Patricia Penas[1]
Ioseba Iraurgi[1]
M. Concepción Moreno[2]
Jose J. Uriarte[2]

# How is evaluated mental health recovery?: A systematic review

[1]University of Deusto, Bilbao, Spain
[2] Mental Health Network of Bizkay (RSMB), Osakidetza, Biocruces, Bizkaia, Spain

There is an increasingly recognition of the concept of personal recovery in the treatment of mental illness. Recovery defined as living a fulfilling, rewarding life, even in the ongoing presence of a mental illness. Consequently, a number of different instruments have been designed to assess recovery-oriented outcomes. The objective of the study was to conduct a systematic revision of the domains and the instruments used to assess personal recovery and mental health services orientation to recovery. After the systematic review, it has been carried out a selection process of the most adequate instruments taking into account different criteria of adequacy, psychometric properties and the validation to the Spanish population. In the results have been obtained 35 instruments for measuring personal recovery and 18 for assessing the orientation of recovery in mental health services. However, many of them have been dismissed for not reaching the adequacy criteria. This review makes clear the lack of consensus on the concept of recovery, as a consequence of the high number of instruments that evaluate the same concept through different domains. In addition, few instruments offer data related to the psychometric properties and only one instrument to assess personal recovery is validated to the Spanish population.

**Keywords:** Personal Recovery, Service Orientation, Instruments, Outcomes Assessment, Mental Health, Systematic Review

*Actas Esp Psiquiatr 2019;47(1):23-32*

## ¿Cómo evaluar la recuperación en salud mental?: Una revisión sistemática

En los últimos años se ha producido un incremento en el reconocimiento del concepto de recuperación personal en la atención a las personas que padecen enfermedades mentales: la recuperación personal definida como la búsqueda de una vida satisfactoria y plena a pesar de las limitaciones causadas por la enfermedad. Consecuentemente, se han creado diferentes instrumentos para evaluar los resultados orientados a la recuperación. El principal objetivo de este estudio ha sido llevar a cabo una revisión sistemática de los dominios e instrumentos que evalúan tanto la recuperación a nivel personal como la orientación de los servicios hacia la recuperación. Tras la revisión sistemática se ha realizado un proceso de selección de los instrumentos más apropiados teniendo en cuenta distintos criterios de adecuación, propiedades psicométricas y su validación al castellano. Como resultado se han obtenido 35 instrumentos que evalúan la recuperación personal y 18 la orientación de los servicios de salud mental, aunque muchos de ellos han sido desestimados por no cumplir los criterios de adecuación. Esta revisión deja clara la falta de consenso en el concepto de recuperación, debido al alto número de instrumentos que evalúan el mismo concepto a través de diferentes dominios. Además, solo unos pocos ofrecen datos de evidencia de las propiedades psicométricas y únicamente un instrumento desarrollado para evaluar la recuperación personal está adaptado al español.

**Palabras clave:** Recuperación Personal, Orientación de los Servicios, Instrumentos, Evaluación de Resultados, Salud Mental, Revisión Sistemática

Correspondence:
Patricia Penas
Avda. De las Universidades 24
48007, Bilbao (Spain)
E-mail: patricia.penas@deusto.es

## INTRODUCTION

The current vision of the recovery concept appeared in the eighties[1], in a context in which people with mental illness themselves start telling about their experiences and the future of the illness stops being considered as an indication of mere deterioration[2,3]. One of the most cited definitions for this concept is the one proposed by Anthony (1993): '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'[4].

This vision of personal recovery has become important, to the point in which it has become the main axis when guiding the assistance policies of the current mental health systems in different countries[4,5]. Therefore, the need to orientate mental health services towards personal recovery requires using measures which allow evaluating both the process of the users' individual recovery and the orientation of the programs and services which promote that recovery[7]. The personal recovery abovementioned differs from the most traditional clinical recovery, in the sense that the latter only refers to the reduction or remission of symptoms[8], and there are multiple measurement instruments for its evaluation.

In this regard, despite the existence of commonly accepted definitions, the variability concerning the conceptualisation of a process as subjective, complex and multidimensional as personal recovery[9] hinders the creation and selection of objective measures for its evaluation[10]. Moreover, there is a great variability regarding the dimensions used by the current evaluation instruments[11].

In recent years, some authors have attempted to identify key processes, phases and characteristics regarding recovery[12], despite it being an individual experience. Some of the factors that have been identified are hope, being responsible for oneself, being supported by others, carrying out meaningful activities and developed a positive identity[10,13,14]. Additionally, some authors have been working on the establishment of conceptual frameworks, such as CHIME, which include the following factors: Connectedness, Hope and optimism about the future, Identity, Meaning in life and Empowerment[12,15].

Therefore, as it has been previously pointed out, it is important to evaluate not only the personal recovery process undergone by people suffering from a severe mental disorder[16], but also the services that assist them and contribute to that process[17]. By knowing and assessing how services work and are oriented, they can be adjusted towards the recovery model[18]. Furthermore, the inclusion of users who turn to these services is crucial for both the creation of instruments and their evaluation[7].

Even though new reviews and papers discussing the new contributions about the recovery model have been published[15,19], studies calling for an update in existing evaluation instruments are more scarce. This paper aims to study the dimensions and instruments that have been created and are used to evaluate personal recovery on the on hand, and mental health services' orientation on the other. Additionally, the instruments' psychometric properties and their adequacy for such purpose will also be analysed. Finally, those that are available in Spanish will also be pointed out.

