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Provider and Consumer Behaviors and their Interaction for Measuring Person-Centered Care

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Abstract

Background—Current research has found that higher rates of person-centered care (PCC) are associated with greater treatment adherence and positive treatment outcomes. However, the instruments used to access PCC primarily collect data on provider behavior, rather than consumer participation in PCC, despite the necessary co-equal and collaborative nature of PCC interactions.

Objectives—The objective of the current study was to test the hypotheses that: (1) the Perceived Involvement in Care Scale (PICS) consumer information subscale and the consumer decision making subscale are not correlated with the PPPC subscales and, (2) consumer perceptions of person-centeredness and of consumer involvement in care are significant independent explanatory variables for the theoretically or quantitatively grounded outcomes of therapeutic alliance, treatment adherence, and mental health care system mistrust.

Methods—Cross-sectional survey data was collected from 82 mental health care consumers receiving services at two Veterans Health Administration (VHA) facilities. Participants completed surveys on perceptions of PCC, consumer involvement in care, therapeutic alliance, medication adherence, and mental health care system mistrust.

Results—Significant correlation between the consumer participation and PCC subscales was mixed. Higher levels of PCC were associated with greater therapeutic alliance, less suspicion of mental health care systems, less perception of lack of support from providers, and less beliefs about group disparities in care. Consumer involvement was only significantly related to suspicion of mental health care systems.

Discussion and Conclusions—These findings may be a function of the locus of each outcome variable. When conducting PCC research investigators should consider how the outcomes they are examining inform the method through which they measure patient-centeredness.

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Keywords

Person-centered care; measurement; consumer participation; provider communication; provider behavior; mental health care

Introduction

Many national and international agencies and organizations such as the US Department of Health and Human Services, the Institute of Medicine, the International College of Person Centered Medicine, and the US Department of Veterans Affairs (VA) have called for and made commitments to recovery-oriented, person- centered physical and behavioral health care. [1–5] In response to increased calls for person-centered systems of care, there has been an increase in research describing and measuring person-centered care (PCC) and its impact. For example, Chu and Mezzich documented a striking increase in published research on PCC in the VA health care system over a 15 year period from 1997 to 2011. [4]

The Institute of Medicine defines patient-centered care, commonly referred to as person-centered care in mental health care research, as “care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions” and is built on a foundation of consumer-provider collaboration and consumer led treatment. [3] In an effort to move from philosophical commitments to measurable behaviors and interventions, researchers have worked to operationalize the definition of PCC. One commonly used theoretical model, the patient- centered clinical method, has outlined four interactive components which create PCC: 1) Exploring health, disease, and the illness experience (understanding the consumer’s personal experience of health and illness), 2) Understanding the whole person (awareness of the consumer’s personal history and social and family context), 3) Finding common ground (identifying the consumer’s treatment goals and provider/consumer roles and responsibilities), and 4) Enhancing the consumer- provider relationship (continued dyadic relationship building). [6]

This model has also been used to inform survey development to assess levels of PCC in treatment encounters. In an effort to identify high-quality, reliable measures of PCC Hudon, Fortin, Haggerty, Lambert, and Poitras conducted a systematic review of 3,045 articles. [7] They were able to identify two comprehensive measures of PCC and an additional 11 instruments which measure some dimensions of PCC. The two comprehensive measures, the Patient Perception of Patient-Centeredness scale (PPPC) and the Consultation Care Measure (CCM) are both theoretically grounded in Stewart and colleagues’ patient-centered clinical method and ask consumers to evaluate the person-centeredness of their care during their most recent clinical encounter. [6,8] Though the need to make “accounting for the communication behaviors of each individual in the encounter as well as interactions among them” has been identified as a key priority in research on PCC, both of the two identified comprehensive survey measures primarily utilize consumer evaluations of provider communication and behavior. [9] Only four of the 14 PPPC items query about consumer behavior, while none of the 21 CCM items do. However, Hudon et al. identified in their review a measure of consumer participation in PCC: the Perceived Involvement in Care

