

## SPANISH VALIDATION AND CROSS-CULTURAL ADAPTATION OF A HEALTH RECOVERY EXPECTATIONS SCALE

SILVANA MEEK TORRES<sup>1</sup>, LILIAN PIETRACCI<sup>1</sup>, MARÍA PÍA IZAGUIRRE<sup>1</sup>, DIEGO CARUSO<sup>2</sup>

<sup>1</sup>Departamento de Medicina Interna, <sup>2</sup>Departamento de Investigación,  
Hospital Dr. César Milstein, Buenos Aires, Argentina

**Postal address** María Pía Izaguirre Germain, Hospital Dr. César Milstein, La Rioja 1011, 1221 Buenos Aires, Argentina

**E-mail:** piaizaguirre@gmail.com

**Received:** 9-IV-2025

**Accepted:** 1-IX-2025

### Abstract

**Introduction:** This study validates and cross-culturally adapts a Spanish version of the “Provider Expectations for Recovery Scale” (EXPECT-P) and evaluates agreement among patients, families, and physicians regarding recovery expectations after hospitalization.

**Materials and methods:** Translation of the questionnaire was done by five healthcare professionals. The final version was completed by 42 hospitalized patients aged over 60, their family members, and treating physicians. Patients with dementia, terminal illness, language barriers, or refusal to participate were excluded. Internal consistency was assessed using Cronbach's alpha, and agreement among raters was measured with the intra-class correlation coefficient (ICC).

**Results:** The median ages of patients, family members, and physicians were 79.5, 56.5, and 35, respectively. Cronbach's alpha values were 0.82, 0.88, and 0.91, respectively. The ICC was 0.71 (95% CI 0.53-0.84,  $p=0.001$ ). Patients had the highest EXPECT-P scores (median 23.5), followed by family members (median 19.5) and physicians (median 18). Significant differences were observed: 5.5 points between patients and physicians ( $p<0.001$ ), 4 points between patients and family members ( $p=0.02$ ), and 1.5 points between physicians and family members ( $p=0.26$ ).

**Discussion:** The EXPECT-P Scale showed strong validity and internal consistency. Significant discrepancies in recovery expectations were found between patients, family members, and physicians. These findings high-

light the importance of aligning expectations to improve rehabilitation outcomes and reduce potential frustration.

**Key words:** recovery of function, discharge planning, questionnaire

### Resumen

**Validación en español y adaptación transcultural de una escala de expectativas de recuperación de la salud**

**Introducción:** El objetivo de este estudio fue validar y adaptar transculturalmente al español la “Escala de Expectativas del Proveedor para la Recuperación” (EXPECT-P) y evaluar la concordancia de las expectativas de recuperación después de la hospitalización entre pacientes, familiares y médicos.

**Materiales y métodos:** La traducción del cuestionario fue realizada por cinco profesionales de la salud. La versión final fue completada por 42 pacientes hospitalizados mayores de 60 años, sus familiares y médicos tratantes. Se excluyeron pacientes con demencia, enfermedad terminal, barreras lingüísticas o negativa a participar. La consistencia interna fue evaluada utilizando el alfa de Cronbach, y el acuerdo entre los evaluadores fue medido con el coeficiente de correlación intraclass (CCI).

**Resultados:** Las edades medianas de los pacientes, familiares y médicos fueron 79.5, 56.5 y 35, respectivamente. Los valores de alfa de Cronbach fueron 0.82, 0.88 y 0.91, respectivamente. El CCI fue 0.71 (IC 95% 0.53-0.84,

$p=0.001$ ). Los pacientes tuvieron las puntuaciones más altas en la EXPECT-P (mediana 23.5), seguidos de los familiares (mediana 19.5) y los médicos (mediana 18). Se observaron diferencias significativas: 5.5 puntos entre pacientes y médicos ( $p<0.001$ ), 4 puntos entre pacientes y familiares ( $p=0.02$ ), y 1.5 puntos entre médicos y familiares ( $p=0.26$ ).

