ORIGINAL RESEARCH

Brief Scale Measuring Patient Preparedness for Hospital Discharge to Home: Psychometric Properties

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BACKGROUND: Adverse events occur when patients transition from the hospital to outpatient care. For quality improvement and research purposes, clinicians need appropriate, reliable, and valid survey instruments to measure and improve the discharge processes.

OBJECTIVE: The object was to describe psychometric properties of the Brief PREPARED (B-PREPARED) instrument to measure preparedness for hospital discharge from the patient's perspective.

METHODS: The study was a prospective cohort of 460 patient or proxy telephone interviews following hospital discharge home. We administered the Satisfaction with Information about Medicines Scale and the PREPARED instrument 1 week after discharge. PREPARED measured patients' perceptions of quality and outcome of the discharge-planning processes. Four weeks after discharge, interviewers elicited emergency department visits. The main outcome was the B-PREPARED scale value: the sum of scores from 11 items. Internal consistency, construct, and predictive validity were assessed.

RESULTS: The mean B-PREPARED scale value was 17.3 $\pm$ 4.2 (SD) with a range of 3 to 22. High scores reflected high preparedness. Principal component analysis identified 3 domains: self-care information, equipment/services, and confidence. The B-PREPARED had acceptable internal consistency (Cronbach's alpha 0.76) and construct validity. The B-PREPARED correlated with medication information satisfaction ($P < 0.001$). Higher median B-PREPARED scores appropriately discriminated patients with no worry about managing at home from worriers ($P < 0.001$) and predicted patients without emergency department visits after discharge from those who had visits ($P = 0.011$).

CONCLUSIONS: The B-PREPARED scale measured patients' perceptions of their preparedness for hospital discharge home with acceptable internal consistency and construct and predictive validity. Brevity may potentiate use by patients and proxies. Clinicians and researchers may use B-PREPARED to evaluate discharge interventions. ***Journal of Hospital Medicine*** **2008;3(6):446–454.** © *2008 Society of Hospital Medicine.*

KEYWORDS: continuity of patient care, patient discharge, psychometrics, patient-centered care, health care surveys, patient satisfaction.

Supported by a grant 5 R01 HS015084 from the Agency for Healthcare Research and Quality.

Trial registration: NCT00101868 [http://clinicaltrials.gov].

The authors thank Dr. Karen Grimmer-Somers, PhD, for permission to use the PREPARED instrument and for her thoughtful comments on the draft manuscript.

Patients are vulnerable to adverse events when they transition from the hospital to outpatient care.[1–3] Approximately 19%-23% of patients experience adverse events within 4 weeks after acute care hospitalization.[3,4] One cause of postdischarge adverse events is ineffective discharge planning[1,2,5,6] Efforts to study and improve the hospital discharge-planning processes require appropriate and valid measurement instruments. These instruments must assess the discharge process from multiple

DOI 10.1002/jhm.316
Published online in Wiley InterScience (www.interscience.wiley.com).

perspectives. One of the important perspectives is the patient's.[7,8]

The PREPARED Patient Questionnaire is a comprehensive quality improvement tool to assess hospital discharge-planning processes and outcomes from the patient's perspective.[9,10] The PREPARED acronym describes the content of this tool used to investigate the following phenomena: 1) prescriptions, 2) ready to reenter community, 3) education, 4) placement, 5) assurance of safety, 6) realistic expectations, 7) empowerment, and 8) directed to appropriate services.[9] The PREPARED questionnaire was developed for, modified for, and validated with patients at least 65 years old. When administered to elderly patients 1 week after hospital discharge, the PREPARED has face, content, and construct validity.[9]

We considered the PREPARED questionnaire when we designed a clinical trial to assess the value of a discharge intervention. We sought a survey questionnaire to assess the patients' perceptions after the discharge intervention. In 2004, we found no other validated questionnaires except the PREPARED. We also noted some limitations of the PREPARED. The validated population for the PREPARED was patients older than 65 years. In our clinical trial, we planned to enroll adults of all ages. Another limitation was the PREPARED response scoring system that assigned missing data values to patients who took no medicines, needed no services, or needed no equipment.[10] We were concerned about the potential for unacceptably large numbers of patients with nonignorable missing data. We decided to address the above limitations with a validation study in our patient population and with a revised response scoring system.

