

## **TITLE PAGE**

**MANUSCRIPT CATEGORY:** Original article

**TITLE:** The Spanish version of the Psychiatric/Mental health clinical placement survey and an assessment of Spanish student attitudes toward mental health

**KEYWORDS:** attitudes, knowledge, mental health, nursing, students

**WORD COUNT:** 3490

### **THE FULL DETAILS OF THE AUTHORS:**

RN, PhD Rocío JULIÁ-SANCHIS

rjulia@ua.es

Nursing Department. Health Sciences Faculty, University of Alicante, UA. (Spain).

RN, PhD Maria José Cabañero-Martínez (corresponding)

mariajose.cabanero@ua.es

Nursing Department. Health Sciences Faculty, University of Alicante, UA. (Spain).

Carretera San Vicente del Raspeig s/n -03690 San Vicente del Raspeig (Spain)

Telf. +34 965.903.400 - Fax 96 590 3464

PhD Julio Cabrero-García

julio.cabrero@ua.es

Nursing Department Professor, Health Sciences Faculty, University of Alicante, UA.

PhD Nereida Congost

nereida.congost@gmail.com

Department of English Studies Professor, Faculty of Arts, University of Alicante, UA

RN, PhD Silvia Escribano

silvia.escribano@ua.es

Nursing Department Professor, Health Sciences Faculty, University of Alicante, UA.

### **AN AUTHORSHIP STATEMENT:**

The five authors contributed to this work, doing substantial contributions to the conception, design, analysis and interpretation of data and drafting the work or revising it critically for important intellectual content.

### **ACKNOWLEDGEMENT**

The authors would like to thank the undergraduates nursing students who willingly gave of their time to participate in our research.

### **DISCLOSURE STATEMENT**

This article has been accepted for publication and undergone full peer review but has not been through the copyediting, typesetting, pagination and proofreading process, which may lead to differences between this version and the [Version of Record](#). Please cite this article as [doi: 10.1111/JPM.12568](https://doi.org/10.1111/JPM.12568)

This article is protected by copyright. All rights reserved

The authors acknowledge having no financial interest or benefit arising from the direct application of their research.

#### **AUTHORSHIP STATEMENT**

All authors listed meet the authorship criteria according to the latest guidelines of the International Committee of Medical Journal Editors, and that all authors are in agreement with the manuscript.

#### **ETHICAL STATEMENTS**

Undergraduates were informed of the aim of the study, the methods used and how they would participate. Prior to being included at the research, informed consent was obtained in writing. Anonymity of respondents was respected. Participants were informed about the voluntariness of their participation.

PROFESSOR ROCÍO JULIÁ-SANCHIS (Orcid ID : 0000-0003-1086-282X)

DR SILVIA ESCRIBANO (Orcid ID : 0000-0002-7943-3591)

Article type : Original Article

## **The Spanish version of the Psychiatric/Mental health clinical placement survey and an assessment of Spanish student attitudes toward mental health**

### **Abstract**

**Introduction:** The encouragement of positive attitudes towards mental health is necessary in order to improve the quality of healthcare assistance. The attitudes of nursing students towards mental health are unknown and there are no validated scales for their assessment.

**Aims:** to adapt the Psychiatric/Mental Health Clinical Placement Survey (PMHCPS) to Spanish and examine its psychometric properties; to describe the attitudes of nursing students towards the mental health field. **Method:** Confirmatory factorial analysis (CFA), internal consistency, and construct validity were performed. An assessment of the students' attitudes was also conducted. **Results:** The CFA showed appropriate fit and total internal consistency was adequate. With regard to construct validity, *knowledge* was associated with *practicum mark*. The students achieved above mid-range scores for all subscales, except *negative stereotypes*. Gender differences were observed.

**Discussion:** The PMHCPS, translated to Spanish, enables the students' attitude towards the mental health field to be assessed, thus identifying those areas of student attitudes and competencies requiring improvement.

