assigned when less than 60% of relevant confounders were controlled (Q1 is 1) and (Q2 is 3) or control of confounders was not described (Q1 is 3) and (Q2 is 4).

C) DATA COLLECTION METHODS

**Strong:** The data collection tools have been shown to be valid (Q1 is 1); and the data collection tools have been shown to be reliable (Q2 is 1).

**Moderate:** The data collection tools have been shown to be valid (Q1 is 1); and the data collection tools have not been shown to be reliable (Q2 is 2) or reliability is not described (Q2 is 3).

**Weak:** The data collection tools have not been shown to be valid (Q1 is 2) or both reliability and validity are not described (Q1 is 3 and Q2 is 3).

D) WITHDRAWALS AND DROP-OUTS - a rating of:

**Strong:** will be assigned when the follow-up rate is 80% or greater (Q2 is 1).

**Moderate:** will be assigned when the follow-up rate is 60 – 79% (Q2 is 2) OR Q2 is 5 (N/A).

**Weak:** will be assigned when a follow-up rate is less than 60% (Q2 is 3) or if the withdrawals and drop-outs were not described (Q2 is 4).

**Not applicable** = no follow up (not longitudinal)

***Section (E) is not included in the overall ratings.***

E) ANALYSES

**Strong:** will be assigned when the analysis is appropriate and reported in a way that it is clear how it illuminates the research questions (Q1 is 1).

**Moderate:** will be assigned when the analysis is appropriate but is not reported in a way that it is clear how it illuminates the research questions.

**Weak:** will be assigned when the analysis is not appropriate, or it is not clear.
Appendix C- Authors’ Guidance

Aims and scope:

Schizophrenia Research provides rapid publication of new international research that contributes to the understanding of schizophrenia and related disorders. The journal brings together previously separated biological, clinical and psychological research on this disorder, and stimulates the synthesis of clinical and research data into cohesive hypothesis.

Types of papers:

(1) Full-length papers: 2000-3000 words (excluding tables, figures and references). (2) Short communications: 1000-1500 words (excluding tables, figures and references). (3) Letters to the Editors: 600-800 words, 10 references, 1 figure or table. (4) Special solicited research and/or reviews. (5) Invited comments or hypotheses. (6) Editorials. (7) Schizophrenia meeting reviews; solicited and/or submitted. (8) Book reviews.

Submission Checklist:

It is hoped that this list will be useful during the final checking of an article prior to sending it to the journal’s editor for review. Please consult this Guide for Authors for further details of any item.

Ensure that the following items are present:

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• E-mail address
• Full postal address
• Telephone and fax numbers
• All necessary files have been uploaded
• Keywords
• All figure captions
• All tables (including title, description, footnotes)

Further considerations

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• References are in the correct format for this journal
• All references mentioned in the Reference list are cited in the text, and vice versa
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• Colour figures are clearly marked as being intended for colour reproduction or to be reproduced in black-and-white

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Keywords. Immediately after the abstract, provide a maximum of six keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, ‘and’, ‘of’). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

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Arrangement of the article

Subdivision of the article. Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ?), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to ‘the text’. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Introduction. State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

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Results. In this section the findings should be described clearly, concisely, and in logical order without extended discussions of their significance. Only in case of short communications, the results and discussion sections may be combined. Results should usually be presented in graphic or tabular form, rather than discursively. There should be no duplication in text, tables and figures. Experimental conclusions should normally be based on adequate numbers of observations with statistical analysis of variance and the significance of differences. The number of individual values represented by a mean should be indicated.

Discussion. This section should present conclusions to be drawn from the results accompanied by an assessment of their significance in relation to previous work. Speculative discussion is not discouraged, but the speculation should be based on the data presented and identified as such. In general, the discussion should be as concise as possible.

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2. Two authors: both authors' names and the year of publication;
3. Three or more authors: first author's name followed by 'et al.' and the year of publication.

Citations may be made directly (or parenthetically). Groups of references should be listed first alphabetically, then chronologically.

Examples: "as demonstrated (Allan, 1996a, 1996b, 1999; Allan and Jones, 1995). Kramer et al. (2000) have recently shown ...."

List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.

Examples:

Reference to a journal publication:

Reference to a book:

Reference to a chapter in an edited book:

Journal names should be abbreviated according to the List of serial title word abbreviations: http://www.issn.org/lstwa.html

Preparation of electronic illustrations and services

General points

• Always supply high-quality printouts of your artwork, in case conversion of the electronic artwork is problematic.
• Make sure you use uniform lettering and sizing of your original artwork.
• Save text in illustrations as "graphics" or enclose the font.
• Only use the following fonts in your illustrations: Arial, Courier, Helvetica, Times, Symbol.
• Number the illustrations according to their sequence in the text.
• Use a logical naming convention for your artwork files, and supply a separate listing of the files and the software used.
• Upload all illustrations as separate files.
• Provide captions to illustrations separately.
• Produce images near to the desired size of the printed version. This journal offers electronic submission services and graphic files can be uploaded via the online submission system.

A detailed guide on electronic artwork is available on our website: http://authors.elsevier.com/artwork/schres
You are urged to visit this site; some excerpts from the detailed information are given here.

Formats

Regardless of the application used, when your electronic artwork is finalised, please "save as" or convert the images to one of the following formats (Note the resolution requirements for line drawings, halftones, and line/halftone combinations given below.): •EPS: Vector drawings. Embed the font or save the text as "graphics".
•TIFF: Colour or greyscale photographs (halftones): always use a minimum of 300 dpi.
•TIFF: Bitmapped line drawings: use a minimum of 1000 dpi.
•TIFF: Combinations bitmapped line/half-tone (colour or greyscale): a minimum of 500 dpi is required.
•DOC, XLS or PPT: If your electronic artwork is created in any of these Microsoft Office applications please supply "as is".

Please do not:
•Supply embedded graphics in your wordprocessor (spreadsheet, presentation) document;
•Supply files that are optimised for screen use (like GIF, BMP, PICT, WPG); the resolution is too low;
•Supply files that are too low in resolution;
•Submit graphics that are disproportionately large for the content.

Captions

Ensure that each illustration has a caption. Supply captions on a separate sheet, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

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Authors of this journal will automatically receive an invitation e-mail to create an AudioSlides presentation after acceptance of their paper.

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Subsequent corrections will not be possible, so please ensure your first sending is complete. Note that this does not mean you have any less time to make your corrections just that only one set of corrections will be accepted.

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Appendix D - Details of White sample data

This data was obtained from eight different studies conducted across the UK (Arbuckle et al., 2012; Barrowclough et al., 2010; Barrowclough et al., 2014; Berry et al., 2008; Berry et al., 2014a; Berry et al., 2014b; Blackburn et al., 2010; Pilton et al., in submission). All data was consistent with the following criteria: i) Primary clinical diagnosis of non-affective psychotic disorder; ii) aged 16 years or above; iii) in contact with mental health services; iv) no significant history of organic factors implicating the aetiology of psychotic symptoms; v) completed the Psychosis Attachment Measure (Berry et al., 2008); vi) English speaking.

Sociodemographic variables are presented below

<table>
<thead>
<tr>
<th>Sociodemographic description</th>
<th>Mean (SD), range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>37 (12.47) 16.25-78.00</td>
</tr>
<tr>
<td>Number of hospitalisations</td>
<td>3.97 (4.45) 0-33</td>
</tr>
<tr>
<td>Gender: male</td>
<td>451 (81.7)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td></td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>405 (73.4)</td>
</tr>
<tr>
<td>Schizoaffective</td>
<td>48 (8.7)</td>
</tr>
<tr>
<td>Schizophreniform</td>
<td>10 (10)</td>
</tr>
<tr>
<td>Psychotic episode</td>
<td>36 (6.5)</td>
</tr>
<tr>
<td>Delusional disorder</td>
<td>10 (1.8)</td>
</tr>
<tr>
<td>Bipolar with psychotic features</td>
<td>6 (1.1)</td>
</tr>
<tr>
<td>Substance induced psychosis</td>
<td>11 (19.92)</td>
</tr>
<tr>
<td>Missing</td>
<td>26 (47.1)</td>
</tr>
</tbody>
</table>
Appendix E- Participant Information

PARTICIPANT INFORMATION SHEET – service user

Study Title: Social relationships in people from African Caribbean and Black African backgrounds who have experience of psychosis

REC: 15/NW/0086

You are being invited to take part in our research study. Before you decide if you want to take part, it is important for you to understand why the research is being done and what it will involve. **If you wish, one of our team will go through this information sheet with you and answer any questions you have.** You are also free to talk to others about the study if you wish. Please ask us if there is anything that is not clear or if you would like more information. It is important that you take time to decide whether or not you wish to take part.

