Correlates of observer-rated active involvement in psychiatric treatment visits

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Abstract

Among people with serious mental illness, increased patient activation has been linked to a range of key recovery outcomes. To date, patient activation has been measured largely through self-report. The present study investigated correlates of a new tool that assesses active involvement through rating audio-recordings of treatment visits. The key domains of patient activation assessed in visits included: patients asking questions, discussing with providers instances of being active in managing illness outside the session, talking about goals, bringing up concerns, making evaluative statements about treatment, setting the agenda for the visit, and making requests about the course of treatment. The new coding scheme proved to be a feasible and reliable method for identifying multi-faceted behavioral indicators of patient activation. Contrary to our hypotheses, in a sample of 166 people diagnosed with severe mental illnesses, self-reported activation and observer-rated indices of activation were often not correlated or correlated in unexpected directions with the new behavioral measure of patient activation. This

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suggests the nature of patient activation may be complex and work is needed to understand how observer-rated and self-rated activation may predict differential recovery outcomes.

Keywords: serious mental illness, patient activation, recovery, hope, primary concern

1. Introduction

Healthcare research and policy efforts have focused on the collaborative management of chronic illnesses, including severe mental illnesses, as a critical process through which patients work with providers to identify areas of concern, set goals, and follow-up with appropriate treatment (Storm and Edwards, 2013). One facet of collaborative management focuses on patient involvement in treatment (i.e., patient activation), which refers to the skills, knowledge, and confidence needed for patients to participate in managing a chronic illness (Hibbard et al., 2004). Within mental healthcare, patient activation has been linked to improved illness self-management, increased recovery orientation and retention in outpatient care, and enhanced patient-doctor communication (Alegría et al., 2008; Alegría et al., 2009; Green et al., 2010; Kukla et al., 2013; Salyers et al., 2009b).

Patient activation is frequently assessed in both general and mental health care with the patient activation measure (PAM) and its adaptations (Green et al., 2010; Hibbard et al., 2005; Hibbard et al., 2004). There is evidence that the PAM adapted for mental health, the PAM-MH, is valid and reliable in assessing patient activation in patients with severe mental illnesses (Bonfils et al., 2014; Green et al., 2010; Salyers et al., 2009b). However, the PAM-MH does not provide direct information about behavioral involvement by patients within specific mental health treatment visits. One alternative method for examining patient-provider dynamics is to

audio record appointments, which are then assessed by trained raters. This method is becoming increasingly prominent and has been used to examine the processes of agenda-setting (Frankel et al., 2013) and shared decision-making in psychiatric visits (Fukui et al., 2014; Goss et al., 2008; Matthias et al., 2014).

To our knowledge, behavioral measures of patient active involvement in a treatment context have rarely been examined, and extant studies have used different methodologies. An early example of this type of method is Roter's Interaction Analysis System (RIAS; Roter, 1977), which focuses on questions asked by the patient; this method has been subject to criticism (e.g., see Sandvik et al., 2002). Other behavioral coding schemes have been developed more recently. For example, one study in primary care used the PACE Coding System to examine patient participation (Cegala and Post, 2009) and another used the Active Patient Participation coding scheme to rate audiotaped visits for active behavior (Street and Haidet, 2011). Using a novel approach to behavioral coding, Salyers et al. (2009b) qualitatively coded psychiatric visit transcripts to explore ways patients were active in treatment. This study found four overarching ways that patients displayed (or did not display) active involvement: building a partnership, seeking and displaying competence, directing treatment, and missing opportunities. Each transcript was also rated for patient involvement in three areas: negotiation about treatment, interest in mental illness management, and involvement in controlling symptoms. These three ratings did not significantly correlate with patients' ratings of activation (with the PAM-MH), illness self-management, or medication attitudes. While this study took an innovative approach to investigating patients' active involvement in treatment, results were limited by a small sample; further, the study did not investigate variables influencing the qualitative themes of active

involvement, and transcript ratings of involvement were based on subjective, global ratings rather than the presence or absence of specific behaviors.

