Applying Robust Process Improvement Techniques to the Voluntary Inpatient Psychiatry Admission Process

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ABSTRACT

Background: Adults voluntarily admitted to inpatient behavioral health units can ask to sign a Request to Discharge (RTD) form if they would like to be discharged before the treatment team agrees that discharge is appropriate. This gives the team 72 hours to determine whether the patient is safe to discharge or to involuntarily commit the patient to the unit. At 1 medical center, patients who were offered voluntary admission often lacked complete understanding of the "72-hour rule" and the early discharge procedure.

Methods: Robust Process Improvement® techniques were implemented to improve the admission process. Flow charts, standardized scripts, and pocket cards were distributed to relevant staff. The Request for Voluntary Admission form was revised to emphasize the "72-hour rule" and the process for requesting a RTD form.

Results: The unit's average overall Press Ganey score improved from 77.1 to 81.6 ($P = 0.003$), while the average discharge score improved from 83.0 to 87.5 ($P = 0.023$) following implementation of the new process.

Conclusion: Incorporating strategies such as an opportunity to "teach back" important information about the voluntary admission process (ie, what the 72-hour rule is, what the request to discharge form is, and the possibility of involuntary commitment) allows clinicians to assess capacity while simultaneously giving patients realistic expectations of the admission. These changes can lead to improvement in patient satisfaction.

Keywords: behavioral health; communication; patient satisfaction.

Communication is paramount within medical teams to improve outcomes and strengthen rapport with patients, particularly with psychiatric patients in acute crisis. Studies have indicated that information sharing is inadequate at the interface between medical contexts, including high-acuity settings, such as the emergency department,[1] patient handoffs at shift changes,[2] and across professional boundaries, including between doctors and nurses. The barriers to effective communication in health care teams include educational, psychological, and organizational barriers. These obstacles can be overcome by teaching effective communication strategies, training teams as a unit, training teams with simulation exercises, defining inclusive and democratic teams, supporting teamwork with protocols and procedures, and developing an organizational culture supporting teamwork.[3]

While some forms of communication are required to protect the safety of patients and others around them, other forms are required to build strong relationships with patients. However, these 2 goals do not have to be mutually exclusive in the psychiatric hospital environment. Hospitals aim to improve patient satisfaction while simultaneously providing effective communication about treatment. Studies have indicated that communication during graduate medical training may decline due to "emotional and physical brutality" associated with residency training programs.[4] To ameliorate this and emphasize communication education, accredited psychiatry residency programs require residents to use structured communication tools to achieve a level 2 in the Accreditation Council for

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Graduate Medical Education milestone project for the category of patient safety and health care team.[5] These standardized processes allow all patients to receive the same important information related to their care while minimizing human error. Such communication skills aim to improve health care outcomes and satisfaction for patients while also training better physicians.

For legal and ethical reasons, the adult inpatient behavioral health units at major hospitals are highly regulated. In most states, a patient who is admitted to an adult inpatient behavioral health unit on a voluntary basis can ask to sign a request to discharge (RTD) form if he or she would like to be discharged from the hospital before the treatment team sees fit.[6] In most jurisdictions, this action gives the treatment team 72 hours to determine whether the patient is safe to discharge. Within that time frame, the physician must either discharge the patient, or, if it is not safe to do so, involuntarily commit him or her to the unit. In most jurisdictions, this process is commonly referred to as the "72-hour rule."

In North Carolina, state legislation Chapter 122C, Article 5, Part 2(b) specifies: "In 24-hour facilities the application shall acknowledge that the applicant may be held by the facility for a period of 72 hours after any written request for release that the applicant may make, and shall acknowledge that the 24-hour facility may have the legal right to petition for involuntary commitment of the applicant during that period. At the time of application, the facility shall tell the applicant about procedures for discharge."[7] This requirement can be somewhat confusing for both medical team members and patients alike.

As formerly practiced on the behavioral health unit described in this report, patients offered voluntary admission status to the inpatient behavioral unit often lacked complete understanding of the 72-hour rule and the process for requesting early discharge from the facility. We hypothesized that this led to the observed patient frustration and hostility, lack of trust in the treatment team, poor attendance and participation in group therapy activities, medication refusal, and overall decreased patient satisfaction. To address this issue, this pilot project was conducted to improve the voluntary admission process on the adult inpatient unit of a major academic medical center in North Carolina.

