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Client predictors of the therapeutic alliance in individual resiliency training for first episode psychosis

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ABSTRACT

Individuals experiencing their first episode of psychosis (FEP) are often reluctant to seek treatment, and are difficult to engage and retain in mental health services. The therapeutic alliance (TA), or the affective and collaborative bond between therapist and client, is predictive of better treatment outcomes for clients with FEP; thus, it is important to understand the predictors of the TA in order to determine how best to foster a positive alliance with these individuals. The primary aim of the present study was to examine whether baseline client characteristics, including severity of symptoms, social functioning, and insight, were associated with the TA. The exploratory aim was to examine associations between demographic variables (age, race, and gender) and the TA. The present study included a subsample of participants (n = 134) who received Individual Resiliency Training (IRT) as part of the NAVIGATE treatment in the Recovery After An Initial Schizophrenia Episode Early Treatment Program study. Four trained research assistants rated the TA from early audiotaped sessions of IRT. Multilevel modeling was utilized given the nested data structure. Results indicated that more severe positive and less severe negative symptoms were significantly and uniquely associated with a better therapeutic alliance, as was female gender. The findings suggest that client symptom profiles should be considered when developing a TA with FEP clients.

1. Introduction

A growing interest in coordinated specialty care programs for first episode psychosis (FEP) has emerged following research demonstrating their effects on improving recovery and symptomatic outcomes (Álvarez-Jiménez et al., 2011; Harvey et al., 2007; Kane et al., 2016; Malla et al., 2005; McGorry et al., 1996). Unfortunately, individuals with FEP are often reluctant to seek treatment and of those who begin treatment, many disengage or dropout completely (Dixon et al., 2016; Doyle et al., 2014; Lal and Malla, 2015; Leclerc et al., 2015). Further, treatment disengagement and dropout are associated with worse outcomes for persons with FEP (e.g., relapse and re-hospitalization), which highlights the need for effective engagement strategies for this population (Dixon et al., 2016).

The therapeutic alliance (TA), defined as a "collaborative and affective bond between therapist and patient" (Martin et al., 2000, p. 438), comprises three factors including agreement on goals, agreement on tasks, and a bond between the two people (Bordin, 1979). Research has consistently shown that a better TA is related to improved treatment outcomes and lower likelihood of dropout (Horvath et al., 2011; Horvath and Luborsky, 1993; Martin et al., 2000; Sharf et al., 2010). Within FEP, a strong TA has been shown to relate to better medication adherence and retention in services (Lecomte et al., 2008; Montreuil et al., 2012). Additionally, Goldsmith et al. (2015) found that the strength of the TA moderated the effects of cognitive behavioral or supportive therapy on improvements in symptoms, with more sessions associated with greater reductions in symptoms when the TA was strong, but associated with a worsening of symptoms when the TA was poor. Given the apparent importance of the TA to outcomes in FEP treatment, understanding its correlates could inform efforts to improve it.

The majority of work examining correlates of the TA in FEP and schizophrenia has focused on client characteristics. Specifically, research shows that less severe symptom severity and better illness insight are associated with a stronger TA in FEP (Berry et al., 2016;

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Johansen et al., 2013a; Melau et al., 2015) and in schizophrenia (Barrowclough et al., 2010; Bayle et al., 2015; Cavelti et al., 2016; Couture et al., 2006; Day et al., 2005; Donnelly et al., 2011; Dunn et al., 2006; Hamann et al., 2010; Jung et al., 2014; Kvrgic et al., 2013; Lysaker et al., 2011; McCabe and Priebe, 2003; Wittorf et al., 2009; Wykes et al., 2013). Further, better social functioning, having friends, and reporting fewer social problems have been associated with a better TA in FEP (Bourdeau et al., 2009; Johansen et al., 2013b; Melau et al., 2015) and in schizophrenia (Couture et al., 2006; Jung et al., 2014; Ruchlewska et al., 2016). Taken together, these findings suggest that less severe symptoms, better insight, and better social functioning are related to a stronger TA.