In order to improve upon this prior work, we had several goals for the current investigation. First, we aimed to expand and refine the qualitative coding scheme to assess distinct patient behaviors that reflect active involvement in treatment. Second, we were interested in understanding correlates of these behavioral indicators of patient activation with a larger sample. We were interested in three types of potential correlates: patient-provider relationship factors, proximal communication outcomes (i.e., agreement between the provider and patient as to the primary concern expressed during the visit), and patient recovery factors.

Patient-provider relationship factors include patient-reported trust in the provider and perceptions of patient-centeredness. Though minimal research has explored the link between trust and patient activation, one study in primary care found a direct link between higher patient trust in their provider and increased healthcare activation (Becker and Roblin, 2008). Moreover, increased trust in one's provider is associated with greater disclosure of information, help-seeking and follow-up, and treatment adherence (Bova et al., 2006; Hall et al., 2002; Safran et al., 1998). Similarly, although additional research in mental health samples is needed, we expected perceptions of patient-centeredness to be associated with greater activation. Extant research in primary care indicates greater perceptions of patient-centeredness are associated with increased patient-centered communication in audiotaped visits and improved health outcomes (Stewart et al., 2000). Further, increased patient activation in chronically ill patients has been found to be associated with greater perceived quality of interpersonal exchanges with physicians and increased out-of-office contact (Alexander et al., 2012). Patient active involvement in a given session has also been associated with greater understanding from the physician in terms of

the desire for partnership, indicating patient activation may assist healthcare providers in appropriately supplying patient-centered care (Street and Haidet, 2011).

A second area where we expected to see associations with active involvement relates to the quality of communication between the provider and patient during the visit. Communication and agreement between patient and provider is integrally important but may be difficult in this population. Patients are not always aware of their illness or symptoms, and providers may hold stigmatizing beliefs against those with more severe disorders (Hasson- Ohayon et al., 2017). Patients who are actively involved may be better able to communicate needs and preferences. This is in line with literature indicating that primary care patients who exhibit greater active involvement in treatment visits have physicians with more accurate understanding of the patient's health beliefs (Street and Haidet, 2011) and with work showing significant associations between increased patient activation and improved patient-provider communication in a telephone survey (Alegría et al., 2009). In mental healthcare, a recent study of therapeutic alliance in community mental health clinics found that agreement on tasks/goals significantly predicted increases in patient activation scores over time (Allen et al., 2017). A further study matched patient's and provider's perceptions of the primary concern of a psychiatric visit for patients with severe mental illnesses (Bonfils et al., 2014), finding that providers and patients did not agree on the primary visit concern 50% of the time, with an additional 30% displaying only partial agreement. This low rate of agreement highlights the importance of examining factors that may influence providers' understanding of patients' concerns. Behaviors reflecting active involvement in treatment likely influence communication throughout a visit – if a patient is more active, he or she may be more likely to set an agenda, be more vocal about concerns, or be

directive about treatment options, potentially giving the provider more opportunities to correctly discern the patient's most important treatment concern.

A final domain where we would expect to see associations with active involvement is subjective recovery, or a patients' view of their life with respect to mental illness, often referencing the ability to pursue life goals despite symptoms or potential for relapse (Roe et al., 2011). Research has shown positive relationships between self-reported patient activation and recovery and hope (Green et al., 2010; Kukla et al., 2013; Skolasky et al., 2008; Skolasky et al., 2011). Further, one study showed that patients' recovery perceptions significantly predicted treatment engagement, above and beyond quality of life, age, ethnicity, and diagnosis (Gudjonsson et al., 2011). Although few studies have directly examined the relationship between subjective recovery and observed involvement in treatment sessions, recovery does correlate with empowerment, a construct tapping aspects of self-efficacy and a perception of shared power with others (Rogers et al., 2010), both of which are important to active behavior in psychiatric visits. It is likely that as patients come to take more control in their own lives and feel less defined by their mental illness, thereby developing greater hope and a sense of recovery, they feel more capable of taking an active role in their treatment.

