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### ORIGINAL ARTICLE

# Measuring mental health recovery: Cross-cultural adaptation of the 15-item Questionnaire about the Process of Recovery in Spain (QPR-15-SP)

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ABSTRACT: Mental health services need reliable and valid instruments to measure mental health recovery outcomes, and the only available one in Spanish is arduous. Adapting an instrument is more efficient than creating a new one as it enables international comparison research. The aim of this study was to conduct a cross-cultural adaptation of the 15-item Questionnaire about the Process of Recovery. Fifty-four participants engaged in a five-stage systematic and standardized process carried out from November 2019 to November 2020. Professional translators (n = 4) from the Translation Service Center for Foreign Languages of the Universidad de Alcalá participated in the direct translation, synthesis and back translation stages, and mental health professionals (n = 33) and service users (n = 17) from the Hospital Regional Universitario de Málaga and the Hospital Universitario Virgen de la Victoria in Andalucía (Spain), with an average of 19.2 (SD 12.86) years of experience in mental health, participated in the committee of experts and pilot debriefing stages. Additionally, legibility was assessed. Out of the 15-items of the questionnaire, three (20%) were equal amongst translations, three items (20%) of the back translations matched the original questionnaire and discrepancies identified were adapted accordingly. Seven items (46.7%) were approved online by experts and consensus of alternative translations was reached for the rest. The average time spent completing the questionnaire by service users during the face-to-face pilot was 4.12 min (SD 2.25). Internal consistency obtained was  $\omega = 0.95$  and  $\alpha = 0.91$ . Debriefing findings reported the questionnaire as comprehensible (97.1%), adequate in wording (91.2%), formal in language (55.9%) and adequate in terms of length (100%). The questionnaire scored 65.53, 'normal' readability, on the Inflesz scale. The adapted instrument has conceptual, linguistic, cultural and metric equivalence to the original instrument.

**KEY WORDS:** cross-cultural comparison, health care, mental health recovery, nursing, outcome assessment, patient health questionnaire.

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### BACKGROUND

The construct of mental health recovery has shifted overtime from a clinical-based model with a strong emphasis on the reduction or absence of mental health symptoms, to a much broader understanding based on an active non-linear ongoing journey which involves rebuilding one's self and living a fulfilling and meaningful life, even in the ongoing presence of a mental illness (Penas et al., 2019; Winsper et al., 2020).

One of the most commonly accepted definitions states that 'Recovery is a deeply personal, unique process of changing one's attitude, values, feelings, goals, skills and roles of a person. It is a way of living a satisfying, hopeful and contributing life, even with the limitations caused by the illness' (Anthony, 1993). Despite the existence of commonly accepted definitions such as the latter, recovery is a subjective, complex and multidimensional process with a great variability concerning its conceptualization and thus, the design of objective measures for its evaluation. While some authors have identified key processes, stages and domains in the process of recovery (Leendertse et al., 2021), others have developed conceptual frameworks, such as the CHIME framework. CHIME stands for the recovery processes of Connectedness, Hope and optimism, Identity, Meaning and Empowerment (Leamy et al., 2011). This framework has proven to be valid in understanding recovery internationally (Slade et al., 2012) and has been used by systematic reviews to evaluate measures that assess recovery (Shanks et al., 2013) and recovery orientation of services (Williams et al., 2012). Later research suggests the expansion of the model into CHIME-D including Difficulties inherent in recovery (Stuart et al. 2017).

Considering the heterogeneity of the concept of recovery, it is not possible to assume the universality of this construct between cultures (Vogel et al., 2020). A recent study in Spain stresses the Anglo-Saxon bias in the conceptualization of recovery and how the individualistic Anglo-Saxon recovery model arrived later and less intensively in an interdependent culture such as the Spanish one. Assimilation of the concept amongst service users in Spain is limited and there is a marked social and relational character of recovery challenging the individualist approach in other countries (Saavedra et al., 2021). Furthermore, given that the current conceptualization of recovery is mostly based on Western European and North American models, the development of broader recovery conceptualization in non-English-speaking countries is a research priority (Slade

et al., 2012). Though further evidence is needed, recent studies support the theoretical model of the CHIME framework in Spain (Penas et al., 2020)

As the model of recovery has changed over time, so have mental health policies, moving towards recoveryoriented programmes and services, promoting user involvement with an increased emphasis on using reliable and valid instruments to measure user-defined recovery-oriented outcomes. However, the absence of concretion and unification in the concept of recovery determines the lack of consensus in the instruments for its evaluation (Penas et al., 2019).

Culturally adapted psychometrically validated instruments which correlate with the recovery CHIME framework, are needed in Spain to measure userdefined recovery-oriented outcomes of mental health programmes and services. Literal translation can lead to misinterpretations due to linguistic and cultural differences which is why when using instruments developed in other languages and countries, in addition to translating them, their cross-cultural adaptation and validation (CCAV) is necessary. Cross-cultural adaptation considers linguistic turns, cultural context, and differences in the perception of health amongst populations, and validation assesses the degree of preservation of psychometric properties in the target language (Sousa and Rojjanasrirat, W. 2011; Ramada-Rodilla et al., 2013).

Out of the 35 recovery instruments identified in the systematic review of Penas et al., 2019, 28 measure domains related to recovery, 23 are easy to complete (do not exceed 50-items), 21 consider the user's perspective, 19 measure quantitative data, 13 have been scientifically tested, eight possess adequate psychometric properties and only two have been translated into Spanish: the Recovery Assessment Scale (RAS) and the Stages of Recovery Instrument (STORI); out of which the only one adapted in Spain is the latter (Penas et al., 2019).

The original version of the RAS instrument consists of 41-items (Corrigan et al., 1999), however, the most widespread version is its revised version RAS-R which showed that 24 of those items represented five dimensions of recovery: Personal confidence and hope, Willingness to ask for help, Goal and success orientation, Reliance on others and No domination by symptoms (Corrigan et al., 2004). This version has been translated and validated into multiple languages, amongst which there is a translated version in Spanish called RAS-DS consisting of 38-items (Fuentes, 2018) and a 21-item validated version with demonstrated psychometric properties for its use in Argentina. Though the RAS was translated into Spanish, the validation of these properties is exclusive for the cultural context studied, and even in that context the sample was limited regarding socio-economic and educational backgrounds, and cross-cultural comparability was not studied (Zalazar et al., 2017).