## METHOD

For the systematic review, the PRISMA[20] model is applied and is adjusted to the search for evaluation instruments, specifically those aimed at the evaluation of factors associated with the concept of recovery in mental illness. Furthermore, instruments mentioned in existing reviews[7,10,11,21-24] have been taken into account. Even though the concept of recovery is relatively recent, no temporal filters have been used. Its main objective is inherent to the genesis of rehabilitation models. The process was mainly carried out in English; nevertheless, no language filters were used, in order not to rule out the different versions of the instruments. The search has been conducted via the following databases: SCOPUS, ProQuest, PsycARTICLES, PsycCRITIQUES, PsycINFO, EBSCOHost and Science Direct, in which the following descriptors were introduced: 'mental health recovery', 'recovery instruments', 'personal recovery', 'mental illness recovery', 'recovery assessment', 'recovery orientation of mental health services', 'assessment of recovery orientation services' and 'recovery scales'.

The first goal of the search was to identify any instrument aimed at the evaluation of recovery in mental illness. Subsequently, the identified instruments were classified depending on whether they evaluate personal recovery or the services' orientation. The extraction of psychometric properties was carried out after having read the selected papers. The entire search was initially conducted between November and December 2016, whereas the selection of documents and the extraction of information were carried out between January and April 2017. Finally, the procedure was replicated between September and November 2017 in order to update information.

The dimensions which evaluate each of the scales have also been registered. The clustering of these domains was used in order to know the variability and accuracy used by the different groups when measuring a same concept. In this case, the measured concept was the recovery model.

The hierarchal criteria selected by Burgess and his team in 2011 in the systematic review that they conducted for the Australian context[11] were deemed suitable when selecting the most adequate instruments for their use in mental health services. Therefore, the following criteria have been taken into account to evaluate personal recovery: (1) the instrument evaluates domains related to personal recovery, (2), it is easy to complete (does not exceed 50 items), (3) it takes the user's perspective into account, (4) it measures quantitative data, (5) it has been scientifically tested, (6) it possesses adequate psychometric properties and (7) it has been adapted into Spanish. With regards to the instruments which evaluate mental health services' orientation, the criteria are the following: (1) the instrument measures domains related to the services' orientation, (2) it is easy to use (does not exceed 100 items), (3) it follows an adequate creation process, (4) it takes users' perspective into consideration, (5) it possesses adequate psychometric properties and (6) it has been adapted into Spanish.

## RESULTS

A total of 53 instruments resulted from the systematic review, from which 35 relate to personal recovery and 18 to recovery orientation of mental health services.

## PERSONAL RECOVERY

There are 35 identified instruments that evaluate personal recovery. Nevertheless, there was only access to the domains of 29 of them and there is no information on the 6 remaining ones. As observed in Table 1, the most recurrent dimensions in the different instruments are: management of symptoms, hope, relationships, empowerment and quality of life, while 22 were collected by a single instrument.

Figure 1 hereunder represents the process that was followed in order to select those instruments that adjust to the suggested criteria.

### *Criterion nº1: Assesses domains related to personal recovery*

Out of the 35 instruments initially identified in the reviews and in literature related to personal recovery, only 28 are considered to evaluate domains directly related to the recovery process of people suffering from mental health issues. Thus, other instruments which are used for just one group of users or the evaluation of very specific aspects of the mentioned process have been discarded. In so doing, the following instruments have been ruled out: the RSS[15], which

**Table 1** Dimensions of the Personal Recovery measures (n=29)

| Dimension | Number of instruments | Dimension | Number of instruments |
|---|---|---|---|
| Symptom management | 12 | Spirituality | 3 |
| Hope | 11 | Responsibility | 3 |
| Relationships | 9 | Day-to-day support | 3 |
| Quality of life | 7 | Awareness | 3 |
| Empowerment | 7 | Strengths | 3 |
| Goals/self-management | 5 | Self-esteem | 3 |
| Knowledge | 5 | Redefinition of oneself | 2 |
| Support | 5 | Intrapersonal | 2 |
| Daily functioning | 5 | Interpersonal | 2 |
| Work/Educational activities | 4 | Search for help | 2 |
| Wellbeing | 4 | Helping others | 2 |
| Active growth | 4 | Social activities | 2 |
| Self-confidence | 4 | Physical health | 2 |
| Medication | 3 | Addictions | 2 |