In the present article, we describe item reduction and validation for the Brief PREPARED (B-PREPARED) scale to measure patients' perceptions of their preparedness for hospital discharge. When we designed B-PREPARED, we asked the following question: Does a subset of PREPARED items with a revised scoring system have internal consistency, construct validity, and predictive validity in a population of adult patients with broad age range? We also wanted a brief scale with acceptable, defined statistical properties for multiple users. One user class included clinicians who guide and assess discharge-planning processes. Other users would be researchers like us who measure differences between treatment groups after discharge process interventions.

METHODS

The Peoria Institutional Review Board approved the protocol for human research. The patient sample for scale analysis was a prospective cohort. Follow-up was 1 month after patient's discharge from a 730-bed acute-care teaching hospital in central Illinois. The patients were enrolled in an ongoing cluster randomized clinical trial with blinded outcome assessment. Willing patients or their proxies provided written consent for study participation. Enrollment occurred between December 2004 and July 2006.

Patient Inclusion Criteria

Trained research coordinators identified all consecutive adult inpatients who were discharged to the patient's home by internal medicine hospitalists. Patient inclusion in our cluster randomized trial required a probability of repeat admission (*Pra*) score of at least 0.40.[11,12] Hence, the patients in the scale analysis cohort had the same high probability for repeat admission. The research coordinators calculated the *Pra* within 2 days before discharge from the index hospitalization. The *Pra* score came from a logistic model of age, sex, prior hospitalizations, prior doctor visits, self-rated health status, informal caregiver, and comorbid coronary heart disease and diabetes mellitus.[11,12]

Patient Exclusion Criteria

We excluded patients if the discharge destination was a nursing home, another acute care hospital, or an inpatient rehabilitation unit. Patients were excluded if life expectancy was less than 6 months as estimated by the hospitalist. Because follow-up occurred via interview, patients without telephones or English- or Spanish-language skills were excluded. Patients with cognitive impairment could participate with consent from a legally authorized representative and with a proxy who spent a minimum of 3 hours daily with the patient and was willing to answer postdischarge interviews.

Baseline Assessment

During the index hospital admission, trained data abstractors recorded baseline patient data: age, sex, race, diabetes mellitus, heart failure, chronic obstructive pulmonary disease, and coronary heart disease. Patients or proxies provided the number

of hospital admissions and doctor visits during the year before the index hospital admission. We recorded the availability of an informal caregiver in response to the question "Is there a friend, relative, or neighbor who would take care of you for a few days if necessary?" Patients rated their health status on the following scale: poor, fair, good, very good, or excellent.

Discharge and Postdischarge Procedures

At the end of the index hospitalization, hospitalists and ward nurses used standardized forms for discharge diagnoses, prescriptions, instructions, and appointments. Discharge-planning nurses or social workers consulted with hospitalists and ward nurses and then coordinated service providers including home health nurses, physical therapists, home health aides, homemaker service providers, durable medical equipment vendors, home oxygen vendors, home infusion pharmacists, social workers, rehabilitation service providers, legal aide providers, and others. After discharge, trained research personnel conducted 2 telephone interviews with the patient or the patient's proxy. The first interview occurred 1 week after discharge. Interviewers read verbatim items from the PREPARED[10] and the Satisfaction with Information about Medicines Scale (SIMS).[13] During the second telephone interview 30 $\pm$ 10 days after discharge, interviewers recorded if patients had experienced at least 1 emergency department visit during the month after discharge.