**Implications for Practice:** To provide Spanish nursing faculties with access to a scale, with which to assess changes in student attitudes. The assessment results may then be utilized to formulate teaching methods in order to improve the quality of healthcare the students might provide as future nursing professionals.

**Keywords:** attitudes, mental health, nursing, psychometrics, students.

### **Relevance statement**

The present study adapts and validates the PMHCPS scale to the Spanish context, since there are no validated instruments in Spanish with which to assess the attitudes of nursing students towards the mental health field and those persons with severe mental illness.

Assessing nursing student attitudes is relevant due to their possibly detrimental influence on future behaviour and quality of care. Therefore, this article focuses on the validation of an instrument which allows the attitude of such future professionals to be evaluated and the necessary improvements in their syllabus to be effected; it also shows the current attitudes of nursing students toward mental health.

## Accessible summary

What is known on the subject?

- The PMHCPS preplacement, validated in English and widely used, assesses nursing student attitudes towards the mental health field.
- There are no validated scales in Spanish to assess students' attitudes towards mental health, nor is there evidence of attitudes in Spanish students.

What does this article add to existing knowledge?

- The present study was the first to address the validity of a scale which evaluates nursing student attitudes towards mental health issues, in Spanish.
- Until now, no knowledge was available on nursing student attitudes towards mental health issues in the Spanish context.

What are the implications for practice?

- The results provide faculty professors with a validated tool to use to assess attitudinal changes in students, following theoretical and practical training in mental health.
- To have an up-to-date perspective on student attitudes towards both the field of mental health and people with severe mental illness, thereby providing the opportunity to focus on those aspects requiring improvement.

## **Introduction**

Nurses represent one of the highest numbers of healthcare staff working in both the public and private sectors. Irrespective of whether or not they are employed in a specific mental health field, they are trained to attend to people with mental health disorders (Cowley et al., 2016). Nurses, as well as the general populace, are prejudicially conditioned towards people with mental illness (Tzouvara, Papadopoulos, & Randhawa, 2016). There is a misplaced perception that the people diagnosed with mental illness may be unpredictable or violent (Hayman-White & Happell, 2005). Such preconceptions generate fear and concern in those faced with the possibility of working in such fields, as well as uncertainties on how to act (Cowley et al., 2016). This could lead to the development of nurse-patient barriers and a lower quality of healthcare. (Bates & Stickley, 2013; Thornicroft, 2007).

According to Schafer, Wood, & Williams (2011), such preconceived negative ideas stem from gaps in theoretical knowledge and a lack of confidence in clinical practice. Encouraging the development of positive attitudes towards people with mental illness is necessary (Happell & Gaskin, 2013), in order to produce high quality nursing care. Demystifying mental health and reducing gaps in knowledge can be achieved by a combination of theoretical training and exposure to clinical realities during practical mental health placements. Students would then be prepared for the challenges they will face on graduation (Wynaden, Orb, McGowan, & Downie, 2000). Therefore, student confidence and knowledge would be improved by the development of comprehensive syllabi offering quality theoretical content and sufficient relevant knowledge prior to clinical placements (Henderson, Happell, & Martin, 2007; Hayman-White & Happell, 2005). Students should subsequently participate in mandatory clinical placements as an integral part of their training (Moxham et al., 2016).

## ***Rationale***

As part of the European Higher Education Area framework and in line with the Bologna process, teaching perspectives are chosen based on the acquisition of competencies by students (European Commission, 2005). Competence is understood as a combination of knowledge, skills, and attitudes that will enable the graduate to face the complex demands of the real-world (Tejada-Fernández & Ruiz-Bueno, 2016). However, student assessment is usually focused merely on the acquisition of knowledge (Asún-Inostroza, Zuñiga-Rivas, & Ayala-Reyes, 2018). This new educational model has created the need for changes in teaching methodologies and assessment systems (Martínez, 2018).

