

BMJ Open Implementation and staff understanding of shared decision-making in the context of recovery-oriented care across US Veterans Health Administration (VHA) inpatient mental healthcare units: a mixed-methods evaluation

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ABSTRACT

Objectives To examine the understanding and practice of shared decision-making (SDM) within the context of recovery-oriented care across Veterans Health Administration (VHA) inpatient mental healthcare units.

Design VHA inpatient mental health units were scored on the Recovery-Oriented Acute Inpatient Scale (RAIN). Scores on the RAIN item for medication SDM were used to rank each site from lowest to highest. The top 7 and bottom 8 sites (n=15) were selected for additional analyses using a mixed-methods approach, involving qualitative interviews, observation notes and quantitative data.

Setting 34 VHA inpatient mental health units located in every geographical region of the USA.

Participants 55 treatment team members.

Results Our results identified an overarching theme of 'power-sharing' that describes participants' conceptualisation and practice of medication decision-making. Three levels of power sharing emerged from both interview and observational data: (1) *No power sharing*: patients are excluded from treatment decisions; (2) *Limited power sharing*: patients are informed of treatment decisions but have limited influence on the decision-making process; and (3) *Shared-power*: patients and providers work collaboratively and contribute to medication decisions. Comparing interview to observational data, only observational data indicating those themes differentiate top from bottom scoring sites on the RAIN SDM item scores. All but one top scoring sites indicated shared power medication decision processes, whereas bottom sites reflected mostly no power sharing. Additionally, our findings highlight three key factors that facilitate the implementation of SDM: inclusion of veteran in treatment teams, patient education and respect for patient autonomy.

Conclusions Implementation of SDM appears feasible in acute inpatient mental health units. Although most participants were well informed about SDM, that knowledge did not always translate into practice, which

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ This study draws from a mixed-methods approach to examine shared decision-making (SDM) across a diverse and geographically representative sample of inpatient mental health units.
- ⇒ The study evaluates how providers' descriptions of SDM map onto observed practices of medication decision-making processes, and SDM guidelines.
- ⇒ The number of providers interviewed for the study varied by sites and a few sites did not include a psychiatrist.
- ⇒ Veterans Health Administration inpatient settings have specific guidelines for recovery-oriented care that may not be available in other settings.

supports the need for ongoing implementation support for SDM. Additional contextual factors underscore the value of patients' self-determination as a guiding principle for SDM, highlighting the role of a supporting, empowering and autonomy-generating environment.

INTRODUCTION

Over the past three decades, researchers, patients and government policies have advocated for the integration of recovery-oriented care (ROC) in mental health services to improve patients' healthcare experiences and mental health outcomes.¹ ROC promotes the recovery potential of each patient and fosters individual goal attainment, social inclusion and involvement of patients in their care.² As such, ROC represents a paradigm shift from the traditional, medical approach to care that focuses on rapid stabilisation and symptom relief.³ Despite well-established mental health



policies and training programmes to support the provision of ROC, its implementation in mental healthcare settings remains challenging,⁴ particularly in inpatient settings.^{3 5} Lack of involvement of patients in treatment decisions and poor patient-provider communication are the most frequently and consistently cited barriers to effective integration of ROC principles in mental health inpatient services.^{3 6} Yet, these factors are crucial to the process of medication shared decision-making (SDM), which is an essential component of recovery-oriented mental health treatment.⁷⁻⁹

Acute inpatient mental health treatment is the most intensive level of psychiatric care and requires daily psychiatric medical review, which may include initiation of new medications to manage current symptoms, medication changes based on patients' response to treatment and discharge planning.^{10 11} Given the central role of psychiatric medication in inpatient mental health treatment, effective implementation of medication SDM has the potential to not only improve prescribing practices to meet individual patients' needs, but also to enhance the delivery of recovery-oriented mental health services.

SDM seeks to enhance patient-provider relationships and promote patients' understanding of and active engagement in their care and treatment decision-making processes.^{12 13} SDM is a dynamic and complex social interaction between patients and providers that is grounded in trust, autonomy and a positive relationship.^{4 14 15} Patients and mental health providers work in partnership to set goals, discuss multiple treatment options, evaluate the risks and benefits of each option, and collaboratively make decisions or plan interventions that incorporate both evidence-based practices and patients' preferences and values.¹⁶ SDM is also advocated as a human right, and its implementation is viewed as an ethical imperative to support patients' right to autonomy, self-determination and involvement in their own care.^{4 17} SDM has been shown to be feasible in mental healthcare settings, including acute inpatient care units^{18 19} and to benefit inpatient populations by increasing their satisfaction with services, promoting self-management and empowering them to be involved in their care.²⁰⁻²² While several studies have shown lack of effects of SDM on psychiatric medication adherence,²³⁻²⁵ recent evaluations of multi-components SDM interventions have shown higher medication adherence among patients involved in SDM compared with control groups in both outpatient²⁶⁻²⁸ and inpatient mental health settings.¹⁸ Additionally, studies on the adoption of SDM processes through advance directives show reduced compulsory psychiatric admissions rates.^{29 30}

Despite the ethical imperative and benefits of SDM, implementing SDM, especially in inpatient mental healthcare settings, faces persistent barriers that include concerns about patients' cognitive and communication abilities, patients' safety and the structures of inpatient settings.^{31 32} Moreover, studies have shown that some subgroups of patients, such as those with a history of

involuntary psychiatric hospitalisation and with a severe mental illness diagnosis, are less likely to be invited to participate in SDM even though they benefit equally as their counterparts from SDM interventions on inpatient units.¹⁵