Scale (PICS) which has three subscales which assess consumers' perceptions of (1) providers' facilitation of their involvement in care, (2) consumers' information sharing behaviors, and (3) consumers' participation in treatment decision making. [7,10]

Current research on consumer perceptions of overall person-centeredness has found that higher rates of PCC are associated with greater treatment adherence and therapeutic alliance, as well as other positive treatment outcomes. [11,12] For example, Moseson and colleagues found a positive association between PCC, as measured by the Consultation Care Measure, and treatment adherence among consumers receiving care for small pulmonary nodules. [13] Among caregivers of people in ICUs, perceived person-centeredness of care, as measured by the PPPC, and therapeutic alliance were strongly correlated. [14] Higher person-centeredness in primary care encounters, also measured by the PPPC, were associated with better emotional health up to two months later. [15] In addition to variables such as therapeutic alliance and treatment adherence, researchers have theorized that PCC may reduce mistrust in physical and mental health care systems, which may especially be viewed with suspicion by marginalized groups. [16,17]

A growing body of literature indicates that consumers' perceptions of their participation in PCC, as opposed to their overall evaluation of the person-centeredness of their care, also impacts consumer satisfaction and treatment outcomes. [18] Janssen and colleagues reported that patients with polytrauma were more satisfied with their care if they perceived themselves, as measured by the Cologne Patient Questionnaire, to have been involved in treatment. [19] Similarly, low involvement, as measured by three questions about patient involvement, was a strong predictor of global health care dissatisfaction in patients with chronic musculoskeletal pain. [20] Among cardiac rehabilitation patients consumer perception of their own participation and their provider's facilitation of consumer participation, both assessed by the PICS, were significantly related to health related quality of life. [21] Similar work with breast cancer patients found that patient participation, assessed with the PICS, was a significant predictor of emotional well-being following occupational therapy services. [22] Importantly, consumer participation can trigger providers to offer care that is more person-centered: Street, Gordon, and Haidet observed that in primary care appointments physicians exhibited more person-centered communication with consumers who they perceived to be more involved in treatment and better communicators. [23] Measuring consumer participation in care in more depth could be an important part of PCC measurement; however, current PCC measurement tools give consumer participation little attention.

Objectives

While provider behavior is key to person-centered care, PCC cannot be accomplished without some level of active participation from consumers. This dyadic relationship is the theoretical foundation of PCC and brings into question the adequacy of measuring PCC solely or predominantly via provider behaviors. This research quantitatively explored the distinction between consumers' perceptions of the comprehensive person-centeredness of their care and their own participation in person-centered care. The objective of the current study was to test the hypotheses that: (1) the PICS consumer information subscale and the

consumer decision making subscale are not correlated with the PPPC subscales and, (2) consumer perceptions of person-centeredness and of consumer involvement in care are significant independent explanatory variables for the theoretically or quantitatively grounded outcomes of therapeutic alliance, treatment adherence, and mental health care system mistrust. We hypothesized that consumer involvement in care would uniquely contribute variance to these outcomes, demonstrating the importance of comprehensively measuring this component of PCC.

Methods

Cross-sectional survey data was collected in a study of PCC and race in mental health care in the Veterans Health Administration (VHA). Participants were recruited at two VHA facilities in the U.S. Mid-Atlantic region. Consumer participants provided informed consent and were enrolled in the study between November 2014 and July 2015. Participants met privately with a research assistant who provided them a copy of the possible survey responses, read them the survey questions, and recorded their responses.

Participants

Participants deemed to be eligible for the study were between 18 and 80 years old, reported uniracial self-identification as either non-Latinx Black/African American or non-Latinx White/Caucasian, had a diagnosis of schizophrenia spectrum disorder, bipolar disorder, or major depression, and had at least three treatment encounters with a VA mental health provider within the 12 months prior to participating in the study. Participants self- identified their primary mental health care provider and were prompted to think of their most recent encounter with this provider when answering questions.