**Discusión:** La escala EXPECT-P mostró una fuerte validez y consistencia interna. Se encontraron discrepancias significativas en las expectativas de recuperación entre pacientes, familiares y médicos. Estos hallazgos destacan la importancia de alinear las expectativas para mejorar los resultados de la rehabilitación y reducir la frustración potencial.

**Palabras clave:** recuperación de la función, planificación del alta, encuesta.

## KEY POINTS

### Current knowledge

- Functional decline is common after hospitalization in older adults. Recovery expectations play a critical role in emotional well-being and rehabilitation outcomes. However, there is limited research on how these expectations are perceived by patients, families, and physicians. A validated tool to accurately assess recovery expectations is currently lacking in Spanish.

### Contribution of this article to current knowledge

- This study validated the Spanish version of the Provider Expectations for Recovery Scale (EXPECT-P) and examined agreement among patients, families, and physicians. Patients were significantly more optimistic than physicians. These findings support the EXPECT-P as a useful tool to identify expectation discrepancies and guide realistic, patient-centered discharge planning.

Each month, approximately 70 out of every 10 000 adults aged 65 years and older require hospitalization<sup>1</sup>. Post-hospitalization functional decline is a significant concern in this population, with up to 33% experiencing impairments

in at least one activity of daily living, a proportion that rises to 50% among those aged 80 years or older<sup>2</sup>. The consequences of prolonged bed rest are well-documented, affecting multiple physiological systems. The cardiovascular system may exhibit orthostatic intolerance; the respiratory system faces an increased risk of atelectasis and infections; and the musculoskeletal system suffers from losses in muscle strength and bone density<sup>2</sup>. These changes collectively contribute to heightened frailty, functional decline, and increased dependence.

Effective recovery following hospitalization requires an appropriate patient's psychological well-being, a strong social support network, and adequate access to healthcare services<sup>2-4</sup>. The emergence of new health conditions after hospitalization often leaves patients and their families struggling to anticipate or comprehend the patient's evolving clinical trajectory. In this context, expectations refer to the rational assessment of likely future events based on existing evidence or prior experience.

Recovery expectancy scales have been used in the mental health field such as the Mental Health Recovery Scale (MRS)<sup>5</sup> and the Addictions Recovery Scale (ARS)<sup>6</sup>. However, their use has not been documented in the context of general inpatient care.

Based on clinical experience, significant discrepancies in recovery expectations are observed among patients, their families, and treating physicians. However, this issue remains largely unexplored.

Most studies published to date have primarily focused on patients' expectations regarding recovery following surgical procedures<sup>7</sup>. Evidence suggests that unmet or unrealistic expectations are associated with negative emotional responses, including frustration, anxiety, and diminished motivation and confidence during rehabilitation<sup>3</sup>.

This study aimed to validate the Spanish version of the Provider Expectations for Recovery Scale and adapt it cross-culturally<sup>8</sup>. A secondary objective was to assess the degree of agreement among patients, family members, and treating physicians regarding patients' recovery expectations.

## Materials and methods

A cross-sectional study was conducted using a structured questionnaire. The study adhered to the principles of Good Clinical Practice in research, as outlined in the Declaration of Helsinki. The protocol and informed consent form were approved by the Institutional Research Ethics Committee (PRIISA registration code 7306). All participants provided written informed consent.

### The Expectations Scale

A modified version of the Patient Recovery Expectations Scale was used (Appendix). This 10-item scale assesses various dimensions of recovery, such as social interactions, functional abilities at home and in the community, motivation, and symptom coping strategies.

### Population and setting

Recruitment took place from September 2022 to April 2023 at a geriatric hospital affiliated with the University of Buenos Aires. The hospital has 140 general inpatient beds and 40 critical care beds. Patients aged >60 years hospitalized in the Internal Medicine Department, their family members, and the treating physicians were invited to participate within 72 hours prior to discharge.

Exclusion criteria included refusal to participate, severe cognitive impairment, language or communication barriers that prevented comprehension of the questionnaire, terminal-stage palliative care, and the absence of an accompanying family member.