Building on prior research showing ways that patients display active involvement in treatment (Salyers et al., 2009b), we replicated and extended the work to a larger sample, using a more detailed coding system and more extensive investigation of potential correlates. In addition to creating a systematic and replicable measure of active behavior in treatment sessions, we explored several hypotheses -- that active behaviors would be associated with 1) higher scores on the PAM-MH; 2) greater trust in and perceived patient-centeredness of the psychiatric provider;

3) higher concordance about the primary concern as an indication of communication quality; and 4) greater levels of hope and perceived recovery.

2. Methods

2.1.Participants

Data for this investigation came from baseline psychiatric visits and interviews in a study investigating CommonGround, a software program designed to optimize shared decision-making in psychiatric treatment (Deegan et al., 2008). Participants (N = 166) were recruited from four outpatient clinics in one community mental health center where they were receiving services from one of four psychiatric providers (two psychiatrists, two nurse practitioners). Participants had to agree to have three psychiatric visits audio-recorded and be fluent in English, willing to participate in a longitudinal study, and receiving treatment for severe mental illness (schizophrenia-spectrum, bipolar, or major depressive disorder) in one of these four clinics. If patients were in crisis (according to staff) or planned to discontinue services, they were not eligible to participate. More than half of the participants were men (94, 56.6%), never married (94, 56.6%), living independently (91, 54.8%), and Black (91, 54.8%). Participants' mean age was 44.2 years (SD = 10.4) and most had completed high school or further education (97, 58.4%).

2.2.Procedure

Eligible participants were approached upon arrival for an appointment with their psychiatric treatment provider; if patients were interested, they were read the informed consent document and asked to complete a short quiz over its contents to ensure understanding of the research requirements and provision of informed consent. The psychiatric appointment was then audio-recorded, followed by an interview with several self-report surveys administered by a

member of the research team. Participants were compensated $20 for the interview. All procedures were approved by the Indiana Institutional Review Board.

2.3.Measures

Active involvement. Based on a thematic analysis by Salyers et al. (2009b), we expanded upon the original four themes to create a coding scheme with eight distinct categories (see Table 1). In the development of the coding scheme, we also pulled from elements of shared decision-making (Salyers et al., 2012) and agenda-setting (Frankel et al., 2013). Development and finalization of the coding scheme was an iterative process, with three of the authors reading transcripts, applying codes, and meeting to discuss how the concepts fit with the data and suggest improvement to the coding scheme. Once the team believed all relevant constructs were being included and consensus had been reached for initial transcripts, a trained coding team consisting of four raters (two doctoral students and two bachelor's-level research assistants) rated each subsequent transcript, with every fifth in common to maintain consistency. In the final coding scheme, each patient behavior was rated as absent or present.

Self-perceived active involvement in treatment was assessed using the Patient Activation Measure – Mental Health (PAM-MH; Green et al., 2010). The PAM-MH has 13 Likert-style items and is scored from 0-100, with 100 indicating the greatest possible activation in treatment. The PAM-MH has been used in samples of people with severe mental illness and found to have good internal consistency (Green et al., 2010; Salyers et al., 2009b); internal consistency in the current sample was adequate (Cronbach's $\alpha = 0.78$).

Trust in provider. The Health Care Relationship Trust Scale (HCRT; Bova et al., 2006) was used to assess how much participants felt they could trust their psychiatric provider. The HCRT has 15 Likert-style items, producing a total score in which higher scores indicate greater

levels of trust. The HCRT has been used in samples of individuals with diabetes (Mancuso, 2010), HIV (Bova et al., 2006), and in general outpatient primary care (Bova et al., 2012). In the current sample, the HCRT exhibited good internal consistency ($\alpha = 0.91$).