Measures

Involvement in care—The Perceived Involvement in Care Scale (PICS) is a 13 item self-report instrument with three subscales: provider facilitation of consumer involvement (range: 0–5, example: *My provider gave me a complete explanation for my mental health symptoms or treatment. My provider encouraged me to give my opinion about my mental health treatment.),* consumer information seeking or sharing (range: 0–4, example: *I asked my provider for recommendations about my mental health symptoms. I went into great detail about my mental health symptoms.*), and consumer decision-making (range: 0–4, example: *I suggested a certain kind of mental health treatment to my provider. I gave my opinion (agreement or disagreement) about the types of tests or treatment that my provider ordered.).* Respondents are asked to reflect on a recent visit with a provider and answer yes or no to questions about their own and the providers' behavior. More yes answers indicate greater consumer participation. The overall Cronbach's alpha is 0.73. [9]

Person-centered care—The Patient Perception of Patient-Centeredness (PPPC) is a 14-item self-report measure based on Stewart and colleagues model of PCC. The instrument prompts the participant to only consider their most recent provider interaction. Responses are chosen from a 4-point Likert scale ranging from 1 (completely) to 4 (not at all) so that lower scores indicate fewer problems or better outcomes. An overall score is calculated by

averaging all responses. The PPPC has three subscales: (1) exploring the illness experience (range 4–13, example: *To what extent did the provider understand the importance of your reason for coming in?*), (2) understanding the whole person (range 1–4, example: *How much would you say that this provider cares about you as a person?),* and (3) finding common ground (range 8–29, example: *To what extent did you and the provider discuss your respective roles?).* The PPPC inter-item reliability is .71 while several other studies have established the total score has a Cronbach's alpha between .82 and .90. [6] The PPPC does not include items assessing the consumer- provider relationship because its authors assert that such relationships occur over time and cannot be evaluated from one encounter.

Therapeutic alliance—To measure therapeutic alliance participants completed the Working Alliance Inventory- Client (WAI-C). The WAI-C is a 36-item self-report survey scored on a 7-point Likert scale from 1 (never) to 7 (always) with higher scores representing greater therapeutic alliance. The WAI-C has adequate reliability and high internal consistency. [24,25]

Medication adherence—Medication adherence was measured using the Morisky Medication Adherence Scale (MMAS-8) which asks 8 questions about specific medication taking behavior. The name of the health issue is inserted in each question so for this research the term "psychiatric" was used. Answers are yes/no except for the final question which is scored on a 5-point Likert scale. The MMAS-8 has good reliability and concurrent and predictive validity. [26,27,28]

Mental health care system mistrust—The Group-Based Medical Mistrust Scale was used to assess participants' level of trust in the mental health care system and mental health care providers and has three subscales: suspicion, lack of support from providers, and ethnic group disparities in care. Higher scores indicate greater mistrust. For this study slight modifications were made to the survey so it could be used in a mental health care setting. For example, the term doctor was changed to provider and medical care to mental health care. Internal consistency in the GBMMS is high and validity is adequately supported. [29]

Analysis

Means and standard deviations or percentages were calculated to describe sample demographics and scale scores. Pearson correlations were computed to examine associations between scales. Multiple regression analyses were used to test whether person-centeredness and consumer involvement in care are significant independent explanatory predictors of therapeutic alliance, medication adherence, and mental health care system mistrust.

Results

Participants (n=82) approximately evenly identified as White (51%) and Black (49%). The sample was predominantly male (87%) and had a mean age of 52 years (SD=8.75). Further descriptive information about the sample is provided in Table 1.

The first hypothesis, that the consumer focused subscales of the PICS would not be correlated with the PPPC, was partially supported (see Table 2). The PICS consumer

participation in decision making subscale was not correlated with any of the PPPC subscales and the consumer information seeking or sharing subscale was correlated with the PPPC subscales for exploring the illness experience ($p < .05$) and finding common ground ($p < .01$), but not understanding the whole person.

