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The Impact of Early Family Contact on Quality of Life among non-Hispanic Blacks and Whites in the RAISE-ETP trial

Oladunni Oluwoye, PhD, CHES^a, Liat Kriegel, PhD, MSW^a, Karl C. Alcover, PhD^a, Michael T. Compton, MD, MPH^b, Leopoldo J. Cabassa, PhD, MSW^c, Michael G. McDonell, PhD^a

^aDepartment of Medical Education and Clinical Sciences, Elson S. Floyd College of Medicine, Washington State University, 412 E. Spokane Falls Blvd, Spokane WA 99202

^bColumbia University College of Physicians and Surgeons, New York, NY

^cGeorge Warren Brown School of Social Work, Washington University in St. Louis, One Brookings Drive, Campus Box 1196, St. Louis MO, 63130

To the Editors,

Family members play a key role in providing support and initiating care for loved ones experiencing their first episodes of psychosis (FEP) (Addington et al. 2005;Marino et al. 2015;Conus et al. 2010). Previous literature demonstrates the importance of connecting and involving family members in treatment and its impact on client outcomes (Compton 2005;Lucksted et al. 2015;Jones et al. 2019). Studies have suggested that supportive family relationships serve as a protective factor against negative experiences and expectations among Black families, and are linked to prosocial behavior and well-being (Brook and Pahl 2005;Thompson et al. 2013). In light of these findings, a recent study revealed that Black families were less likely to participate in family psychoeducation during treatment, compared to white families (Oluwoye et al. 2018). While, this study provided evidence of racial differences in family involvement during treatment, very little is known on whether establishing a connection between providers and family members of clients with FEP prior to treatment has an impact on client outcomes. Using data from the Recovery After an Initial Schizophrenia Episode-Early Treatment Program (RAISE-ETP) trial ($n=404$) (Kane et al. 2015), this study explores whether family contact with a provider about psychosis prior to treatment is associated with quality of life among Black ($n=139$) and white ($n=173$) participants during treatment.

oladunni.oluwoye@wsu.edu; (509) 368-6805.

Contributors

Oladunni Oluwoye developed the concept for secondary data analyses, wrote the first draft, and conducted statistical analyses along with Karl Alcover. Liat Kriegel, Michael Compton, Leopoldo Cabassa, and Michael McDonell provided edits and revisions to the manuscript and approved the final version of the manuscript.

Conflict of interest

There is no conflict of interest concerning this manuscript for any of the authors.

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The 21-item Heinrichs-Carpenter Quality of Life Scale (QLS) was administered at baseline, 6, 12, 18, and 24-months with higher scores are indicative of better functioning (Heinrichs et al. 1984). Early family contact was assessed by ‘Has your family met with a mental health provider to help them understand and address your situation?’ was obtained with the Service Use and Resource Form that was administered at baseline (Rosenheck et al. 2003). The DUP was defined as the time period between the onset of symptoms and initial treatment and was assessed in weeks. Treatment group was also used as a covariate. To account for the nested structure of the data, we fitted each mixed effect model with individuals and sites as random intercepts, controlling for treatment group and DUP, using Stata 15.0. As in prior studies, each model also controlled for linearized time (square root transformation) (Kane et al. 2015). To examine the 2-way interaction between race and early family contact, *post hoc* pairwise comparisons were performed using Bonferroni correction for multiple comparisons. For continuous outcomes, unstandardized regression coefficients are presented with 95% confidence intervals (CI) and p-value ($\alpha=0.05$).

Main effects and interaction term are displayed Table 1 in supplementary materials. Adjusting for covariates, the pairwise comparisons revealed that among Black participants those whose family members had met with a provider prior to treatment had significantly higher scores throughout treatment than those who did not on interpersonal relations item: social activity ($\beta=0.74$; 95% CI=-0.01, 1.47, $p=0.045$) and intrapsychic foundation item: anhedonia ($\beta=0.82$; 95% CI=0.11, 1.53, $p=0.012$). There were no statistically significant effects of early family contact on QLS items among white participants. Among Black and white participants whose family member had not met with a provider prior to treatment, Black participants had significantly lower scores throughout treatment than white participants on several interpersonal relation items: intimate interactions ($\beta=-0.75$; 95% CI=-1.31, -0.18, $p=0.003$), level of social activity ($\beta=-0.56$; 95% CI=-1.03, -0.08, $p=0.011$), involvement in social networks ($\beta=-0.58$; 95% CI=-1.01, -0.16, $p=0.002$), and intrapsychic foundation item: capacity for empathy ($\beta=-0.42$; 95% CI=-0.80, -0.05, $p=0.014$). There were no statistically significant differences between Black and white participants whose family member had met with a provider prior to treatment on QLS items (Table 2).