### Translation and adaptation procedure

The Spanish validation and cross-cultural adaptation of the Provider Expectations for Recovery Scale, hereafter referred to as the Escala de Expectativas de Recuperación del Paciente (EXPECT-P), followed the guidelines recommended by the Mapi Research Institute and Guillemin et al.<sup>9</sup>.

The initial translation was conducted by two independent native Spanish-speaking translators. One translator was familiar with the objectives and concepts underlying the questionnaire, while the other was not. Both were instructed to use terminology adapted to the local Spanish spoken in Buenos Aires, Argentina. A consensus version of the questionnaire was developed based on their translations. A back-translation into English was then performed by a native English-speaking translator and compared to the original version to ensure conceptual equivalence.

Subsequently, a panel of five experts was convened, comprising a specialist in epidemiology and statistics,

two internal medicine physicians, and two geriatric specialists. The panel reviewed expressions that were less commonly understood in Argentina and reformulated the questionnaire to enhance clarity and cultural relevance. Examples were added to certain items, including commonly used synonyms in Argentina to enhance comprehension for the target population while preserving the original meaning of the questions.

Face validity of the final version was conducted through a pilot test. To assess relevance and clarity, two additional questions were added to each item. The questionnaire was initially tested with six healthcare professionals, followed by five representative patients. Participants confirmed that the items were clear and comprehensible, and no further modifications were suggested.

The final version of the questionnaire included a 4-point Likert scale to rate each item as follows: 3 (Very likely), 2 (Somewhat likely), 1 (Unlikely), and 0 (Not at all likely). The EXPECT-P score ranges from 0 to 30 points.

### Data collection

Patients were invited to participate through simple random sampling among those scheduled for discharge within 72 hours. Each candidate was assigned a unique number, and up to three patients were randomly selected using an online random number generator. The patient, their family member, and the attending physician were all invited to complete the EXPECT-P questionnaire.

In addition to the EXPECT-P questionnaire, basic demographic information (age, sex, educational level, co-habitants) and clinical data (discharge diagnosis and degree of independence, as measured by the KATZ Index and Lawton and Brody Scale) were collected<sup>10,11</sup>.

### Sample size

To achieve a subject-to-item ratio of 10, in line with current recommendations<sup>14</sup> and considering that the questionnaire contains 10 items, a minimum of 100 participants was required. This number was increased to 120 to achieve a subject-to-item ratio of 4 for each group: physician, family member, and patient.

According to Green's formula for multivariate linear regression analysis, this sample size was sufficient to construct a model with a continuous outcome defined as the sum of the questionnaire item scores<sup>12</sup>. The formula used was:  $50 + (8 \times \text{number of predictors}) = 114$  participants. To account for potential missing data, the sample size was increased to 126 participants.

### Statistical analysis

Continuous variables were described using the mean and standard deviation, or the median and interquartile range (IQR 25-75) depending on data distribution. Categorical variables were reported as absolute counts and percentages. The internal consistency of the questionnaire was assessed using Cronbach's alpha. Correlations between individual questions and the overall questionnaire were examined through item-test correlations.

The study employed exploratory factor analysis (EFA) to examine the underlying structure of three 10-item questionnaires (for patients, family members, and physicians). Data suitability was assessed using the Kaiser-Meyer-Olkin (KMO) index (values > 0.6 considered acceptable) and Bartlett's test of sphericity. Principal axis factoring with unrotated solution was applied, complemented by Horn's parallel analysis (300 iterations) to determine the optimal number of factors to retain.

To assess the agreement between the patient, family member, and physician (each considered a "rater"), the intraclass correlation coefficient (ICC) was calculated using a two-way mixed-effects model. The average ICC summarized inter- and intra-observer agreement, while the individual ICC measured concordance for each observer.

The correlation between scores assigned by different pairs of raters (Patient-Physician, Patient-Family and Family-Physician) for each question of the EXPECT-P questionnaire was assessed using Pearson's correlation coefficient, which ranges from -1 (perfect negative correlation) to 1 (perfect positive correlation), with 0 representing no correlation<sup>13</sup>.