**What is the purpose of the study?**
You are being invited to take part in a study looking at peoples’ social relationships. The study will investigate how people from African Caribbean or Black African backgrounds, who have experience of psychosis, relate to their key workers and people in their social networks. The study will also investigate how this group of people seek help and engage with mental health services. This research is being done to help us understand how mental health services can best support African Caribbean and Black African people.

**Why have I been invited to take part?**
You are being invited to participate because:

(a) You have been identified by your key worker as being eligible to take part
(b) You have experience of psychosis
(c) You have identified that you are African Caribbean or Black African

**What will I have to do if I take part?**
This study will be divided into two parts:

**Part one:** You will be asked to take part in two interviews and complete a few short questionnaires. The first interview will ask about your experiences of mental health and psychosis. This should take around 45 minutes. The second interview will focus on your social network and you will be asked questions about the different relationships you may have. One example of a question we might ask is “Who would you go to for advice or support for mental health or emotional problems?” This interview should take around 30-60 minutes.
The questionnaires will ask your views about using and engaging with mental health services, your relationship with your key worker, your beliefs about psychosis, and if you have had any experiences of stigma to mental health and discrimination in services. These questionnaires should take around 30 minutes to complete. All together, the study will take between 1½ to 2½ hours in total and can be carried out in one meeting or several meetings. We are looking for 50 people to take part in this study.

With your permission, we will inform your key worker of your involvement in the study and ask your key worker to complete two questionnaires about their relationship with you. We may also ask your key worker to look at your case notes to confirm information such as your diagnosis, age and contact with services.

**Part two:** You will also be invited to take part in another interview about one month later to find out about your experience of talking about your social networks. During this follow-up interview, you will also be asked about some of the topics that were covered in the earlier questionnaires such as your views about mental health services, beliefs about psychosis, and experiences of discrimination. This should take around 30-60 minutes. You will be reminded about this follow-up interview immediately after part one and again two weeks before your follow-up appointment. We are looking for 25 people to take part in the follow-up study (half of the original sample) and will stop recruiting once we have reached this number.

**Where will the research be conducted?**

If you decide to take part, you will meet one of the researchers at a time that is convenient to you. The researcher will visit you in a suitable location on the ward or in the community, depending on where you are staying at the time.

**Do I have to take part?**

No, taking part is entirely your choice. If you prefer to not take part you do not have to give a reason. Staff involved in your care will not be upset and your treatment will not be affected.

**What happens if I change my mind?**

If you take part but later change your mind, you can withdraw at any time from the study. Changing your mind will not affect your standard of care or treatment. In the unlikely event that you lose the capacity to consent during the course of this study, you will be withdrawn from the study but we will continue to use the information we have already collected.
Will I be paid for taking part?

As a token of appreciation, you will be given £10.00 worth of shopping vouchers for taking part in the research study.

Will my taking part be kept confidential?

Yes. If you agree to take part in the study, any information you give the researcher will be kept strictly confidential. However, we do have a responsibility to inform your key worker if you tell us information that suggests you or someone else might be harmed. With your permission, we would like to inform your psychiatrist/care coordinator if you agree to take part in the study. We will also continue to keep them informed if you decide to take part in the second part of the study. You will be asked if you mind the session being recorded by audio tape, so interviews can be transcribed and rated by the researchers. The recordings will be destroyed after they have been used. Your personal details (e.g. name, address) will not be disclosed.

What will happen to my data?

Your anonymised data will be held securely by the research team at The University of Manchester for 5 years after the last publication of the study or for 10 years, after which point it will be destroyed. Personal information (e.g. name, age) will be destroyed as soon as it is no longer needed.

What are the possible risks of taking part?

There are no identified risks to taking part in the research study. However, it is possible that you may become uncomfortable discussing issues relating to your mental health or social relationships. Should this happen, you can speak to researchers and the person in charge of your care (key worker/care coordinator). If it is out of hours, please contact your local crisis team. The researcher will give you this phone number. Further support is available from the Samaritans (08457 909090), Rethink National Advice Service (020 8974 6814) and SaneLine (0845 767 8000).

What are the possible benefits of taking part?

The study may not benefit you directly in the short term, but we believe that the information we collect will help us improve the future care of people from African Caribbean and Black African backgrounds who have experience of psychosis. The study is planned for 2 years and the findings will be fed back to interested participants at the end of this time period.
What if something goes wrong?
If you have a concern about any aspect of this study, please ask to speak to the lead researcher, Amy Degnan (0161 275 5224), who will do her best to answer your questions. If you wish to make a complaint regarding the study, please contact a University Research Practice and Governance Coordinator on 0161 275 7583 or 0161 275 8093 or by email to research.complaints@manchester.ac.uk.

Who is conducting the research?
The research is organised by The University of Manchester and is being carried out at NHS mental health services in Manchester. It is being conducted by two researchers as part of their doctorate and PhD in Clinical Psychology.

Who has reviewed the study?
This research project has been reviewed by The University of Manchester Research Ethics Committee, the National Research Ethics Service (REF), and your NHS Research & Development Department.

What do I do now?
A researcher from the study or a key worker will have given you this information sheet. If you are interested in taking part, please let your key worker or the researcher know. Your key worker can help you contact the researcher. The researcher can meet with you and answer any questions you have about your involvement in the study. She will give you more time to think about being in the study and, if you are still interested, ask you to sign a consent form to show that you are willing to take part. She will then explain what will happen next.

Thank you very much for considering taking part in our research.

Please discuss this information with your family, friends or key worker if you wish.
Please contact us if you require further information or advice on how to take part:

Amy Degnan  
amy.degnan@manchester.ac.uk  
0161 275 5224 / 07847 865 835

Lucy Shattock  
lucy.shattock@postgrad.manchester.ac.uk
Take part in a research study to explore people’s social relationships

We are looking for people from Black African or African Caribbean backgrounds that have experience of psychosis

This involves completing interviews and short questionnaires that will help us to understand how mental health services can best support people
You will be given shopping vouchers for your time.

To find out more, please contact:

Amy Degnan: amy.degnan@manchester.ac.uk
0161 275 5224 or 07847 865 835

Lucy Shatlock: lucy.shatlock@postgrad.manchester.ac.uk
CONSENT FORM: Assessment Stage 1

Study Title: Social relationships in people from African Caribbean and Black African backgrounds who have experienced psychosis

Name of Researchers: Lucy Shattock & Amy Degnan

IRAS Ref: 

REC Ref: 

Please initial each box and sign your name to show you agree to the items below:

1) I confirm that I have read and understood the participant information sheet for the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.

2) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving a reason, without detriment to myself, and without my medical care or legal rights being affected.

3) I understand that, in the unlikely event that I lose the capacity to consent during the course of this study, I will be withdrawn from the study but information I have already given will be used by the researchers.

4) I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from The University of Manchester, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research.

5) I give consent for interviews to be audiotaped for data analysis and reporting purposes.

6) I agree that anonymised quotes from interviews can be used in the reporting of this research. I understand that my personal details will not be used and it will not be possible to identify me from any published information.

7) I agree that information from my interviews in which I participated will be kept for at least 10 years after the current study and that no information that could identify me will be shared or published.

Appendix G - Participant Consent Form
8) I consent to my psychiatrist/care coordinator being informed about my involvement in the study.

9) I understand that if I tell the research team anything that indicates a risk of harm to myself or others, they will need to share this information with my key worker and relevant organisations or authorities but that they will discuss this with me first.