This study highlights the importance of connecting with Black family members about psychosis prior to treatment and its association with quality of life outcomes during treatment. In particular our findings revealed that Black participants who had a family member meet with a provider prior to FEP treatment had significantly higher levels of social activity and a greater capacity to experience pleasure and humor compared to Black participants who did not have a family member meet with a provider prior to treatment. Although other QLS items were not significant, the benefits of having early family contact regarding psychosis for Black participants are displayed in Table 2.

In addition to the differences found among Black participants, several differences across racial groups were found. Black participants who did not have a family member meet with a provider prior to treatment had significantly lower scores on items related to being social and interacting with others (i.e., intimate interactions, social activity, involvement in social networks) than their white counterparts. This may be due to the increased likelihood that Black families are more likely to have negative experiences within the mental health system

than other racial groups, which may also impact social experiences among clients (Brown et al. 2010). Most studies have relied exclusively on subscale scores to determine overall quality of life (Nagendra et al. 2017;Llorca et al. 2012), this potentially limits our understanding on specific life experiences during treatment that are impacted by family members. The parceling out of individual QLS items highlights a potential underlining predictor (i.e., establishing early family contact) among Black clients that account for differences in engagement in social networks and interactions with others. Notably, while there were significant differences between Black and white participants with no early family contact with providers, these differences were not evident between racial groups when both groups did have early family contact with providers.

Methodological limitations should be considered when interpreting these findings, including statistical power to assess differences by treatment group, early family contact with a provider prior to treatment about FEP only describes one aspect of family involvement in mental health services, and at what time point prior to treatment family contact occurred.

Improving the pathway by which Black clients with FEP and their families enter treatment may reduce racial inequities in mental health services. Future work is needed to develop and implement specific interventions aimed to improve engagement among family members.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Table 2.

Family contact among racial groups and differences in quality of life during 24-month treatment period (means and SD)

Clinical Characteristics	Non-Hispanic Black				Non-Hispanic White			
	Family Contact		No Family Contact		Family Contact		No Family Contact	
	M	SD	M	SD	M	SD	M	SD
QLS Interpersonal Relations								
Intimate relationships with household members	4.85	0.45	4.19	0.32	4.84	0.30	4.62	0.28
Intimate interactions	2.64	0.55	2.45^a	0.39	3.29	0.41	3.20^a	0.33
Active acquaintances	2.06	0.42	1.60	0.32	2.04	0.36	1.97	0.30
Level of social activity	3.78^b	0.38	3.04^{a,b}	0.36	3.49	0.31	3.60^a	0.26
Involvement in social networks	3.52	0.38	3.02^a	0.29	3.71	0.26	3.61^a	0.24
Social initiatives	3.57	0.39	2.98	0.31	3.27	0.34	3.43	0.27
Social withdrawal	3.82	0.35	3.45	0.29	3.81	0.29	3.86	0.26
Socio-sexual relations	2.80	0.49	2.58	0.36	1.94	0.36	2.48	0.34
QLS Instrumental Role								
Extent of occupational role functioning	2.05	0.58	1.89	0.38	1.95	0.48	1.98	0.38
Level of accomplishment	2.32	-	1.96	-	2.01	-	2.05	-
Degree of underemployment	2.05	0.56	1.84	0.41	2.05	0.45	1.89	0.37
Satisfaction with occupational role functioning	6.72	0.72	7.06	0.48	6.92	0.50	6.88	0.44
QLS Intrapyschic Foundation								
Sense of purpose	3.90	0.35	3.45	0.27	3.74	0.30	3.63	0.25
Degree of motivation	3.84	0.36	3.33	0.29	3.71	0.26	3.50	0.25
Curiosity	2.86	0.37	2.32	0.27	3.01	0.31	2.74	0.28
Anhedonia	3.99^b	0.36	3.16^b	0.31	3.83	0.25	3.59	0.26
Time utilization	2.95	0.45	2.76	0.35	3.17	0.38	3.07	0.32
Capacity for empathy	3.67	0.32	3.35^a	0.23	3.90	0.22	3.78^a	0.23
QLS Common Objects								
Commonplace objects	4.48	0.36	4.11	0.26	4.44	0.29	4.47	0.24
Commonplace activities	3.86	0.37	3.47	0.26	3.47	0.30	3.75	0.26

Heinrichs-Carpenter Quality of Life Scale (QLS).

Duration of untreated psychosis and treatment group were covariates

^aNon-Hispanic Black no family contact was the reference group

^bNon-Hispanic Black family contact was the reference group