To facilitate more effective implementation of SDM as part of ROC in inpatient settings, it is necessary to understand how mental healthcare providers view SDM and how they integrate SDM in their daily practice. While several studies have explored health providers' perceptions of SDM and ROC, most of these studies are limited in scope,^{33 34} focus primarily on nursing care^{35 36} and rely solely on self-report.^{37 38}

Our overarching goal was to examine the understanding and practice of SDM within the context of ROC across multiple, diverse Veterans Health Administration (VHA) inpatient mental healthcare units. The VHA is the largest integrated healthcare system in the USA. In 2013, the VHA published a comprehensive handbook that mandated essential components of recovery-oriented services in VHA psychiatric inpatient care,³⁹ which has led to structural and cultural reforms in the delivery of inpatient mental health services.^{40 41} However, the extent to which these reforms apply uniformly across all units remain unknown. Therefore, an evaluation of how SDM is viewed and practised in VHA inpatient mental healthcare settings offers a unique opportunity to better understand its implementation. To that end, our specific goals were to: Aim (1) characterise how inpatient mental healthcare providers perceive medication treatment decision-making as part of ROC practice, Aim (2) evaluate how their descriptions of medication decision-making processes map onto observations of their practices and recommended guidelines for SDM; and Aim (3) describe factors that influence participants' medication decision-making processes.

METHODS

Study design

This is a convergent mixed-methods study^{42 43} using quantitative and qualitative data to examine how inpatient mental healthcare teams describe and practise SDM in the context of inpatient ROC, and the contextual factors that influence their medication decision-making process (see online supplemental appendix A). Data for this analysis were obtained from the Recovery-Oriented Acute Inpatient Mental Health (RAIN-MH) study, an evaluation of ROC implementation in VHA inpatient units across every geographical region of the USA.⁴⁴

The RAIN-MH study collected data from 34 VHA acute inpatient units that represent every major region of the country (16 of 18 Veterans Integrated Service Networks) and included administrative data from the VA Corporate Data Warehouse, which is a national repository of clinical and administrative data for VHA. Clinical data from veterans' electronic medical records were aggregated at the facility level to describe each site and included

Table 1 Rain item: shared decision-making (SDM) for medication management

Elements used to assess quality of SDM	SDM scores
1. Discussion of veterans' needs and preferences, risks and benefits of medication, and alternative treatment options.	2.0 —Excellent quality and consistency (deviations or deficits rare).
2. Conversation begins and ends with veterans' interests/preferences and involves their input in the overall decision-making process.	1.5 —Good quality and consistency (some deviations or minor deficits).
3. Active use of decision aids to facilitate veterans' understanding.	1.0 —Regular deficits in consistency OR quality.
4. Use of 'teach-back' technique to evaluate veteran's understanding of the information.	0.5 —Regular deficits in consistency AND quality.
5. Veterans have the option to decline medication treatment.	0.0 —Little or no evidence of the element.

patients' lengths of stay, number of admissions and diagnoses. The study also collected data from qualitative interviews with veterans and key staff members from diverse disciplines and site visit observation notes.

Patient and public involvement

No patients were involved.

Measures

The RAIN-MH Study developed and tested the Recovery-Oriented Acute Inpatient (RAIN) Scale, a 23-item psychometric assessment of recovery-oriented inpatient services.⁴⁴ The RAIN Scale provides a clear conceptualisation of ROC, with operationalised elements to enable objective assessment of recovery services on inpatient mental health units. The items are rated on the quality of the element demonstrated and consistency with which the element is used. The research team scored each site based on integration of qualitative interviews, site observations, chart reviews and reviews of administrative data.⁴⁴

For the current analysis, we selected sites based on one RAIN item: *Shared Decision-Making for Medication Management*. This item assesses whether providers (eg, physicians, nurse practitioners, pharmacists) work with veterans to identify their medication preferences and to make medication decisions using a collaborative process that supports veterans' recovery goals. As shown in [table 1](#), the RAIN SDM for medication management item includes five elements that assess SDM quality and is rated on a 5-point ordinal scale with standard anchors ranging from 0 (indicating little or no SDM) to 2 (representing excellent quality and consistency of SDM). We selected the top scoring (2.0, n=1 and 1.5, n=6) and bottom-scoring sites (0.0, n=8).

Qualitative interview data

To assess how participants described decision-making for medication management, we analysed qualitative interviews with key informants at each site, ranging from 3 to 7, with a total of 55 participants interviewed. Key informants were treatment team members with active involvement in or knowledge of recovery-oriented practices on the units and included psychiatrists, psychologists, nursing managers, local recovery coordinators, peer support

specialists, social workers, programme coordinators and physician assistants. The interviews were conducted by RAIN-MH Study investigators (one male and four female psychologists, two female project managers with bachelors' degree in psychology) before the site visits. All participants provided verbal informed consent prior to study participation.