In April 2008, The Joint Commission's Center for Transforming Healthcare embarked on an enterprise-wide initiative called Robust Process Improvement (RPI). RPI was developed as a blended approach in applying Six Sigma, Lean, and Change Management techniques to improve medical processes and procedures. RPI techniques were applied in this study to better define the problems related to inpatient behavioral health unit admission and discharge by collecting data, obtaining staff involvement, creating a solution, and monitoring for lasting benefit.

Methods

This quality improvement project took place at an 885-bed tertiary care academic medical center with Level 1 Trauma Center designation. Institutional Review Board approval was not required because this was performed as a quality improvement project rather than an experimental clinical trial and was not designed to create new generalizable knowledge.

The techniques used to improve outcomes on the inpatient behavioral health unit included Active Listening, Elevator Speech, Statistics, Cause and Effect Diagrams, development of a Communication Plan, Brainstorming, and Standard Work. Through interviews with physician assistants, nurses, and resident physicians conducted over a 1-month period, it became clear that there was confusion among patients surrounding the voluntary admission process, the process for requesting discharge, and the possibility of a voluntary admission being converted to an involuntary one. Active listening was used to better understand the opportunities for improvement from multiple perspectives through varying stages of the admission—from the consent process in the emergency department, admission to the unit, throughout the hospital stay, to the time of discharge. The following elevator speech was used to highlight the areas of confusion and the importance of implementing change with the team involved in implementing the new admission procedures:

> Our project is about improving patient understanding of the voluntary admission process to the Adult Psychiatry Unit and the 72-hour rule. This is important because the present process leads to patient misunderstanding, discontent on the unit, resis-

tance to provided therapies, and low Press Ganey satisfaction scores. Success will look like reduced patient confusion about the 72-hour rule, increased group participation, decreased patient-staff conflict, and improved Press Ganey scores. What we are asking from you is to use a standardized, scripted informed consent process, flow chart, and pocket card during the voluntary admission process.

Additionally, brainstorming sessions were conducted with physician assistants, nurses, and residents to discuss options to improve the process and elicit a list of barriers.

Data Gathering

Several metrics were tracked to further understand the issue. Overall Press Ganey scores, in addition to admission and discharge subsection scores, were tracked for the 8 months prior to implementing the quality improvement procedures (March 2017-October 2017). Additionally, the treatment team members answered survey questions related to perceived patient understanding at the beginning of training sessions in the 5-week period immediately prior to implementing the quality improvement procedures. This survey was administered using a 6-point Likert scale, ranging from 1 (never) to 6 (frequently), and included the following questions:

1. How often do you have to explain: (a) Request for Voluntary Admission form, (b) 72-Hour Rule, (c) Request to Discharge form?
2. How often is there confusion about the 72-hour rule and RTD form once admitted to the adult inpatient psychiatric unit?
3. How often do you need to re-explain the 72-hour rule and RTD form once admitted to the adult inpatient psychiatric unit?

In-depth interviews were conducted with 4 resident physicians, 4 physician assistants, and 3 nurses to identify specific shortcomings of the admission procedure. A key finding from these interviews was that some patients tended not to understand that the treatment team had 72 hours to respond to the RTD application. Instead, several patients had indicated that they thought that they could immediately discharge themselves since they were on the unit "voluntarily" or that they could categorically discharge themselves after 72 hours of being admitted. This feedback was crucial in determining the next steps that could be taken to minimize confusion.

Process Changes

In preparation for this quality improvement project, the language and layout of the Request for Voluntary Admission form was revised and approved internally by the hospital's Forms Committee to emphasize the 72-hour rule and the process for completing a RTD form. Additionally, these interviews indicated that it was difficult to track patients who were admitted voluntarily versus involuntarily. To rectify this problem, a field was added to the electronic medical record system to include current psychiatric admission status, allowing the selection to be either "Voluntary" or "Involuntary." This new field in the electronic medical record system gives nurses the ability to easily update legal status daily as appropriate, which minimizes the risk of information not being effectively communicated at shift changes, while also allowing various members of the treatment team to be updated on the admission status of each patient.