10) I agree to take part in the above study

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PARTICIPANT INFORMATION SHEET – Key worker

Study Title: Social relationships in people from African Caribbean and Black African backgrounds who have experience of psychosis  REC: 15/NW/0086

You are being invited to take part in our research study. Before you decide if you want to take part, it is important for you to understand why the research is being done and what it will involve. **If you wish, one of our team will go through this information sheet with you and answer any questions you have.** You are also free to talk to others about the study if you wish. Please ask us if there is anything that is not clear or if you would like more information. It is important that you take time to decide whether or not you wish to take part.

What is the purpose of the study?
The study will investigate how people from African Caribbean or Black African backgrounds, who have experience of psychosis, relate to their key workers and people in their social networks. The study will also investigate how this group of people seek help and engage with mental health services. This research is being done to help us understand how mental health services can best support African Caribbean and Black African people.

Who will be invited to take part in the study?
Participants will meet the following criteria:

- (d) Identified by key worker as being eligible to take part
- (e) Experience of psychosis
- (f) Self-identify as African Caribbean or Black African
  - **Key workers** of all participants taking part will be invited to take part in the study.

Why have I been invited to take part?
Because you are a key worker of a participant in the study.

What will be involved for participants who decide to take part?
This study will be divided into two parts:

Part one: Participants will be asked to take part in two interviews and complete a few short questionnaires. The first interview will ask about their experiences of mental health and psychosis. This should take around 45 minutes. The second interview will focus on their social network and they will be asked questions about the different relationships they may have. One example of a question we might ask
is “Who would you go to for advice or support for mental health or emotional problems?” This interview should take around 30-60 minutes. The questionnaires will ask their views about using and engaging with mental health services, relationship with key worker, beliefs about psychosis, experiences of stigma to mental health and discrimination in services. These questionnaires should take around 30 minutes to complete. All t PARTICIPANT INFORMATION SHEET – Key worker

Study Title: Social relationships in people from African Caribbean and Black African backgrounds who have experience of psychosis    REC: 15/NW/0086

You are being invited to take part in our research study. Before you decide if you want to take part, it is important for you to understand why the research is being done and what it will involve. If you wish, one of our team will go through this information sheet with you and answer any questions you have. You are also free to talk to others about the study if you wish. Please ask us if there is anything that is not clear or if you would like more information. It is important that you take time to decide whether or not you wish to take part.

What is the purpose of the study?
The study will investigate how people from African Caribbean or Black African backgrounds, who have experience of psychosis, relate to their key workers and people in their social networks. The study will also investigate how this group of people seek help and engage with mental health services. This research is being done to help us understand how mental health services can best support African Caribbean and Black African people.

Who will be invited to take part in the study?
Participants will meet the following criteria:

(g) Identified by key worker as being eligible to take part
(h) Experience of psychosis
(i) Self-identify as African Caribbean or Black African
➢ Key workers of all participants taking part will be invited to take part in the study.

Why have I been invited to take part?
Because you are a key worker of a participant in the study.

What will be involved for participants who decide to take part?
This study will be divided into two parts:
Part one: Participants will be asked to take part in two interviews and complete a few short questionnaires. The first interview will ask about their experiences of mental health and psychosis. This should take around 45 minutes. The second interview will focus on their social network and they will be asked questions about the different relationships they may have. One example of a question we might ask is “Who would you go to for advice or support for mental health or emotional problems?” This interview should take around 30-60 minutes. The questionnaires will ask their views about using and engaging with mental health services, relationship with key worker, beliefs about psychosis, experiences of stigma to mental health and discrimination in services. These questionnaires should take around 30 minutes to complete. All together, the study will take between 1½ to 2½ hours in total and can be carried out in one meeting or over several meetings. We are looking for 50 people to take part in this study.

Part two: Participants will also be invited to take part in another interview about one month later to find out about their experience of talking about social networks in the previous interview. During this follow-up interview, they will also be asked about some of the topics that were covered in the earlier questionnaires such as views about mental health services, beliefs about psychosis, and experiences of discrimination. This should take around 30-60 minutes. Participants will be reminded about this follow-up interview immediately after part one and again two weeks before their follow-up appointment. We are looking for 25 people to take part in the follow-up study (half of the original sample) and will stop recruiting once we have reached this number.

What will be involved for participants’ key workers?
If you agree to take part, you will be asked to sign a consent form and you will complete two short questionnaires where you rate different aspects of your relationship with your client (engagement with services and working alliance - e.g. ‘the client seeks help when assistance is needed’). This should take no longer than 10 minutes. Key workers will complete these questionnaires when the participant completes Part one measures [above].

Will participants be informed of their key worker’s involvement?
Participants will be asked permission to keep their key worker informed of their continued involvement in the study. Participants will be informed that we will ask their key worker to complete two questionnaires about their relationship with them. Participants will also be informed that we may ask their key worker to look at their case notes to confirm information such as diagnosis, age and contact with services.

Where will the research be conducted?
The researchers will meet participants and key workers separately. The researcher will visit you at a convenient time and in a suitable location, on the ward or in the community.

**Do I have to take part?**

No, taking part is entirely your choice. You may refuse to participate in the study without affecting you client’s ability to participate.

**What happens if I change my mind?**

If you take part but later change your mind, you can withdraw at any time from the study. If you withdraw, we will continue to use the information we have already collected.

**Will my taking part be kept confidential?**

Yes. If you agree to take part in the study, any information you give the researcher will be kept strictly confidential.

**What will happen to participant data?**

Participant anonymised data will be held securely by the research team at The University of Manchester for 5 years after the last publication of the study or for 10 years, after which point it will be destroyed. Personal information (e.g. name, age) will be destroyed as soon as it is no longer needed.

**Will participants be paid for taking part?**

Key workers will not be paid for taking part. As a token of our appreciation, participants will be given £10.00 worth of shopping vouchers for taking part in the research study.

**What are the possible risks of taking part for participants?**

There are no identified risks to taking part in the research study. However, it is possible that participants may become uncomfortable discussing issues relating to their mental health or social relationships. There is a distress policy in place should this happen. They can speak to researchers and/or the person in charge of their care (key worker/ care coordinator). If it is out of hours, participants can contact their local crisis team. The researcher will give participants this phone number. Further support is available from the
Samaritans (08457 909090), Rethink National Advice Service (020 8974 6814) and SaneLine (0845 767 8000).

**What are the possible benefits of taking part for participants?**
We believe that the information we collect will help us improve the future care of people from African Caribbean and Black African backgrounds who have experience of psychosis. The study is planned for 2 years and the findings will be fed back to interested participants at the end of this time period.

**What if something goes wrong?**
If you have a concern about any aspect of this study, please ask to speak to the lead researcher, Amy Degnan (0161 275 5224), who will do her best to answer your questions. If you wish to make a complaint regarding the study, please contact a University Research Practice and Governance Coordinator on 0161 275 7583 or 0161 275 8093 or by email to research.complaints@manchester.ac.uk.

**Who is conducting the research?**
The research is organised by The University of Manchester and is being carried out at NHS mental health services in Manchester. It is being conducted by two researchers as part of their doctorate and PhD in Clinical Psychology.

**Who has reviewed the study?**
This research project has been reviewed by The University of Manchester Research Ethics Committee, the National Research Ethics Service (REF), and your NHS Research & Development Department.

**What do I do now?**
A researcher from the study will have given you this information sheet. If you are interested in taking part, please let the researcher know. The researcher can meet with you and answer any questions you have about your involvement in the study. She will give you more time to think about being in the study and, if you are still interested, ask you to sign a consent form to show that you are willing to take part. She will then explain what will happen next.

Thank you very much for considering taking part in our research.

Please contact us if you require further information or advice on how to take part:

**Amy Degnan**  
amy.degnan@manchester.ac.uk  
0161 275 5224 / 07847 865 835
Appendix I- Staff consent form

CONSENT FORM: Key worker

Study Title: Social relationships in people from African Caribbean and Black African backgrounds who have experienced psychosis

Name of Researchers: Lucy Shattock & Amy Degnan

REC Ref: 15/NW/0086

Please initial each box and sign your name to show you agree to the items below:

11) I confirm that I have read and understood the participant information sheet for the above study and have had the opportunity to consider the information and ask questions and had these answered satisfactorily.

12) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving a reason, without detriment to myself.

13) I understand that if I withdraw from the study, the information I have already given will be used by the researchers.

14) I understand that relevant sections of my medical notes and data collected during the study may be looked at by individuals from The University of Manchester, from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.

15) I agree that information from my questionnaires in which I participated will be kept for at least 10 years after the current study and that no information that could identify me will be shared or published.

16) I understand that my taking part will be kept confidential.

17) I agree to take part in the above study.
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<tr>
<th>Name of participant</th>
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Appendix J - Psychosis Attachment Measure

Psychosis Attachment Measure –Self Report Version (PAM-SR)

We all differ in how we relate to other people. This questionnaire lists different thoughts, feelings and ways of behaving in relationships with others.

Thinking generally about how you relate to other key people in your life, please use a tick to show how much each statement is like you. Key people could include family members, friends, partner or mental health workers.

There are no right or wrong answers

<table>
<thead>
<tr>
<th></th>
<th>Not at all</th>
<th>A little</th>
<th>Quite a bit</th>
<th>Very much</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I prefer not to let other people</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
</tr>
<tr>
<td>know my ‘true’ thoughts and feelings</td>
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<td>2. I find it easy to depend on other</td>
<td>(..)</td>
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<td>people for support with problems or</td>
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<td>difficult situations.</td>
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<td>3. I tend to get upset, anxious or</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
</tr>
<tr>
<td>angry if other people are not there</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>when I need them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I usually discuss my problems and</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
</tr>
<tr>
<td>concerns with other people.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I worry that key people in my life</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
<td>(..)</td>
</tr>
<tr>
<td>won’t be around in the future.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6. I ask other people to reassure me that they care about me. 

7. If other people disapprove of something I do, I get very upset.

8. I find it difficult to accept help from other people when I have problems or difficulties.

9. It helps to turn to other people when I’m stressed.

10. I worry that if other people get to know me better, they won’t like me.
## Appendix K- Alpha values for measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANSS Positive</td>
<td>.80</td>
</tr>
<tr>
<td>PANSS Negative</td>
<td>.74</td>
</tr>
<tr>
<td>PANSS General</td>
<td>.83</td>
</tr>
<tr>
<td>PANSS Total</td>
<td>.90</td>
</tr>
<tr>
<td>PAM Anxiety</td>
<td>.78</td>
</tr>
<tr>
<td>PAM Avoidance</td>
<td>.61</td>
</tr>
<tr>
<td>SES Total</td>
<td>.87</td>
</tr>
<tr>
<td>WAI client Total</td>
<td>.91</td>
</tr>
<tr>
<td>WAI client Bond</td>
<td>.87</td>
</tr>
<tr>
<td>WAI client Task</td>
<td>.83</td>
</tr>
<tr>
<td>WAI client Goal</td>
<td>.75</td>
</tr>
<tr>
<td>WAI staff Total</td>
<td>.91</td>
</tr>
<tr>
<td>WAI staff Bond</td>
<td>.66</td>
</tr>
<tr>
<td>WAI staff Task</td>
<td>.90</td>
</tr>
<tr>
<td>WAI staff Goal</td>
<td>.73</td>
</tr>
</tbody>
</table>

PANSS, Positive and Negative Symptom Scale; PAM, Psychosis Attachment Measure; SES, Service Engagement Scale; WAI, Working Alliance Inventory
This questionnaire lists different ways a person might think about his or her client. Please rate each statement on the seven point scale for ____________________.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _____ and I agree about the steps to be taken to improve his/her situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. My client and I both feel confident about the usefulness of our current activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. I believe _____ likes me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. I have doubts about what we are trying to accomplish together</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. I am confident in my ability to help _____</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6. We are working towards mutually agreed goals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7. I appreciate _____ as a person</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>8. We agree on what is important for _____ to work on</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
9. _____ and I have built up mutual trust

10. _____ and I have different ideas on what his/her real problems are

11. We have established a good understanding between us of the kinds of changes that would be good for _____

12. _____ believes the way we are working with his/her problems is correct
WORKING ALLIANCE INVENTORY – SHORT FORM

CLIENT VERSION

This questionnaire lists different ways a person might think about his or her key nurse. Please rate each statement on the seven point scale for ________________.

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Rarely</th>
<th>Occasionally</th>
<th>Sometimes</th>
<th>Often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. _____ and I agree about the things I will need to do to improve my situation</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>2. The activities I am doing with ______ give me a new way of looking at my problem</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>3. I believe _____ likes me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>4. I do not understand what I am trying to accomplish with _____</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>5. I am confident in _____’s ability to help me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>6. _____ and I are working towards mutually agreed goals</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>7. I feel that _____ appreciates me</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
8. We agree on what is important for me to work on

9. _____ and I trust one another

10. _____ and I have different ideas on what my problems are

11. We have established a good understanding of the kinds of changes that would be good for me

12. I believe the way we are working with my problems is correct
### Service Engagement Scale

Please circle the response which best describes your client

<table>
<thead>
<tr>
<th></th>
<th>Not at all or rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The client seems to make it difficult to arrange appointments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2. When a visit is arranged, the client is available</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>3. The client seems to avoid making appointments</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4. If you offer advice, does the client usually resist it?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>5. The client takes an active part in the setting of goals or treatment plans</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>6. The client actively participates in managing his/her illness</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>7. The client seeks help when assistance is needed</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>8. The client finds it difficult to ask for help</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>9. The client seeks help to prevent a crisis</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>10. The client does not actively seek help</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>11. The client agrees to take prescribed medication</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>12. The client is clear about what medication he/she is taking and why</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>13. The client refuses to co-operate with treatment</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>14. The client has difficulty in adhering to the prescribed medication</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
Content list
Page 2: Introduction
Page 3: Interview Guide
Page 19: Extra Guidance for Rating Observation Items
Page 23: Extra Guidance for Rating Interview Items
Page 16: General Guidance
Introduction

The questions in this interview guide are largely based on those of the SCI-PANSS (Opler et al., 1999). As in the SCI-PANSS, this script has been ordered and arranged to facilitate progression through all the categories of the PANSS. This structure should be kept in mind to ensure that all necessary information is obtained. However, the natural flow of the interview should ultimately decide the order in which items are approached (Manley, 1999).

The script begins by asking open questions about general items (i.e. Somatic Concerns). In this way, the initial questions are easy to approach and also give the participant an immediate opportunity to raise any serious issues which have been troubling them (Semple & Smyth, 2005). If other issues (e.g. hallucinations/delusions) are raised early on, move straight onto the questions for these items and then return to general symptoms at a later time.
Interview Guide

Start of Interview

The purpose of this interview is for me to get an idea of how things have been going for you over the past week.

We ask everyone the same questions so if some things I ask you are not relevant, please just bear with me.

You don’t have to answer any questions you don’t want to, just answer those you feel comfortable with.

Everything you say during the interview will be kept confidential unless you indicate that you or someone else is at risk or harm.

If you would like a break or you want to stop the interview at any point, please just ask.

Are you okay to begin?
G1  Somatic concern

Key questions:

- How have you been feeling over the past week?
- How has your physical health been?
- Are you having any concerns about your physical health?
- Have you been diagnosed with any physical illnesses?

If yes:

- What has been worrying you?
- How much does this worry you on a scale of 1-10, where 1 is no worry and 10 is maximum worry?
- Have often have you thought about this in the past week?
  - Have you thought about it most days?
  - Have you found that these ideas are on your mind a lot? How much of the time?
- How does it affect you in terms of your day to day life (e.g. sleep, appetite, going out)?
- What do you think might be causing these problems?

If somatic/physical feelings have a delusional basis:

- Are you certain that..........is causing this?
- How certain are you on a scale of 1-10 (1 = not convinced, 10 = convinced)?
- Are there any other possible explanations?
Key questions:

- What have your worry levels been like over the past week?
- Have you been worrying about anything at all?
- Have you been able to relax and keep calm?