The interview guide (see online supplemental appendix B) assessed participants' perceptions of implementation of ROC on their unit, and facilitators and barriers to implementation. Questions related specifically to medication decision-making processes were open-ended and non-directive to facilitate elicitation of the participants' understanding and description of their process, including: How are decisions about medications made? Are veterans provided recommendations or options? Give me an example of options given to a Veteran regarding medications? The interviews were conducted over the phone and lasted 30–75 min, with an average of 60 min. They were audiotaped, transcribed, de-identified and entered in Atlas.ti V.9 Windows, a qualitative research analysis software.⁴⁵

Site visit summaries

In addition to the interviews, we analysed written summaries of site visits, which involved observations of medication decision processes (eg, interdisciplinary team meetings psychiatric rounds, informal patient-provider interactions) and brief discussions with veterans about their experience with medication decision-making. Staff members were informed of the study prior to the site visit and gave verbal consent prior to being observed. Site visitors wrote observations during the visit and integrated them into a summary for each site shortly following the visit.

Data analyses

Site characteristics

Frequencies, means and SDs were used to describe scores on the SDM element of RAIN and site characteristics. Independent t-tests were conducted to compare high SDM facilities with low SDM facilities on number of beds, length of stay, percentage of patients with substance use

and percentage of patients with personality disorder. Fisher's exact test was used to determine whether a significant association between facility rurality and high/low SDM was present.

Interview data

A team of five analysts composed of two doctoral-level researchers and three research assistants with extensive training and experience in qualitative research methods analysed the data. The analysts were blind to the site's ranking (top or bottom scorer) on the RAIN Scale SDM medication management item to avoid bias during the coding process.

We used a primarily deductive approach during data analysis, but also included elements of inductive thematic analysis.⁴⁶ To develop our initial codes, we started with key concepts related to medication SDM and ROC such as treatment planning, staff training and veteran autonomy. The team read each transcript, labelling the segments that corresponded to the initial codes and identifying new emerging codes from the data. We used 18 transcripts from seven sites in the parent study to develop the final code list. Transcripts from the same site were coded sequentially. Themes from the transcripts within and across sites were noted and compared to establish the final code list. Once we had a stable code list, we applied the codes to all the transcripts (n=55) from the selected 15 sites in this study. To ensure rigour and trustworthiness of our analysis, teams of two coders independently coded all 55 transcripts. Discrepancies in coding were discussed with the team and resolved by consensus. We also used established strategies such as peer debriefing meetings and audit trials to prevent drift and maintain consistency in our coding.⁴⁷

Once all transcripts were coded, we conducted axial coding, in which we used both inductive and deductive approaches to identify themes from excerpts coded as medication treatment decisions. This phase of the analysis involved five steps: (1) Data immersion, (2) Generating a subset of codes for coded excerpts, (3) Constructing themes and subthemes, (4) Reviewing and applying the themes to all transcripts, and (5) Summarising site-level participants' views of medication decision-making processes. Moreover, to summarise the interview data for each site and facilitate cross-site comparison, we applied

rankings (low, medium and high) to the themes to reflect the degree the sites incorporated aspects of SDM in their descriptions. Two team members assigned the ranking independently, then the team met to discuss and finalise ranking for each site.

Site visit summaries

We used a similar data analysis approach for the site visit summaries as outlined for the interview data. Then, we independently reviewed a set of excerpts coded for medication management decisions to evaluate similarities with the interview data and identify new themes. This process did not yield any new themes. Therefore, the same list of themes generated from the axial coding process with the interview data was applied systematically to the site visit summaries. As with the interview data, we used a team approach to identify themes and saturation in the data, ensure reliability and consistency, assign ranking, and summarise the site visit observational data at a site-level.

Mixed-methods data integration

We used a convergent mixed-methods design⁴⁸ to analyse the study, using both quantitative (RAIN SDM item scale scores assigned in the parent study) and qualitative (interview transcripts and observation notes) data concurrently and iteratively. The integration of these three data sets informs our results.

Results

Facility characteristics

As shown in [table 2](#), the top and bottom scoring sites on the RAIN item SDM for medication management shared similar characteristics in terms of veterans' length of stay, geographical location, and per cent of patients with substance use issues and personality disorders. On average, the bottom scoring sites had 19 beds per unit and the top scoring sites had 25 beds. There was not a statistically significant association between SDM and any of the facility characteristics.

Aim 1: Participants' descriptions of the decision-making process for medication management

Our results identified an overarching theme of 'power-sharing' that describes participants' conceptualisation and practice of medication decision-making. Both top

Table 2 Facility characteristics

Characteristics	Total sample (n=15)	Low SDM sites (n=8)	High SDM sites (n=7)	Difference test
Number of beds on unit, mean (SD)	22.0 (12.8)	19.4 (10.1)	25.0 (15.6)	t(13)=0.84, p=0.42
Length of stay (days), mean (SD)	6.0 (1.6)	6.1 (1.5)	5.8 (1.9)	t(13)=0.10, p=0.92
Rural facilities, n (%)	1 (6.7)	0 (0)	1 (14.3)	p=0.46
Per cent patient substance use, mean (SD)	66.9 (8.9)	66.2 (8.9)	67.7 (9.6)	t(13)=0.31, p=0.76
Per cent patient personality disorder, mean (SD)	14.90 (5.8)	14.4 (6.6)	15.5 (5.2)	t(13)=0.35, p=0.73
SDM, shared decision-making.				