Prior work on the TA has almost exclusively utilized client-rated and/or provider-rated alliance scales. Though these perspectives offer valuable insight into the quality of the TA as perceived by those within the dyad, observer ratings may offer a unique viewpoint. Specifically, client and therapist ratings of the TA can differ (Couture et al., 2006; Evans-Jones et al., 2009; Jung et al., 2015; Wittorf et al., 2009), possibly because of providers' misinterpretation of client symptoms and/or poor social cognition among clients. Further, clients tend to rate the TA more favorably than their therapists, possibly because of therapists' tendencies to focus on signs of alliance ruptures (Shattock et al., 2018). Given these discrepant ratings in tandem with strong observer-rated alliance-outcome relationships, examination of this TA perspective in FEP may be valuable.

The present study examined client correlates of observer-rated TA scores among FEP clients who participated in individual resiliency training (IRT) as part of NAVIGATE in the Recovery After an Initial Schizophrenia Episode Early Treatment Program (RAISE ETP) study. The primary aim was to examine baseline symptom severity, social functioning, and illness insight as potential correlates of the TA. An exploratory aim was to examine associations between client demographic characteristics (age, race, and gender) and the TA. We hypothesized that less severe symptoms, better insight, and better social functioning would be significantly associated with a stronger TA.

2. Method

2.1. Participants and study design

The RAISE ETP study used a cluster-randomization design with 17 clinics assigned to provide NAVIGATE, a team-based coordinated specialty care treatment, and 17 clinics assigned to provide Community Care (e.g., usual care). The sample comprised 404 participants (223 received NAVIGATE; 181 received community care) who had experienced one episode of non-affective psychosis and had taken antipsychotic medications for six months or less (see Kane et al., 2015 & Kane et al., 2016 for additional study details). The present study sample, drawn from the RAISE ETP trial, comprised 134 clients with FEP who participated in IRT, the individual therapy component of NAVIGATE.

For inclusion in the present study, clients must have: 1) received at least three sessions of IRT (as the alliance is thought to develop over the first 5 sessions with its peak at session 3; Horvath and Luborsky, 1993), 2) had at least one session from sessions 3–5 audiotaped (as ratings were made via audiotaped sessions), and 3) had their third, fourth, or fifth IRT session with their initial IRT therapist. In total, the alliance was rated for 144 clients. Given that participants began IRT after differing lengths of time in the RAISE ETP study and since the primary analyses examined baseline variables as predictors, we only included clients whose third, fourth, or fifth session occurred within their first six months in the RAISE ETP study (n = 134; Table 1).

Thirty-six therapists provided IRT treatment to the 134 study participants in the present subsample. Therapists received training in IRT delivery and were monitored for fidelity to treatment throughout the RAISE ETP study (Browne et al., 2016; Meyer et al., 2015).

Table 1
Demographic, clinical, and baseline characteristics of client participants.

	Participants (n = 134)
Demographic characteristics	
Male, n (%)	103 (77)
Age (years), M (SD)	23.86 (5.66)
Race/Ethnicity, n (%)	
Caucasian	82 (61)
African American	41 (31)
Other	11 (8)
Ethnicity, n (%)	
Hispanic	32 (24)
Education, n (%)[a]	
Completed college or higher	6 (4)
Some college, no degree	41 (31)
Completed high school	46 (35)
Some high school	35 (26)
Some or completed grade school	5 (4)
Current student, n (%)	26 (19)
Currently Employed, n (%)	16 (12)
Clinical characteristics	
SCID diagnosis, n (%)	
Schizophrenia	76 (57)
Schizoaffective bipolar	9 (7)
Schizoaffective depressive	19 (14)
Schizophreniform	20 (15)
Brief psychotic disorder	1 (<1)
Psychotic disorder NOS	9 (7)
Lifetime alcohol abuse or dependence, n (%)	49 (37)
Lifetime Cannabis abuse or dependence, n (%)	45 (34)
Lifetime other substance abuse or dependence, n (%)	24 (18)
Prescribed one or more antipsychotics at consent, n (%)	108 (81)
DUP (weeks), M (SD), median[a]	185.80 (260.28), 73
Age at first psychotic symptoms (years), M (SD)[b]	19.84 (6.71)
VTAS total score, M (SD)	17.65 (3.60)
Baseline characteristics, M (SD)[a]	
PANSS positive symptoms	12.40 (4.02)
PANSS negative symptoms	16.77 (5.49)
PANSS disorganized/concrete symptoms	8.15 (2.95)
PANSS excited symptoms	6.72 (2.81)
PANSS depressive symptoms	8.17 (3.10)
QLS interpersonal relations subscale	19.50 (8.65)
QLS intrapsychic foundations subscale	20.38 (6.77)
PANSS G12 insight item	3.89 (1.21)