If yes:

- What do you worry about? Anything else?
- Can you describe to me how it feels?
  
  - Have you been getting any physical symptoms such as heart racing, butterflies, sweaty palms, or anything else like that?

- How worried would you say you have been feeling on a scale of 1-10, where 1 is no worry and 10 is as worried as you could ever imagine feeling?

- How often have you been worried like this in the past week?
  
  - How long does it usually last?

- Has your worry stopped you doing things you want to do?
  
  - Has your sleep, appetite or ability to go out been affected?

  - Have there been times when you have been out but have had to come back because of your worries or anxiety?

- Have you felt yourself getting into a state of panic or having a panic attack?

- How have you dealt with this?
  
  - Have you been able to distract yourself or reduce the worries?
G6 Depression

Key questions:

- How would you describe your mood over the last week?
- Have there been times in the past week that you were feeling sad or unhappy?

If no depression reported:
Normalise: Everyone feels down from time to time, some people report feeling quite low at times...

- Have you let things get you down over the past week?
- How happy have you been feeling over the last week?

If low mood reported:

- Is there anything in particular that has been making you feel sad?
- How sad would you say you have been feeling on a scale of 1-10, where 1 is not at all sad and 10 is as sad as you could ever imagine feeling?
- How often have you felt that way in the last week? (Every day?)
  - How long does the feeling usually last when you feel low? (All day?)
- How do you cope with your low mood?
- When you feel low do you find that you can sometimes cheer yourself up by doing other things (watching TV, listening to music, going out or seeing friends/family)?
- Have you been crying at all?
- Has your mood been affecting your sleep over the past week?
- Has your mood affected your appetite/eating?
- Have you found that you’ve lost interest in going out/doing activities in the past week?
- How do you see the future?

Normalise: often when feeling low, many people have thoughts that life is not worth living or that they want to harm themselves...

- Have you had any thoughts of harming yourself?
  - If yes, have you made any plans to self-harm?*
  - If yes, have you discussed these thoughts or plans with other people?*
  - If yes, have you acted on these thoughts? *
*indicates risk to self or others = report to key worker
G3  Guilt Feelings

Key questions:

- In the past week have you experienced times when you have felt guilty about anything?

If yes:

- What do you feel guilty about?

- How often have you thought about this in the past week?
  - Have these ideas been on your mind a lot?
  - Have you thought about this most days?

- When you think about this, does it make you feel low?

- Do you blame yourself for this? (Why is it your fault?)
  - What affect has this had on your day to day life (sleep/eat/social)?

- Do you believe that you deserve some punishment for this?
  - What kind of punishment do you think you deserve?
  - Have you thought about punishing yourself?

If guilt feelings have a delusional basis:

- Are you certain that.............is causing this?

- How certain are you on a scale of 1-10 (1 = not convinced, 10 = convinced)?

- Are there any other possible explanations?
P5  Grandiosity

Key questions:

- If you were to compare yourself to the average person, how would you come out: a little better, a little worse or about the same?

If better/worse:

- Better/worse, in what ways?

- In what ways do you think you are special or gifted (grandiose ability)?

- What talents or abilities do you have that most people don’t have?
  - Can you tell me more about them?

- What special powers do you have that others don’t have?
  - What are they? Where do they come from?

- Would you describe yourself as rich or famous (grandiose identity)?
  - How so? Do you think others would recognise you from the TV, radio or newspaper?

For each delusion:

- How often have you thought about this in the past week? (Most days?)
  - How much of the time? (All day?)

- How certain are you that you have this special power/ talent/ ability on a scale of 1-10 (1 = not convinced, 10 = convinced)?

- Are there any other possible explanations?

- How do these affect your day to day life (e.g. sleep, appetite, going out)?
Auditory - voices

- Many people we work with tell me that they can hear voices that others can’t hear, do you ever experience that?

- Have you experience this in the last week?

If yes:

- Can you describe that experience to me?

- What do the voices say?

  - Prompt (e.g. *some people tell me their voices comment on what they are doing, telling them to do things or saying unkind things to things to them, whereas other people describe more positive things that the voices say*)

- How do you feel about talking about these voices?

  - Prompt (e.g. *some people I work with tell me their voices don’t like being talked about*)

- How many different voices have you heard?

- Can you recognise whose voices these are?

- Have the voices been saying unpleasant or negative things?

- Have the voices been telling you to do things? *(Command hallucinations)*

  - Have you been doing these things? *(obey orders)*

- How do you deal with/ respond to the voice?

Auditory - noises

- Sometimes people hear noises such as tapping sounds that others can’t hear, do you ever experience that?

- Have you experience this in the last week?

If yes:

- What do the noises sound like?

- How do you deal with/ respond to the noise?

Olfactory/ Visual/ Tactile/ Somatic/ Gustatory

- Have you been smelling things that are unusual or that others don’t smell?

- Have you had any visions or seen things that others can’t see (e.g. have things been changing in colour or shape?)
Appendix 14

- Have you felt that someone is touching you but when you look there is nobody there?
- Have you had any strange or unusual sensations from inside your body?
- Have you found that your food tastes unusual at all?

If yes:
- Can you describe this experience to me?

For each hallucination:
- How often have you experience this in the past week?
  - How long does it last?
  - Does this happen at a particular time of day or all the time?
- What affect has this had on your day to day life (sleep/eat/social)?
- What do you think might be causing this.....?
- How have you dealt with/ responded to this?

If hallucinations have a delusional basis:
- How certain are your that............is causing this on a scale of 1-10 (1=not convinced, 10 = convinced)?
- Are there any other possible explanations?

P1 Delusions

Key questions
- How has your thinking been over the past week?
- Is there anything you strongly believe that other people might disagree with?

Types and number of delusions
I’m going to ask you questions about different experiences many people have, some of them might not apply to you but I would just like to ask you about each of them to check if you have experienced any in the last week. Please bear with me if they are not relevant.

Delusions of interference with thinking:
- Have you been able to think clearly or is there interference with your thoughts?

Delusions of thought insertion:
- Have you been in full control of your thoughts?
- Have thoughts been put into your head which you know are not your own?

Delusions of thought broadcast:
- Have you heard your own thoughts spoken aloud in your head, so that someone standing near might be able to hear them?
- Have other people known what you are thinking?

**Delusions of thought echo or commentary:**
- Have you heard your own thoughts repeated or echoed?

**Delusions of thought block:**
- Have you experienced your thoughts stopping quite suddenly so that there are none left in your mind?

**Delusions of thought withdrawal:**
- Have your thoughts been taken out of your head, as though some external individual or force were removing them?

**Delusions of thoughts being read:**
- Has anyone been reading your thoughts? How do you know?

**Delusions of control:**
- Have you felt under the control of some force of power other than yourself?

**Delusions of reference:**
- Have you found that complete strangers sometimes talk about you?
- Have you thought that people on the radio or TV are talking to you?
- Have you seen any special meaning for yourself in the colours of objects or the way things are arranged?

**Delusional misinterpretation or misidentification:**
- Have there been people around who are not what they seem to be?
- Have you felt that the place you are in is not what it seems to be?

**Delusions of persecution:**
- Has anyone been deliberately trying to harm you? How?

**Delusions of assistance:**
- Have other people been organising things specially to help you? What are they doing?

**Religious delusions:**
- Are you a very religious person?
- Have you felt especially close to God in the last week?
- Has God been communicating with you?

**For each delusion**
- Can you describe what that is like?
- Can you give an example?
• How much time have you spent thinking about this in the past week?
  ▪ How long do you think about this for?

• Why do you think this is happening?
  ▪ How would you explain it?
  ▪ Where do you think it comes from?

• How certain are you that this is true on a scale of 1-10 (1=not convinced, 10 = convinced)?

• Are there any other alternative explanations?

• Has this caused you any distress in the last week?

• Has this affected your work/sleep/appetite/ interfere with relationships or ability to look after yourself in the last week?