Table 3 Power ranking across top and bottom scoring sites

Sites	Ranking based on interview data	Ranking based on observational data
Bottom scoring sites		
1	Low	Low
2	Low	Low
3	Medium	Medium
4	Medium	Medium
5	Medium	Low
6	Medium	Low
7	High	Low
8	High	Medium
Top scoring sites		
1	Low	Medium
2	Medium	High
3	Medium	High
4	Medium	High
5	High	High
6	High	High
7	High	High

and bottom scoring site participants shared narratives that depict the central role and the distribution of power between patients and providers in medication decision-making processes. Their descriptions reflect the social positioning of patients and providers within the mental health system and how power differentials, both implicit and assumed, influence the context of decision-making. Three levels of power sharing emerged from the participants' narratives: (1) *No power shared*: patients are excluded from treatment decisions; (2) *Limited power sharing*: patients are informed of treatment decisions but have limited influence on the decision-making process; and (3) *Shared-power*: patients and providers work collaboratively and contribute to medication decisions. These subthemes also reflect participants' approach to medication SDM based on their observed practices.

Aim 2: Cross-site comparisons and mixed-methods integration

To facilitate cross-site comparisons and integration of interview and observational data with the RAIN SDM item scale scores, we ranked each level using *low* (no power shared), *medium* (limited power) and *high* (shared power) in power-sharing ranking. In the next section, we provide additional information about each ranking and their distribution across sites based on interview and observational data. We also summarised the data in [table 3](#) and illustrated how these rankings map onto top and bottom scoring sites. As shown in the table, only power rankings based on observational data differentiated top from bottom scoring sites on the RAIN SDM item scale scores. All but one high scoring site was ranked as high based

on observational data. In contrast, bottom scoring sites ranged in ranking from low to medium, with most sites identified as having low power sharing. Power sharing ranking based on the interview data showed more variations across sites and did not generate a clear pattern that differentiated top from the bottom scoring sites. In the next section, we expanded on participants' descriptions and the distribution of each power sharing level.

Description of the power sharing continuum

Low power sharing

Three sites (3/15) were ranked as having low-level power sharing in medication decision-making processes based on interview data. Of these sites, two were bottom scoring sites that were also ranked as having low power sharing based on the observational data. Three additional bottom scoring sites that were ranked as having medium-to-high power sharing based on the interview data were identified as having low power sharing based on observations of their practice, suggesting inconsistencies between participants' perceptions and their observed practices of medication decision-making with patients.

Participants from low power sharing sites described medication decisions made by the treatment team *without* veterans' input. Additionally, participants described the decision-making process as 'collaborative' only with regard to the working relationships among providers on the treatment team (ie, not collaborating with the Veteran). Veterans' involvement in the decision-making process was limited to reports of symptoms or medication side effects. The excerpts below illustrate.

It is a very collaborative approach between the prescribers and the social workers ... in terms of med management ... Decisions are made in treatment team and then presented to veterans individually.
- Psychiatrist

Sometimes, I think it's the attending who's deciding, this needs to be changed or medication needs to be added. And of course, they'll go to the patient and communicate why they're making that change or why they're recommending a different medication. So, hopefully, it should be a fairly collaborative process.
-Programme coordinator

Medium power sharing

Nearly half of the sites (7/15) ranked as having medium power sharing process based on interview data. However, only four of these sites were consistently ranked as such based on both interview and observational data. Notably, all but one site were bottom scoring sites. Participants' narratives ranked as being medium on the continuum involved some evidence of shared power between patient and provider. In these narratives, providers make treatment decisions, present their recommendations to the veteran, and then explicitly ask the veteran for their input, with the option to accept or decline the

recommendations. Also, the provider is viewed as having the responsibility to convince the veteran to take medication. This was the most frequently reported description of the medication decision-making process in participants' interviews. Participants also viewed this process as SDM because it involves patients' informed consent (knowledge of their medication and reason for taking it) and/or the option to decline or accept providers' recommended treatments.

The veteran themselves will be allowed to refuse certain medications. There is leeway in there.... I mean there's a lot of talk and convincing them that they should be on this medication or that medications, but they will respect if somebody says: "absolutely I can't be on Seroquel, I sleep throughout the day."
-Treatment coordinator, psychologist

Usually, the team and the resident will discuss it with the patient. They'll propose a medication change or a medication they think will be helpful. So, they'll discuss with the patient to get their consent. – Psychiatrist

High power sharing

Five (three top and two bottom scoring) sites were ranked as having high power sharing based on interview data. However, from the observational data, all top scoring sites (six) except for one were ranked as high power sharing, whereas no bottom scoring site received such ranking. Descriptions of medication decision-making processes ranked as *high power sharing* include strong evidence of active involvement of the patient throughout the decision-making process and demonstration of partnership between patients and providers. Moreover, the narratives included several key steps in the decision-making process that were absent or inconsistent in the low power sharing narratives. These are (1) Relationship building, (2) Goals and preferences elicitation and inclusion in generation of treatment options, (3) Patient education, (4) Multiple treatment options given, including an option to not take medication. First, participants from these sites explicitly discussed their investment in relationship building with veterans to facilitate their active participation in treatment decision-making. Second, they discussed eliciting veterans' recovery goals and preferences for treatment and used this information to inform treatment options.

Moreover, based on interview and observational data, in high power sharing sites, patients' input, goals and consent are solicited from the beginning of the process. Providers offer patients a menu of options. They invest in patient education by explaining each medication option, its side effects, and its risks and benefits, thus facilitating informed decision-making. Additionally, high power sharing sites emphasised that patients are offered the option to decline medication and consider non-pharmacological treatment. The next excerpts illustrate narratives that described high power sharing.