After reviewing data and obtaining staff involvement related to the problem, a new psychiatric admission and consent process was created. The new consent and admission process was characterized by a standardized procedure and scripted language to present to candidates for voluntary admission. The standardized procedure begins with the admitting staff member reading scripted consent language from a pocket card that includes 3 key points describing the voluntary admission procedure (see script in **Figure 1**). The first key point is to describe the 72-hour rule. Next, the staff member describes the purpose of the RTD form and shows an example to the patient. Finally, the staff member responsible for consenting describes the possibility of the patient being required to remain on the unit involuntarily in the event that he or she wants to leave before the treatment team sees fit and is deemed to be a danger to himself or herself or others.

On the reverse side of the pocket card, an example of the RTD form is available to show to the patient. The subsequent teach-back procedure is summarized using the flow chart in **Figure 2**, and this was made available to staff who participate in the admission and discharge

Based on everything you are telling me I think that you would really benefit from being treated in our inpatient behavioral unit so that we can work with you to get you feeling better. There are two different types of admission to this unit. There is voluntary admission where patients decide to be admitted to the unit in order to access different behavioral health services as quickly as possible. There is also involuntary admission, which involves a judge and court hearing. You may be a candidate for voluntary admission.

As part of voluntary admission to the floor, a thorough assessment is completed and treatment is initiated, which may include services such as medication, psychotherapy, and support groups. We know that you don't want to be in the hospital any longer than necessary and we don't want you to stay any longer than you need to, but this process takes time.

If for any reason you decide you're ready to leave before your treatment team does, then you can:

- **Ask a nurse at the nursing station for a Request to Discharge (RTD) form once you are on the unit.**
- **The treatment team has up to 72 hours from that point to respond to your request.**
- **This is what the Request to Discharge form looks like (consenter shows patient a copy of RTD form).**
- **However, the treatment team can require you to stay for further inpatient treatment if you're threatening to harm yourself or others, or you're not understanding what's going on around you. This would allow us to work together to help you feel better before you leave the hospital.**

I know that was a lot of information. To make sure I didn't leave anything out, can you please summarize what we talked about in your own words.

Figure 1. Scripted language for explaining admission policy.

processes. After reading the consent script, the consenting staff member must ask the patient to recall the 3 key points. For each key point that the patient cannot recall, the relevant section of the scripted language is re-read to the patient, who is asked to explain it again. If the patient recalls the 3 key points, then he or she is deemed to have cognitive capacity and thus can become a candidate for voluntary admission.

Flow charts, scripts, and pocket cards were created and distributed to relevant physicians, physician assistants, and nurses who participate in the admission or discharge process. Additional copies of pocket cards were made available within the department. In October 2017, an attending psychiatrist and medical student trained psychiatry physician assistants, nurses, and resident physicians who participated in the admission process in the ED or patient care on the unit on how to use the new materials. The new process was first implemented on November 1, 2017.

Measurements

Press Ganey scores were compared for 8 months before and 8 months after implementing the new process to monitor changes from the patients' perspective. Additionally, the treatment team members answered survey questions related to perceived patient understanding at the beginning of training sessions in mid-September through mid-October and again 5 weeks after the new process was implemented.

Results

The behavioral health unit's Press Ganey (overall and discharge) scores increased during the 8-month period following implementation of the quality improvement project (**Figure 3**). There was a notable upward trend of overall and discharge Press Ganey scores on a month-by-month basis from November through April. In total, 181 Press Ganey score reports were available for the 6-month period prior to the new process versus 157 score reports after (**Figure 4**). The average overall Press Ganey score for respondents improved from 77.1 to 81.6 ($P = 0.003$), while the average discharge score improved from 83.0 to 87.5 ($P = 0.023$).

In recent months, the behavioral health discharge satisfaction score has become one of the highest performing aspects of the department according to Press Ganey reports. From April through June 2018, the department has performed in the 98th percentile or higher in "information about patient's rights" during admission and "discharge instructions if help is needed."

The survey related to perceived patient satisfaction and confusion also indicated significant improvement. Survey respondents indicated that there was less confu-