The final EXPECT-P score was calculated by summing the individual item scores, as previously detailed. The relationship between EXPECT-P scores and patient variables (educational level, degree of dependence, and bedridden at discharge) was explored using a linear regression model for each rater group.

Statistical analyses were performed using STATA 18.0® (Stata Corporation, Texas, USA, 2023).

## Results

Ninety-six patients were initially invited to participate. Of these, 37 did not meet the inclusion criteria, 7 were discharged before the questionnaire could be administered, and 10 declined to participate. Finally, 42 patients were included, along with their respective family members and treating physicians, yielding a total of 126 participants.

### Demographic characteristics

The median ages for patients, family members, and treating physicians were 79.5, 56.5, and 35 years, respectively. Women comprised 48% of the patient group (n=20), 76% of the family members (n=32), and 55% of the treating physicians (n=23).

In terms of educational level, patients had a lower proportion of higher education, while family members and physicians tended to have higher educational levels. A total of 18 patients (43%), 32 family members (76%), and 42 treating physicians (100%) had completed secondary education or higher.

Among the family members surveyed, 36 (86%) were cohabitants, of whom 21 (58%) were spouses. Full details are provided in Table 1.

### Patients medical history

The most common admission diagnoses among patients were infections (n=19; 36%), renal disorders (n=14; 26%), and cardiovascular diseases (n=7; 13%).

Regarding functional status, 31 patients (74%) were classified as KATZ A at admission. Family members were uniformly classified as KATZ A. Eleven patients (31%) were bedridden at the time of hospital discharge (Table 1).

### Internal consistency

Cronbach's alpha was 0.82, 0.87, and 0.91 for patients, family members, and treating physicians, respectively.

The item-test correlations for questions three, four, and seven were 0.37, 0.32, and 0.45 for the patient questionnaire; 0.42, 0.55, and 0.53 for the family member questionnaire; and 0.40, 0.64, and 0.68 for the physician questionnaire (Table 2).

Given that the scale evaluates the ability to relate and function effectively both socially and at home, the items with the lowest item-test correlations were questions three and four, which assess the ability to maintain close relationships and friendships, and question seven, which evaluates the ability to cope satisfactorily with persistent illness symptoms. These patterns were consistent across all three participant groups.

**Table 1** | Sociodemographic and clinical characteristics of the participants

Features	Patient	Family member	Physician
<b>N</b>	42	42	42
<b>Age (median, IQR)</b>	79.5 (72.8)	56.5 (44.7)	35 (33.41)
<b>Sex, n (%)</b>			
Female	20 (48)	32 (76)	23 (55)
Male	22 (52)	10 (24)	19 (45)
<b>Educational level, n (%)</b>			
Incomplete elementary school	5 (12)	0 (0)	
Completed elementary school	15 (36)	7 (17)	
Incomplete high school	4 (10)	3 (7)	
Completed High School	9 (21)	13 (31)	
Tertiary incomplete	3 (7)	2 (5)	
Tertiary complete	1 (2)	9 (21)	
University degree complete/ incomplete	5 (12)	8 (19)	42 (100)
<b>Cohabits with someone, n (%)</b>	36 (86)		
<b>Type of cohabitant, n (%)</b>			
Spouse	21 (58)		NA
Son/daughter	12 (34)		
Nephew	1 (3)		
Sister	2 (6)	24 (57)	NA
<b>Family member lives with patient, n (%)</b>			
<b>KATZ, n (%)</b>			
A	31 (74)	42 (100)	NA
B/C/D	5 (12)		
E/F/G	6 (14)		
<b>Lawton and Brody, n (%)</b>			
Non-autonomous	24 (57)	1 (2)	NA
Self-employed	18 (43)	41 (98)	
<b>Hospitalized bedridden, n (%)</b>	13 (31)	NA	NA
<b>Reason for hospitalization, median (IQR)</b>			
Cardiovascular disease	7 (13.2)	NA	NA
Renal disease	14 (26.2)		
Infections	19 (35.8)		
Respiratory diseases	2 (3.8)		
Electrolyte disorders	4 (7.5)		
Oncologic disease	3 (5.6)		
Other	4 (7.5)		

\*IQR: interquartile range

Regarding educational level, patients with a high school education or higher showed a Cronbach's  $\alpha$  of 0.84, compared to 0.79 for those with lower educational levels. A similar effect was observed in family members, with an  $\alpha$  of 0.89 for those with higher education and an  $\alpha$  of 0.81 for those with lower education.