In terms of medication, we are always talking to them about options and risks and benefits to each medication. ... the veteran is very much involved in the care with their medication choices and understand and are fully informed about the options. - Psychiatrist

It's important to develop a treatment alliance as best we can with the individuals because it certainly doesn't make any sense to take out the prescription pad and write the medications that the person has no intention of taking once they're discharged. So, we work closely with a conservative approach with meds. Start low, go slowly to minimise the potential for any side effects so that the person is more likely to stick with the medication trial...I think they (veterans) need to be well-educated about the risks/benefits and side effects profile, the rationale in prescribing the medication in terms of there being a true and active partner in the whole treatment process. It's going to be important I think for long term benefit and outcome if they're on board as an active, equal partner.
– Psychiatrist

See online supplemental appendix C table 4 for more examples.

Aim 3: Factors that influence treatment decision-making processes

Several organisational and cultural factors facilitated sites' practices of SDM. In this section, we describe these factors and how some sites successfully incorporated them (see online supplemental appendix C table 5 for more examples). We also discuss the challenges that sites experienced in implementing these factors to support SDM.

Inclusion of veteran in the treatment team is both an important aspect of the unit's organisational structure and a cultural, values-driven process that influenced patients' participation in SDM processes. Sites that were effective in including patients in interdisciplinary team meetings described patients as members of the treatment team and involved them in discussions about their treatment and medication decisions. These sites also had well-defined roles and expectations of team members and a collaborative environment that invited equal participation. This structure and unit culture also facilitated information sharing within the team and an integrated approach to care. The next excerpt illustrates.

We have several disciplines that are on our unit and within the first week everybody has a chance to meet and discuss their area of expertise with the veteran. And then we all meet together, including the veteran, in our treatment team meeting.... we get the veteran's input on what was the situation that brought them here and then everybody adds in their meeting with the veteran and veteran identifies these are the goals that I want to work on. -Local Recovery Coordinator

While some sites integrated patients in the interdisciplinary treatment team meetings, others did not view the patient as a member of the treatment team. In fact, less

than half of sites from *both* the top and bottom scoring sites (3/7 and 3/8, respectively) included veterans in their meetings. Moreover, inclusion of veterans in these meetings had varying degrees of success. Some sites that included veterans in the meetings were less effective in involving veterans in active discussions due to lack of role clarity (eg, clear expectations for the veteran during the meeting), domination of the conversation by the psychiatrist, lack of opportunity to engage the veteran and the intimidating environment created by a large team. Other sites did not include veterans in treatment team meetings because of similar reasons or a lack of meeting space.

Patient education and advocacy

The use of clinical pharmacists and peer support specialists (peers) on the unit were useful in providing additional information to patients about their treatment options and to facilitate SDM. Several sites had pharmacists that led medication-education groups and met individually with veterans to provide information and answer questions. This process better equipped veterans to provide informed consent and engage in discussions about their medications. Similarly, peers provided support, and empowered patients to take an active role in their care. Observational data indicated that many providers often ended their discussion about medication with a cursory 'is this okay with you?' to elicit feedback from patients. In most situations, the patients nodded or acquiesced. As shown in the excerpt below, peer support was particularly important in getting patients to express their views and be empowered to engage in the decision-making process.

I also think it's very important when it comes to ROC, is we have Peer specialists on the unit...And that Peer specialist offers I believe several classes and one to one support and is involved in treatment team meetings. So, they are very involved in the veteran's care and making sure that the veteran's voice is heard. And is a real advocate for the veteran when they're seeking treatment on inpatient.

Respect for veterans' autonomy

Sites ranked as having high power sharing valued patients' autonomy as individuals with capabilities and basic rights to be involved in their care. A culture of respect for patients' autonomy was reflected across several activities on the unit, not just in medication decisions, such as by having fewer restrictions and rules that limited patients' choices and behaviours. For example, some sites made coffee and water available so patients could help themselves or allowed patients to have their cellphones. These sites actively facilitated all veterans' participation in care, irrespective of their diagnoses or personal characteristics. In contrast, observational notes for low power sharing sites indicated that veterans with prior admissions on the unit, veterans who were assertive, or able to express their needs during clinical encounters were more likely to be invited to participate in medication decision-making.

Whereas veterans who were new to the inpatient unit, unfamiliar with SDM process, or those with certain diagnoses, such as psychosis were not as supported in participating in SDM processes.

Moreover, sites that were guided by a culture of inclusion and autonomy of patients had a more consistent approach to SDM across providers. In comparison, observational notes indicated more variation across providers in low and medium sites in which one provider on the unit was more recovery-oriented in their approach, but other providers endorsed low power sharing views and practices. In addition, high power sharing sites had systematic approaches to solicit veterans' input and feedback about different aspects of care or life on the unit and used their feedback for quality improvement purposes.

DISCUSSION

SDM is a foundational component of ROC. Yet, implementation of SDM as part of ROC in mental health settings, especially inpatient psychiatric units, remains a challenge.³²⁻⁴⁹ To facilitate improvement in SDM practices, we sought to (1) Characterise how inpatient mental health providers describe the medication decision-making process, (2) Evaluate how their descriptions and practices of medication decision-making map onto their scores of SDM based on the RAIN Scale; and (3) Describe contextual factors that influence their treatment decision-making processes. To our knowledge, this is the first study that uses such a comprehensive approach to examine SDM across a diverse, and geographically representative sample of inpatient mental health units.