Within this context, in which the importance of attitudes is paramount. A greater understanding of the status quo could lead to the development of educational strategies designed to achieve a greater sense of preparation in nursing students and improved attitudes towards people with mental health illness (Hastings, Kroposki, & Williams, 2017; Ong et al., 2017). Nonetheless, no documented knowledge was available on nursing student attitudes towards mental health issues in the Spanish context. Therefore, valid and reliable instruments are required in order to measure and assess the attitudes of nursing students towards the mental health field. On an international level, a range of scales are to be found, such as the *Attitudinal Questionnaire* (Surgenor, Dunn, & Horn, 2005), the *Mental Health Nursing Clinical Confidence Scale* (MHNCSS; AL-Saragrat, ALSaraireh, Masa'deh, & Moxham, 2015), the *Mental Illness Beliefs Inventory* (MIBI; Assunção, Pereira, & de Jesus, 2016), the *Opinions About Mental Illness Scale* (OMIS) (Assunção, Pereira & de Jesus, 2016) and the *Psychiatric/Mental Health Clinical Placement Survey for First Day of Placement* (PMHCPS preplacement; Hayman-White & Happell, 2005). No evidence was found of any such tools having been validated for use in Spain. The PMHCPS preplacement scale, in English, is the only validated scale assessing nursing student attitudes towards the mental health field and their preparation in terms of theoretical and practical training. However, it has not been translated nor adapted to the Spanish context.

### ***Aims and Objectives***

The aims of the present study are:

To translate and adapt the Psychiatric/Mental Health Clinical Placement Survey for First Day of Placement (PMHCPS preplacement) questionnaire to Spanish and examine its reliability and construct validity.

To describe the attitudes of nursing students towards people with mental illness prior to undertaking clinical placement.

### **Method**

#### ***Setting and participants***

All those participating in the present study were enrolled in the fourth year of the Nursing Degree in either 2016-2017 or 2017-2018, thus creating two cohorts according to their final academic year. All those enrolled were offered the opportunity to participate in the practical placement subject “Mental Health Practicum”. Approximately 90 hours of the Nursing Degree syllabus involves theoretical and practical content in the area of

Accepted Article  
psychiatry/mental health, as well as 60 hours of clinical placement (*practicum*) in mental health contexts. The theoretical content is delivered during the first semester and is centred on areas of mental health nursing. Subjects include: legal and ethical matters, psychopathology, psychotherapy, attitudes towards mental illness, issues related to working with people with mental health disorders and developing interpersonal skills. Over the second semester, students undertake the mental-health clinical placement program which lasts 4 weeks. The nursing faculty uses standardised criteria to assign a placement to each student, at one of the following: Acute Mental Health Unit (comprising an acute inpatient hospital settings), Community Mental Healthcare Unit, Substance Use Disorder Unit, Residential Mental Health (consisting of a mental disability centre and long-term home care) and others.

### **Measures**

Data were gathered on the following variables: sex, age, location of clinical placement and academic performance (marks) for theoretical subjects and the mental-health-specific *practicum*.

The *Psychiatric/Mental Health Clinical Placement Survey for First Day of Placement* (PMHCPS preplacement; Hayman-White & Happell, 2005) was originally developed by Wynaden et al. (2000) and modified by Happell & Gough (nee Hayman-White) between 2005 and 2009. It contains 23 items arranged into seven subscales: 1) Preparedness for the Mental Health Field (PMHF), which assesses the sense of being prepared for clinical experiences, specifically items 1, 4, 7 and 10; 2) Knowledge of Mental Illness (KMI), addressed by items 9, 17, 18 and 22; 3) Negative Stereotypes (NS), assessing aspects such as unpredictability, responsibility or associating (mental illness) with delinquency, covered by items 8, 21 and 24; 4) Anxiety Surrounding Mental Illness (ASMI), which evaluates the anxiety generated by attending patients with mental illness in a real-life context, through items 3, 5 and 22; 5) Future Career (FC) which explores the desire to undertake the 2-year mental health post-graduate specialization, via items 6 and 12; 6) Valuable Contributions (VC), examining the belief that mental health nurses provide a valuable service to individuals, the community as surveyed in items 2, 11 and 20; 7) Course Effectiveness (CE), being the degree of preparedness their university studies have afforded them in a diverse range of nursing areas, gauged by items 14, 15, 16 and 17.