Additionally, correlations between the scores of different observer pairs for each question

were analyzed. Detailed results are presented in Table 3.

#### Exploratory factor analysis

Patients:

The questionnaire showed marginal factorial adequacy ( $KMO = 0.669$ ), with acceptable individual values except for items 3 and 4 ( $KMO < 0.5$ ). Bartlett's test of sphericity ( $\chi^2 = 154.46$ ,

**Table 2** | Item-test correlation for different raters

Question	Sign	Patient item-test correlation	Family item-test correlation	Physician Item-test correlation
1. Will you be able to participate in community activities such as volunteering, participating in church, collecting clothes, etc.)?	+	0.75	0.72	0.8
2. Will he/she be able to function adequately in society (e.g., travel independently, make purchases, do errands, etc.)?	+	0.83	0.82	0.81
3. Will you be able to relate in a satisfactory manner with your closest ties?	+	0.38	0.43	0.40
4. Will you be able to relate to your friends in a satisfactory manner?	+	0.32	0.55	0.64
5. Will you be able to achieve the personal goals you set for yourself?	+	0.65	0.77	0.84
6. Will you be able to get a competitive job if you are able to do so (within the community for a real salary)?	+	0.60	0.68	0.84
7. Will you be able to cope satisfactorily with persistent symptoms (i.e., to what extent do the symptoms limit your daily activities, your relationships)?	+	0.45	0.53	0.68
8. Will you be able to take your medication independently?	+	0.60	0.71	0.66
9. Will you be able to participate in recreational and leisure activities and hobbies?	+	0.79	0.76	0.82
10. Will you be able to regain independence in your home?	+	0.66	0.86	0.89
<b>Total test scale (alpha)</b>		0.82	0.88	0.91

$p < 0.001$ ) confirmed the suitability for factor analysis. A one-factor solution explained 70% of the variance (eigenvalue = 3.49), with most items loading above 0.5. Parallel analysis supported this unidimensional structure (adjusted eigenvalue = 3.25). Items 3, 4, and 7 showed suboptimal loadings, suggesting the potential need for revision.

#### Family members:

Excellent sampling adequacy was observed ( $KMO = 0.815$ ), with significant correlations ( $\chi^2 = 206.93$ ,  $p < 0.001$ ). Principal components analy-

sis revealed that the first component explained 48.5% of the variance (eigenvalue = 4.85), although parallel analysis indicated retaining only this component (adjusted eigenvalue = 3.90). Items 2, 9, and 10 showed the highest loadings ( $>0.35$ ), while items 3 and 4 presented nonsignificant cross-loadings.

#### Physicians:

The instrument demonstrated optimal psychometric properties ( $KMO = 0.849$ ;  $\chi^2 = 294.14$ ,  $p < 0.001$ ). A unifactorial solution explained 79.9% of the variance (eigenvalue = 5.37), with all items

**Table 3** | Correlation of the score between the different pairs of observers for each question of the EXPECT-P questionnaire

Pairwise correlation by question	Patient-physician	Patient-family	Family-physician
1 -Activity in society	0.25	0.31	0.33
2 -Developing in society	0.19	0.43	0.40
3 -Nearest links	-0.09	-0.07	-0.13
4 -Friendships	-0.10	0.20	0.03
5 -Goals	-0.05	0.30	0.19
6 -Work	0.13	0.29	0.16
7 -Persistent symptoms	-0.16	0.06	-0.02
8 -Medication	0.46	0.50	0.54
9 -Recreational activities	0.36	0.44	0.49
10 -Indep at home	0.30	0.54	0.32

Correlation was evaluated with Pearson's test

loading above 0.60 (notably items 5, 6, 9, and 10 > 0.80). Parallel analysis confirmed unidimensionality (adjusted eigenvalue = 4.62), although items 3 and 4 suggested a possible, nonsignificant secondary dimension. Inter-item correlations were consistent ( $r = 0.74\text{--}0.83$ ).