Overall, participants from most study sites were knowledgeable about SDM. Their descriptions of medication decision processes are consistent with the key principles of SDM and included elements such as patient education, informed consent and options to decline medication.⁵⁰ Though few, some study participants endorsed views that are inconsistent with SDM principles, such as providers making treatment decisions without any input from patients. These findings reiterate calls from previous studies for ongoing education about SDM.⁵¹ A robust understanding of SDM among all staff members is particularly important given the team care approach in inpatient settings, and how individuals' perspectives may negatively influence the implementation of an inclusive and cohesive culture on the unit.

While most participants were able to describe medication decision practices using language consistent with SDM, fewer sites were observed practising medication decision-making processes that reflected inclusion and active patient participation. In fact, several sites were observed practising low power sharing processes despite participants who seemed well versed in SDM principles based on their interviews. Compared with bottom scoring RAIN sites, top scoring sites were observed consistently practising medication decisions that demonstrate high power sharing. These findings have several implications.



First, they suggest that a multimethods approach, at least one that involves observation of actual patient-provider encounters, may be necessary to fully assess how providers understand and make medication decisions. Most studies of communication and SDM on inpatient units focus on self-report data.^{32 37 38} These methods may not provide the most accurate and full depiction of SDM processes. Second, our findings indicate that there remains confusion about the various elements of SDM, including the role of patients in the treatment team and the meaning of collaborative care in the context of SDM and ROC. Additional and ongoing education about SDM principles are needed to improve providers' understanding of SDM.

Third, although most participants were well informed about SDM, that knowledge did not always translate into practice. This finding further supports the need for increased implementation support. Decision coaching, for instance, has been shown to be an effective strategy that helps providers build their SDM skills and prepares them to tailor and apply those skills in different situations.⁵² SDM interventions for psychiatric medications,⁵³ especially in inpatient settings,¹⁸ may also be beneficial. For example, SDM-PLUS, an intervention designed to improve decision-making in acute psychiatric wards, addresses both patient and clinical factors by improving clinicians' skills and using motivational approaches to empower patients to be involved in their care.¹⁸ Moreover, organisational factors, such as availability of adequate resources, leadership buy-in, and a culture that supports collaborative approach to care are crucial for SDM implementation.^{50 54} Fourth, our findings also demonstrate that implementation of SDM is possible and that several sites were successful at describing and practising medication decision processes that are exemplars of recommended SDM guidelines. Thus, they provide strong evidence and support previous studies arguing that SDM is feasible in inpatient units with diverse patient populations.^{18 50 55}

Our findings also highlight three key factors that influence the implementation of SDM: inclusion of veterans in treatment teams, patient education and respect for patient autonomy. These factors reinforce the fundamental values and ethical principals at the core of SDM, which are patient autonomy, respect and empowerment.^{12 56} They are also well-aligned with the theory of self-determination, which posits that individuals have basic needs for competence, autonomy and relatedness, and that desire to meet these needs motivates growth and development.⁵⁷ Therefore, attending to patients' needs for self-determination may serve as a guiding principle for providers and organisations to create a supporting, empowering and autonomy-generating environment that will facilitate SDM for all patients. Specifically, inclusion of veterans in treatment team meetings seems to facilitate high power-sharing processes. However, to be effective, patients' inclusion in team meetings needs to be conducted thoughtfully to facilitate patient participation in the treatment discussion and medication decision processes. Moreover, patients' inclusion in the team

meetings set an inclusive and collaborative tone to the patients' admission, to offer education, and elicit patients' goals and preferences, which in turn guide medication decisions. Patient education and respect for autonomy are both cultural and organisational factors that support SDM practices. Research has shown that patient-provider relationship is the cornerstone for successful SDM.^{15 58} Given that power differences between patients and providers are sometimes accentuated on inpatient units,⁴⁹ activities that facilitate inclusion and support patient autonomy may be even more valuable in fostering a collaborative and supportive relationship to facilitate patients' participation in SDM.

Limitations

Several limitations should be considered in interpreting our study findings. While efforts were made to interview multiple providers from all sites, the number of providers interviewed vary by sites and a few sites did not include a psychiatrist. Although psychiatrists were observed at all sites, given the primary role of psychiatrists in the medication decision process, the absence of their perspective in the interviews may have influenced the sites' decision-making descriptions. Moreover, we did not systematically ask participants about their training in SDM, which may have affected their understanding and practice of treatment decision-making. Lastly, this study was conducted in VHA inpatient settings with specific guidelines on ROC that may not be available in other settings. These findings may not generalise to other healthcare settings.

Implications for practice

Our study findings suggest that ongoing education and training are needed to support the implementation of SDM on inpatient mental health units. Moreover, implementation support that involves observation of practices and feedback, in addition to access to knowledge about SDM, may be beneficial to strengthen providers' SDM skills. Lastly, delivery of ROC and use of SDM involve a cohesive team approach, with shared values. To improve the implementation of SDM, investment in organisational resources and adoption of a culture that fosters respect for patients' autonomy, patient-provider power sharing and patient education, are needed.