• How have you dealt with/ responded to this?
P6  Suspiciousness/ Persecution

Key questions

- How have you been getting on with others in the last week?
- Have you felt uneasy or suspicious about anything?
- Have you been able to trust others?
  - Are there any people you distrust? Who?
- Have any people been talking about you behind your back?
  - What do they say?
- Have you felt that people are out to harm you?

If yes:

- Why do you think this happens?
- What is the evidence for this?
- How sure are you that this is happening for this reason on a scale of 1-10 (1=not convinced, 10 = convinced)?
- Are there any alternative explanations?
- What affect has this had on your day to day life (sleep/ appetite/ relationships)?
- How often have you thought about this in the past week?
- How do you deal with/ respond to this?
G16 Active Social Avoidance

- How have you been spending your time over the last week?
  - How have you found joining in activities with others?
- What activities have you been doing?
  - How often in the past week?
- Have you preferred to be with others or on your own?
- How comfortable do you feel being around others or in groups?
- If you are out and start to feel anxious would you leave and go home?
  - If so, what worries or thoughts are behind this?
- If you were invited to go out with others would you go? Why?
  - Is there anything that has stopped you from joining in with others?

N4 Passive/Apathetic Social Withdrawal

- Have you turned down any opportunities to go out because you can’t be bothered?
  - How often in the past week?
- Do you ever arrange to meet with other people or do you let them make the first move?
- Have there been any times in the last week when you have suggesting meeting up or doing something with others?
- Have you been enjoying yourself when out?
- When with others, have you been joining in or starting the conversation?

N2 Emotional Withdrawal (see observation)

- How often do you talk to others about your problems?
- How do you think others feel about confiding in you?
  - How often do others confide in you?
- Is there anyone who you are particularly close to?

P7 Hostility (see observation)

- How well have you been getting along with people over the past week?
- Have you been upset or angry (towards others)?
G14 Poor Impulse Control *(see observation)*

- What has your temper been like?
- How often have you lost control of your temper in the last week?
  - What happens? How many times in the last week?
- Have you had a quick temper or got into a fight this past week?
  - How did it start? What happens?
  - How often in the last week?

G13 Disturbance of Volition *(see observation)*

- How have you found it making decisions this last week?
- Have you found getting up and doing things over the last week?

G12 Lack of Judgement and Insight

- How long have you been seeing the team?
- Why do you see your key worker/team?
  - Do you need to help from the team?
- Do you think you have any mental health problems at this time?
  - If no: why are you still in touch with the team?
- Have you been given a diagnosis?
  - Do you agree with the diagnosis?
- Do you take any medication?
  - What do you think the medication is supposed to help with?
  - Do you feel you need to be taking it?
  - Do you feel it helps in any way?
- Do you worry about relapse or ending up back in hospital?
  - What plans do you have to stop this happening?
G10 Disorientation

I’m now going to ask some more general questions about memory if that’s okay. If you don’t know the answer, then don’t worry about it, just say what you think it might be.

- Can you tell me what today’s date is? (elicit day/month/year)
- Do you know what time it is now?
- Do you know what season we are in?
- What’s the name of the place we are in now? (address/ward/hospital)
- What is the name of your doctor and key worker?
- Do you know who the Prime Minister is?
- Can you tell me who the President of the USA is at the moment?

N5 Difficulty in Abstract Thinking

I’m going to now say pairs of words and I’d like you to tell me what they have in common or what makes them alike.

Check understanding. Give example: e.g. Tiger and Lion = both big cats, live in the wild, carnivores etc.

Can you think of anything else?

(Work your way down from easiest to most difficult list. Pick one pair from each list until individual can no longer provide an answer. Prompt for more answers if they only give one answer. Do not go onto more difficult items if they do not answer easier items)

1. Easy
   - Apple and Banana?
   - Ball and Orange?
   - Pencil and Pen?
   - Penny and Pound?

2. Moderate
   - Table and Chair?
   - Tiger and Elephant?
   - Hat and Shirt?
   - Bus and Train?

3. Difficult
   - Arm and Leg?
   - Rose and Tulip?
   - Uncle and Cousin?
   - The sun and the moon?
4. Most difficult

- Painting and poem?
- Hilltop and valley?
- Air and Water?
- Peace and Prosperity?

*I’m now going to say an expression and I’d like you to describe what this means.*

*(Work your way down from easiest to most difficult. Continue until individual can no longer provide an answer)*

1. Easy

- Many hands make light work
- Walk before you run
- Two heads are better than one
- Too many cooks spoil the broth

2. Moderate

- Don’t judge a book by its cover
- Where there’s a will, there’s a way
- There is always light at the end of the tunnel
- Cross that bridge when you come to it

3. Difficult

- The grass is always greener on the other side
- Every cloud has a silver lining
- Look before you leap
- Don’t keep all your eggs in one basket

4. Most difficult

- The pen is mightier than the sword
- Rome wasn’t built in a day
- When one door shuts, another one opens
- People in glass houses shouldn’t throw stones
Finishing Up

Thank you for answering those final questions.

We’re at the end of this interview now.

Is there anything else that you would like to add?

Do you have any questions?

Thank you for your time and cooperation.
Extra Guidance for Rating Observation Items

P2  Conceptual Disorganisation

- Incoherent responses to the questions been asked throughout the interview.
- Does the individual reply to questions in an irrelevant manner?
- Does the individual show a pattern of speech in which his/her ideas slip off the tract onto another one which is indirectly related or completely unrelated?
- Does the individual show patterns of speech in which conclusions are reached that do not seem to follow logically?
- Does the individual’s reply last for ages so that they have to be interrupted and urged to get to the point?
- Can the individual focus his/her thoughts on the question?
- If the answers are relevant they cannot score higher than 3, regardless of how long-winded they are
- P4 Excitement – rating 4 and above may affect this item
- N scale items might also affect this item

P4  Excitement

- Can the individual sit still?
- Does the individual get over excited or restless?
- Does individual report pacing up and down? Agitated?
- Increased motor behaviour, heightened response to stimuli, hypervigilance, excessive mood fluctuations within interview
- Individuals may be difficult to interview due to excitable behaviour
- May struggle to remain still or go off on tangents about topics they prefer
- May also score G11 poor attention, N3 poor rapport, P2 conceptual disorganisation

P7  Hostility

- Is the individual sarcastic/ irritable/ verbally abusive/ violent?
- Must be directed towards others (e.g. not just impulsive aggression/ outbursts )

N1  Blunted Affect

- Does the individual have stilted / forced / artificial facial expressions?
- Is there little change in their emotional expression?
- Presents as lack of emotion or little emotional range (although note there is likely to be underlying emotion, it just isn’t evident to others)
- Negative symptoms are consistent, very stable (trait-like)
- Distinguish from being low or depressed

N2  Emotional Withdrawal

- Refers to engagement in social relationships on an emotional level
- Do they appear disengaged or disinterested during the interview?
 Appendix 14_ Version 1_18.12.14

- Overlaps with N4 Spontaneity/ Flow of conversation - it is the emotional component of the behavioural withdrawal seen in N4

**N3 Poor Rapport**

- Rapport refers to individual working with interviewer, answering questions as best they can
- Poor rapport = open lack of interest, verbal complaints, bored tone of voice, looking round the room, guardedness, watching TV during interview
- Does the individual show lack of openness in conversation, interest or involvement with the interviewer?
- Does the individual avoid eye or face contact?
- Does the individual seem bored?
- Distinguish from an individual not giving enough information because they find it too distressing or do not understand the questions

**N6 Lack of Spontaneity and Flow of Conversation**

- Conversation may feel strained or uncomfortable
- The balance in conversation between interviewer and interviewee
- How much additional information provided by the individual where appropriate
- Does the individual have diminished fluidity and productivity?
- Does the conversation flow easily from one topic to another?
- Does the individual use his initiative?
- Does the individual need direct or leading questions?
- Does the individual answer all the questions asked of them?
- How long are the replies to questions?
- Need to think about whether the reduction in flow is deliberate for rating 5.