The only adapted and validated instrument in Spain is the STORI which is a 50-item self-report evaluating different stages of the recovery process (Moratorium, Awareness, Preparation, Rebuilding and Growth), where the person is situated in that stage in which he/ she obtains the highest score. Despite its psychometric validity, the STORI did not undergo a rigorous cultural adaptation process including back translation, committee of experts and pilot debriefing stages. Moreover, authors declare it would be appropriate to examine other properties such as test-retest reliability and to observe changes experienced over time. Other limitations are its small sample size, especially the small representation of women (Lemos-Giráldez et al., 2015), and its number of items, 50, which is in the limit established to classify an instrument as easy to complete (Burgess et al., 2010; Penas et al., 2019).

Furthermore, though both the RAS and the STORI have appropriate psychometric properties, neither map fully onto the CHIME recovery framework (Shanks et al., 2013), and it is unclear whether the five-stage model of recovery is a valid one (Weeks et al. 2011). Moreover, a review of self-report instruments determined that both the RAS and the STORI have a negative rating for user friendliness because of their long completion time and the negative formulations of some items (Cavelti et al., 2012).

Shortage of reliable instruments to measure recovery outcomes in mental health services in Spain reveals an imperative need for research (Penas et al., 2019). The absence of adequate instruments to evaluate recoveryoriented interventions offers researchers two options: developing new instruments or modifying existing validated ones in other languages. Adapting an instrument is considered more efficient than creating a new one, as it enables international comparison research (González Luis et al., 2020).

After ruling out the suitability of using the RAS and the STORI in Spain, six recovery instruments with psychometric properties remain for potential adaptation: Mental Health Recovery Measure (MHRM), Illness management and Recovery Scale (IMR), Stages of Recovery Scale (SRS), Mental Health Recovery Star (MHRS), Recovery Process Inventory (RPI) and Questionnaire about the Process of Recovery (QPR) (Penas et al., 2019). A systematic review evaluated the correlation of these with the CHIME framework. The QPR was the only instrument able to categorize all its items in the CHIME processes: Connectedness, four items; Hope, four items; Identity, five items; Meaning, six items and Empowerment, three items. In second place, after the STORI and together with the RAS, the QPR was the best instrument in terms of psychometric properties (Shanks et al., 2013). A recent systematic review on recovery in people with a psychotic disorder identified 46 quantitative studies which used the eight most frequent validated questionnaires assessing the concept of recovery, out of which a quarter (26%) used the QPR (Leendertse et al., 2021).

The QPR was collaboratively developed with service users to assess components of recovery. The original QPR is a 22-item measure with two subscales: 'Intrapersonal' (17-items) relating to tasks that the person is responsible for carrying out which are completed to rebuild a life, and 'Interpersonal' (five items) relating to the ability of the person to reflect on their value in the external world and on the influence of external processes and interpersonal relationships in recovery (Neil et al., 2009). A shortened 15-item version of the QPR (QPR-15) demonstrated better psychometric properties than the original version. All items are scored from 0 (disagree strongly) to 4 (agree strongly) with a maximum score of 60 (Law et al., 2014). Higher scores are indicative of greater recovery. The original English version has been validated in Chinese (Chien and Chan, Z. C. Y. 2013), Swedish (Argentzell et al., 2017) and Japanese (Kanehara et al., 2017).

The aim of this study was to conduct a systematic and standardized process of cross-cultural adaptation of the 15-item Questionnaire about the Process of Recovery for its subsequent validation.

### METHODS

### Design

The cross-cultural adaptation of the QPR-15 was carried out in a five-stage systematic and standardized process from November 2019 to November 2020 following the recommendations of a systematic review of cross-cultural adaptation of health questionnaires (Ramada-Rodilla et al., 2013) (Fig. 1). Additionally, legibility was assessed.

Author approval was requested for stage 1 in March 2019. In stages 2 and 3 the original questionnaire was

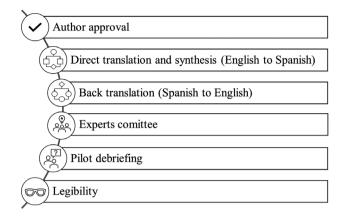


FIG. 1 Cross-cultural adaptation process.

translated into Spanish, synthesized and back translated into English from November 2019 to January 2020 by professional translators. In stage 4, the adapted questionnaire was reviewed by an on-line multidisciplinary committee of experts from June to July 2020 for qualitative and quantitative analysis of the guidelines and items in the questionnaire. The committee suffered a 6-month delay as a result of the COVID-19 pandemic. In stage 5, a pilot debriefing was carried out from August to November 2020 to assess completion time, comprehensibility, wording, language and length of the guidelines and questionnaire. Lastly, legibility of the final version was assessed in December 2020.

The cross-cultural adaptation of the QPR-15 followed the International Test Commission guidelines for test adaptation regarding planning and development (Hernández et al., 2020), and the fundamental principles that guide the development of assessment instruments in mental health: evidence base, service users participation, mental health scope consideration and recovery framework orientation (Davies et al., 2020).

### Participants

Fifty-four participants engaged throughout the process. Professional translators of the Translation Service Center for Foreign Languages of the Universidad de Alcalá (n = 4) participated in the direct translation, synthesis and back translation stages. Mental health professionals (n = 33) and service users (n = 17) with a history of psychosis from the Hospital Regional Universitario de Málaga and the Hospital Universitario Virgen de la Victoria in Andalucía (Spain) were invited to participate in the committee of experts (mental health professionals (n = 14) and service users (n = 2)) and pilot debriefing (mental health professionals (n = 19) and service users

(n = 15)) stages and provide informed consent. Mental health proffesionals and service users were recruited from primary (Community Mental Health Unit (n = 14)), specialized (Day Hospital (n = 7), Rehabilitation Unit (n = 7), and Inpatient (n = 8) and Outpatient (n = 5) Therapeutic Communities), and other (n = 9) mental health services.