The purpose of the PREPARED items was to have a bank of items and responses that could be used to generate the B-PREPARED scale. The PREPARED questionnaire was originally developed to provide feedback to hospital ward staff about the quality of discharge-planning activities that occurred during hospitalization.[9] Discriminant factor analysis on the original 16 process questions revealed 4 factors that explained 57% of the total variance in patient/caregiver responses. The PREPARED domains included information exchange on community services and equipment, management of medication, the process of preparing to cope after discharge, and having control over one's discharge circumstances.[9] The purpose of the SIMS was as a construct to compare with the B-PREPARED scale. The derivation and validity of the SIMS have been described extensively elsewhere.[13] In summary, the SIMS items were derived from recommendations of the Association of the British Pharmaceutical Industry. The intent of the SIMS was to determine if a patient's medication information needs were met and to allow comparison between patients or groups. Respondents selected 1 of 5 options for each of the 17 items. The sum of scores for each of the SIMS items yielded a total score that ranged from 0 to 17. Patients with high total SIMS scores had high satisfaction with the amount of medication information they received. Validation samples included inpatients and outpatients with a variety of diseases and characteristics. SIMS demonstrated adequate internal consistency, test-retest reliability, and criterion-related validity.[13]

Item Selection and Scoring of the B-PREPARED Instrument

We selected an initial pool of items from the PREPARED instrument.[10] The goal was a parsimonious, comprehensive, and valid instrument for use in clinical and research environments. When we retained or deleted items, our decision process was conservative, conceptual, and statistical. We performed item reduction in the following steps defined a priori. First, we agreed on items consistent with domains in the "prepared for discharge" construct as defined by expert consensus.[9] Second, we excluded items that assessed qualities of the discharge process that were imperceptible to the patient on the day of discharge. Third, we excluded items that elicited open-ended responses unsuitable for quantitative scale development and analysis. Fourth, we assessed reliability as defined by the Cronbach's alpha statistic. We excluded items that substantially decreased Cronbach's alpha.

Measures of Construct Validity

We used 2 measures of construct validity in our assessment of B-PREPARED. One construct was patient worry. During the interview 1 week after discharge, research personnel asked, "Now that you have been out of the hospital for a while, has anything been worrying you about managing at home?" Response options for the dichotomous worry item were no or yes. We anticipated worried patients would have lower B-PREPARED scale values. The other construct, SIMS, evaluated patient preparedness related to medication information exchange. The hypothesis was a positive

correlation between SIMS and B-PREPARED scale values.

Measure of Predictive Validity

We asked if B-PREPARED predicted and discriminated groups of patients who did or did not visit emergency departments after hospital discharge. Emergency department visits were relevant adverse outcomes because of their association with post-discharge adverse events due to inpatient treatment.[4] Emergency department visits reflected new or worsening symptoms after discharge. In our scale analysis, the hypothesis was patients with at least 1 emergency department visit would have lower B-PREPARED scale values.

Analysis

Analyses were performed with SPSS PC (Version 14.0.2, SPSS Inc, Chicago, IL). We reported descriptive statistics as means, standard deviations, and range for interval variables and percentages for nominal variables. To determine the internal consistency of the scale, we calculated Cronbach's alpha. We assessed the distribution of the B-PREPARED scale with visual and statistical tests for skewness. While using the SPSS FACTOR program, we performed principal components extractions and then rotated components using the oblique promax technique. Component scores were saved using the regression score procedure. Component loadings above 0.30 were considered important. Statistical inference tests were the Mann-Whitney U for median differences between 2 groups and the Spearman correlation for associations. We reported medians with 25th and 75th percentiles. Differences between 2 correlations were tested using Fischer z transformations. The accepted level of significance was $P < 0.05$.