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JE is the guarantor for this article and is responsible for its content. JE contributed to the study design, led the data analysis and interpretation, and drafted the manuscript. JC contributed to the data analysis and interpretation, and revision of the manuscript. EB contributed to the data analysis and interpretation, and revision of the manuscript. MF contributed to the study design, data analysis and interpretation, and revision of the manuscript. MPS contributed to the study design, data interpretation and critical revision of the article. AM is the principal

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REFERENCES

- Delaney KR. Moving to a recovery framework of care: focusing attention on process. *Arch Psychiatr Nurs* 2012;26:165–6.
- Le Bouillier C, Leamy M, Bird VJ, *et al*. What does recovery mean in practice? A qualitative analysis of international recovery-oriented practice guidance. *Psychiatr Serv* 2011;62:1470–6.
- Waldemar AK, Arnfred SM, Petersen L, *et al*. Recovery-Oriented practice in mental health inpatient settings: a literature review. *Psychiatr Serv* 2016;67:596–602.
- Slade M. Implementing shared decision making in routine mental health care. *World Psychiatry* 2017;16:146–53.
- Hornik-Lurie T, Shalev A, Haknazar L, *et al*. Implementing recovery-oriented interventions with staff in a psychiatric Hospital: a mixed-methods study. *J Psychiatr Ment Health Nurs* 2018;25:569–81.
- Waldemar AK, Esbensen BA, Korsbek L, *et al*. Recovery orientation in mental health inpatient settings: inpatient experiences? *Int J Ment Health Nurs* 2018;27:1177–87.
- Korsbek L, Petersen L, Mikkelsen JH. [Shared decision making in psychiatry]. *Ugeskr Laeger* 2014;176. [Epub ahead of print: 25 Aug 2014].
- Hamann J, Leucht S, Kissling W. Shared decision making in psychiatry. *Acta Psychiatr Scand* 2003;107:403–9.
- Coffey M, Hannigan B, Barlow S, *et al*. Recovery-focused mental health care planning and co-ordination in acute inpatient mental health settings: a cross national comparative mixed methods study. *BMC Psychiatry* 2019;19:115.
- Prunier P, Buongiorno PA. Guidelines for acute inpatient psychiatric treatment review. *Gen Hosp Psychiatry* 1989;11:278–81.
- Moda Health. Medical necessity criteria inpatient mental health
- Drake RE, Deegan PE, Rapp C. The promise of shared decision making in mental health. *Psychiatr Rehabil J* 2010;34:7–13.
- Charles C, Gafni A, Whelan T. Shared decision-making in the medical encounter: what does it mean? (or it takes at least two to tango). *Soc Sci Med* 1997;44:681–92.
- Karnieli-Miller O, Eisikovits Z. Physician as partner or salesman? shared decision-making in real-time encounters. *Soc Sci Med* 2009;69:1–8.
- Eliacin J, Salyers MP, Kukla M, *et al*. Factors influencing patients' preferences and perceived involvement in shared decision-making in mental health care. *J Ment Health* 2015;24:24–8.
- Matthias MS, Salyers MP, Rollins AL, *et al*. Decision making in recovery-oriented mental health care. *Psychiatr Rehabil J* 2012;35:305–14.
- Szmukler G. "Capacity", "best interests", "will and preferences" and the UN Convention on the Rights of Persons with Disabilities. *World Psychiatry* 2019;18:34–41.
- Hamann J, Holzhüter F, Blakaj S, *et al*. Implementing shared decision-making on acute psychiatric wards: a cluster-randomized trial with inpatients suffering from schizophrenia (SDM-PLUS). *Epidemiol Psychiatr Sci* 2020;29:e137.
- Hamann J, John M, Holzhüter F, *et al*. Shared decision making, aggression, and coercion in inpatients with schizophrenia. *European Psychiatry* 2020;63:e90.
- Hamann J, Cohen R, Leucht S, *et al*. Shared decision making and long-term outcome in schizophrenia treatment. *J Clin Psychiatry* 2007;68:992–7.
- Joosten EAG, de Jong CAJ, de Weert-van Oene GH, *et al*. Shared decision-making reduces drug use and psychiatric severity in substance-dependent patients. *Psychother Psychosom* 2009;78:245–53.
- Joosten EAG, De Jong CAJ, de Weert-van Oene GH, *et al*. Shared decision-making: increases autonomy in substance-dependent patients. *Subst Use Misuse* 2011;46:1037–8.
- Raue PJ, Schulberg HC, Bruce ML, *et al*. Effectiveness of shared decision-making for elderly depressed minority primary care patients. *Am J Geriatr Psychiatry* 2019;27:883–93.
- LeBlanc A, Herrin J, Williams MD, *et al*. Shared decision making for antidepressants in primary care: a cluster randomized trial. *JAMA Intern Med* 2015;175:1761–70.
- Stein BD, Kogan JN, Mihalyo MJ, *et al*. Use of a computerized medication shared decision making tool in community mental health settings: impact on psychotropic medication adherence. *Community Ment Health J* 2013;49:185–92.
- Finnerty MT, Layman DM, Chen Q, *et al*. Use of a web-based shared decision-making program: impact on ongoing treatment engagement and antipsychotic adherence. *Psychiatr Serv* 2018;69:1215–21.
- Thomas EC, Ben-David S, Treichler E, *et al*. A systematic review of shared decision-making interventions for service users with serious mental illnesses: state of the science and future directions. *Psychiatr Serv* 2021;72:1288–300.
- Robinson DG, Schooler NR, Correll CU, *et al*. Psychopharmacological treatment in the RAISE-ETP study: outcomes of a manual and computer decision support system based intervention. *Am J Psychiatry* 2018;175:169–79.
- de Jong MH, Kamperman AM, Oorschot M, *et al*. Interventions to reduce compulsory psychiatric admissions: a systematic review and meta-analysis. *JAMA Psychiatry* 2016;73:657–64.
- Rössler W. Factors facilitating or preventing compulsory admission in psychiatry. *World Psychiatry* 2019;18:355–6.
- Commission. CQ. Monitoring the mental health act, 2016
- Giacco D, Mavromara L, Gamblen J, *et al*. Shared decision-making with involuntary hospital patients: a qualitative study of barriers and facilitators. *BJPsych Open* 2018;4:113–8.
- Canetto SS, Cleary A. Men, masculinities and suicidal behaviour. *Soc Sci Med* 2012;74:461–5.
- McKenna B, Furness T, Dhital D, *et al*. Recovery-oriented care in older-adult acute inpatient mental health settings in Australia: an exploratory study. *J Am Geriatr Soc* 2014;62:1938–42.
- Wesseldijk-Elferink IJM, Hendriks AW, van den Heuvel SCGH. Shared decision making in a semi-secluded chronic psychiatric ward: the reflective lifeworld experiences of patients with schizophrenia or schizoaffective disorders and nursing staff. *Arch Psychiatr Nurs*. In Press 2021;35:519–525.
- Leese D, Smithies L, Green J. Recovery-focused practice in mental health. *Nurs Times* 2014;110:20–2.
- Bjønness S, Viksveen P, Johannessen JO, *et al*. User participation and shared decision-making in adolescent mental healthcare: a qualitative study of healthcare professionals' perspectives. *Child Adolesc Psychiatry Ment Health* 2020;14:2.
- Cleary M, Horsfall J, O'Hara-Aarons M, *et al*. Mental health nurses' views of recovery within an acute setting. *Int J Ment Health Nurs* 2013;22:205–12.
- US. Department of Veterans Affairs *vha*. *inpatient mental health services (vha Handbook 1160.06*. Washington, DC, 2013.