Perceptions of patient-centeredness. The Patient Perception of Patient-Centeredness questionnaire (PPPC; Stewart et al., 2004) was administered to assess patients' perceptions of how patient-centered their provider was in the observed visit; this scale has 14 items with variable response options. A total mean score is calculated. Traditionally, the PPPC has been scored such that lower scores reflect greater perceptions of patient-centeredness, but for this study, we coded items such that higher scores reflect greater perceptions to remain consistent with other measures. The PPPC has been validated in a previous sample of people with severe mental illness (Stanhope et al., 2013). In the current study, the PPPC exhibited good internal consistency ($\alpha = 0.89$).

Concordance on the primary concern. After the appointment with the prescriber, participants answered the open-ended question, "What was your primary concern today?" Psychiatric providers also reported what they perceived to be patients' primary concerns following each visit. As described in a previous publication (Bonfils et al., 2014), the primary concerns were matched between the patient and provider and rated as no agreement, partial agreement, and full agreement.

Hope. The State Hope Scale (Snyder et al., 1996) contains six items with higher scores on the total scale indicating greater hope; we used a modified response scale rated from 1, definitely false, to 4, definitely true, that has been used in prior samples of people with severe mental illness (Kukla et al., 2013; McGrew et al., 2004; Salyers et al., 2009a; Salyers et al., 2010). In the current study, the State Hope Scale had adequate internal consistency ($\alpha = 0.78$).

Recovery. The Recovery Assessment Scale (RAS) contains 41 items assessing subjective recovery from psychiatric illness (Corrigan et al., 1999); the sum is computed with higher scores indicating greater perceived recovery. The RAS has shown good internal consistency and test-retest reliability (Corrigan et al., 1999); high internal consistency was found in this sample (α = 0.94).

2.4.Analyses

To examine agreement among coders, we first evaluated inter-rater agreement for each of the eight items in the active involvement coding scheme using Gwet's agreement coefficient (AC1;Gwet, 2010). We used Gwet's AC1 as opposed to the more commonly used kappa statistic because kappa does not correct for chance agreement and is difficult to use with multiple raters. In accordance with past research using Gwet's AC1 (Salyers et al., 2012; Vlastarakos et al., 2012), we interpreted values >0.8 to indicate strong agreement, values of 0.6-0.8 to indicate moderate agreement, values of 0.3-0.5 to indicate fair agreement, and values below 0.3 to indicate poor agreement.

We then examined frequencies for each item in the active involvement coding scheme. A summary active involvement score was computed to identify the total number of areas in the coding scheme where a patient demonstrated active involvement in treatment. Of note, preliminary analyses, including an exploratory factor analysis and calculation of Cronbach's alpha (.54), suggested that items in this measure do not hold together as a scale or produce meaningful factors; thus, the summary score was used as a count of behaviors rather than as a variable in further analyses.

In order to paint the clearest picture of the relationships between active behaviors and continuous scales, age and gender were controlled in a series of partial correlations. In light of

the early nature of this research, significant findings ($p<0.05$) as well as trends ($p<0.10$) were both of interest in results. All analyses were conducted in SPSS Version 24.

3. Results

All items in the final coding scheme, containing eight items, had at least fair inter-rater agreement, ranging from 0.46 to 0.84 (Table 1). In terms of the frequencies of each item, patients asked questions, discussed instances of being active outside the session, talked about goals, brought up concerns, and made evaluative statements about treatment in more than 50% of visits. Less frequently, though still present in at least 30% of the visits, patients set the agenda for the visit and stated directions or made requests about their desired course of treatment. Discussions between the patient and provider reflecting partnership in their relationship only occurred in 14% of visits (Table 1). The median summary score indicated that patients displayed active involvement in four out of eight areas (mean = 4.4; standard deviation = 1.7), but there was variation in the total score (See Figure 1 for the score distribution).