22 Dimensions have only been collected by a single instrument

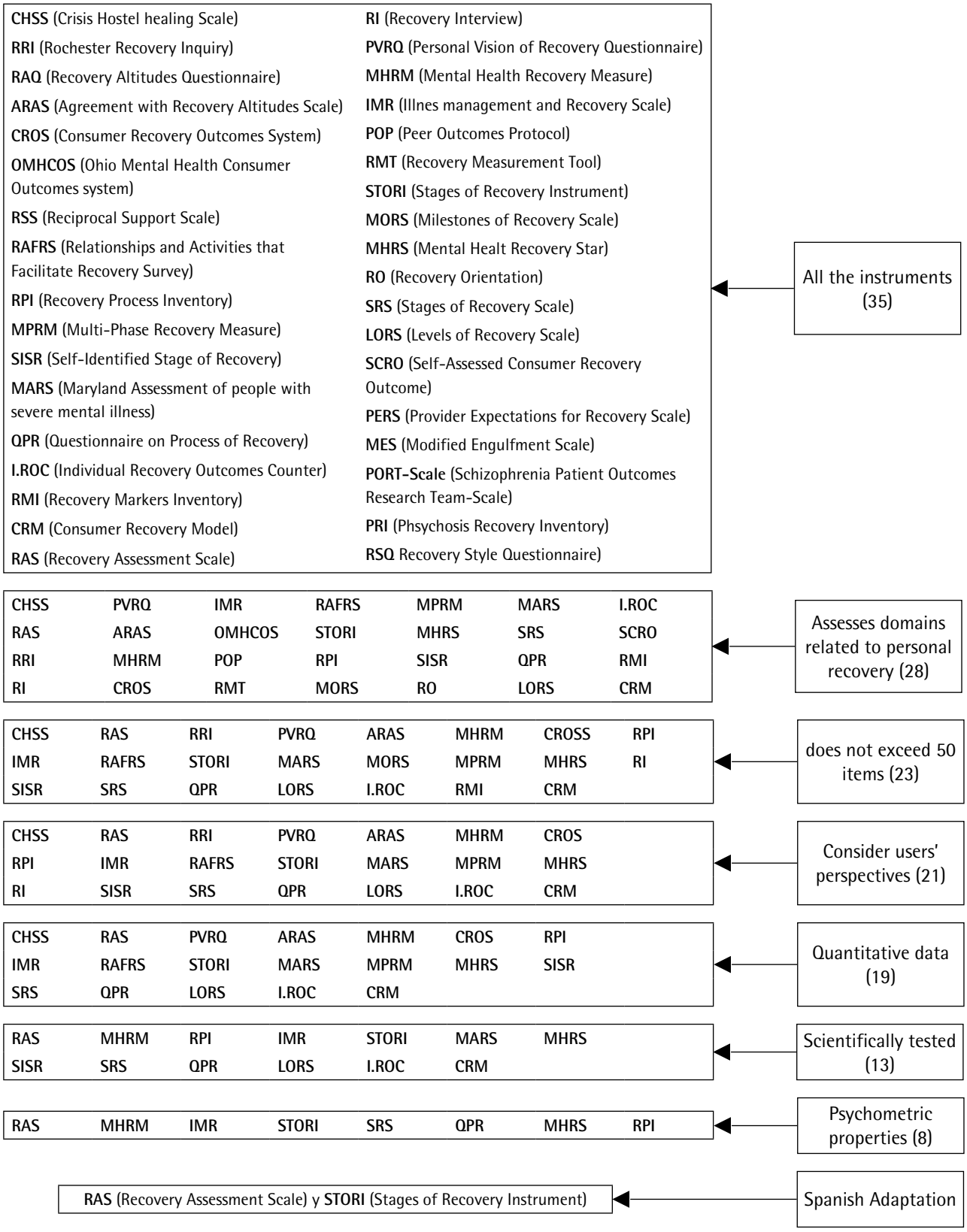


*Figure 1* | *Flow chart for the selection of instruments for the evaluation of 'Personal Recovery'*

measures mutual support from the point of view of the users that are part of a programme, the RAQ[26], which evaluates recovery attitudes in general terms, the PERS[27], which is composed by part of the optimism scale that in addition is given by professionals with regard to the users, the MES[28], which measures the extent to which a person's illness defines his or her self-concept, the PORT-Scale[29], which evaluates recovery as an attitude or a life orientation in people suffering from schizophrenia, the PRI[30], which evaluates recovery during the first episodes, and lastly the RSQ[31], which is solely used in schizophrenia diagnoses.

### *Criterion nº2: Easy to complete (does not exceed 50 items)*

As observed in Figure 1, five instruments have been discarded because they possess more than 50 items: OMHCOS[32] (67 items), POP[33] (241 items), RO[11] (56 items), SCRO[34] (65 items) y RMT[22] (91 items).

### *Criterion nº3: Takes users' perspectives into account*

In this step, all instruments that did not collect data directly from the network users themselves were eliminated. Examples of such instruments are the MORS[35] and the RMI[36], in which professionals are the ones that complete the scale based on their own perspective of the user's recovery process.

### *Criterion nº4: Quantitative data*

Taking this criterion into account, instruments RRI[37] and RI[38] have been eliminated because both included open questions which generate qualitative data. The preference for quantitative data is due to the ease with which it can be subsequently interpreted when the instrument is used in a clinical setting.

### *Criterion nº5: Scientifically tested*

In order to avoid the exclusion of instruments for this criterion, instruments' development or validation must have been published in a peer-reviewed journal, not just in reviews[7,10,11,21,23,24] and in a compendium[22]. Therefore, the following instruments have been discarded: the CHSS[39], the ARAS[40] and the RAFRS[41,22], because they have only been presented in unpublished manuals or reports. The PVQR[42] has also been discarded because it was used in a thesis and it has not been published. The CROS[43] scale has also been excluded because it is described in a manuscript. Finally, the MPRM[44] was created for a specific research[11].

### *Criterion nº6: Psychometric properties: reliability (internal consistency), validity (convergent and construct validity), and assesses change*

By using this criterion, instruments which do not present data on these psychometric properties are excluded. Accordingly, in the case of the SISR[45] there are no studies that evaluate either the factorial structure or the assessment of change. In the case of the LORS[46], factorial structure is not calculated. An AFC and a Rash analysis are carried out for the CRM[47], but it does not present data relating to convergent validity. In the study carried out about the I.ROC[48] the assessment of change is not indicated. Lastly, there is no data on convergent validity for the MARS scale[49]. Therefore, we obtain data on the psychometric evidence established for the following instruments: RAS[50], STORI[51], RPI[52], MHRM[53], SRS[54], IMR[55], MHRS[56] and QPR[57].