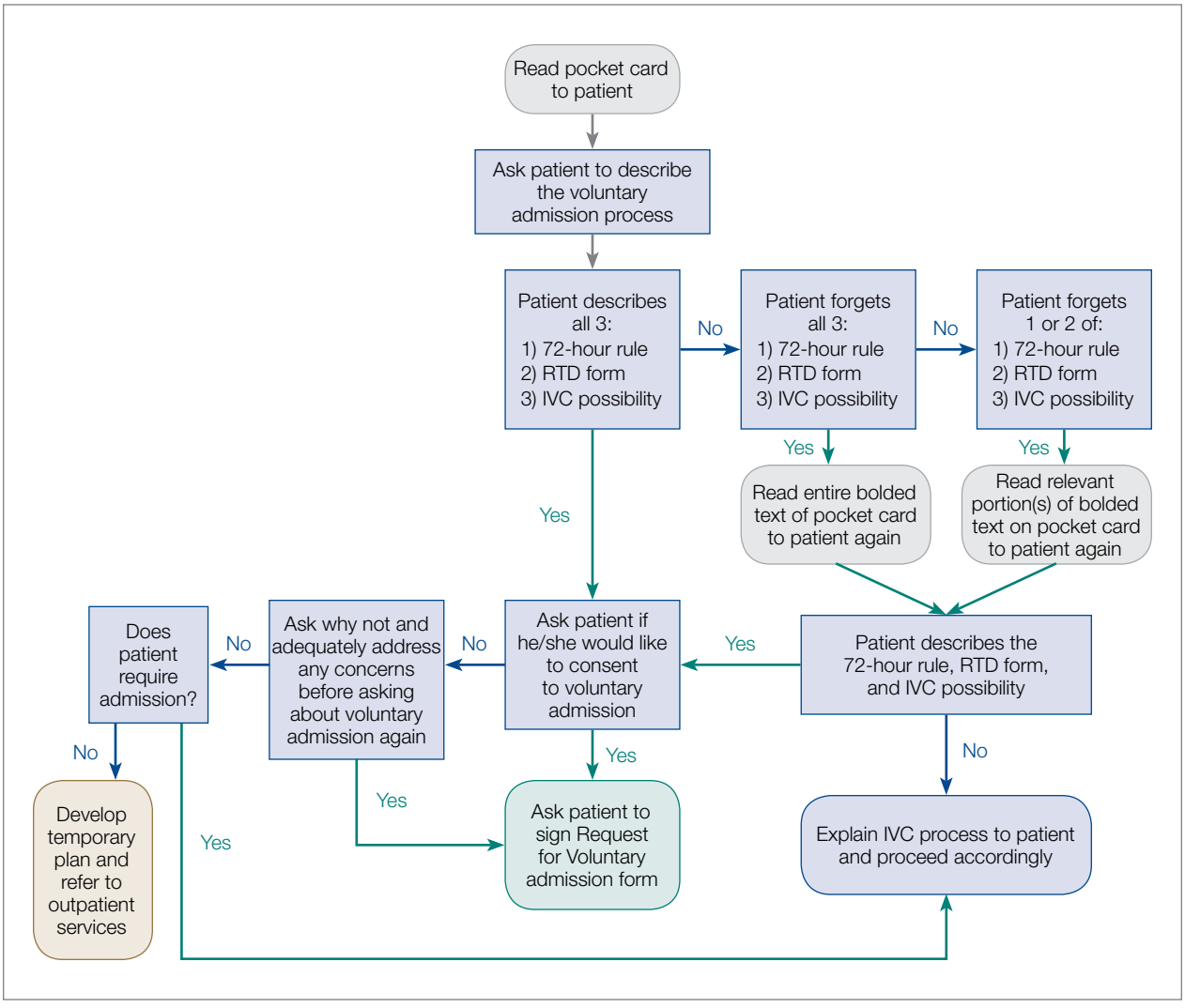

Figure 2. Flow chart describing the standardized process to ensure patient understanding of the 72-hour rule and request to discharge (RTD) process. IVC, involuntary commitment.

sion about the 72-hour rule and RTD form after the quality improvement procedure was implemented ($P = 0.039$) and that fewer attempts to re-explain these concepts were required as well ($P = 0.035$).

Discussion

The Press Ganey scores for this unit indicated an improvement in patient satisfaction, in particular with the discharge process. While the overall Press Ganey scores on the inpatient behavioral health unit showed a significant improvement, it remained stagnant, around 80, during the 8-month period after implementing the new standardized admission process. However, the discharge score consistently improved over the same 8 months, from 82 to 95 in the most recent month. Also, the overall and discharge scores indicated a brief spike/improvement in October, immediately preceding the implementation of the new scripted language. Given the timeline, this spike is likely related to the ongoing meetings, trainings, and awareness of the upcoming process improvement.