#### **EXPECT-P score results and agreement between raters**

The total score of the EXPECT-P questionnaire had a median of 23.5 (IQR 17-27), 19.5 (IQR 16-25) and 18 (IQR 13-24) in patients, family members and physicians respectively, which reflects that the patients were the most optimistic about their recovery. The differences in EXPECT-P scores between patient-physician, patient-family, and physician-family were 5.5 points ( $p < 0.001$ ), 4 points ( $p = 0.02$ ), and 1.5 points ( $p = 0.26$ ), respectively.

The average ICC among the three raters was 0.71 (95% CI: 0.53-0.84), with a p-value of 0.001. The individual ICC was 0.46 (95% CI: 0.27-0.63).

The average ICC between the physician and family member raters was 0.65 (95% CI: 0.35-0.81), with a p-value of 0.001. The individual ICC was 0.48 (95% CI: 0.21-0.68).

The average ICC between the physician and patient raters was 0.47 (95% CI: 0.009-0.71), with a p-value of 0.02. The individual ICC was 0.30 (95% CI: 0.004-0.55).

#### **Patient factors associated with the EXPECT-P score**

Using a multivariate model, we explored how patients' clinical variables influenced the scores received. When the patient was the rater, autonomy level (Lawton and Brody scale) was associated with the EXPECT-P score (coefficient: 5.41, 95% CI: 1.67 to 9.15,  $p = 0.006$ ), indicating a 5.41-point increase per unit of autonomy improvement.

Considering the family member as the rater, each one-point increase in the dependency score (Katz index) was associated with a decrease of 1.68 points in the EXPECT-P score (coefficient: -1.67, 95% CI: -2.55 to -0.78,  $p = 0.001$ ).

Regarding the treating physician as a rater, no variable showed association (Table 4).

#### **Discussion**

In this cross-sectional study, we performed the Spanish validation and cross-cultural adaptation of the modified 'Patient Recovery Expectations Scale.' The internal consistency of the overall questionnaire across the three participant groups exceeded 0.8, indicating robust reliability and construct coherence, comparable to the original version, which demonstrated an  $\alpha$  of 0.91<sup>8</sup>. This consistency was notably higher among participants with completed or higher levels of high school education. This study provides the

**Table 4** | Association between patient baseline variables and EXPECT-P scores provided by each rater

Rater	Coefficient $\beta$	95% CI	p
<b>Patient</b>			
Education	0.229	(-0.563-1.021)	0.562
KATZ index	-0.089	(-1.048-0.869)	0.851
Bedridden at discharge	-0.297	(-2.977-2.382)	0.823
Lawton and Brody scale	5.413	(1.672-9.154)	0.006
<b>Family member</b>			
Education	0.508	(-0.224-1.239)	0.168
KATZ index	-1.668	(-2.554-(-0.782))	0.001
Bedridden at discharge	-0.037	(-2.513-2.439)	0.976
Lawton and Brody scale	3.960	(0.503-7.417)	0.026
<b>Physician</b>			
Education	0.595	(-0.392-1.583)	0.229
KATZ index	-0.850	(-2.045-0.345)	0.158
Bedridden at discharge	0.147	(-3.192-3.487)	0.929
Lawton and Brody scale	2.323	(-2.338-6.985)	0.319

psychometric properties of the questionnaire, which were previously lacking in the published versions. In the item-test correlation analysis, questions assessing the ability to maintain close relationships and friendships, as well as the capacity to cope effectively with persistent illness symptoms (questions 3, 4, and 7), exhibited consistently low correlations across all three groups.

Exploratory factor analysis confirmed these results, and parallel analysis further supported the presence of a single underlying factor.