RESULTS

Description of Cohort

We approached 5124 patients during the index hospital admission. After applying exclusion criteria, we obtained consent and enrolled 491 patients. The reasons for exclusion were low *Pra* score for 34.9% of ineligible patients, discharge to nursing home for 12.8%, declined consent for 10.8%, nonparticipating hospitalist service for 9.1%, discharged during screen for 8.5%, previously enrolled in study for 5.6%, and declined screening for 2.3%. Each of the other exclusion criteria accounted for less than 4% of the ineligible patients. After subtracting 6% of eligible patients (31 of 491) who died, withdrew, or were lost during the first month, there were 460 patients available for analysis. Table 1 describes the patients' characteristics. Most of the patients, 75.2% (346 of 460), were less than 65 years old, and the mean age was 53.9 ± 15.5 years. Many patients had chronic diseases including diabetes mellitus, coronary heart disease, heart failure, and chronic obstructive pulmonary disease. Most patients, 81.5% (375 of 460), rated their health as poor or fair, and 53.5% (246/460) had 1 or more hospital admissions during the year before their index admission. Cohort patients had a high probability of repeat admission: mean *Pra* 0.49 ± 0.07 (range 0.40–0.70).

TABLE 1
Baseline Characteristics of 460 Patients in the Sample Used to Develop the B-PREPARED Scale

Characteristic	n (%)
Sex (male)	193 (42.0%)
Age (years)	
19–30	35 (7.6%)
31–64	311 (67.6%)
65–98	114 (24.8%)
Race	
White	275 (59.8%)
Black	124 (27.0%)
Other	61 (13.3%)
Self-rated health status	
Poor	139 (30.2%)
Fair	236 (51.3%)
Good	70 (15.2%)
Very good	13 (2.8%)
Excellent	2 (0.4%)
Diabetes mellitus	259 (56.3%)
Chronic obstructive pulmonary disease	79 (17.2%)
Coronary heart disease	188 (40.9%)
Heart failure (n = 456)	100 (21.7%)
Informal caregiver available (yes)	459 (99.1%)
Hospital admissions during year prior to index admission	
0	214 (46.5%)
1	131 (28.5%)
2	47 (10.2%)
3 or 4	35 (7.6%)
5–15	33 (7.2%)

Item Reduction, Internal Consistency, and Score Distributions

Item reduction resulted in 12 items that fulfilled conceptual criteria. Table 2 shows the items and

TABLE 2
Survey Items with Descriptors for Response Scoring System and Number of Respondents for Each Score (n, % of 460 respondents)

	Item Text	Descriptor for Score 0	Descriptor for Score 1	Descriptor for Score 2
1	While you were in the hospital, how much information did you receive about the medications that you were to take at home?	None (40, 8.7%)	Some, but not enough (95, 20.7%)	As much as I needed; or Not taking any medications (325, 70.7%)
2	While you were in the hospital, how much information did you receive about the side effects of the medications that you were to take at home?	None (198, 43.0%)	Some, but not enough (54, 11.7%)	As much as I needed; or Not taking any medications (208, 45.2%)
3	While you were in the hospital, were you given written instructions about your medications? If yes, did someone spend time explaining the written instructions?	No written instructions and no time spent (116, 25.2%)	Yes, received written instructions but no time spent (49, 10.7%)	Yes, received written instructions and yes, time spent; or, Not taking any medications (291, 63.3%)
4	While you were in the hospital, how much information did you receive on how you would manage your usual activities when you went home?	None (55, 12.0%)	Some, but not enough (90, 19.6%)	As much as I needed (315, 68.5%)
5	While you were in the hospital, how much information did you receive on community services you might use once you went home?	None (89, 19.3%)	Some, but not enough (40, 8.7%)	As much as I needed; or No services needed (331, 72.0%)
6	While you were in the hospital, how much information did you receive on equipment you might need once you went home?	None (49, 10.7%)	Some, but not enough (22, 4.8%)	As much as I needed; or No equipment needed (389, 84.6%)
7	Before you were discharged from the hospital, did anyone arrange community services for you to use at home?	No (42, 9.1%)		Yes; or No one needed to arrange because services were already in place or no services needed (418, 90.9%)
8	Before you were discharged from the hospital, did anyone arrange equipment for you?	No (16, 3.5%)		Yes; or No one needed to because equipment already in place or no equipment needed (444, 96.5%)
9	Before you were discharged from hospital, was there any other information you would have liked while you were in the hospital to prepare you for coping at home?	No (116, 25.2%)		Yes (344, 74.8%)
10	After you were told you could leave the hospital, how confident did you feel about managing at home?	Not confident (25, 5.4%)	Unsure (103, 22.4%)	Confident (332, 72.2%)
11	Looking back to the time you left the hospital, overall, how prepared did you feel for returning home?	Unprepared (39, 8.5%)	Moderately prepared (132, 28.7%)	Very prepared (288, 62.6%)
12	After you were told you could leave the hospital, were there any delays on the day you left the hospital?	Yes (122, 26.5%)		No (338, 73.5%)