### Procedure

STAGE 1: AUTHOR APPROVAL – The original authors of the QPR-15 were contacted by email to request their authorization for the CCAV process.

STAGE 2: DIRECT TRANSLATION AND SYNTH-ESIS OF TRANSLATIONS – A complete conceptual translation of the original version of 'The Questionnaire about the Process of Recovery (the QPR): Guidelines for Clinicians. Researchers and Service Users for the uses. administration and scoring of the QPR' was performed by two independent bilingual translators whose mother tongue was Spanish. Translator 1 was familiarized with the concepts and aims considered in the questionnaire and had previous experience in technical translation of texts offering a translation more adapted to the language of formal and technical use. Translator 2 was blind to the questionnaire's concepts and study aims offering a translation more adjusted to the language of colloquial use, detecting the difficulties of comprehension and translation derived from the use of technical unusual words (Ramada-Rodilla et al., 2013).

The entire questionnaire, including guidelines, items, and response options were translated using the indicated method. The resulting translations were named 'Translation 1' and 'Translation 2'. The comparison between both translations and the identification and discussion of discrepancies were collected in a 'Direct translation consensus report'. Researchers gathered the main findings of the three documents in a 'Direct translation synthesis report'. A 'Direct translation version' resulted from the termination of this stage.

STAGE 3: BACK TRANSLATION – Following the methodology of the previous stage, a complete back translation was performed, in which two independent bilingual translators whose mother tongue was that of the original questionnaire (English) participated. The back translations carried out independently were called 'Back translation 1' and 'Back translation 2'. The comparison between both back translations and the identification and discussion of the discrepancies were described in a 'Back translation consensus report'. Comparisons to determine whether there were significant conceptual or semantic differences with the original questionnaire carried out by the researchers resulted in a 'Comparison with original questionnaire report'. A 'Back translation version' resulted from the termination of this stage.

STAGE 4: COMMITTEE OF EXPERTS - A multidisciplinary committee completed an on-line survey (Appendix S1). Experts, whose mother language was Spanish, were knowledgeable about the construct of the instrument, recovery and the target population of the instrument, mental health service users. A qualitative assessment of each questionnaire item was carried out evaluating: (a) comprehension (comprehensible versus confusing), (b) wording (adequate versus inadequate) and (c) other contributions if applicable (Could you state which terms or concepts you found confusing or inadequate? How would you rewrite them?); in addition to a quantitative assessment considering: (1) sufficiency (the item belongs to the theoretical framework of recovery), (2) clarity (the item is easily understood, its semantics and syntactics are adequate), (3) coherence (the item measures aspects of recovery) and (4) relevance (the item is essential and must be included). These four sections were quantified using a three-point Likert scale (one = agree, two = neither agree nor disagree, three = disagree)" (Escobar-Pérez and Cuervo-Martínez, Á. 2008). A 'Committee of experts version' resulted from the termination of this stage.

STAGE 5: PILOT DEBRIEFING – A debriefing face-to-face technique was carried out for the guidelines and questionnaire separately to test completion time and assess qualitative and quantitative variables. The qualitative assessment explored: (a) comprehension (comprehensible versus confusing), (b) wording (adequate versus inadequate), (c) language (colloquial versus formal), (d) length (adequate versus excessive) and (e) other contributions if applicable (Could you state which terms or concepts you found confusing, inadequate, or formal in language? How would you rewrite them?). The quantitative assessment was similar to the one carried out in STAGE 4 but was done for the questionnaire as a whole: (1) sufficiency (the questionnaire reflects aspects of the recovery process), (2) clarity (the questionnaire is easily understood, its semantics and syntactics are adequate), (3) coherence (all items of the questionnaire measure aspects of recovery) and (4) relevance (all items in the questionnaire are essential and must be included). These four sections were also quantified using a three-point Likert scale (1 = agree, 2 = neither agree nor disagree and 3 = disagree) (Escobar-Pérez and Cuervo-Martínez, Á. 2008). Finally, uninteresting (Did you find any items of no

interest? If so, which?) or problematic items (Did you find problem with any items? If so, which?) and unexplored dimensions of the construct of recovery (Are there any dimensions of the construct of recovery you believe were not explored by the questionnaire?) were explored (Hughes, 2004; Ikart, 2018). A 'Pilot debriefing version' resulted from the termination of this stage.

LEGIBILITY – Readability which comprises the set of typographic and linguistic characteristics of the text that allow it to be read and understood easily (Ferrando Belart, 2004), without analysing its conceptual content, was evaluated. Readability formulas postulate that the use of short words and phrases increases the reading and comprehension of the text. The guidelines and the questionnaire were analysed separately and all together using a free text readability analyzer in Spanish https:// legible.es/. The Inflesz scale to evaluate readability of texts aimed at users was used (Barrio-Cantalejo et al., 2008). Comparisons were made with readability in the original language analysed with https://seoscout.com/.

### Ethical considerations

The study was approved (0385-N-19) 6 June 2019 by the corresponding North-East Malaga Ethics Committee. Informed consent was obtained from all participants. Trial registration: NCT03985904 (Goodman-Casanova, 2019).

### Data analysis

Statistics considered for presentation for continuous measures in summary tables were the mean and standard deviation. Categorical variables were summarized using counts and percentages. The chi-square test and Fisher exact test (when fewer than 80% of the expected frequencies of the cell were greater than 5) were used for the analysis of the categorical variables. The Wilcoxon test was used when the data were not normally distributed. Internal consistency was calculated according to McDonald's Omega and Cronbach's alpha. For quantitative variables, the Student t test was used. R (version 3.6.1, The R Foundation) was used for all statistical analysis (R core Team, 2019).

### RESULTS

The cross-cultural adaptation of the 15-item questionnaire and its guidelines resulted in a Spanish measure (QPR-15-SP) to assess mental health recovery with conceptual, linguistic, cultural and metric equivalence regarding the original measure of the QPR-15. Description of the participants, reports and versions of the five-stage process are provided (Fig. 2).

# Characteristics of mental health professionals and service users

33 of 50 (66%) mental health professionals and 17 of 50 (34%) service users, which were 29 of 50 (58%) men with a mean age of 41.16 (SD 13.50) and an average of 19.2 (SD 12.86) years of experience in mental health, participated in the committee of experts and pilot debriefing stages. A full breakdown of participant characteristics is provided within Stages 4 and 5.