**N7 Stereotyped Thinking**

- Is the individual rigid or repetitious or show evidence of barren thought content?
- Decreased fluidity or flexibility in thinking so that the individual can’t move on from fixed idea or phrase, so that speech is repetitive and thought content appears to be barren as a result
- Based on structure (the way they are talking) rather than content – especially if show rich thought content elsewhere
- Barren thought content is different from poverty of speech or repeated ‘I don’t know responses’, which might have a low rating here and rate better in N6 above
- **Perseveration** - persistent repetition of words, ideas or subjects - once begins particular subject or uses a particular word, individual returns to it in the process of thinking
- If score 3 or above on delusions, score at least 3 on stereotyped thinking
G4  Tension

- Look for physical manifestations resulting from anxiety.
- Must be rated independently of ratings on anxiety scale (G2), can rate regardless of whether reports symptoms of anxiety.

G5  Mannerisms and Posturing

- Does the individual have unnatural, *involuntary movements* (e.g. tics, tremors)?
- *Odd mannerisms* (idiosyncratic e.g. salutes)?
- *Stereotypies* (e.g. repeated movements)?
- Withdrawn/ rigid/ unusual posture?
- Abnormal staring or facial mannerisms / stereotypies?
- *Catatonic movements*?

G7  Motor Retardation

- Does the individual give slowing or lessening of speech or movements?
  - Reduced rate of speech, long pauses between phrases or before answering
- Slowness of limbs and body?
- Reduced frequency and extent of gesture?
- Stupor (absence of voluntary movement)?
- Distinguish with blunted affect – reduced frequency and extent of gesture in absence of slow thought or mental processes, and accompanied by lack of variation in facial or vocal expression should be rated under blunted affect.
- Rated on the basis of unusual or idiosyncratic behaviours which are cannot be explained by their current mood states. Should not be scored on the basis of typical physical expressions of anxiety/tension.

G8  Uncooperativeness

- Does the individual refuse to comply with significant others/ daily tasks?
- Does the individual display suspiciousness (e.g. interviewer involved in conspiracy)?
- Hostility (e.g. criticise interviewer, refuse to answer questions, blunt response)?
- Misleading answers (e.g. avoids answering question, contradictions, denial)?
- Verbal over-compliance (e.g. agree passively, no regard to content)?
- Resentment of apathy (e.g. repeats ‘no’ without giving thought, talks reluctantly)
- Lack of cooperation in justified circumstances should not influence rating (e.g. following compulsory admission), which is based solely on interview observation.

G9  Unusual Thought Content

- Does the individual have strange / fantastic / bizarre ideas that range from being remote / atypical to being disordered / illogical / absurd?
G11 Poor Attention

- What sorts of things do they do during the day?
- How is their concentration
- Are they distracted by things easily?
- Individuals who score on this scale will struggle to concentrate for the duration of the interview, may be distractible due to internal or external stimuli and/or may find it difficult to shift new focus to new stimuli

G13 Disturbance of volition

- Volition can be regarded as the participant’s ability to ‘get up and go’, or their ability to commit to (and produce) actions/answers.
- Does the individual appear to have control over his or her thoughts and actions?
- Does the individual start a sentence and not finish it?
- Determine whether inability to answer questions is due to volition or thought disorder.

G14 Poor Impulse Control

- Does the individual exhibit impulsive episodes of threatening, destructive or verbally abusive behaviour without concern about the consequences?
- Doing something cannot control, might show regret

G15 Preoccupation

- Does the individual seem self-absorbed, as if day dreaming or involved with internal experiences/thinking?
- Does the individual talk/ mutter/ laugh to him/herself?
- Is he an attentive interviewee? Is she distracted by voices/ looking elsewhere?
- Do they lack the ability to engage in conversation?
- Linked to autistic spectrum
- Lower end of scale refers to being overly involved with individual needs, shows little concern for what interview wants to discuss
- Score above 3 = individual needs to ignore questions and bring topic back to their own agenda
- In more severe cases, they might be engaging in another activity while being interviewed
Extra Guidance for Rating Interview Items

P1 Delusions
- If score 3 or above, score at least 3 on unusual thought content
- If score 4 or above, there must be at least 50% conviction
- If score 3 or above, score at least 3 on stereotyped thinking
- Thought withdrawal/echo/block/broadcast etc. only classified as delusions if delusional belief about their origin
- Focus on eliciting beliefs about voices/thoughts etc. rather than simply establishing whether exist or not
- Take into account frequency, conviction, quantity, distress caused, disruption to life

P3 Hallucinations
- If scores 4 or above, may have delusional interpretation/elaboration.
- If score 4 or above, must score at least 3 on delusions
- Causes of voices related to delusions
- Less than once a week = infrequent, score no higher than 3, but if occurred in past week can rate as 4
- Take into account frequency, duration, distress caused, disruption to life, number of sensory modalities, delusional interpretation, interaction with voice (e.g. obey, shout back)
- Differentiate between delusions (e.g. thought insertion) vs. hallucination (hearing voices)

P5 Grandiosity
- If score 4 may have poorly formed grandiose delusions; if scores 5 or above, will have clear cut grandiose delusions.

P6 Suspiciousness/Persecution
- If scores 4 may have loosely formed persecutory delusions; if scores 5 may have clear-cut persecutory delusions; if scores 6 or 7, will have persecutory delusions
- Include beliefs that others at risk of harm or persecution, not just self
- Score lower if behaving in a way which suggests that they in fact believe otherwise (e.g. interacting with friends and family normally on some occasions)

G1 Somatic Concern
- It is good to check how much they worry about whether symptoms indicate physical illness. Must be over-concerned about illness.
- If attributing symptoms correctly then rate as zero.
- If their symptoms are result of anxiety (no physical concern) then rate under anxious.
- If scores 5, may have somatic delusions; if scores 6 or 7, will have somatic delusions.

G3 Guilt Feelings
- Must feel guilty or remorseful about a real or imagined past event.
To score 4, there needs to be concern about guilt but not preoccupation, and incident must be real
To score 5, must be belief deserve punishment
If scores 5, may have delusions of guilt; to score 6 or 7, must be delusions of guilt.

G6 Depression

- Must look for sadness, helplessness, low expectations of future
- Can be rated if in relation to event that would understandably make someone sad
- Affected in number of ways, not just low – sleep, social life, appetite, difficult to be cheered up, pessimistic attitude, persistent low mood (frequency)
- If subjectively reports being depressed but contradicts with other information (e.g. describe active social life and ambitious plans for future), be cautious not to rate too high
- If scores 7, may have depressive or nihilistic delusions.

G9 Unusual Thought Content

- The ‘unusualness’ of thought content should be considered with regards to how their beliefs fit in with their cultural background and individual history as a whole – the likelihood of people sharing the belief should be taken into account (e.g. spiritual beliefs about experiences are likely to be more culturally relevant in African Caribbean cultures)
- Scoring 4 or above can indicate the ‘bizarreness’ (e.g. delusion of being an alien ('bizarre') vs. delusion of being followed by neighbours) of delusions.
- If scored 3 or above on delusions, score at least a 3 on unusual thought content
- Score of 3 means delusion cannot break the laws of physics – how far removed from reality and understandable interpretation/ explanation of events/ experiences
- Consider number of unusual beliefs, with accumulation pushing rating up the scale – one belief in isolation would probably not allow them to rate as a 5 or above, no matter how bizarre the belief; but systematised belief with detailed explanation, may do.