- 40 Zuehlke JB, Kotecki RM, Kern S, *et al.* Transformation to a recovery-oriented model of care on a Veterans administration inpatient unit. *Psychiatr Rehabil J* 2016;39:361–3.
- 41 McDonagh JG, Haren WB, Valvano M, *et al.* Cultural change: implementation of a recovery program in a Veterans health administration medical center inpatient unit. *J Am Psychiatr Nurses Assoc* 2019;25:208–17.
- 42 Creswell JW, Klassen AC, PC VL. *Best practices for mixed methods research in the health sciences*. National Institutes of Health, 2011.
- 43 Palinkas LA, Cooper BR, Ross C, *et al.* Mixed Methods Evaluation in Dissemination and Implementation Science. In: . *Dissemination and implementation research in health: translating science to practice*: . Oxford: Oxford University Press, 2017Proctor, ed. *Users Without A Subscription Are Not Able To See The Full Content*and.
- 44 McGuire AB, Kukla M, Rollins AL, *et al.* Recovery-oriented acute inpatient mental health care: Operationalization and measurement. *Psychiatr Rehabil J* 2021;44:318–26.
- 45 ATLAS.ti vs. 7. ATLAS.ti: The Qualitative Data Analysis & Research Software
- 46 Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol* 2006;3:77–101.
- 47 Lincoln Y EG. *Naturalistic inquiry*. Beverly Hills, CA: Sage Publications Inc, 1985.
- 48 Creswell JW PCV. *Designing and Conducting Mixed Method Research*. Thousand Oaks, Calif: Sage, 2007.
- 49 Stacey G, Felton A, Morgan A, *et al.* A critical narrative analysis of shared decision-making in acute inpatient mental health care. *J Interprof Care* 2016;30:35–41.
- 50 Becher S, Holzhüter F, Heres S, *et al.* Barriers and facilitators of shared decision making in acutely ill inpatients with schizophrenia- Qualitative findings from the intervention group of a randomised-controlled trial. *Health Expect* 2021;24:1737–46.
- 51 Scholl I, LaRussa A, Hahlweg P, *et al.* Organizational- and system-level characteristics that influence implementation of shared decision-making and strategies to address them - a scoping review. *Implement Sci* 2018;13:40.
- 52 Harman SM, Blankenburg R, Satterfield JM, *et al.* Promoting shared decision-making behaviors during inpatient rounds: a multimodal educational intervention. *Acad Med* 2019;94:1010–8.
- 53 Ramon S, Morant N, Stead U, *et al.* Shared decision-making for psychiatric medication: a mixed-methods evaluation of a UK training programme for service users and clinicians. *Int J Soc Psychiatry* 2017;63:763–72.
- 54 Waddell A, Lennox A, Spassova G, *et al.* Barriers and facilitators to shared decision-making in hospitals from policy to practice: a systematic review. *Implement Sci* 2021;16:74.
- 55 Blankenburg R, Hilton JF, Yuan P, *et al.* Shared decision-making during inpatient rounds: opportunities for improvement in patient engagement and communication. *J Hosp Med* 2018;13:453–61.
- 56 Elwyn G, Frosch DL, Kobrin S. Implementing shared decision-making: consider all the consequences. *Implement Sci* 2016;11:114.
- 57 Deci EL, Eghrari H, Patrick BC, *et al.* Facilitating internalization: the self-determination theory perspective. *J Pers* 1994;62:119–42.
- 58 Matthias MS, Fukui S, Kukla M, *et al.* Consumer and relationship factors associated with shared decision making in mental health consultations. *Psychiatr Serv* 2014;65:1488–91.