STAGE 1: AUTHOR APPROVAL – The original authors of the QPR-15 gave their approval and lead author, and copyright holder Sandra Neil signed a study approval certificate as of 23 September 2019.

STAGE 2: DIRECT TRANSLATION AND SYNTHESIS OF TRANSLATIONS – Questionnaire – Only 3 of 15-items (20%) (2, 7 and 12) of the questionnaire matched amongst translations (Table S1 in the Supplementary Material).

STAGE 3: BACK TRANSLATION – Questionnaire – 6 of 15-items (40%)(1, 3, 5, 7, 10 and 15) in 'Back translation 1' and 5 of 15-items (33.4%) (1, 2, 7, 10 and 12) in 'Back translation 2' matched the original

questionnaire. Only 3 of 15-items (20%) (1, 7 and 10) were equal amongst both back translations (Table S2 in the Supplementary Material).

STAGE 4: COMMITTEE OF EXPERTS – Experts were asked using an on-line survey whether they approved the translation of given concepts and expressions, preferred alternative given translations or suggested new translations.

The committee included 12 experts whose mother language was Spanish: 2 of 12 (16.7%) Psychiatric And Mental Health Clinical Nurse Specialists, 2 of 12 (16.7%) Psychiatrists, 2 of 12 (16.7%) Psychologists, 2 of 12 (16.7%) Occupational Therapists, 2 of 12 (16.7%) Support workers and 2 of 12 (16.7%) service users. 7 of 12 (58%) experts were women with a mean age of 42.67 (SD 7.70) and a mean of 18 (SD 8.53) years of experience in mental health. A piloting of the on-line committee survey was carried out by 4 research team members: 2 of 4 (50%) Psychiatric And Mental Health Clinical Nurse Specialists, 1 of 4 (25%) Psychiatrist and 1 of 4 (25%) Psychologist.

Guidelines – The adequacy of 16 terms or expressions identified in the previous stages as susceptible to adaptation was evaluated (Table S3 in the Supplementary Material). The experts considered in 10 of 16 (62.5%) that alternative translations to the version resulting from the translation-back-translation stages

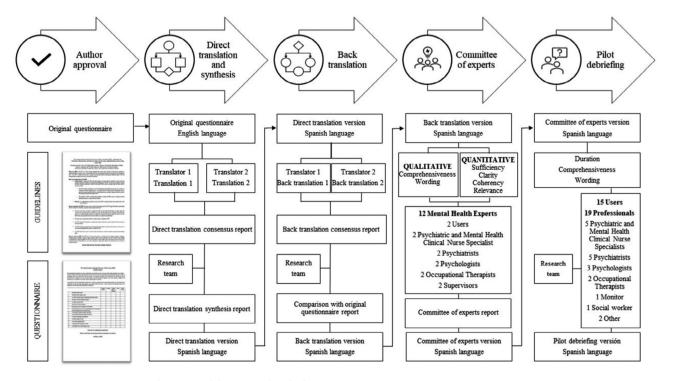


FIG. 2 Participants, reports and versions of the cross-cultural adaptation process.

were more appropriate. In 4 of 16 (25%), the translation was maintained and in 2 of 16 (12.5%), there was a tie between maintaining and changing the translation. Results from the piloting were used to decide whether to maintain or change the translation.

Questionnaire – Original translation of 8 of 15-items (53.3%) (3, 4, 6, 7, 8, 10, 11, 14 and 15) was approved, and consensus of alternative translations was reached for the rest of the items (Table S4 in the Supplementary Material). Literal translations of some items were identified by experts as susceptible to misinterpretation due to linguistic and cultural differences and were adapted accordingly.

Qualitative assessment identified 4 items (8, 10, 14 and 15) which met comprehension by all experts, and only the wording of 1 item (14) received full consensus. 1 item stood out as least comprehensible (5) and 3 items were considered to have the worst wording (1, 5 and 9) (Table 1).

Quantitative assessment reported items with agreement of all experts in: Sufficiency 7 of 15 (46.7%), Clarity 0 of 15, Coherency 5 of 15 (33.4%), Relevance 4 of 15 (26.7%). The best average scores were granted to item 10 and the worst to item 1 (Table 1).

STAGE 5: PILOT DEBRIEFING – Mental health professionals and service users, whose mother language was Spanish, underwent a pilot debriefing face-to-face survey.

21 of 34 (61.8%) participants were men with a mean age of 43.88 (SD 11.68). Participants included 5 of 34 (14.7%) Psychiatric And Mental Health Clinical Nurse Specialists, 5 of 34 (14.7%) Psychiatrists, 3 of 34 (8.8%) Psychologists, 2 of 34 (5.9%) Occupational Therapists, 1 of 34 (2.9%) Support workers, 1 of 34 Social Workers (2.9%), 2 of 34 other professionals (5.9%) and 15 of 34 (44.1%) service users. Mental health professionals and service users with a mean of  $17.15~({\rm SD}~11.63)~(19.47~({\rm SD}~11.26)~{\rm versus}~14.20~({\rm SD}~11.26)~{\rm versus}~14.20~$ 11.81)) years of experience in mental health were mostly 26 of 34 (76.5%) from specialized mental health services, rather than primary mental health services. Regarding educational level and employment, most service users 11 of 15 (73.3%) had primary and secondary studies and 14 of 15 (93.3%) were unemployed, while most mental health professionals had university studies 18 of 19 (94.7%) and all were employed.

The total time spent reading the guidelines and completing the questionnaire was 6.36 min (SD 3.04), with a significant difference between mental health professionals and service users (4.67 (SD 1.61) versus 8.50 (SD 3.10); W = 2; P = .0001357) (Table 2).