Note. NOS = Not otherwise specified; DUP = Duration of untreated psychosis; VTAS = Vanderbilt Therapeutic Alliance Scale-Short Form; QLS = Quality of Life Scale; PANSS = Positive and Negative Syndrome Scale; SCID = Structured Clinical Interview for DSM-IV.
[a] n = 133.
[b] n = 128.

2.2. Intervention

The NAVIGATE program comprised medication management, family psychoeducation, supported employment and education, and IRT (Kane et al., 2015; Mueser et al., 2015). IRT draws from cognitive-behavioral therapy for psychosis combined with shared-decision making, goal setting, psychoeducation, and strengths-based frameworks (Meyer et al., 2015). It is a manual-based treatment for FEP comprised of 14 modules, seven of which are part of the core curriculum, while the other seven are additional topics used based on their relevance to the client's concerns (Meyer et al., 2015).

2.3. Measures

Only measures utilized in the present analyses are described here (see Kane et al., 2015, 2016 for additional measure information).

The Positive and Negative Syndrome Scale (PANSS; Kay et al., 1987), a semi-structured interview, was used to assess symptom severity. A total score and five factor scores are produced: Positive, Negative, Disorganized/Concrete, Excitative, and Depressive (Wallwork et al., 2012;

Higher scores reflect more severe symptoms). Consistent with prior work (Dunn et al., 2006; Johansen et al., 2013a; Jung et al., 2014; Jung et al., 2015), PANSS item G12 (not included in the Wallwork 5-factor solution) was utilized as a measure of illness insight (Higher scores reflect poorer insight).

The interpersonal relations subscale of the Quality of Life Scale (QLS; Heinrichs et al., 1984) was used to measure social functioning. Additionally, the intrapsychic foundations subscale of the QLS has been shown to reflect motivational impairments in this population (Fulford et al., 2018; Mueser et al., 2017) as well as to correlate with social functioning and negative symptoms (Bellack et al., 1990). As such, both of these QLS subscales were used as measures of social functioning in the present study (higher scores reflect better social functioning). Trained interviewers using live, two-way video conferencing administered the PANSS and QLS at baseline, six, 12, 18, and 24 months during the RAISE ETP trial. Baseline measures were utilized in analyses.

The observer-rated short form of the revised Vanderbilt Therapeutic Alliance Scale (VTAS-R-SF; Shelef and Diamond, 2008a) was used to assess the TA. The VTAS-R-SF includes five items that assess agreement on goals and tasks and the presence of a supportive bond. Items (and the anchor descriptions located in the rating manual; Shelef and Diamond, 2008b) are based on objective observations of the client's and therapist's speech (rather than interpretations about how a person is feeling). Items are rated from 0 (Not at all) to 5 (A great deal), with higher scores indicating a more positive TA (Note: one item is reverse scored). The total score was used in analyses (Cronbach's alpha = 0.84; see Supplementary material).

2.4. Procedure

2.4.1. RAISE ETP procedure

Individuals in NAVIGATE participated in at least one of its treatment components, and could start or stop a program at any time (Meyer et al., 2015). All participants were offered treatment for at least two years.

2.4.2. Therapeutic alliance rating procedure

To obtain a rating of the therapeutic alliance during the early portion of therapy, session three, four, or five was rated for all individuals in the present study (n = 134). Four trained research assistants rated all sessions.