Results of partial correlation analyses controlling for age and gender can be seen in Table 2. Patients' self-reported activation in treatment (PAM-MH) was associated (significant or trending) with few behaviorally coded active involvement items, and those correlations were in the opposite direction hypothesized—patients who asked questions or brought up mental health concerns perceived themselves as *less active* in treatment on the PAM-MH.

Contrary to hypotheses, trust in the provider did not correlate with any active involvement behaviors. Perceptions of patient-centeredness correlated at a trend level only with three active behaviors – discussing goals and bringing up mental health or other concerns. However, these relationships were in the opposite direction of what might be expected; those

who perceived their provider as more patient-centered were *less likely* to exhibit these behaviors during the session.

In terms of communication, several active involvement behaviors were associated with concordance about the primary concern of the visit. Patients who set an agenda, brought up medication concerns, or requested a specific direction in treatment had higher ratings of concordance. Conversely, greater discussion of goals and bringing up physical health concerns or concerns in other life domains were associated with poorer concordance.

Regarding indices of subjective recovery, patients with more hope were significantly more likely to discuss goals and describe active behavior outside the session. However, they were less likely (at the trend level) to set the agenda or bring up any concern (specifically medication or mental health concerns). Patients with higher perceptions of recovery were less likely to ask questions, set the agenda, or bring up mental health concerns.

4. Discussion

This study expands on past research examining patients' active involvement in psychiatric visits (Salyers et al., 2009b). We developed an observer-rated coding scheme to assess elements of active involvement exhibited in a given visit with a medication prescriber; this scheme could be coded reliably by a group of coders, suggesting future utility for additional research on active involvement in treatment. Patients in our sample appeared to be moderately active in recorded sessions, with all participants exhibiting at least one element and most exhibiting four or more out of eight coded elements of active involvement. While few patients (12.7%) exhibited seven or eight elements of active involvement, this study is the first investigation of this coding scheme; longitudinal work may reveal that a lower number of active behaviors is optimal for enhancing the patient-provider relationship and patient outcomes.

Further, some behaviors may be absent for reasons other than low activation. For example, there may be no current treatment concerns or questions to raise. Relatedly, each consumer's unique goals and definitions of recovery may drive the elements of active involvement that are most salient (Yarborough et al., 2016).

Although evidence indicates the coding scheme could be used reliably, correlations between the PAM-MH and the active behavior items were only present for two items: asking questions and bringing up mental health concerns. Other associations were non-significant. It is possible, given this pattern of findings, that observable behaviors in a given session are a different phenomenon than patients' perceptions about their active involvement in treatment. Results in this study are similar to those reported by Salyers et al. (2009b) using a less refined coding scheme, where patients' in-session behavioral activation did not significantly correlate with the PAM-MH. This discrepancy in self-reported activation and observable behaviors aligns with a past SDM study in patients with major depression. This study found that though observers rated decision-making to be paternalistic in nature, patients in the study reported feeling as though they had participated in a shared decision (Hamann et al., 2014). Thus, patients may similarly believe they are being active in a given session even when this is not visible to observers.

The two significant correlations found in the current study were in the opposite direction of hypotheses, showing that patients high in self-reported activation were *less* likely to show involvement through asking questions or describing mental health concerns. While contrary to our predictions, these findings might make sense in light of other significant relationships we found. Patients with higher recovery scores and higher levels of hope were also less likely to mention mental health concerns and set an agenda, and higher recovery perceptions were

associated with asking fewer questions. It may be that people who are doing well (making progress in recovery, feeling hopeful, and gaining confidence in their ability to manage illness) have less need to be active in a given visit. This is in line with research showing that people who report greater active involvement on the PAM-MH also report better hope, recovery, and illness management, while also reporting reduced symptoms (Green et al., 2010; Kukla et al., 2013; Salyers et al., 2009b). Thus, those who perceive themselves to have greater activation in treatment may, perhaps paradoxically, have less need to be actively involved in a given routine visit.