With hospital and health system reimbursements becoming increasingly tied with patient outcomes, quality improvement efforts to improve patient care and satisfaction are of the utmost importance. In order to develop the rapport with patients needed for a high level of cooperation and excellent outcomes on an inpatient psychiatric unit, it is essential that all patients receive specific infor-

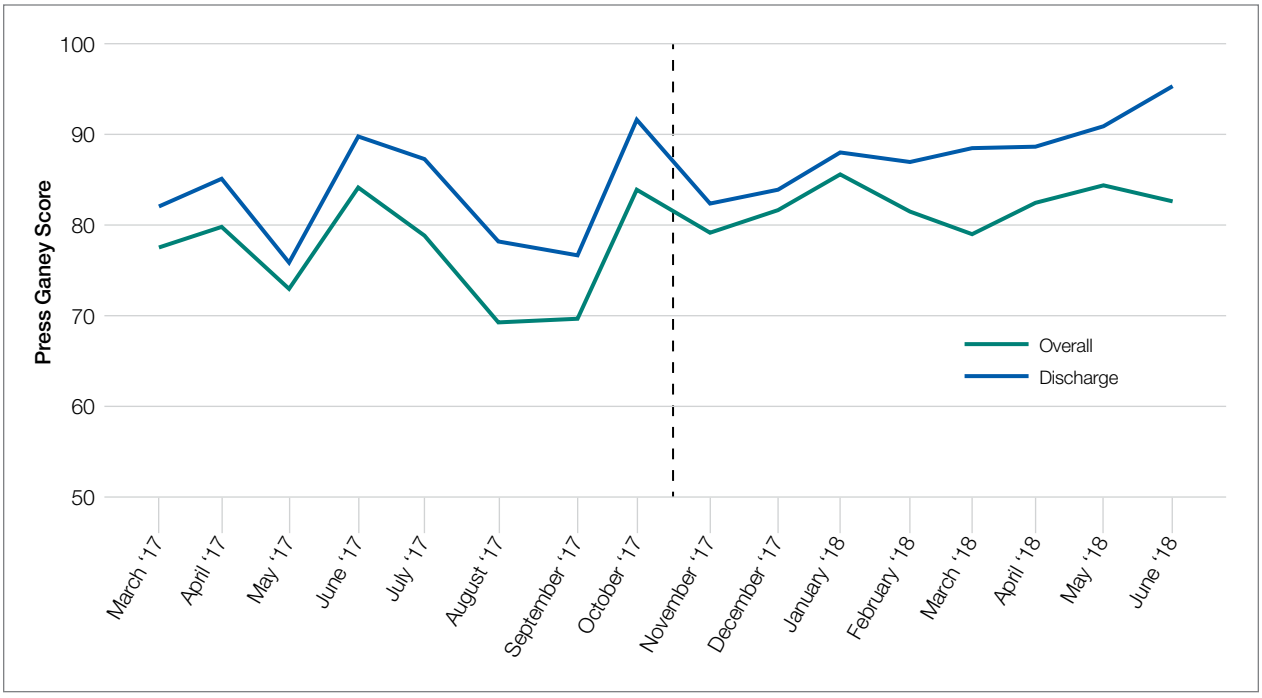

Figure 3. Press Ganey overall and discharge scores increased in the 8-month period after the modified process was implemented in comparison to the previous 8 months.