2.4.3. Therapeutic alliance rater training

Rater training paralleled procedures from prior observer-based alliance work utilizing the VTAS (Krupnick et al., 1996; Shelef and Diamond, 2008a). Training began with an orientation and a review of the VTAS-R-SF manual. Minor modifications were made to the rating manual (Shelef and Diamond, 2008b) to clarify differences between each of the possible alliance scores (e.g., one description was given for rating of 1 or 2 in the original manual). Research assistants then rated eight IRT sessions independently and attended two in-person meetings. The final stage of training included independently rating five IRT sessions to establish reliability. Raters were required to achieve adequate reliability with the gold-standard rater as well as with other raters (Intraclass Correlation [ICC] ≥ 0.7; Krupnick et al., 1996).

2.4.4. Rater drift

A rater drift protocol was implemented to assess reliability once the project began (Krupnick et al., 1996). In the present study, 16 sessions (four done by each rater) were re-rated by a second rater and the gold-standard rater (JB). ICCs were then calculated among the three raters (original rater, second rater, and the gold-standard rater). All ICCs were in the acceptable range (≥0.7).

2.5. Data analysis

Analyses were conducted using SPSS (Version 24) and SAS (Version 9.3). Chi-square tests and *t*-tests were conducted on demographic characteristics (age, race [Racial Minority or White], and gender) and baseline PANSS total scores to compare the present subsample (n = 134) to the individuals who received at least three sessions of IRT but who were not included in the present study (n = 55). Differences in duration of untreated psychosis between the two groups were assessed with the Mann-Whitney *U* Test.

Multilevel modeling was used in the present study given the nested structure of these data (Snijders and Bosker, 1999). Models were fit with random intercepts at the therapist and site levels; however, if either/both estimated random effect(s) were zero, models were re-fit without the corresponding random effect(s). In order to examine demographic predictors of the alliance, we entered age, race, and gender simultaneously into a model (Model 1). In order to examine clinical predictors of the alliance, we first computed Pearson correlations to examine bivariate relationships between the predictors of interest and the VTAS (Couture et al., 2006; Johansen et al., 2013b; Jung et al., 2014). Predictors that were significantly correlated with the VTAS were then entered simultaneously into a model (Model 2). In a third model, we entered all demographic and clinical/interpersonal predictors simultaneously to examine the effect of each predictor of the alliance while controlling for other predictors (Model 3). Finally, we examined whether including the length of time a client had been enrolled in the RAISE ETP study at the VTAS assessment (range: 1–6 months) impacted the overall pattern of results.

3. Results

None of the tests were significant comparing the 134 IRT participants included in this study to the 55 participants who also received at least three IRT sessions but who were not included in the present analyses.

The exploratory analysis of demographic variables revealed that gender was the only significant variable ($t[129] = 3.16$, $p = .002$), with female clients having higher TA scores than male clients (Model 1; Table 2).

Five variables were significantly correlated with the VTAS. Specifically, small positive correlations were observed between the VTAS and PANSS positive symptoms ($r = 0.210$, $p = .015$), QLS interpersonal relations ($r = 0.223$, $p = .010$), and QLS intrapsychic foundations ($r = 0.354$, $p < .001$) indicating that more severe positive symptoms and better social functioning were associated with a better TA. A moderate negative correlation was found between the VTAS and PANSS negative symptoms ($r = -0.411$, $p < .001$) indicating that more severe negative symptoms were associated with a poorer TA. Finally, a small negative correlation was observed between the VTAS and PANSS G12 insight ($r = -0.172$, $p = .047$) indicating that better insight was associated with a better TA (Table 3).