### *Criterion nº7: Spanish adaptation*

This final criterion refers to the translation of instruments into Spanish. Only the Spanish version of STORI[58] and the translated version into Argentinian Spanish of RAS[59] have been found.

## Recovery orientation of mental health services

With regards to the 18 instruments which evaluate mental health services' orientation, dimensions of 15 of them have been found, all of which are represented in Table 2. The most recurrent dimensions are: relationships with other people, possibilities and expectations regarding the recovery process, the organisational climate, the treatment used and the cooperation and involvement of services.

Figure 2 illustrates the process for the selection of instruments that respond to the criteria that have been proposed for the evaluation of the orientation given by mental health services.

### *Criterion nº1: Evaluates domains related to services' orientation*

Out of the 18 instruments initially identified in topic-related reviews and literature, only 15 are considered to evaluate domains directly related to services' orientation towards the recovery model. The RKI[60], which evaluates professionals' knowledge and attitudes, the STARS[61], which

**Table 2** Dimensions which evaluate mental health services' orientation (n=15)

| Dimension | Number of instruments | Dimension | Number of instruments |
|---|---|---|---|
| Peer/social support | 12 | Access | 3 |
| Recovery focus/possibilities | 11 | Choice | 3 |
| Organisational climate | 9 | Inclusion | 3 |
| Treatment | 7 | Orientation towards growth | 3 |
| Collaboration/Involvement | 7 | Self-care/wellness | 3 |
| Based on strengths | 5 | Meaningful activities | 3 |
| Self-monitoring/Self-determination | 5 | Community-centered | 2 |
| Goal striving | 5 | I services | 2 |
| Basic needs | 5 | Responsibilities | 2 |

21 Dimensions have only been collected by a single instrument

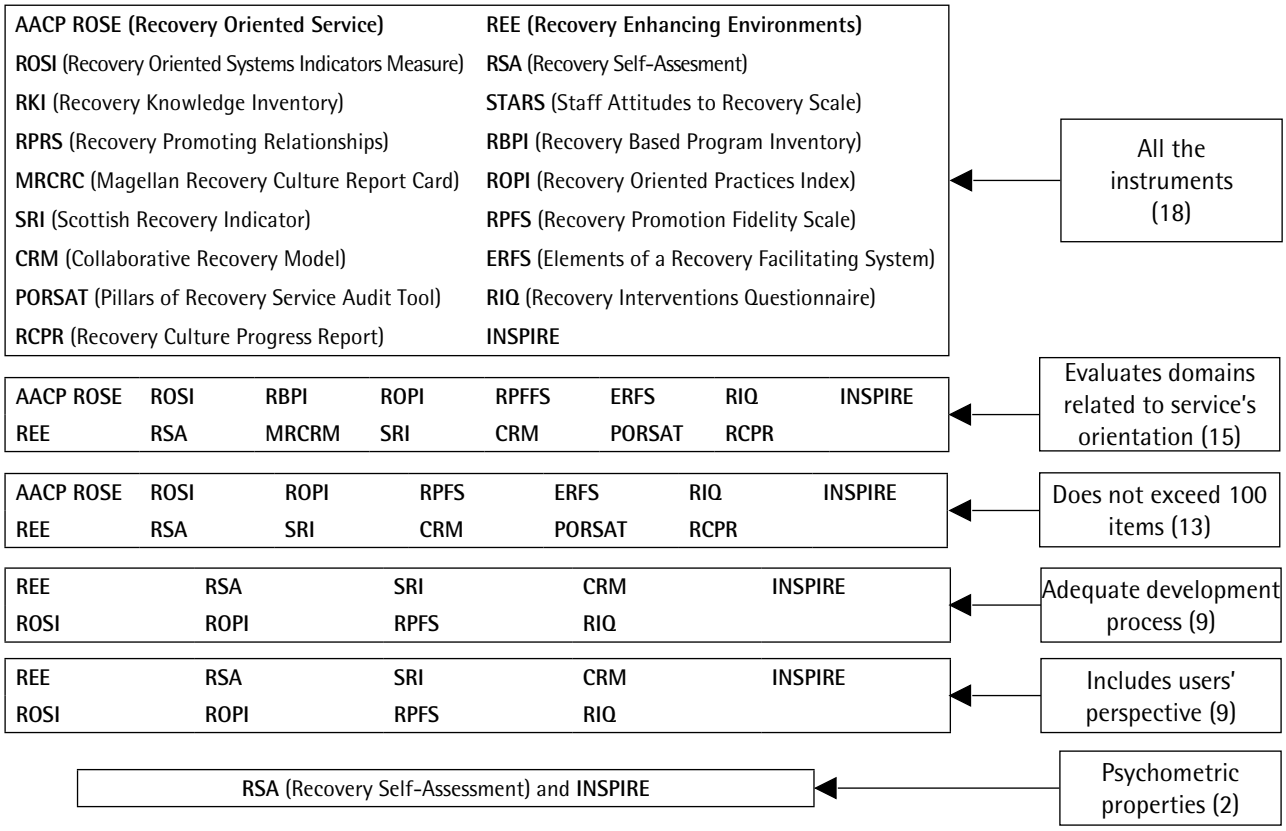


*Figure 2* *Flow chart for the selection of instruments for the evaluation of 'Recovery orientation of mental health services'*

evaluates workers' attitudes, and the RPRS[62], which evaluates professionals' competences, have been discarded.