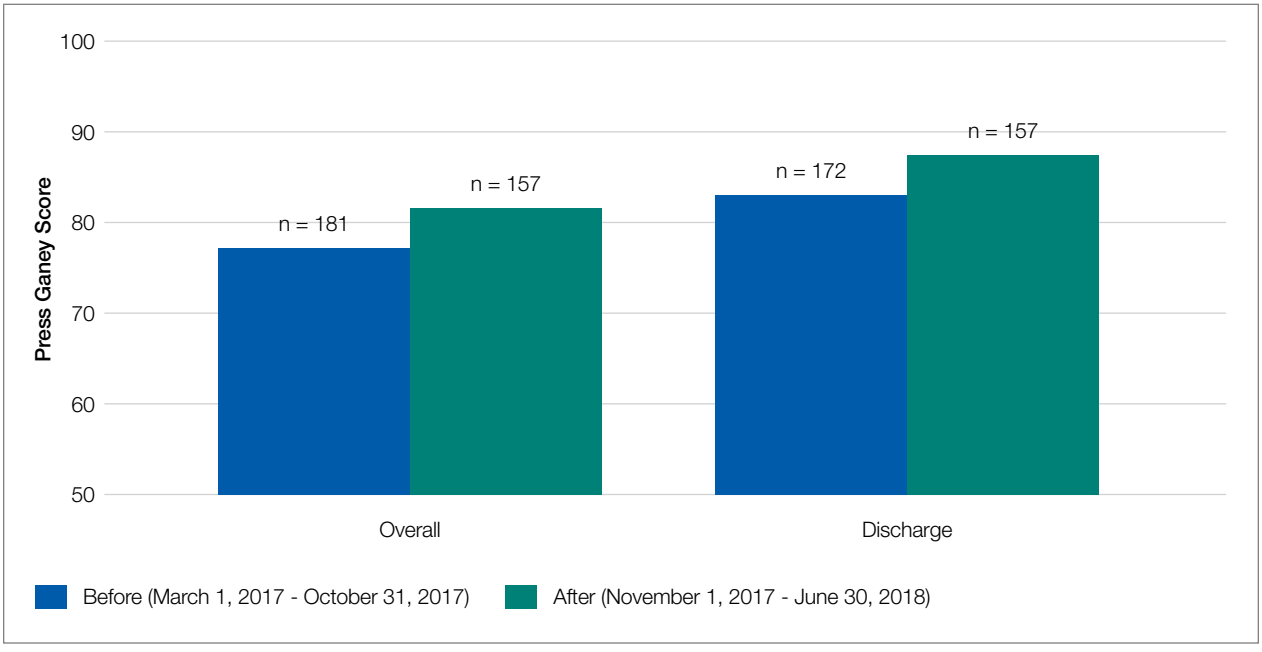

Figure 4. Mean Press Ganey overall and discharge scores for the entire 8-month periods before and after the new admission process.

mation about what the admission entails and what the options are for being discharged from the unit. Since a voluntary admission can be converted to an involuntary admission if a patient is deemed a threat to himself or herself or others despite already signing a RTD form, it is essential that this is not only discussed prior to admission, but that these details are explicitly checked for understanding. This allows the treatment team to assess

for capacity and the patient to demonstrate informed consent. Differing expectations or understanding in what the voluntary admission or discharge process entails can lead to patient frustration and hostility, lack of trust in the treatment team, poor attendance and participation in group therapy activities, and medication refusal. Altogether, this can lead to longer inpatient stays, increased costs, decreased outcomes, and decreased patient satisfaction.

These initiatives were relatively easy to implement and are backed by evidence that they ultimately increased patient satisfaction. These findings could be extended to other institutions to improve the voluntary admission process and, ultimately, the patient experience. Additionally, the methods could be applied to other patient care processes within psychiatric facilities, and to improve other aspects of the patient care experience that have room for improvement, as illustrated by the department's Press Ganey subsection scores, or areas that the treatment team would like to focus on.

Limitations

There are several limitations in the design and evaluation of this project. The assessment of patient understanding, especially in psychiatric patients, is very difficult to quantify. The principal measure of assessing patient understanding was limited to health care professional survey results. This may have led to a slight social desirability bias. An objective assessment of understanding directly from the patients was not readily attainable in our study, but future studies could look at this metric in addition to health care professional survey results.

Additionally, the overall Press Ganey scores may be influenced by factors beyond the admission process and the applied improvement procedures. It is difficult to discern whether there were any other factors that also contributed to the overall increase. However, the discharge score was a more direct measure specifically related to the modified procedures, and the temporal association of the intervention with the increased scores suggests that the intervention was responsible.

Conclusion

Standardization of the consent process ensures that all patients receive the necessary information every time in busy clinical settings. Incorporating an opportunity to "teach back" specific important information about the voluntary admission process, specifically what the 72-hour rule is, what the RTD form is, and the possibility of involuntary commitment, allows clinicians to assess capacity, while simultaneously allowing patients to have realistic expectations of the admission. Concise, standardized answers regarding these points minimizes variation in information being dispersed and decreases the possibility of omitting important information. At a major academic medical center, easy-to-implement quality improvement techniques significantly decreased patient confusion surrounding the 72-hour rule and the RTD form, along with the frequency in which these policies needed to be re-explained on the adult inpatient psychiatric unit. These changes ultimately led to improvement in patient satisfaction, as indicated by significant improvement in both overall and discharge patient satisfaction scores.

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