When all five clinical/interpersonal variables that were significantly correlated with the VTAS were entered simultaneously, only positive symptoms and negative symptoms remained significant. Specifically, more severe positive symptoms ($t[127] = 2.67$, $p = .009$) and less severe negative symptoms ($t[127] = -2.59$, $p = .011$) were associated with a better TA (Model 2; Table 2). When all demographic and clinical/interpersonal predictors were entered simultaneously, positive symptoms ($t[124] = 2.23$, $p = .028$), negative symptoms ($t[124] = -2.64$, $p = .009$), and gender ($t[124] = 2.97$, $p = .004$) remained significant (Model 3; Table 2). Finally, the overall pattern of results remained unchanged when the length of time a participant had been enrolled in the study at the VTAS assessment was included. Therefore, results are presented without this variable.

Table 2
Client characteristics predicting early therapeutic alliance.

Predictor variable	Estimate	Standard error
Model 1: demographic variables only[a]		
Age	.085	.057
Race	−.303	.638
Gender	2.346**	.743
Model 2: clinical/interpersonal variables only[a]		
PANSS positive symptoms	.197**	.074
PANSS negative symptoms	−.168*	.065
QLS interpersonal relations	−.017	.045
QLS intrapsychic foundations	.118	.066
PANSS G12 insight item	−.276	.260
Model 3: demographic and clinical/interpersonal variables		
Age	.061	.050
Race	−.628	.559
Gender	1.992**	.672
PANSS positive symptoms	.158*	.071
PANSS negative symptoms	−.165**	.062
QLS interpersonal relations	−.021	.043
QLS intrapsychic foundations	.114	.063
PANSS G12 insight item	−.248	.247

Note. QLS = Quality of Life Scale; PANSS = Positive and Negative Syndrome Scale. One participant was missing baseline QLS and PANSS data and thus was dropped from all 3 models. Additionally, given the inclusion of age as a predictor in models 1 and 3, analyses were run with and without one outlier (Age 51); however, the overall pattern of results remained unchanged. Therefore, results are presented with this observation included (n = 133). Race was dichotomized (0 = Racial Minority, 1 = White) and gender was entered as a binary variable (0 = Male, 1 = Female).

[a] Includes random intercept at site level; Kenward-Roger Fixed-Effects SE and degrees of freedom method were used.

* p < .05.

** p < .01.

4. Discussion

The primary aim of the current study was to investigate relationships among symptom severity, insight, and social functioning and observer-rated TA scores within individuals with FEP. The results indicated that less severe negative symptoms and more severe positive symptoms were significantly related to a better TA. Prior work has also found a relationship between more severe negative symptoms and worse TA ratings in FEP (Melau et al., 2015) and in multi-episode schizophrenia (Jung et al., 2014; Lysaker et al., 2011; Wittorf et al., 2009). As suggested by Jung et al. (2014), clients with severe negative symptoms may be less behaviorally responsive and expressive during therapy, thus offering more limited positive reinforcement to therapists, hindering the development of a strong TA.

With regard to positive symptoms, our findings differ from previous research that has reported non-significant associations between positive symptom severity and the TA in FEP samples (Bourdeau et al., 2009; Johansen et al., 2013a; Melau et al., 2015). Further, research in schizophrenia samples has found that more severe positive symptoms were associated with a worse TA (Lysaker et al., 2011; Wittorf et al., 2009). However, some prior research has reported that more severe symptoms in schizophrenia were related to better TA ratings (Ruchlewska et al., 2016; Svensson & Hansson, 1999). Given the distressing nature of positive symptoms (Drake et al., 2004; Nordentoft et al., 2002; Sands and Harrow, 1999), it may be that clients with more severe symptoms are more motivated to seek help and establish a relationship with their therapists in order to reduce their distress (Svensson & Hansson, 1999). It is also possible that therapists respond to clients with more troubling positive symptoms with more empathy, thus creating a stronger TA.

Although not statistically significant in the final models, insight and social functioning were significantly correlated with the TA. Prior research has reported that better social functioning and more insight into one's illness are related to a better TA (Berry et al., 2016; Couture et al., 2006; Johansen et al., 2013a; Melau et al., 2015). But, given that both social functioning measures in the present study were correlated with negative symptoms, and insight was correlated with positive and negative symptoms, they appear to be related to the TA but not to account for independent variance after controlling for the effects of symptoms.