The first 11 items make up the B-PREPARED scale. Item 12, "delays on the day you left the hospital," was not retained in the B-PREPARED scale.

the distribution of responses. One of the 12 items, delays on the day you left the hospital (item 12, Table 2), was deleted because the item depressed the Cronbach's alpha. The B-PREPARED with 11 items had acceptable internal consistency for the full cohort (Cronbach's alpha = 0.76).

For an individual patient, the sum of the scores for each item yielded a B-PREPARED scale value. In the 460-patient cohort, B-PREPARED scale values had a mean of 17.3 $\pm$ 4.3 and a negatively skewed distribution. A high scale value reflected high perception of discharge preparedness. Each of the 11 items correlated significantly with the B-PREPARED scale value ($P < 0.001$, 2-tailed).

There were substantial ceiling effects with individual items but not in the B-PREPARED total score. Five of the 9 items with 3 response options

TABLE 3
Pattern Matrix from Principal Components Analysis with n = 460 Patients: Oblique Factor Loadings for 11 Items on B-PREPARED Scale

		Component		
	Item text	Self-care Information for Medications and Activity	Equipment and Services	Confidence
1	While you were in the hospital, how much information did you receive about the medications that you were to take at home?	**0.749**	−0.032	0.019
2	While you were in the hospital, how much information did you receive about the side effects of the medications that you were to take at home?	**0.778**	−.008	−0.003
3	While you were in the hospital, were you given written instructions about your medications? If yes, did someone spend time explaining the written instructions?	**0.758**	−0.030	−0.084
4	While you were in the hospital, how much information did you receive on how you would manage your usual activities when you went home?	**0.581**	0.101	0.195
5	While you were in the hospital, how much information did you receive on community services you might use once you went home?	0.158	**0.639**	0.124
6	While you were in the hospital, how much information did you receive on equipment you might need once you went home?	0.183	**0.701**	-0.152
7	Before you were discharged from the hospital, did anyone arrange community services for you to use at home?	−0.081	**0.654**	0.199
8	Before you were discharged from the hospital, did anyone arrange equipment for you?	−0.138	**0.655**	−0.095
9	Before you were discharged from the hospital, was there any other information you would have liked while you were in the hospital to prepare you for coping at home?	0.181	0.211	**0.369**
10	After you were told you could leave the hospital, how confident did you feel about managing at home?	−0.036	−0.058	**0.876**
11	Looking back to the time you left the hospital, overall, how prepared did you feel for returning home?	0.018	−0.032	**0.875**

had a ceiling effect above 70%. Three items had a dichotomous response option (items 7, 8, and 9). In 2 of these 3 items, more than 90% of respondents selected the response indicating higher preparedness. The total B-PREPARED did not have noteworthy floor or ceiling effects. In this sample's total B-PREPARED scores, 0.2% of respondents had the lowest score of 3, and 20% had the highest score of 22.