### *Criterion nº2: Easy to complete (does not exceed 100 items)*

In order to select an easy-to-complete instrument, the following two instruments with over 100 items were discarded: the MRCRM[11], with 102 items, and the RBPI[63,11], with 148 items.

### *Criterion nº3: Adequate development process*

This criterion determines if instruments have followed an adequate development process, as well as if they have been scientifically tested and subsequently published. Accordingly, the following instruments have been discarded: the AACP ROSE[22], which has only been presented in one communication and has been added to the Campbell-Orde compendium, the ERFS[64], a reduced version of the REE that has only been used in a pilot project in 2008-2009, the POR-SAT[65], which is used in an Irish report, and lastly, the RCPR[66] a reduced version of MRCMR, which was also solely used to elaborate a specific report.

### *Criterion nº4: Includes users' perspective*

All remaining instruments meet this criterion. In other words, they are all instruments that collect data on services whilst at the same time taking users' perspective into consideration.

### *Criterion nº5: Psychometric properties: internal consistency, convergent validity and factorial structure*

Psychometric properties have not been demonstrated for some instruments, such as the ROPI[67], the SRI[68] o the RPFS[69]. Internal consistency, measured via Cronbach's alpha, is the only known psychometric property for the REE[70], the ROSI[71], the CRM[72] and the RIQ[73]. However, the following psychometric properties have indeed been carried out for the RSA[74] and the INSPIRE[75]: internal consistency, convergent validity and factorial structure.

### *Criterion nº6: Spanish adaptation*

The fact that neither the Recovery Self-Assessment (RSA) nor the INSPIRE have a Spanish adaptation means that there is no instrument which meets all the mentioned criteria to evaluate the orientation of services in our area.

## DISCUSSION

The aim of this study is to update dimensions and instruments which are used to evaluate the recovery model with regards to personal recovery and mental health services' orientation in Spain. One of the main conclusions drawn from this study is that there is a lack of consensus on the recovery concept in both of these areas. This same idea was supported by several reviews carried out at least five years ago[10,11,23,24]. Therefore, despite the recovery model's increasing popularity and relevance, it is still necessary to seek for approaches for its conceptualisation.

Current science on this topic has made progress with regards to the subjective processes which evaluate the CHIME[12] recovery model's conceptual framework. However, said progress is not clearly reflected in measurement instruments. Even though some of the most widely used domains to evaluate the personal recovery process are symptoms, hope, relationships, quality of life and empowerment -domains that are related to the mentioned conceptual framework (CHIME), except for symptoms-, in this review it can be observed that there are other instruments with different domains which are evaluating the same concept. In this respect, the confusion concerning the recovery model's conceptual framework is also making it difficult for clinicians to choose the instruments to be used, since there is no consensus regarding instruments.

Few instruments present an evaluation of the psychometric properties which guarantee the instrument's adequacy for its practical use. Out of the 35 instruments developed to evaluate the process of personal recovery, only eight of them (RAS, MHRM, IMR, STORI, SRS, QPR, MHRS and RPI) meet the reliability, convergent and construct validity criteria and assess change. Among the 18 instruments which evaluate mental health services' orientation towards recovery, only the RSA and INSPIRE offer evidence data on internal consistency, convergent validity and factorial structure.

In Spain, the personal recovery model is an emerging concept. It is present in the country's National Health Service[74] and in some of its autonomous regions' mental health policies, such as: Basque Country[77], Navarre[76] and Catalonia[77]. However, the scarcity of instruments adapted into Spanish suggests that the evaluation of this model is not being carried out with the instruments proposed in topic-related literature.

In this review it can be observed that, out of the eight instruments which meet the established selection criteria to

evaluate the personal recovery process, only two of them are translated into Spanish, and only one is adapted into Spanish culture (STORI). The STORI (Stages of Recovery Instrument[51,58]) is a 50-item instrument with a Likert scale, which evaluates the different phases of personal recovery: moratorium, awareness, preparation, rebuilding and growth. The personal process would be at the phase in which the person has obtained the highest score.

Furthermore, in relation to the adapted instruments for the evaluation of the recovery model in mental health services, no instruments with a Spanish adaptation that have met the criteria have been found.

This shortage of instruments adapted to the Spanish context reveals the necessity to validate and adapt instruments that contribute to the evaluation of this personal recovery model into Spanish. Moreover, it shows the impact that services have on the recovery process undergone by people suffering from mental illness. To establish mental health services and programmes and to train professionals that would be able to perform interventions based on this model, the recovery concept has to be understood and specified[24].

This review has certain limitations. On the one hand, the exclusive criteria system that has been selected to choose the instruments could lead to the elimination of instruments able to provide adequate information on personal recovery, but do not meet some of the aforementioned criteria (for example, they do not have more than 50 items, as established in the criterion 2). Likewise, there could be more instruments apart from STORI which are translated into Spanish, but may not meet other aforementioned criteria. On the other hand, access to the original version of some of the instruments introduced in this review was not possible and, since it is 'grey' literature, its description has been carried out through previous reviews.

Therefore, as a final conclusion, it is important to highlight the need to specify, unify and clarify the recovery model concept. This is the only way to reach consensus on the domains which make up the recovery model concept and in turn, this will make it possible to select the most appropriate instruments to evaluate said concept. In the same way, if the elements that contribute to the recovery process are understood and specified, it will be possible to choose the instruments that serve to evaluate mental health services and therefore, it will be possible to improve clinical care.