Additionally, we confirmed via correlation analysis that the provider facilitation subscale of the PICS was significantly correlated ($p < .001$) with all subscales of the PPPC (exploring health, disease, and the illness experience; understanding the whole person; finding common ground between provider and consumer goals).

Contrary to our second hypothesis, consumer perceptions of person-centeredness and of consumer involvement in care are not generally significant independent explanatory variables for therapeutic alliance, treatment adherence, and mental health care mistrust. Multiple regressions, presented in Table 3, were conducted in order to understand the relationship between the independent variables (PCC and consumer involvement) and the dependent variables (therapeutic alliance, treatment adherence, and system mistrust). Because of the significant collinearity between the PPPC and the provider facilitation subscale of the PICS, the provider facilitation subscale was not included in the regression models. To confirm, models were run with the provider facilitation subscale instead of the PPPC and there were no changes in significance except with the GBMMS group disparities in care subscale, in which, contrary to consumer perceptions of PPC, provider facilitation was not significantly associated with beliefs that specific ethnic groups receive unequal care.

Greater person-centeredness of care, as measured by the PPPC, was significantly associated with greater therapeutic alliance, less suspicion of mental health care systems, less perception of lack of support from providers, and less beliefs about group disparities in care. Among the PICS subscales greater involvement in decision making was correlated with greater system suspicion. Neither person-centeredness of care or consumer involvement had a significant relationship with medication adherence in this sample.

Discussion

The PICS consumer decision making subscale was not correlated with consumer assessment of the person- centeredness of their mental health care. This finding highlights the functional difference between overall person-centered communication behaviors and the discrete task of shared decision making. Practitioners wishing to further the person-centeredness of the care they offer may find it beneficial to introduce concrete shared-decision making tools that facilitate consumer involvement in care. While the PICS consumer information sharing and seeking subscale was positively correlated with the PPPC subscales for finding common ground and exploring health, disease, and the illness experience, it was not significantly correlated with the PPPC understanding the whole person subscale. This is likely a function of the PICS' focus on proximal treatment discussions and decision making, which may not include broader person-centered conversations about an individual's life history or family and community context.

In this sample perceived person-centeredness of care was a better explanatory variable than consumer involvement in care for levels of therapeutic alliance, lack of support from providers, and beliefs about group disparities in care. Greater person-centeredness in care was significantly related to less system suspicion, i.e. wariness and lack of trust in mental health care systems and practices, but greater consumer involvement in decision-making was associated with greater system suspicion. This may be a function of the locus of each outcome variable. As noted by Christodoulou, person-centered care is the result of interactions between both the consumer and the provider, creating a "need not only for Medicine for the person but also by the person" and similarly Mead and Bower advocate understanding both the personal qualities and history of the consumer and provider separately. [30,31] When considering the locus of the outcome variable, therapeutic alliance and provider support are more closely associated with the provider-consumer relationship. However, consumer suspicion of mental health care systems may be informed by personal experience outside the immediate provider relationship, experiences of friends and family, and beliefs about the societal environment. As such, the consumer-as-person aspect of this variable may result in a stronger relationship between consumer beliefs and participation in PCC. When selecting PCC measures, researchers examining PCC may wish to consider whether the variables they are examining are hypothesized to be most closely related to the consumer-as-person, provider-as-person, or the consumer- provider relationship in order to inform decisions to examine consumer participation, provider facilitation, or overall person-centeredness of care.

In addition to examination of provider and consumer behaviors, future PCC research should also explore consumers' family or community of choice involvement in care and perceptions of care. Social networks are key to consumer decision making and understanding the consumer as a person. [32,33] As more systems of care and evidence-based interventions look for ways, with consumer permission, to incorporate social network involvement in shared-decision making and treatment, the more relevant measures of social support involvement and views may become to understanding the relationship between PCC and treatment outcomes.