Hope, however, exhibited positive correlations with two active behaviors: discussions of goals and active involvement in treatment outside the session. The finding that more hopeful patients are more likely to discuss goals is consistent with Snyder's conceptualization of hope as a way of thinking about one's goals and having the motivation to reach them (Snyder et al., 1996). The agency component of hope is thought to reflect one's perceived ability to initiate and maintain action to achieve a goal. If one perceives that he or she is capable of goal-oriented action, that perception likely influences the decision to be active outside of the treatment session. Being more active and feeling positively about the future may lead to increased discussions about these behaviors with treatment providers. Indeed, goal setting and striving have been deemed central facilitators of hope as well as recovery from severe mental illness (Andresen et al., 2003; Clarke et al., 2009; Kirkpatrick et al., 2001) and may serve to improve treatment engagement (Mitchell and Selmes, 2007). Future work may benefit from exploring the impact of recovery-oriented goal setting interventions such as Collaborative Goal Technology (Clarke et al., 2006) on the development of patient activation in treatment sessions.

Concerning relationship-level variables, our hypotheses were not supported. Trust in the provider did not significantly correlate with any active behavior. For perceptions of patient-centeredness, only trending relationships were detected after controlling for age and gender, and in the opposite direction of our hypotheses—that those who found their providers more patient-centered were less likely to discuss goals or bring up mental health concerns or concerns in other life domains. The findings for trust are particularly surprising, given research showing the relationship between increased trust in one's provider and improved health-related behaviors in non-mental health samples (Becker and Roblin, 2008; Hall et al., 2002). However, these prior studies examined overall perceptions, rather than behavior within a specific treatment session. It may be that relationship-level variables and single-session observable behaviors are not on the same scale. That is, they may be related, but could require measurement of observable behaviors over time in order to detect these effects. Relationship-level variables have likely been forged over numerous sessions through the creation of a shared history. As such, relationship variables may have effects on the *pattern* of active in-session behaviors in a given patient over time but may not directly impact behavior in a single session. Alternatively, increased trust in provider or perceptions of that provider as patient-centered may encourage some patients to feel comfortable allowing providers to make decisions or direct care, perhaps leading to reduced active behaviors, as is supported by some past work (Kraetschmer et al., 2004). Further work is needed examining the implications of high trust or perceptions of patient-centeredness for active behavior.

Regarding proximal communication outcomes, concordance about the primary concern of the visit was associated in generally expected ways with active behaviors in the session. Patients who set an agenda, brought up medication-related treatment concerns, or requested a specific direction for future mental health treatment had better concordance ratings. These behaviors are

all directive and likely serve to alert the provider to a patient's distinct concerns and to focus the conversation. This is consistent with literature demonstrating the importance of agenda-setting for efficient and patient-centered communication in psychiatry (Frankel et al., 2013) and primary care (Gobat et al., 2015). However, poorer concordance was associated with discussions of treatment-related goals, physical health concerns, and concerns in other life domains. Although these findings are contrary to hypotheses, bringing up goals or non-mental health concerns may present "extra" information, perhaps distracting from concerns of most importance to the healthcare encounter. While goal check-ins are a recovery-oriented practice to be encouraged in psychiatric visits, future work may further investigate tools to clarify specific concerns patients want to address in a given psychiatric visit so that concerns are not lost in the context of ongoing life goals. For example, CommonGround provides such tools for patients to use prior to seeing the provider (Deegan et al., 2008). Similarly, other interventions provide coaching prior to a visit to prompt patients to focus attention on specific concerns (Alegría et al., 2008).