## CONFLICTS OF INTEREST

Patricia Penas is a beneficiary of a Predoctoral research grant given by the Basque Government (PRE_2017_2_0179).

## REFERENCES

1. Deegan P. Recovery: The lived experience of rehabilitation. Psychiatr Rehabil J. 1988;11:11-9.
2. Frese FJ, Knight EL, Saks E. Recovery from schizophrenia: With views of psychiatrist, psychologists and others diagnosed with this disorder. Schizophr Bull. 2009;35(2):370-80.
3. Zúñiga A, Navarro JB, Lago P, Olivas F, Muray E, Crespo M. Evaluación de las necesidades en pacientes psiquiátricos graves. Un estudio comunitario. Actas Esp Psiquiatr. 2013;41(2):115-21.
4. Anthony WA. Recovery from mental illness: The guiding vision of the mental health service system in the 1990s. Psychos Rehabil J. 1993;16:11-23.
5. U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health; 1999.
6. Ramon S, Healy B, Renouf N. Recovery from mental illness as an emergent concept and practice in Australia and the UK. Int J Soc Psychiatry. 2007;53:108-22.
7. Sklar M, Groessl EJ, O´Connell M, Davidson L, Aarons GA. Instruments for measuring mental health recovery: A systematic review. Clin Psycho Rev. 2013;33:1082-95.
8. Slade M, Hayward M. Recovery, psychosis and psychiatry: Research better than rethoric. Acta Psychiatric Scand. 2007:116:81-3.
9. Lahera G, Pérez-Fuster V, Gávez JL, Matínez M, Sánchez P, Roca M. ¿Es posible la recuperación funcional en la esquizofrenia?: un análisis cuali-cuantitativo de la opinión de los psiquiatras. Actas Esp Psychiatr. 2016;44(3):97-106.
10. Williams J, Leamy M, Bird V, Harding C, Larsen J, Le Boutillier C, et al. Measures of the recovery orientation of mental health services: Systematic review. Soc Psychiatry Psychiatr Epidemiol. 2012;47:1827-35.
11. Burgess P, Pirkis J, Coombs T, Rosen A. Assessing the value of existing recovery measures for routine use in Australian Mental Health Services. Aust N Z J Psychiatry. 2011;45:267-80.
12. Leamy M, Bird V, Le Boutillier C, Williams J, Slade M. Conceptual framework for personal recovery in mental health: Systematic review and narrative synthesis. Br J Psychiatry. 2011;199:445-52.
13. Davidson L, O´Conell M, Tondora J, Lawless M. Recovery in serious mental illness: a new wine or just a new bottle? Prof Psychol Res Pr. 2005;36(5):480-7.
14. Mancini A, Hardiman ER, Lawson HA. Making sense of it all: Consumer providers´ theories about factors facilitating and impeding recovery from psychiatric disabilities. Psychiatr Rehabil J. 2005;29(1):48-55.
15. Slade M, Leamy F, Bacon C, Janosik J, Le Boutillier V, Williams M, et al. International differences in understanding recovery: Systematic review. Epidemiol Psychiatric Sci. 2012;21(4):353-64.
16. Lavin D, Ryan P. Using quatitative research to measure recovery outcomes and correlates. Ir J Psychol Med. 2012; 29(3):157-62.
17. Leamy M, Clarke E, Le Boutillier C, Bird V, Choudhury R, MacPherson, R. Recovery practice in community mental health teams: National Survey. Br J Psychiatry. 2016;209(4):340-6.
18. Tansella M, Thornicroft G. Implementation science: Understanding the translation of evidence into practice. Br J Psychiatry. 2009;195:283-5.
19. Slade M, Amering M, Farkas M, Hamilton B, O´Hagan M, Panther G, et al. Uses and abuses of recovery: Implementing