Similarly, a low correlation was observed for the same questions across different pairs of raters. This may be attributed to the fact that the patients had a mean age of nearly 80 years, and social circles tend to be more restricted due to the loss of friends. Additionally, most patients were retired, resulting in limited social engagement outside the home. Revision of problematic items (3 and 4) should be considered in future validation efforts. Regarding coping with illness symptoms, patients may perceive themselves as better adapted than what is assessed by physicians or family members. This discrepancy could stem from a greater acceptance of their current functional status or a social desirability bias when responding to the questionnaire<sup>14,15</sup>.

In our study, the overall interobserver agreement among the three participant groups yielded an ICC of 0.7, indicating moderate reliability.

Despite this acceptable level of agreement, inter-rater differences suggest that in one out of four discharged patients, expectations may not align with actual outcomes. This finding is consistent with the study by Turnbull et al., which reported that only 70% of patients met their expectations six months after ICU discharge<sup>16</sup>.

The individual ICC, which represents intra-observer variability, was low, reflecting the variations in scores assigned by each rater to different patients. These variations can be attributed to the specific level of functional impairment of each patient, which influences their recovery expectations. As a result, the same rater might assign a high score to a patient with favorable prospects and a low score to another patient with poor prospects. Thus, the variability lies not in the rater, but in the patients themselves.

Regarding the EXPECT-P total score, patients were generally more optimistic than physicians, with median scores of 23.5 and 18, respectively. This indicates that for two of the ten questions, patients considered it very likely that they would be able to perform a given activity, whereas physicians rated it as very unlikely. This discrepancy may be attributed to physicians' greater knowledge and experience in assessing patient recovery, considering the underlying pathology that led to hospitalization and any preexisting comorbidities.

Baseline instrumental activities of daily living (IADL) emerged as the most sensitive variable in explaining variations in recovery expectations for both patients and their families. This may be because patients who were more independent prior to hospitalization tend to believe they will regain their previous level of functionality, often underestimating the true impact of hospitalization on their recovery<sup>17</sup>.

This study has some limitations. The original questionnaire was designed for the general adult population (ages 18 and older), but this study focused exclusively on individuals over 65 years old. In this age group, social, recreational, and work activities are less frequent, which may influence the types of responses provided leading to a potential selection bias. Nevertheless, the EXPECT-P is likely to perform better in the general population, although it should be specifically validated for this age group.

The analysis of patient variables influencing the final score of the questionnaire for each group of respondents was exploratory. Due to the small sample size, we may not have detected an existing association (type II error).

Regarding coping with symptoms, we suspect that patients may have responded with the intention of pleasing the interviewer (social desirability bias), potentially overestimating their abilities. Overall, patients tended to perceive themselves as more capable of adapting than both physicians and family members believed.

In conclusion, using this scale close to the patient's discharge will allow the physician to identify discrepancies between the patient and their family, and to develop a more realistic rehabilitation program tailored to the patient's needs and expectations. This approach can help prevent negative emotions and frustrations from interfering with recovery or the doctor-patient relationship, while ensuring that rehabilitation is appropriately planned.

In the future, it will be important to compare the expectations estimated through the questionnaire with the patient's actual recovery (calibration and discrimination of the questionnaire) to assess the accuracy of the obtained scores.