While our study extends work on behavioral ratings of active involvement and points to several important future directions, results should be interpreted in light of some limitations. First, we assessed patients from a single community mental health center. Though four clinics from within the organization were included, our conclusions are limited in their generalizability. Second, there are likely unmeasured variables that can influence the behavioral manifestation of involvement in treatment. For example, people experiencing severe negative symptoms may be less likely to behaviorally engage in treatment within a given session (MacBeth et al., 2016; MacBeth et al., 2013). Further, length of relationship with a particular provider could influence patterns of behavior over time (e.g., if questions have already been answered, there may be no further need to ask, or if one asks questions but they are never answered, one may cease to ask

questions). Third, with only four providers, we could not assess the impact of provider behavior or their interactions with patients. Future studies should investigate interactions between provider and patient behavior to learn more about how providers can encourage patient involvement in treatment. Lastly, as a main goal of ours was to explore this data and point to questions for future research, we elected to also discuss trending results. As a result, some findings reported here may be less reliable than those detected at more stringent significance thresholds.

Taken together, this study provides preliminary evidence for the utility of a behaviorally-based rating scale of patient active involvement in treatment, while also pointing to additional variables that may be of interest in fostering patient involvement. Results indicate provider relationship variables of trust and patient-centeredness were largely not associated with observer-rated active involvement in a given session. Hope and perceived recovery, on the other hand, were predictive, but in unanticipated ways. Although it may be that these variables act as a proxy for lack of concerns to be addressed, providers should still be mindful to probe for treatment concerns with patients high in hope or recovery. Finally, the finding that directive behaviors from the patient such as agenda-setting, bringing up concerns, and requesting a direction for treatment are positively associated with concordance about the primary concern indicates that patient behaviors are key in ensuring the patient and provider are aligned in their perceptions of the visit. Future work should investigate how existing interventions such as CommonGround (Deegan et al., 2008), the Right Question Project-Mental Health (Alegría et al., 2008), and Hamann's SDM intervention for people with schizophrenia (Hamann et al., 2011) impact these directive behaviors for people with severe mental illnesses.

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Table 1 – Active Involvement Coding Scheme

Code	Brief Description	Example Quotes	Agreement	Frequency
1. Partnership	Statement reflecting the patient is working together with the provider.	"I think I'll stay on the pills for a while if you don't mind." "Yeah, ok…if they can keep you from getting sick and you remember to take them, then that's great."	0.84	23 (13.9%)
2. Question	Patient asks question about mental health treatment (seeking information)	"I'm bloating. Is it the pills?" "So who do I need to talk to about that?"	0.46	92 (55.4%)
3. Active Outside	Patient describes being active outside session in managing illness. This is any action related to actively managing mental illness outside of this particular recorded session.	"I make a case manager appointment on the same days that I come to see you." "I've been going to Alcoholics Anonymous."	0.75	127 (76.5%)
4. Patient Sets Agenda	Patient expresses a specific concern or reason for the visit they would like to address with the provider.	"I needed to tell you I had a drink of liquor. I fell off the wagon."	0.59	51 (30.7%)
5. Goals	Patient discusses a life goal with the prescriber. A goal is anything the patient expresses he/she would like to achieve.	"I would like to start going back to the gym." "I'm trying to get back in school to finish my classes."	0.76	105 (63.3%)
6. Treatment-related Concern/Problem (Specify type):	Patient expresses a current concern/problem that he/she would like to address with the provider.	"I need refills on my meds." (medication/side effect) "I've been having panic attacks and I don't know what brings them on." (mental health/substance use)	0.84 (any concern)	145 (87.3%)
Medication worry/side effect			0.59	94 (56.6%)
Mental health/Substance use			0.77	102 (61.4%)
Physical health			0.65	66 (39.8%)
Other life domain			0.53	101 (60.8%)
7. Evaluative Statement about Treatment	Patient expresses evaluative statement (opinion) about treatment.	"The [medication] works." "The injection makes me feel like a zombie."	0.69	120 (72.3%)
8. Direction/ Request	Patient requests direction for their own treatment.	"Can we start having the case managers come to my house with my meds instead of me having to come here?"	0.48	65 (39.2%)

Table 2 – Partial correlations (controlling for age and gender) between active involvement items and patient-provider relationship variables