recovery-oriented practices in mental health systems. World Psychiatry.2014;12(1):12-20.
20. Hutton B, Catalá-López F, Moher D. La extensión de la declaración PRISMA para revisiones sistemáticas que incorporan metaanálisis en red: PRISMA-NMA. Med Clin. 2016.
21. Cavelti M, Kvrgic S, Beck EM. Kossowsky J. Vauth R. Assessing recovery from schizophrenia as an individual process. A review of self-report instruments. Eur Psychiatry. 2012;27(1):19-32.
22. Campbell-Orde T, Chamberlin J, Carpenter J. Leff HS. Measuring the Promise: A compendium of Recovery Measures. Volume II. Crambidge, MA: Human Servives Research Institute; 2005.
23. Law H, Morrison A, Byrne R, Hodson E. Recovery from psychosis: a user informed review of self-report intruments for measuring recovery. J Ment Health. 2012;21(2):193-208.
24. Shanks V, Williams J, Leamy M, Bird VJ, Le Boutillier C, Slade M. Measures of Personal Recovery: A Systematic Review. Psychiatr Ser. 2013;64(10):974-80.
25. Silver T, Bricker D, Pesta Z. Impact of teaching mental health best practices and recovery process on constituent populations of the mental health system. In: D. Roth (Ed.). New research in mental health. Vol 15. Colombus, OH: Ohio Department in Mental Health; 2002. pp.331-5.
26. Borkin JR, Steffen JJ, Ensfield LB, Krzton K, Wishnick H, Wilder K, et al. Recovery Attittudes Questionnaire: Development and Evaluation. Psychiatr Rehabil J. 2000;24(2):95-102.
27. Salyers MP, Brennan M, Kean J. Provider Expectations for Recovery Scale: Refining a measure of provider attitudes. Psychiatr Rehabil J. 2013;36(3):153-9.
28. McCay EA, Seeman MV. A scale to measure the impact of a schizophrenic illness on an individual's self-concept. Arch Psychiatr Nurs. 1998;12(1):41-9.
29. Resnick SG, Rosenheck RA, Lehman AF. An exploratory analysis of correlates of recovery. Psychiatr Ser. 2004;55(5):540-7.
30. Chen EY, Tam DK, Wong JW, Law CW, Chiu CP. Self-administered instrument to measure the patient's experience of recovery after first-episode psychosis: development and validation of the Psychosis Recovery Inventory. Aust N Z J Psychiatry. 2005;39(6):493-9.
31. Drayton A, Birchwood M, Trower P. Early attachment experience and recovery from psychosis. Br J Clin Psychol. 1998;37:269-84.
32. The Ohio Department of Mental Health. The Ohio Mental Health Consumer Outcomes System: Procedural Manual. Colombus, Ohio: The Ohio Department of Mental Health; 2009.
33. Campbell J, Einspahr K, Evenson R, Adkins R. Peer Outcomes Protocol (POP): Psychometric Properties of the POP. University of Illinois at Chicago; Department of Education and the Center for Mental Health Services; 2004.
34. Gordon SE, Ellis PM, Siegert RJ, Walkey FH. Development of a Self-Assessment Consumer Recovery Outcome Measure: My voice, my life. Adm Policy Ment Health. 2013;40:199-210.
35. Doyle M, Logan C, Ludlow A, Holloway J. Milestones to recovery: Preliminary validation of framework to promote recovery and map progress through the medium secure inpatient pathway. Crim Behav Ment Health. 2012;22:53-64.
36. DeRoche K, Olmos-Gallo PA, Mckinney CJ, Starks R, Huff S. Measuring Recovery Related Outcomes: A psychometric investigation of the recovery markers inventory. Community Ment Health J. 2014;50:896-902.
37. Hopper K, Blanch A, Carpinello S, Johnson S, Knight E., Kovasznay B, et al. Rochester Recovery Inquiry. Orangeburg, NY: Center for the Study of Public Issues in Mental Health; 1996.
38. Ralph RO, Kidder K, Phillips D. Can we measure recovery? A compendium of Recovery and Recovery-related instruments. Cambridge, MA: Human Services Research Institute; 2005.
39. New York Crisis Hostel Project. Crisis Hostel Healing Scale. New York: New York Crisis Hostel Project; 1998.
40. Murnen SK, Smolak L. Agreement with Recovery Attittudes Scale. Gambier, OH: Kenyon College; 1996.
41. Leavy RL, McGuire AB, Rhoades C, McCool R. Predictors of subjective quality of life in mental health consumers: Baseline results. In: D. Roth (Ed.). New research in mental health. Vol 15. Colombus, OH: Ohio Department in Mental Health; 2002. pp. 331-5.
42. Ensfield LB. The Personal Vision of Recovery Questionnaire (PVRQ): The development of a consumer-derived scale. Doctoral thesis in the Cincinnati University; 1998.
43. Bloom BL, Miller A. The Consumer Recovery Outcomes System (CROS 3.0): Assessing clinical status and progress in persons with severe and persistent mental illness. Colorado Springs, CO: Colorado Health Networks; 2004.
44. Beeble ML, Salem DA. Understanding the phases of recovery from serious mental illness: The roles of referent and expert power in a mutual-help setting. J Community Psycholo. 2009;37(2):249-67.
45. Wolstencroft K, Oades L, Caputi P, Andresen R. Development of a structures interview schedule to assess stage of psychological recovery from enduring mental illness. Int J Psych Clin Pract. 2010;14:182-9.
46. Corriveau DP, Sousa S. Levels of Recovery Scale (LORS): Psychometric properties of a new instrument to assess psychotic symptoms and patient awareness. Psychological Rep. 2013;113(2):435-40.
47. Lusczakoski KKD, Olmos-Gallo PA, Milnor W, Mckinney CJ. Measuring Mental Health Recovery: An application of Rasch Modeling to the Consumer Recovery Measure. Int J Behav Health Ser Res Pract. 2016;43(1):104-15.
48. Monger B, Hardie SM, Ion R, Cumming J, Henderson N. The individual Recovery Outcomes Counter: Preliminary validation of a personal recovery measure. The Psychiatrist. 2013;37:221-7.
49. Drapalski AL, Medoff D, Unick GJ, Velligan DI, Dixon LB, Bellack AS. Assessing Recovery of people with serious mental illness: Development of a new scale. Psychiatr Serv. 2012;6(1):48-53.
50. Gifford D, Schook A, Woody C, Vollendorf C, Gervain M. Construction of a scale to measure consumer recovery. Psychiatr Rehabil Skills. 1995.
51. Andresen R, Caputi P, Oades L. Stages of Recovery Instrument: Development of a measure of recovery from serious mental illness. Aust N Z J Psychiatry. 2006;40:972-80.
52. Jerrell JM, Cousins VC, Roberts KM. Psychometric Properties of Recovery Process Inventory. J Behav Health Serv Res. 2006;33(4):464-73.
53. Young S, Bullock W. Mental Health Recovery Measure. Toledo OH: University of Toledo, Psychology Department; 2003.
54. Song L, Hsu S. The development of the Stages of Recovery Scale for persons with persistent mental illness. Res Soc Work Pract. 2006;10:49-86.
55. Mueser KT, Gingerich S, Salyers MP, McGuire AB, Reyes RU, Cunningham H. The Illness Management and Recovery (IMR) Scales (Client and Clinicians Version). Concord, NH: New Hampshire-Dartmouth Psychiatric Research Center; 2004.
56. MacKeith J, Burns S. Mental Health Recovery Star. London: Mental Health Providers Forum and Triangle Consulting; 2008.
57. Neil S, Kilbride M, Pitt L, Nothard S, Welford M, Sellwood W, et al. The Questionnaire about the Process of Recovery (QPR): A measurement tool developed in collaboration with service users. Psychosis. 2009;1(2):145-55.
58. Lemos-Giráldez S, García-Alvarez L, Paino M, Fonseca-Pedrero E, Vallina-Fernández O, Vallejo-Seco G. Measuring stages of