Results from the exploratory demographic analysis revealed that women had higher TA scores than men. Though not extensively examined, some studies in schizophrenia reported similar findings (Evans-Jones et al., 2009; Hamann et al., 2010; Ruchlewska et al., 2016), possibly reflecting gender differences in interpersonal skills and/or willingness to engage with a therapist (Mueser et al., 1990). Age and race were not significant predictors in our sample. However, these demographic findings should be interpreted with caution given that our sample was primarily male (77%) and white (61%).

Given that the present study used an observer-rated TA measure, the findings may not be entirely comparable to prior research utilizing client-rated and/or provider-rated scales. Specifically, since observer ratings relied upon objective indications of agreement on goals and tasks and the presence of a supportive bond, it is plausible that only variables affecting overt behavior were related to TA scores. As a result, it is possible that clients with more severe positive symptoms were more willing to discuss their concerns and thus, received higher ratings than clients with more severe negative symptoms who were less overtly responsive in therapy. As such, relationships between client characteristics and the TA in FEP may differ depending on the alliance rater perspective.

Table 3
Bivariate correlations among baseline variables and the therapeutic alliance.

	VTAS TS	PANSS Pos.	PANSS Neg.	PANSS Dis.	PANSS Exc.	PANSS Dep.	QLS IR	QLS IF	PANSS G12
VTAS TS	1	.210*	−.411**	−.163	−.086	.145	.223**	.354**	−.172*
PANSS Pos.	–	1	−.109	.242**	.375**	.218*	−.133	−.106	.231**
PANSS Neg.	–	–	1	.430**	−.065	−.029	−.443**	−.585**	.199*
PANSS Dis.	–	–	–	1	.177*	−.071	−.396**	−.440**	.331**
PANSS Exc.	–	–	–	–	1	.174*	−.147	−.176*	.140
PANSS Dep.	–	–	–	–	–	1	−.009	−.109	−.145
QLS IR	–	–	–	–	–	–	1	.693**	−.307**
QLS IF	–	–	–	–	–	–	–	1	−.386**
PANSS G12	–	–	–	–	–	–	–	–	1

Note. VTAS TS = Vanderbilt Therapeutic Alliance Scale Total Score; QLS IR = Quality of Life Scale Interpersonal Relations Subscale; QLS IF = Quality of Life Scale Intrapsychic Foundations Subscale; PANSS = Positive and Negative Syndrome Scale. Pos. = Positive Symptoms; Neg. = Negative Symptoms; Dis. = Disorganized Symptoms; Exc = Excitative Symptoms; Dep = Depressive Symptoms; G12 = Insight. One participant was missing baseline QLS and PANSS data.

* p < .05.

** p < .01.

The present study had two primary limitations. First, the TA was rated from audiotaped sessions, which prevented raters from observing any non-verbal social cues inherent in interpersonal relationships (e.g., body language). Second, the TA ratings were based on only one session precluding detection of any fluctuations occurring throughout treatment.

Despite these limitations, the current study demonstrates the potential usefulness of investigating predictors of the TA within FEP using an observer-rated TA scale. The findings suggest that positive and negative symptoms are differentially related to observer-rated TA scores in FEP. Clinically, it may be beneficial for providers to spend additional time in early sessions focusing on developing a strong TA with clients with elevated negative symptoms. Specifically, early sessions could include discussions of clients' goals and how particular treatment tasks map onto those goals. Future work should consider examining additional client predictors of the TA as well as how observer-rated TA scores relate to those made by clients and/or providers.

Conflict of interest

The authors declare no conflicts of interest pertinent to this study.

Contributors

DP, SE, and KM served on the RAISE ETP Executive Committee and PMK and JG were developers of Individual Resiliency Training (IRT), the individual therapy component provided in RAISE ETP. JB conducted all analyses and certifies the accuracy of the results. JB and EB wrote the first draft. All authors provided edits and revisions to the manuscript and are in agreement with the final version.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.schres.2018.07.035.

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