Principal Component Analysis

In the component analysis, we evaluated the correlation matrix of the 11 items in the B-PREPARED scale. A Kaiser-Meyer-Olkin statistic of 0.76 indicated sufficient sampling adequacy to extract components from the matrix. Principal components extracted 54.2% of the variance associated with the 11-item B-PREPARED scale. After inspection of scree plots, we determined that 3 components were extracted before the eigenvalue fell below 1. The pattern matrix for the promax rotation was inspected, and the factor loading of each item appears in Table 3. The item content identified the first component as self-care information for medications and activities. The second component was equipment and services. The third component was confidence. All B-PREPARED items loaded primarily on 1 of the 3 components (Table 3).

Construct Validity

We assessed 2 constructs: worry and satisfaction with medication information (SIMS). In the cohort, 25% of patients (115 of 460) reported worry about managing at home. Worried patients had significantly lower B-PREPARED scale values (median [25%, 75%] = 14 [10, 16]) than patients who did not worry (median [25%, 75%] = 17 [14, 20], $P < .001$). We calculated SIMS and then correlated SIMS with B-PREPARED and components. In the cohort, the mean SIMS was 12.1 ± 4.7 (range 0-17). Patients with greater satisfaction on the SIMS also had higher B-PREPARED scale values (rho = 0.45, $P < 0.001$). There was a significant positive correlation between SIMS and the B-PREPARED component called self-care information for medications and activities (rho = 0.46, $P < 0.001$). The other 2 B-PREPARED components, equip-

ment/services and confidence, were positively correlated with SIMS at much lower levels (rho = 0.18 and rho = 0.24, respectively, both Fischer *z* transformations $P < .001$). The B-PREPARED scale demonstrated validity with the constructs of worry and satisfaction with medication information.

Predictive Validity

We assessed the capacity of the B-PREPARED to predict and discriminate groups of patients who did or did not visit emergency departments. Within 1 month of hospital discharge, 16.5% of the cohort (76 of 460 patients) had at least 1 visit to an emergency department. B-PREPARED scale values were lower for those patients who visited emergency departments (median [25%, 75%] = 14 [12, 18]) than those who did not (median [25%, 75%] = 16 [13, 19], $P = 0.011$). The B-PREPARED scale analysis supported the hypothesized relationship with emergency department visits.

Correlations between B-PREPARED and Baseline Characteristics

We evaluated the correlations between a patient's B-PREPARED scale value and baseline characteristics, shown in Table 1. There was a weak positive correlation with self-rated health status (rho 0.17, $P < .001$). Patients who perceived better health status had higher B-PREPARED scale values than those with poorer status. The other baseline characteristics in Table 1 were not associated with B-PREPARED scale values.

DISCUSSION

The B-PREPARED scale measures patients' perceptions of their preparedness for hospital discharge home. Scale items came from the PREPARED, a survey with validated psychometric properties in elderly patients. We assessed the B-PREPARED in a cohort of young and elderly adult patients. We examined the B-PREPARED instrument for internal consistency, construct validity, and predictive validity. In comparison with the domains identified in the full PREPARED instrument,[9] the abbreviated B-PREPARED scale identified similar domains. Some differences were anticipated because we limited items to those the respondents would be able to perceive before leaving the hospital.

The results of our study should be interpreted in the context of strengths and limitations. One of the strengths was the validity of the PREPARED, from which the B-PREPARED was derived.[7] The conceptually rigorous process used to develop the PREPARED questionnaire allowed us to draw from a bank of concise, well-worded items.[9] The B-PREPARED extends validity to a population of adults of all ages with high risk for readmission. The other strength of the B-PREPARED was the association with the clinically relevant constructs worry and satisfaction with medication information. The B-PREPARED also discriminated between patients who did and those who did not return to emergency departments after discharge. Although the patient population for the B-PREPARED validation was one of the strengths of this study, it is also a limitation. Our cohort lacked diversity with respect to readmission risk. The results of our study may not generalize to patients with low risk for repeated admission. Furthermore, all our patients were discharged home. The exclusion of other discharge destinations helped us to enroll a cohort with homogenous risk for readmission. However, our exclusion criteria did not allow us to validate the B-PREPARED in patients discharged to nursing homes, inpatient rehabilitation units, or other acute care facilities.