recovery from psychosis. Compr Psychiat. 2015;56:51-8.
59. Zalazar V, Castro J, Masyano F, Vera N, Scorza P, Agrest M. Feseability and Psychometric Properties of the Recovery Assessment Scale (RAS) in People with Mental Illness for its use in Argentina. J Psychoso Rehab Ment Health. 2017;1(1).
60. Bedregal LE, O´Connell M, Davidson L. The Recovery Knowledge Inventory: Assessment of mental health staff knowledge and attitudes about recovery. Psychiatr Rehabil J. 2006;30(2):96-103.
61. Crowe TP, Deane FP, Oades LG, Caputi P, Morland KG. Effectiveness of a Collaborative Recovery Training Program in Australia in promoting positive views about recovery. Psychiatr Ser. 2006;57(10):1497-500.
62. Russinova Z, Rogers ES, Ellison ML. Recovery Promoting Relationships Scale Manual. Boston: Center for Psychiatric Rehabilitation; 2006.
63. Ragins M. A Recovery Based Program Inventory. Long Beach, CA: Mental Health American of Los Angeles. Available in: http://static1.1.sqspcdn.com/static/f/1084149/15481685/1323212495113/61ARecoveryBasedProgramInventory.pdf?token=rRsbuCAMGelik413To9gSBufGhM%3D
64. Campbell-Orde T, Chamberlin J, Carpenter J, Leff HS. Addendum to Measuring the Promise: A Compedium of Recovery Measures. Volume II. Cambridge, MA: Human Services Research Institute; 2005.
65. Higgins A. A recovery approach within the Irish mental health services: A framework for development. Mental Health Commission; 2008.
66. Mental Health America of Los Angeles. A Recovery Culture Progress Report. Exploring Recovery: The Collected Village Writings of Mark Ragins. Los Angeles: Mental Health America; 2009.
67. Mancini AD, Finnerty MT. Recovery-oriented Practice Index. New York, NY: New York State of Mental Health; 2005.
68. McLean J, Whitehead I. Evaluation of the Scottish Recovery Indicator pilot in the five health board areas in Scotland. Edinburgh: Scottish Government Social Research; 2008.
69. Armstrong NP, Steffen JJ. The Recovery Promotion Fidelity Scale: Assessing the organizational promotion of recovery. Community Ment Health J. 2009;45:163-70.
70. Ridgway P, Press A. Assessing the Recovery-orientation of Your Mental Health Program: A User´s Guide for the Recovery-Enhancing Environmental Scale (REE). Kansas: University of Kansas; 2004.
71. Dumont J, Ridgway P, Onken S, Doman D, Ralph R. Mental Health Recovery: What helps and what hinders? A National Research Project for the development of recovery facilitating system performance indicators. Phase II technical report: Development of recovery oriented system indicators (ROSI) measures to advance mental health system transformation. Alexandria: National technical assistance center for state mental health planning; 2006.
72. Marshall SL, Oades LG, Crowe TP. Mental health consumers´ perceptions of receiving recovery-focused services. J Eval Clin Pract. 2008;15:654-9.
73. Ellis G, King R. Recovery focused interventions: Perceptions of mental health consumers and their case managers. AeJAMH. 2003;2(2):1-10.
74. O´Connell M, Tondora J, Croog G, Evans A, Davidson L. From rhetoric to routine: Assessing perceptions of recovery oriented practices in a state mental health and addiction system. Psychiatr Rehabil J. 2005;28(4):378-86.
75. Williams J, Leamy M, Bird V, Le Boutiller C, Norton S, Pesola F, Slade M. Development and evaluation of the INSPIRE measure of staff support for personal recovery. Soc Psychiatry Psychiatr Epidemiol. 2015;50(5):777-86.
76. Ministerio de Sanidad y Consumo. Estrategia en Salud Mental del Sistema Nacional de Salud. Madrid: Ministerio de Sanidad y Consumo; 2007.
77. Osakidetza. Estrategia de Salud Mental de la CAPV. Vitoria–Gasteiz: Administración de la Comunidad Autónoma del País Vasco; 2010.
78. Servicio Navarro de Salud Mental. Plan Estratégico de Salud Mental de 2012-2016; 2012. Available in: http://www.navarra.es/NR/rdonlyres/F349F797-9858-4326-8974-2EF2B7812FCB/250077/PlanSMNaAgosto2013.pdf
79. Ajuntament de Barcelona. Pla de Salut Mental de Barcelona 2016-2022; 2016. Available in: http://eldigital.barcelona.cat/wp-content/uploads/2016/07/01_PlaSalutMental.pdf