18 of 34 (52.9%) made contributions to make the guidelines and questionnaire clearer, and identify unexplored dimensions of the construct of recovery, with a significant difference between mental health professionals 14 of 19 (73.7%) and service users 4 of 15 (26.7%) engaging effectively in the process. Repeatability was identified as a common flaw to the guidelines and the questionnaire. Simplification of the guidelines and synthesis and grouping of the items in the questionnaire were suggested. Regarding structure, complexity, font size and length stood out as limitations of the guidelines. On the other hand, the questionnaire was reported overall as brief, thorough and comprehensible, addressing acceptance of the past, initiative in the present and commitment with the future portraying aspects of daily life. The questionnaire stood out compared to the guidelines in comprehensibility (97.1%) versus 84.8%), wording (91.2% versus 87.9%), language (44.1% versus 27.3%) and length (100% versus 66.7%).

Guidelines – The time spent reading the guidelines was 3.45 min (SD 1.60), with a significant difference between mental health professionals and service users (2.54 (SD 0.82) versus 4.69 (SD 1.58); W = 28; P = .0001408). The guidelines were reported as comprehensible 28 of 34 (84.8%), adequate in wording 29 of 34 (87.9%), formal in language 24 of 34 (72.7%) and adequate in terms of length (100% versus 66.7%) with similar results amongst mental health professionals and service users (Table 2).

Suggestions were gathered to rewrite incomprehensible terms or concepts and make the guidelines clearer. Both mental health professionals and service users agreed that the guidelines were too extensive, repetitive, and complex, with special emphasis on the repetition of the acronym QPR and its incomprehensibility, being suggested the substitution of the term by 'questionnaire', its omission or its substitution by enclitic pronouns if possible throughout the entire document. In line with the gender perspective and the recovery model, 'usuario/a' (user) was replaced by 'persona usuaria' (user person) the first time it appears, and 'persona' (person) onwards. Controversial terms in previous steps, such as 'medida' (measure) or 'ítem' (item) were simplified to 'cuestionario' (questionnaire) 'afirmación' and (statement). The word 'empoderamiento' (empowerment) was identified as complex but the difficulty in finding synonyms in Spanish for such a unique word prevented researchers from changing the word. The expression 'de forma estéril' in the sentence 'El QPR no debe ser utilizado de forma estéril, sino como un vehículo para facilitar la discusión

	QUALITATIVE, n (%)		QUANTITATIVE, n (%)						
	Comprehension	Wording		Sufficiency	Clarity	Coherency	Relevance		
Item 1	9 (75)	7 (58.3)	Agree	8 (66.7)	5 (41.7)	8 (66.7)	10 (83.3)		
			Neutral	3 (25)	5(41.7)	3 (25)	2(16.7)		
			Disagree	1(8.3)	2 (16.7)	1(8.3)	0		
Item 2	8 (66.7)	8 (66.7)	Agree	10 (83.3)	6 (50)	10 (83.3)	9 (75)		
	, ,	. ,	Neutral	2 (16.7)	2 (16.7)	1 (8.3)	3 (25)		
			Disagree	0	4 (33.3)	1 (8.3)	0		
Item 3	10 (83.3)	9 (75)	Agree	11 (91.7)	9 (75)	11 (91.7)	11 (91.7)		
	, ,	. ,	Neutral	1 (8.3)	2 (16.7)	1 (8.3)	1(8.3)		
			Disagree	0	1 (8.3)	0	0		
Item 4	10 (83.3)	9 (75)	Agree	12 (100)	9 (75)	12 (100)	12 (100)		
			Neutral	0	2 (16.7)	0	0		
			Disagree	0	1 (8.3)	0	0		
Item 5	7 (58.3)	7 (58.3)	Agree	11 (91.7)	6	11 (91.7)	12 (100)		
	. ()	. (/	Neutral	0	2 (16.7)	1 (8.3)	0		
			Disagree	1 (8.3)	4 (33.3)	0	0		
Item 6	11 (91.7)	11 (91.7)	Agree	11(91.7)	9 (75)	11 (91.7)	10 (83.3)		
	11 (0111)	11 (0111)	Neutral	1(25)	3 (25)	1 (8.3)	2(16.7)		
			Disagree	0	0	0	0		
Item 7	10 (83.3)	10 (83.3)	Agree	12 (100)	8 (66.7)	12(100)	10 (83.3)		
item i	10 (00.0)	10 (00.0)	Neutral	0	4 (33.3)	0	2 (16.7)		
			Disagree	0	0	0	0		
Item 8	12 (100)	11 (91.7)	Agree	11 (91.7)	9 (75)	11 (91.7)	11 (91.7)		
nem o	12 (100)	11 (01.1)	Neutral	1 (8.3)	2(16.7)	11(01.1) 1(8.3)	11(01.1) 1(8.3)		
			Disagree	0	1(8.3)	0	0		
Item 9	9 (75)	7 (58.3)	Agree	12(100)	7 (58.3)	12 (100)	11 (91.7)		
ttem 5	0 (10)	1 (55.5)	Neutral	0	3 (25)	0	11(01.1) 1(8.3)		
			Disagree	0	2(16.7)	0	0		
Item 10	12 (100)	11 (91.7)	Agree	12 (100)	11(91.7)	12(100)	12 (100)		
	12 (100)	11 (01.1)	Neutral	0	11(01.1) 1(8.3)	0	0		
			Disagree	0	0	0	0		
Item 11	11 (91.7)	11 (91.7)	Agree	11 (91.7)	8 (66.7)	11(91.7)	11(91.7)		
Item 11	11 (01.7)	11 (01.7)	Neutral	11(01.1) 1(8.3)	3 (25)	11(31.1) 1(8.3)	11(31.7) 1(8.3)		
			Disagree	0	1(8.3)	0	0		
Item 12	11 (91.7)	9 (75)	Agree	12(100)	8 (66.7)	12(100)	12(100)		
	11 (01.7)	0 (10)	Neutral	0	2(16.7)	0	0		
			Disagree	0	2(10.7) 2(16.7)	0	0		
Item 13	11 (91.7)	9 (75)	0	12(100)	7(58.3)	10 (83.3)	11(91.7)		
	11 (91.7)	9 (13)	Agree Neutral	0	3	10(83.3) 1(8.3)	0 = 0		
				0	2 (16.7)	1(3.3) 1(8.3)	1(8.3)		
Item 14	12 (100)	12 (100)	Disagree	12(100)	11(91.7)	1(0.3) 12(100)	1(0.3) 10(83.3)		
nelli 14	12 (100)	12 (100)	Agree Neutral	12 (100) 0	11(91.7) 1(8.3)	0	10(63.3) 1(8.3)		
					( )	0	. ,		
14.000 1E	19 (100)	11 (01 7)	Disagree	0	0 0 (75)		1(8.3)		
Item 15	12 (100)	11 (91.7)	Agree	11(91.7)	9 (75)	11 (91.7)	10(83.3)		
			Neutral	1 (8.3)	3 (25)	1 (8.3)	2 (16.7)		
			Disagree	0	0	0	0		