Another limitation related to outpatient visits after discharge. We did not analyze outpatient sites other than emergency departments. For all of our study patients, the discharging hospitalist scheduled at least 1 outpatient visit with the primary care practitioner. For some patients, the hospitalist also scheduled postdischarge visits for diagnostic evaluations like cardiac stress tests, endoscopies, radiographs, or other laboratory tests. When these visits occurred, they represented successful execution of the discharge plan. Sometimes patients arrived for planned or unplanned outpatient visits with exacerbated symptoms or adverse events. These latter visits might represent failures of the discharge plan. Our data collection did not allow us to distinguish outpatient visits as successes or failures of the discharge plan. When we counted only emergency department visits, we may have underestimated the number of patients with adverse events who sought and received successful treatment in outpatient clinics. Future studies should consider ascertainment of planned and unplanned outpatient visits for exacerbated symptoms and adverse events.

After our study began enrollment, other investigators published the Readiness for Hospital

Discharge Scale[14] and Care Transitions Measure.[15] The design and validation of these sampling instruments differed with each other and with the B-PREPARED. The differences made the 3 scales complementary but not interchangeable. For example, investigators administered the 21-item Readiness for Hospital Discharge Scale on the day of discharge to adult medical-surgical patients, postpartum mothers, and parents of hospitalized children. In contrast, we administered the B-PREPARED 1 week after discharge to adult internal medicine patients or their proxies. The Readiness for Hospital Discharge subscales were personal status, knowledge, coping ability, and expected support. These subscales were similar to the components of the B-PREPARED. The Readiness for Hospital Discharge Scale demonstrated internal consistency and construct validity but did not predict patients who returned to emergency departments after hospital discharge.[14] Future users of the Readiness for Hospital Discharge Scale or the B-PREPARED should consider their patient populations and the date of administration when selecting 1 scale versus another. If brevity is important to a clinician or researcher, then the 11-item B-PREPARED scale may be considered.

The Care Transitions Measure also differed from the B-PREPARED. The 15-item Care Transitions Measure evaluated an adult population with a broad age range and with chronic obstructive pulmonary disease, heart failure, stroke, or hip fracture.[15] The diseases represented in the population for the Care Transitions Measure were similar to those in the B-PREPARED cohort, although the distribution of the diseases differed. When validating the Care Transitions Measure, investigators administered questionnaires 6 to 12 weeks after discharge. The Care Transitions Measure had 4 factors: critical understanding, preferences important, management preparation, and care plan. The factors of the Care Transitions Measure were comparable to the components of the B-PREPARED, and both scales assessed medication self-management. However, the Care Transitions Measure addressed patient preferences with specific items, whereas the B-PREPARED used the scoring system to quantify patient preferences. Both the Care Transitions Measure and the B-PREPARED demonstrated internal consistency and discriminated between patients who did and those who did not return to emergency departments after hospital discharge.[15] When selecting a scale, future users should consider the B-PREPARED only for assessments 1 week post discharge and should consider the Care Transitions Measure for later assessments.

There are applications of the B-PREPARED scale in hospital quality improvement efforts. Hospitals have multiple motivations to pursue quality improvement projects related to discharge processes: satisfaction of patients, reduction in adverse events, relation with referring physicians, and accreditation by regulators.[6,16] When hospital-based clinicians survey patients, they may wish to use a brief, reliable, and validated instrument like the B-PREPARED questionnaire.

CONCLUSIONS

The B-PREPARED provided a reliable and valid measure of patients' perceptions of their preparedness for hospital discharge home. Clinicians and researchers may find the B-PREPARED useful to guide, assess, and compare discharge-planning interventions.

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Received 15 June 2007; revision received 4 December 2007; accepted 9 December 2007.

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