	Partnership	Question	Active Outside	Patient sets agenda	Goals	Brought up any concern	Med Concern	Mental Health Concern	Physical Health Concern	Other Life domain	Evaluative statement	Direction/ request
PAM-MH	0.13	-0.14[t]	0.05	-0.08	-0.05	-0.04	-0.03	-0.25*	-0.11	0.08	0.05	0.05
Concordance on the primary concern	0.10	0.04	-0.09	0.22*	-0.16*	0.05	0.17*	0.09	-0.19*	-0.19*	-0.11	0.16*
PPPC	0.12	-0.03	0.01	0.00	-0.14[t]	-0.11	-0.12	-0.14[t]	-0.11	-0.14[t]	0.05	0.05
Trust	0.07	-0.013	-0.07	-0.03	-0.13	0.02	-0.10	0.02	0.03	-0.03	0.07	-0.09
Hope	-0.01	-0.11	0.18*	-0.14[t]	0.19*	-0.14[t]	-0.14[t]	-0.15[t]	-0.07	-0.06	0.12	-0.02
Global recovery	-0.01	-0.14[t]	0.01	-0.16*	0.11	-0.05	-0.03	-0.20*	-0.09	-0.04	0.01	-0.08

Note. PAM-MH = Patient Activation Measure Metal Health; PPPC = Patient Perceptions of Provider Patient-Centeredness Scale
*Correlation is significant at $p<0.05$
[t] Correlation is trending at $p<0.10$

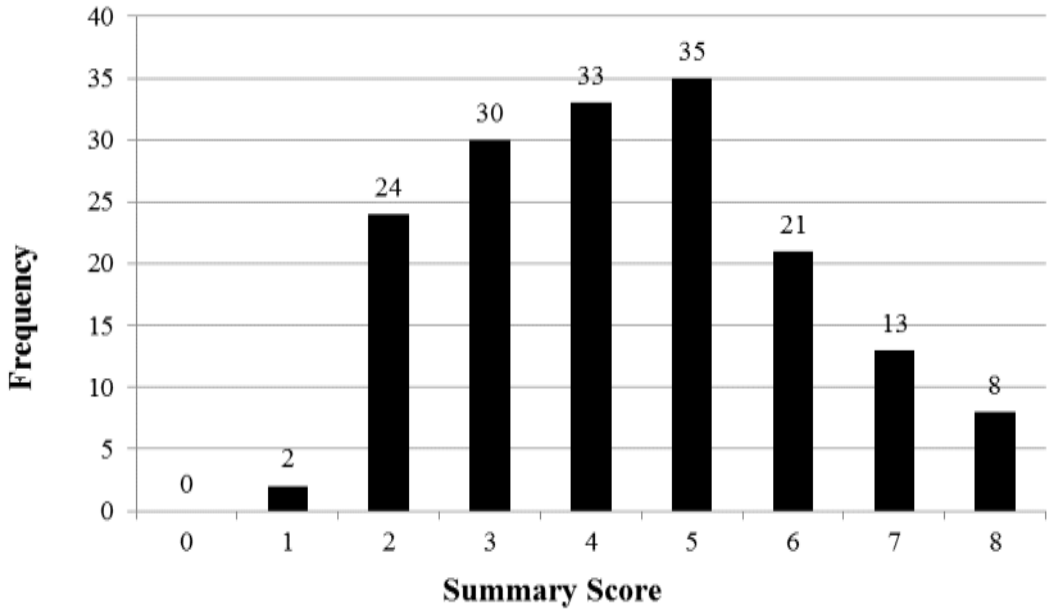

Figure 1. Distribution of active involvement summary scores. Columns represent the number of participants exhibiting each summary score. For example, 33 participants had a summary score of 4; i.e., this group showed four active behaviors during the rated session.

Highlights

- Patient activation linked to a range of key recovery outcomes
- Measured largely through self-report; there is a need for behavioral measures
- Developed coding scheme of active involvement from psychiatric visit transcripts
- Unexpected or missing correlations between coded items and self-report scales
- Behavioral activation correlated with concordance on primary concern of the visit