TABLE 1 Committee of experts qualitative and quantitative assessments

de objetivos individuales' ('in a sterile manner' in the sentence 'The QPR should not be used in a sterile manner, but rather as a vehicle to facilitate discussion about individual goals') was reported as incomprehensible and was replaced by 'de forma descuidada' (carelessly). Questionnaire – The time spent completing the questionnaire was 3.00 min (SD 1.95), with a significant difference between mental health professionals and service users (2.12 (SD 1.08) versus 4.12 (SD 2.25); W = 46; P = .0008678). The total score of the QPR-15-SP for service users was 44 (SD 9.70) and

### TABLE 2 Pilot debriefing assessment

	Total (N=34)	$\begin{array}{c} \mbox{Mental health profession-} \\ \mbox{als (n=19)} \end{array}$	$\begin{array}{c} \text{Service users} \\ (n{=}15) \end{array}$	Statistical difference	P value
Total time for reading the guide and completing the	6.36	4.67 (1.61)	8.50 (3.10)	W=2	0.0001357*
questionnaire, n (%)	(3.04)				
The Questionnaire about the Process of Recovery (the	QPR): Guide	elines for Clinicians, Research	ners and Service	Users for the uses	
administration and scoring of the QPR					
Guide reading time (minutes), mean (SD)	3.45 (1.60)	2.54 (0.82)	4.69 (1.58)	W=28	0.0001408*
Comprehension, n (%)					
Comprehensible	28 (84.8)	18 (94.7)	10(71.4)	$\chi^2_{1} = 3.4063$	0.1376
Confusing	5(15.2)	1 (5.3)	4(28.6)		
Wording, n (%)					
Adequate	29 (87.9)	17 (89.5)	12 (85.7)	$\chi^2_{1} = 0.10695$	1
Inadequate	4(12.1)	2 (10.5)	2 (14.3)		
Language, n (%)					
Colloquial	9 (27.3)	4 (21.1)	5 (35.7)	$\chi^2_1 = 0.87359$	0.4421
Formal	24 (72.7)	15 (78.9)	9 (64.3)		
Length, n (%)	. /	х <i>г</i>	. /		
Adequate	22 (66.7)	12 (63.2)	10 (71.4)	$\chi^2_{1} = 0.24812$	0.7193
Excessive	11 (33.3)	7 (36.8)	4 (28.6)	<i>K</i> 1	
Questionnaire about the Process of Recovery (QPR)	( , , , , ,				
Questionnaire completion time (minutes), mean (SD)	3.00	2.12 (1.08)	4.12 (2.25)	W=46	0.0008678*
Questionnare completion time (minutes), mean (0D)	(1.95)	2.12 (1.00)	1.12 (2.20)	10 10	0.0000010
Comprehension, n (%)	()				
Comprehensible	33 (97.1)	19 (100)	14 (93.3)	$\chi^2_{1}=1.3051$	0.4412
Confusing	1 (2.9)	0	1(6.7)	λ 1 1.0001	0.1112
Wording, n (%)	1 (2.0)	0	1 (0.1)		
Adequate	31 (91.2)	17 (89.5)	14 (93.3)	$\chi^2_{1}=0.15522$	1
Inadequate	3(8.8)	2 (10.5)	14(00.0) 1(6.7)	$\lambda = 1^{-0.10022}$	1
Language, n (%)	5 (0.0)	2 (10.5)	1 (0.7)		
Colloquial	15 (44.1)	9 (47.4)	6 (40)	$\chi^2$ 1=0.1846	0.7379
Formal	19(55.9)	10 (52.6)	9 (60)	λ 1-0.1040	0.1515
	19 (33.9)	10 (32.0)	9 (00)		
Length, n (%) Adequate	34 (100)	19 (55.9)	15(441)		
1	34 (100)	19 (33.9)	15(44.1)		
Sufficiency, n (%)	24 (100)	10 (55.0)	15 (44.1)		
Agree	34 (100)	19 (55.9)	15(44.1)		
Clarity, n (%)	21 (01 2)		14 (02.2)	2 2 0702	0.00
Agree	31 (91.2)	17 (89.5)	14 (93.3)	$\chi^2_{2}$ =2.8593	0.33
Neither agree nor disagree	2(5.9)	2 (10.5)	0		
Disagree	1(2.9)	0	1(6.7)		
Coherency, n (%)				9	
Agree		17 (89.5)	13 (86.7)	$\chi^2_2 = 0.063626$	1
Neither agree nor disagree	2(5.9)	1 (5.3)	1(6.7)		
Disagree	2(5.9)	1(5.3)	1(6.7)		
Relevance, n (%)				9	
Agree	22 (64.7)	10 (52.6)	12 (80)	$\chi^2$ _2=3.3577	0.2314
Neither agree nor disagree	10(29.4)	7 (36.8)	3 (20)		
Disagree	2(5.9)	2 (10.5)	0	2	
Items of no interest	5(14.7)	4 (21.1)	1(6.7)	$\chi^{2}_{1} = 1.383$	0.3547
Problematic items	$23 \ (67.6)$	15 (78.9)	8 (53.3)	$\chi^{2}_{1} = 2.5128$	0.1512
Other contributions	18 (52.9)	14 (73.7)	4(26.7)	$\chi^{2}$ 1=7.4379	0.01423*
Blank answers	1(2.9)	1(5.3)	0	$\chi^2_{1}=0.8134$	1
Changed answers	8(23.5)	1(5.3)	7(46.7)	$\chi^2$ 1=7.9861	0.01125*
Total QPR score, n (%)	47.5	50.26 (6.22)	44 (9.70)	W=199	0.0516*
	(8.42)				

internal consistency for all 15-items obtained was adequate ( $\omega = 0.95$  and  $\alpha = 0.91$ ).