**Conflict of interest:** None to declare

## References

- Wammes JD, Laws HB, van Hout HPJ, MacNeil Vroomen JL, Monin JK. Self-reported and informal caregiver proxy-reported met needs in persons living with dementia are associated with lower health-related quality of life: a dyadic, cross-sectional study. *Aging Ment Health* 2024; 28: 422-6.
- Cornejo JLI, Lara MJF, Alveal EVA, Castro AFP, Hernández BA, Reffers DGQ. Effects of prolonged rest in hospitalized older adults. *An Fac Med (Lima)* 2017; 78: 439-44.
- Truong LK, Mosewich AD, Holt CJ, Le CY, Miciak M, Whittaker JL. Psychological, social and contextual factors across recovery stages following a sport-related knee injury: a scoping review. *Br J Sports Med* 2020; 54: 1149-56.
- Pollack AH, Backonja U, Miller AD, Mishra SR, Kheififi M, Kendall L, et al. Closing the gap: Supporting patients' transition to self-management after hospitalization. *Proc SIGCHI Conf Hum Factors Comput Syst* 2016; 2016: 5324-36.
- Young SL, Bullock WA. The Mental Health Recovery Measure. University of Toledo, Department of Psychology, 2003.
- Tober G, Raistrick D, Crosby HF, et al. A brief Addiction Recovery Questionnaire derived from the views of service users and concerned others. *Drugs Alcohol Today* 2015; 15: 225-33.
- Gehring MB, Lerret S, Johnson J, et al. Patient expectations for recovery after elective surgery: a common-sense model approach. *J Behav Med* 2020; 43: 185-97.
- Salyers MP, Brennan M, Kean J. Provider expectations for recovery scale: refining a measure of provider attitudes. *Psychiatr Rehabil J* 2013; 36: 153-9.
- Guillemin F, Bombardier C, Beaton D. How to minimize errors when performing cross-cultural adaptation and validation of quality of life questionnaires: practical aspects. *Mex J Gastroenterol* 2013; 78: 159-76.
- Katz S, Ford AB, Moskowitz RW, Jackson BA, Jaffe MW. Studies of illness in the aged. The index of

ADL: A standardized measure of biological and psychosocial function. *JAMA* 1963; 185: 914-9.

- 11. Lawton MP, Brody EM. Assessment of older people: self-maintaining and instrumental activities of daily living. *Gerontologist* 1969; 9: 179-86.
- 12. Green SB. How many subjects does it take to do a regression analysis? *Multivariate Behav Res* 1991; 26: 499-510.
- 13. Bobak CA, Barr PJ, O'Malley AJ. Estimation of an inter-rater intra-class correlation coefficient that overcomes common assumption violations in the assessment of health measurement scales. *BMC Med Res Methodol* 2018; 18: 93.
- 14. Anthoine E, Moret L, Regnault A, et al. Sample size used to validate a scale: a review of publications on newly-developed patient reported outcomes measures. *Health Qual Life Outcomes* 2014; 12: 2.
- 15. Sánchez Padilla LM, González Pérez U, Bacallao Gall-estey JA. Psychic quality of life and physical health status in the elderly. *Rev Haban Cienc Med* 2014; 13: 337-49.
- 16. Turnbull AE, Lee EM, Dinglas VD, et al. Fulfillment of patient expectations after acute respiratory failure: A multicenter prospective cohort study. *Ann Am Thorac Soc* 2023; 20: 566-73.
- 17. Sáenz V, Zuljevic N, Elizondo C, Martin Lesende I, Caruso D. Baseline functional status and one-year mortality after hospital admission in elderly patients: A prospective cohort study. *Rev Fac Cien Med Univ Nac Cordoba* 2020; 77: 143-8.

## Appendix

### Questionnaire "Expectations of recovery 30 days after discharge"

You believe that after 30 days following discharge (you, the patient or your family member):

	<b>Very likely</b>	<b>Somewhat likely</b>	<b>Unlikely Not at all likely</b>
1. Will you be able to participate in community activities such as volunteering, participating in church, collecting clothes, etc.)?			
2. Will he/she be able to function adequately in society (e.g., travel independently, make purchases, do errands, etc.)?			
3. Will you be able to relate in a satisfactory manner with your closest ties?			
4. Will you be able to relate to your friends in a satisfactory manner?			
5. Will you be able to achieve the personal goals you set for yourself?			
6. Will you be able to get a competitive job if you are able to do so (within the community for a real salary)? Will you be able to cope satisfactorily with persistent symptoms (i.e., to what extent do the symptoms limit your daily activities, your relationships)?			
8. Will you be able to take your medication independently?			
9. Will you be able to participate in recreational and leisure activities and hobbies?			
10. Will you be able to regain independence in your home?			