Limitations

The majority of PCC research has been conducted in medicalized settings rather than more mental health focused treatment environments. [34] This study was conducted as part of a research effort to examine PCC in mental health care. It is possible that differences between physical and mental health care treatment environments create different PCC interactions, though there is currently no evidence to support such a hypothesis. It is also possible that length of time in treatment may impact consumer participation. Consumers in this sample reported first receiving mental health care on average 19 years (SD=12) previously. Time since treatment initiation does not equate to total time in care or time with current provider, but it is likely that participants had been receiving mental health care for a significant period of time and were in a maintenance phase of their mental health recovery. Involvement in care may have a stronger relationship with treatment outcomes for consumers new to treatment or working with a new provider, due to the need to more actively communicate issues and goals for treatment. Future research should examine new to care consumers in

order to more fully understand the possible individual contributions of perceived person-centeredness of care and consumer involvement in care.

Conclusions

PCC is built on a collaborative relationship that requires participation from both members of the therapeutic dyad. This study indicates that consumer perceptions of PCC may be a sufficient means of measurement for many common outcome variables. However, perceptions of PCC and consumer participation in PCC are separate constructs that may have distinct relationships with outcome variables, especially those that are strongly rooted in consumer lived experience and world view. When conducting PCC research investigators should consider how the outcomes they are examining inform the method through which they measure patient-centeredness: consumer participation, provider facilitation, consumer or provider perceptions of overall person-centeredness, or observer evaluation of person-centeredness.

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The Institutional Review Board of the University of Maryland approved the study. Prior to providing informed consent all participants reviewed the consent form with a member of the research team and answered a set of IRB approved questions about the consent form in order to confirm participant understanding and competence to give consent.

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Table 1.

Mental Health Care Consumer Sample Demographics

	M (SD)/ N (%) N = 82
Age	52.45 (8.75)
Male	71 (87%)
Race	
White	42 (51 %)
Black	40 (49%)
Diagnosis	
Bipolar disorder	36 (44%)
Schizophrenia/ Schizoaffective disorder	25 (30%)
Depression	21 (26%)
High School graduate or less	36 (44%)
Currently employed	10 (12%)
Never married	30 (37%)

Table 2.

Subscale Correlation for Perceived Involvement in Care Scale (PICS) and Patient Perception of Patient-Centeredness (PPPC)

	PICS PF	PICS IS	PICS DM
PPPC IE	−0.410***	−0.227*	0.066
PPPC WP	−0.491***	−0.201	0.191
PPPC CG	−0.703***	−0.286**	0.055

Note. PICS PF = provider facilitation; PICS IS = information seeking/sharing; PICS DM = decision making; PPPC IE = exploring the illness experience; PPPC WP = understanding the whole person; PPPC CG = finding common ground

* p < .05

** p < .01

*** p < .001

Table 3.

Multiple Regression Analysis for Person-centeredness and Consumer Involvement

	B	SE (B)	β	t
Therapeutic Alliance				
PPPC overall ***	−1.191	0.12	−0.73	−9.93
PICS: consumer information giving	−0.048	0.056	−0.065	−0.85
PICS: consumer decision-making	−0.113	0.058	−0.143	−1.96
Medication Adherence				
PPPC overall	0.357	0.34	0.131	1.05
PICS: consumer information giving	0.127	0.154	0.104	0.82
PICS: consumer decision-making	−0.083	0.16	−0.063	−0.52
Mistrust: suspicion				
PPPC overall **	0.407	0.143	0.3	2.86
PICS: consumer information giving	0.017	0.067	0.027	0.25
PICS: consumer decision-making *	0.166	0.069	0.251	2.42
Mistrust: group disparities in care				
PPPC overall *	0.424	0.169	0.261	2.51
PICS: consumer information giving	0.042	0.079	0.058	0.54
PICS: consumer decision-making	0.01	0.081	0.012	0.12
Mistrust: lack of provider support				
PPPC overall ***	.645	.148	.434	4.35
PICS: consumer information giving	.083	.069	.124	1.19
PICS: consumer decision-making	.028	.071	.039	.40

Note. All independent scales are standardized and the models control for race and gender.

* p < .05

** p < .01

*** p < .001