The questionnaire was reported as comprehensible 33 of 34 (97.1%), adequate in wording 31 of 34 (91.2%), formal in language 19 of 34 (55.9%) and adequate in terms of length 34 of 34 (100%). Regarding the construct of recovery, the questionnaire was found sufficient 34 of 34 (100%), clear 31 of 34 (91.2%), coherent 30 of 34 (88.2) and relevant 22 of 34 (64.7%) with similar results amongst mental health professionals and service users (Table 2).

5 of 34 (14.7%) identified items of no interest (items 2, 4, 8, 9, 12, 13 and 14) and 23 of 34 (67.6%) reported at least one problematic item, except for item 3 which was neither found uninteresting nor problematic. Hardly any participant 1 of 34 (2.9%) left an item blank (item 13), but some 8 of 34 (23.5%), mostly users 7 of 8 (87.5%), changed their responses (items 2, 3, 5, 11, 12 and 14). The item with the lowest score was item 4 with a mean of 2.07 (SD 10.3) which refers to feeling socially isolated, and the items with the highest scores were items 3, 10 and 15 which are related to developing positive relationships, recognizing the positive things one has done and finding time to do enjoyable things (Table S5 in the Supplementary Material).

Suggestions were gathered to rewrite incomprehensible terms or concepts and make the questionnaire clearer. Regarding the introductory paragraph 6 of 34 (17.6%) found it confusing if read alone and redundant if read after the guidelines. Suggestions were made of changing the statement 'qué es de ayuda y qué no lo es' (what is helpful and what is not so helpful), which had been discussed in the committee of experts, for a definition of recovery 'un proceso único que posibilita vivir una vida satisfactoria y plena más allá de la enfermedad y el malestar mental' (a unique process which enables living a fulfilling and meaningful life, beyond mental illness). 'Todos somos diferentes y habrá diferencias para todos' (Everyone is different and there will be differences for everyone) was omitted as it was redundant with what is stated later 'No todos los factores serán de importancia para usted ya que todos somos diferentes' (Not all factors will be important to you, since everyone is different).

Regarding the construct of recovery, unexplored dimensions were: family and professional support and accompaniment, community participation, sense of belonging to social groups and/or associative movements, identification of health assets (personal and community), stigma perception, employment and/or occupational activities, self-worth awareness, and sense of being understood, respected, and useful.

### Legibility

Guidelines – The estimated reading time was 3.3 min. The guidelines scored 45.04 on the Inflesz scale, a value indicative of a degree of 'somewhat difficult' readability equivalent to a publication of 'high school, scientific dissemination, and specialized press'. The most frequent words were 'cuestionario' (questionnaire) (22 times), 'recuperación' (recovery) (12 times) and 'personas' (people) (12 times). 49 words were identified as unusual, most of which were names and surnames of the authors. The words 'QPR', 'usuarias' (users), 'ítems' (items), 'empoderamiento' (empowerment) stood out.

Questionnaire – The estimated reading time was 1.7 min. The questionnaire scored 65.53 on the Inflesz scale, a value indicative of a degree of 'normal' readability equivalent to a publication of 'secondary education, and general and sports press'. The most frequent words were 'cuestionario' (questionnaire) (7 times), 'vida' (life) (7 times) and 'recuperación' (recovery) (5 times). Eight words were identified as unusual, being the top three 'QPR', 'posibilita' (allows) and 'usuarias' (users).

### Cross-cultural Adaptation approval

The adapted version of the QPR-15-SP received approval of the original authors as of 11 August 2021.

### DISCUSSION

The cross-cultural adaptation of the QPR-15 in Spain followed a five-stage systematic and standardized process and resulted in a version for use in the Spanish language and context. The translation of the instrument into the Spanish language and its back translation to the English language were thorough and were carried out by professional translators. Mental health professionals and service users with experience in mental health were actively involved in the cross-cultural adaptation. The committee of experts assessed the cultural adequacy of the guidelines and the questionnaire and pointed out challenges with the comprehensibility and wording of several items. The debriefing findings indicated that the instrument was sufficient, clear, coherent and relevant regarding the construct of recovery in Spain, and identified unexplored dimensions of the questionnaire which allowed reflection of the diverse contexts, circumstances and experiences of recovery in the Spanish context. Challenges identified during the

cross-cultural adaptation process were minor and did not lead to any substantial changes which may have deviated the Spanish version of the QPR-15 from the original English version.

Despite the fact that there is no definitive methodological consensus used unanimously by all researchers, the available guidelines, fundamental principles and recommendations should be followed. This study stands out methodologically in cross-culturally adapting a recovery measure. In comparison to other studies which have adapted the QPR, this study is the only one to describe in detail the methodology followed, and its findings. Moreover, it is the only adaptation of the QPR to date that has adapted the guidelines too. Considering these guidelines are meant for service users too, it seems appropriate to adapt them accordingly. It is the first in Spain to report the process and methods carried out to develop an instrument of recovery with semantic, conceptual and content equivalence with its original international measure.

The development of any instrument in a new language starts with author approval. Our study was careful to verify completed or ongoing studies of the QPR in Spain and to request permission by copy-right holder and lead author Sandra Neil unlike other adaptations of the QPR (Table S6 in the Supplementary Material). Also, it is the only QPR adaptation which has reported approval of the final version by the original authors.

The translations and back translation of the QPR in Spain were carried out in pairs by independent professional translators. The fact that only 20% of the items of the questionnaire matched amongst translations and 20% between back translations stresses how translation and back translation should not be limited to a simple translation of the questionnaire, but should follow a rigorous methodology that ensures semantic, conceptual and content equivalence. Though there are three commonly used methods for translation: linear translation, linear translation with pilot study and translation-back-translation, the latter is the one considered most complete and a guarantee of a higher quality (Carvajal et al., 2011). Participation in pairs of translators familiarized with the concepts and aims considered in the questionnaire and blind translators, allows contrasting formal and colloquial translations and their synthesis (Ramada-Rodilla et al., 2013). Participation of well-qualified translators is key to high-quality translations. Participation of two independent translators, preferably certified, with different backgrounds recommended is as it allows

identification of ambiguities and discrepancies regarding conceptual and semantic equivalence (Sousa and Rojjanasrirat, W. 2011). None of the other versions of the QPR follow such a thorough translation and back translation methodology (Table S6 in the Supplementary Material).