G12 Lack of Judgement and Insight

- If scores 4, 5 or 6, may have delusions (e.g. delusion that has no symptoms, e.g. delusion that symptoms are caused by medication); if scores 7, will have delusions.
- Ratings for this item assume someone is unwell and without insight; if currently well then they should only score 1 or 2 depending on future planning.
- However, if they deny ever being ill, they should score more highly regardless of how well they are now

G16 Active Social Avoidance

- Should score if they feel uncomfortable in the company of others outside of their home
- Rating is higher if individual does not participate in social activities particularly because of anxieties about what might happen when out or suspiciousness around others
- Also rate when they break off prematurely form social situations on account of these fears
- The more the individual isolates oneself, the higher the rating
N4 Passive/ Apathetic Social Withdrawal

- Social avoidance due to poor motivation, not fear
- Useful rate at reduced individual involvement and neglect of daily living
- Helpful to establish individual’s level of functioning and social activities this week in order to ascertain whether this week has been the same as previous weeks or if the individual has had reduced interactions specifically due to apathy

N5 Difficulty in Abstract Thinking

- Minimal rating of 2 allows for low IQ level in general population
- Distinguish between abstract and concrete answers
General Guidance

- Encourage participants to specify the degree to which they have been experiencing their problems over the last week (as ratings are based on this timescale).
- In cases where someone experiences a symptom as one off in a week, but has been fine otherwise, the rating should reflect this – do not make ratings solely on the peak of the week but rather what they are generally like.
- Ask as many questions as necessary to obtain detailed elaboration of all items on PANSS (e.g. presence of symptoms, severity, frequency, disruptive impact).
- Make sure questions cover all anchor points on the PANSS scale.
- Rate items using holistic perspective (i.e. not every single element of rating scale need be present).
- Causality is not taken into account (e.g. hallucinations related to alcohol withdrawal are still rated).
- A simple ‘no’ or very brief answer does not necessarily mean that the item is not applicable to the participant. Further questioning or elaboration may still be necessary to establish there are no issues in this area.
- Yes/no answers may not provide sufficient information for valid rating of items. If the participant mostly responds with yes/no answers, use general requests (such as; “Please go on”) or specific probes (such as; “Why does this happen?”) to elicit more information.
- Always allow participants to spontaneously divulge as much information as possible in response to the initial open-ended questions. Following this, use close-end questions to clarify unresolved/outstanding questions.
- When it seems difficult to assess the impact that a symptom is having, it may help to consider how the participant’s life would be different if the symptom was totally absent.
- When directly questioning participants about positive symptoms, qualifying statements can be used to reduce participants’ confusion / suspicions (Examples include statements like “Some of the people I talk to tell me...” or “We ask everyone these questions”)
- If the individual says something with an ambiguous meaning, or that could lead to important information, question them about this directly.
- Negative symptoms (N items) - stable, trait-like, consistent and not changeable (as opposed to poor engagement), little control over these symptoms.
- Scoring should ideally be done during or immediately after the interview, particularly for observation-based items.
- Rate N1, N2, N3, G4 immediately after interview.
- For social functioning items – N2, N4, G16 – might be useful to ask staff for their opinion about functioning over past week.
- If unsure between two scores it might be easier to rate as decimal, where .5 and below should be rated down, .6 and above rated up.
- Frequency – consistently is throughout the day (e.g. not just every evening).
- When rating, any information that you have previously obtained from medical records/ care coordinators/ main carers can be taken into account where specified (remember must be based on past week).
- BUT individual reports must be given the most weight when rating the items (e.g. if denies hearing voices must be rated according to what they have said).
PANSS ratings can be used at follow-up to inform questions to ask/prompt individuals.
References


## Appendix O - Intraclass correlation coefficient

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<td>.927 [.678-.084]</td>
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ICC, intraclass correlation coefficient. LS, Lucy Shattock; AD, Amy Degnan.
Appendix P- Perceived Discrimination Measure

Perceived discrimination measure

We would like to know how much you agree with the following two statements.

For each statement, please mark whether you strongly disagree (1), disagree (2), neither agree or disagree (5), agree (4) or strongly agree (5).

1) NHS mental health services discriminate against people (treat people unfairly) because of their racial/ethnic background

1 Strongly disagree 2 Disagree 3 Neither agree or disagree 4 Agree 5 Strongly agree

2) NHS mental health services discriminate against me (treat me unfairly) because of my racial/ethnic background

1 Strongly disagree 2 Disagree 3 Neither agree or disagree 4 Agree 5 Strongly agree
Socio-demographic Questionnaire: Service Users

1. What is your age? _________

2. What is your gender? _________

3. What is your ethnic group?
   Black/ African Caribbean
   Black African  [ ]  Black British  [ ]
   Any other Black/ African/ Caribbean background, please describe:
   ............................................................................................................
   White and Black Caribbean  [ ]  White and Black African  [ ]
   Any other Mixed/ Multiple ethnic background, please describe:
   ............................................................................................................

4. What is your religion?
   No religion  [ ]
   Christian  [ ]
   (including Church of England, Catholic, Protestant and all other Christian denominations)
   Jewish  [ ]
   Muslim  [ ]
   Buddhist  [ ]
   Hindu  [ ]
   Sikh  [ ]
   Any other religion, please describe:
   ............................................................................................................

5. What is your current employment status?
   Full-time work  [ ]  Part-time work  [ ]
   Volunteer  [ ]  Student  [ ]
   Unemployed  [ ]  Long-term sickness or disability  [ ]
   Looking after family or home  [ ]  Retired  [ ]

6. What is you
   Married or in Civil partnership  [ ]  Cohabitng  [ ]  Single  [ ]
   Separated/ divorced  [ ]  Widowed  [ ]
7. Do you have any children?
   Yes   [ ]   No   [ ]

   If yes, how many?   [ ]

8. What best describes your housing status?
   Owner occupiers (including with a mortgage)   [ ]
   House or flat rented from a housing association/local council   [ ]
   House, flat or room rented from a private landlord   [ ]
   Residential home or supported housing   [ ]
   Hostel   [ ]
   Homeless or living on the street   [ ]
   Staying with a friend or family but have own bed   [ ]
   ‘Sofa surfing’ (staying with friends or family but no bed)   [ ]
   Other, please describe:
   ………………………………………………………………………

9. Who do you live with?
   Alone   [ ]   Partner/ spouse   [ ]
   Parent/ parents   [ ]   Other family members   [ ]
   Friends   [ ]   Other, please describe:
   ………………………………………………………………………

10. What is your highest level of qualification?
    Degree level or above   [ ]
    A-levels (e.g. Baccalaureate)   [ ]
    GCSE or equivalent (e.g. O-levels)   [ ]
    Apprenticeship   [ ]
    Other qualifications   [ ]
    No qualifications   [ ]

11. Which service currently provides your mental health care?
Inpatient ward ☐ Community Mental Health Team ☐
Community (other) ☐ Rehabilitation ward ☐

Other, please describe:

…………………………………………………………………………………………

12. Please specify name of service:

…………………………………………………………………………………………

13. How long have you known your care coordinator/key worker [person completing engagement and alliance measures for study]?

…………………………………………………………………………………………

14. Have you been given a mental health diagnosis?

If yes, please specify:

…………………………………………………………………………………………

15. If yes, do you agree with this diagnosis?

Yes ☐ No ☐

16. At what age did you first get professional help for your mental health problem?

........... years

Appendix Q- Demographic Questionnaire

17. Have you ever stayed overnight in a psychiatric inpatient ward?

Yes ☐ No ☐

18. If yes - Have any of the stays been under section (involuntary admission)?

Yes ☐ No ☐

How many stays? .................................

19. If yes - Have any of the stays not been under section (voluntary admission)?

Yes ☐ No ☐

How many stays? .................................

20. Are you taking any prescribed medications for mental health conditions?

Yes ☐ No ☐
If yes, how many? □ □

If yes, please specify type:

.................................................................

21. How is your medication administered?

Please tick all that apply.

Oral □ Depot injection □ Both □
Appendix R- Trainee Involvement

Acknowledgement of trainee’s involvement

Of the 42 service users approach directly by the research team, the trainee (LS) completed 24 initial meetings (information giving, consenting). Initial meetings usually involved two visits per person (to provide time to consider study involvement and ask questions). Remaining visits were completed by another PhD student (AD).

Of the 29 participants who consented to take part, LS completed assessments with 12 participants. Assessments range from one to three visits per person, with most participants requiring two visits. AD completed the remaining assessments.

Of the 12 assessments, eight involved completing measures for this doctoral study and five assessments involved completing measures for the doctoral study and baseline assessments for the Culturally-adapted Family Intervention (CaFI) feasibility study.

Staff assessment measures for the doctoral study were mostly completed by a volunteer. LS completed four staff visits.