A committee of experts with mental health professionals and service users was performed in Spain. The aim of this type of committee is to accomplish a single consolidated questionnaire adapted to the target language (Ramada-Rodilla et al., 2013). Comparison of the guidelines and items resulting from the translation and back translation by a committee of experts allows the discussion of expressions and alternatives before a version is agreed upon (Sousa and Rojjanasrirat, W. 2011). Evidence of the importance of this stage is that experts familiar with the concept of recovery in Spain believed that 62.5% of the terms and concepts in the guidelines from the translation-back-translation stages needed alternative translations and only 25% of the original translations offered were maintained. Agreement on 53.3% of the items of the questionnaire proves how refinement in previous stages improved consensus, and users were actively involved in rewriting the remaining items. The Spanish version is the only one to conduct a committee of experts with both mental health professionals and service users and to report qualitative and quantitative assessments carried out (Table S6 in the Supplementary Material).

Mental health professionals and service users actively engaged in a pilot debriefing of the QPR in Spain. Pilot debriefing allows in-depth exploration of an instrument, and evaluation of its guidelines and questionnaire items for clarity: unclear information is identified and participants are asked to provide suggestions as to how to rewrite them (Hughes, 2004; Sousa and Rojjanasrirat, W. 2011; Ikart, 2018). In-depth exploration allowed simplification of the guidelines, and synthesis and grouping of the items in the questionnaire, and consideration of the gender perspective in Spanish language from the default use of generic masculine to gender-neutral language. The fact that the results were similar amongst mental health professionals and service users in the qualitative and quantitative assessments regarding the guidelines and the questionnaire, and that the questionnaire was reported overall brief, thorough and comprehensible are positive findings. The significant difference between mental health professionals and service users in terms of contributions to making the guidelines and questionnaire clearer and completion time despite having a similar mean of years of experience in mental health may be related to the difference in educational level and employment. Moreover, studies have shown that the assimilation of the concept of recovery in Spain amongst service users may be limited (Saavedra et al., 2021), and while mental health professionals have received recovery-oriented education, users may not be familiarized with the concept. It is difficult to explain such results, but researchers acknowledge more information or additional support may have been provided to service users to achieve a more collaborative and trusting relationship for them to engage fully.

Though some of the versions of the QPR include assessments of relevance and appropriateness of the instrument, none report their findings in-depth (Table S6 in the Supplementary Material).

The cross-cultural adaptation of the only available validated recovery instrument in Spain, the STORI, is vague and could benefit from a more rigorous methodology. Translation and back translation were done by two experts in the subject matter and by another researcher familiar with English culture respectively; and comparisons were made by the authors of the instrument with the original instrument, but no further research was carried out to culturally adapt the resulting version (Lemos-Giráldez et al., 2015). Lengthy instruments are not advisable as they may feel tedious and time-consuming by users.

The efforts made by the scientific community to develop psychometrically validated recovery instruments are remarkable, however psychometric properties must be tested after a thorough cross-cultural adaptation has been carried out. By not doing so, instruments are at risk of not being suitable for the target population, thus leading to errors in measuring the desired construct (Ramada-Rodilla et al., 2013).

Noting the current emphasis on measuring mental health service effectiveness (World Health Organization, 2013) and using routine recovery outcomes in clinical practice (Healthcare of Health Social Services and Equality, 2009), and the current lack of userdefined measures of recovery in Spain (Penas et al., 2019), the Spanish version of the QPR introduces a valuable and meaningful asset for the assessment of people in their on-going journeys of recovery.

Our results regarding the unexplored dimensions of the questionnaire are mostly related with the process of Connectedness in the CHIME framework (family and professional support and accompaniment, community participation, sense of belonging to social groups and/or associative movements, identification of health assets (personal and community, etc.). These findings are in line with the marked social and relational character of recovery in Spain which challenges the individualist approach in other countries (Saavedra et al., 2021). Future studies should explore adding connectedness items to the QPR-15-SP, and test the validity of an instrument tailored to the recovery needs of the Spanish population.

The following limitations of this study should be noted. Though service users completed the assessments, they experienced engagement difficulties with making open contributions. Though internal consistency was found excellent ( $\omega = 0.95$  and  $\alpha = 0.91$ ), the findings do not address the QPR's correlation, if any, with other measures of users' experience of recovery. The current study precedes the validation of the QPR instrument in Spain which will result in a psychometrically sound measure of recovery which may be used in controlled trials of recovery from psychosis, and will allow international comparisons. With further testing, the Spanish QPR may hopefully prove to be a valid and useful routine measure of recovery from psychosis.

### CONCLUSION

The Spanish adapted version of the QPR, QPR-15-SP, is a quantitative self-administered instrument to measure user-defined recovery-oriented outcomes with conceptual, linguistic, cultural, and metric equivalence to its original version. Findings of the Spanish cross-cultural adaptation are encouraging, especially its comprehension and clarity, and its effort to follow the CHIME framework. This, together with its briefness in length, differentiate the questionnaire from the other available assessment instruments developed for use in the population studied. The fact that there was low consensus amongst translations and back translations and that alternative translations were mostly preferred by the committee of experts stresses the importance of participation of professional translators, mental health professionals and service users in cultural adaptation processes, and how simple translations without further evaluation are not enough when addressing subjective, complex and multidimensional constructs such as recovery.

### **RELEVANCE FOR CLINICAL PRACTICE**

The psychometric validation of the adapted measure is the first in Spain to have undergone a cross-cultural adaptation process of a user-defined recovery-oriented outcomes measure.

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## CROSS-CULTURAL ADAPTATION OF THE QUESTIONNAIRE ABOUT THE PROCESS OF RECOVERY IN SPAIN (QPR-15-SP)

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### SUPPORTING INFORMATION

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Supplementary Material Appendix S1