Responses are offered in a 7-point Likert scale format ranging from totally disagree to totally agree. The total score of each subscale is obtained by dividing the sum of the response



score for each item in the subscale by the number of items in each one. A higher score indicates a more positive attitude towards mental health. The internal consistency for each subscale in the original study, assessed via Cronbach's alpha, was: PMHF=0.72, KMI=0.56, NS=0.51, ASMI=0.67, FC=0.92, VC=0.67, CE=0.55. It was not assessed internal consistency for total scale in the original version.

### ***Procedure***

This study was conducted according to the criteria established by the Declaration of Helsinki and the European Union's Good Clinical Practice Directive, The Bioethics Commission from the University of Alicante gave their approval under reference number: UA-2018-09-04. The voluntary and confidential nature of the data collected was explained to all involved.

Firstly, the scale was translated to Spanish and subsequently its psychometric properties were analysed. The translation was performed in stages as described below.

### ***Stage 1: Translation-retrotranslation and adaptation.***

A Spanish version of the questionnaire was created by two native Spanish researchers (R.J.S. & M.J.C.M.). The Australian version was translated and adapted linguistically to Spanish by them. A round table meeting was held and an agreement reached on an initial version. A third reviewer (J.C.) was consulted regarding any uncertainties. The Spanish version was subsequently translated back into English by a native English speaker unaware of the original version. The research group compared the resultant retrotranslation with the original version in order to assess conceptual consistency. During the process, those researchers involved in the Spanish translation and the English translator were asked to assess what degree of difficulty the translation of items presented, on a scale from 1 to 10. The differences between the original and the new English version were classified as either A: no need for further changes to the translation, B: syntactic or semantic changes needed in order to maintain equivalency, or C: the item no longer maintains its target context. All items were classified as type B, except for item 22 of the Spanish version which was deemed type A.

It should be noted that item 13 was omitted from the Spanish version for the present study, due to low factorial load in any of the seven factors obtained from a study by Hayman-White & Happell (2005) in the exploratory factorial analysis. As a result, the numerical order of items ceases to correlate between the Spanish version (Annex 1) and the original one; item 14 from the original version corresponds to item 13 in the Spanish one and so on,

consecutively, through to item 24. Nonetheless, the structure of the subscales and their items remains unchanged.

In order to evaluate item comprehension, five undergraduate students were queried on the conceptual clarity of the survey. The question was: “Do you understand the meaning of each item or are there any concepts that are difficult to comprehend?”. Regarding the responses and instructions they were asked: “Do you understand the responses and instructions provided?”. Participation was voluntary and no incentive was offered. The translated version of the questionnaire can be seen in Annex 1.

### **Stage 2**

An online self-administered questionnaire was designed and the link sent out to all *practicum* students via the digital platform Google Drive. It was explained that the questionnaire was part of a university study, the data would be treated confidentially and in no way would responses affect academic results. The informed consent form and the translated survey were also included. Students were required to reply after finalising the relevant theoretical training and prior to initiating their practical placement. With the aim of reaching a high response rate, a standardised mailing procedure was utilised. An email was sent three days prior to the onset of the *practicum* and a reminder notice on commencement day. All participants included in the study completed the questionnaire prior to initiating their *practicum*.

### **Analysis**

The free software program R was utilized for validating the survey. Internal consistency was analysed via the ordinal coefficient alpha, recommended for scales dealing with ordinal data (Elosua & Zumbo, 2008). In order to explore the factorial structure of the instrument proposed by Hayman-White and Happell (2005), a confirmatory factor analysis (CFA) was conducted via the robust weighted least squares estimator (WLSMV) method, which is utilized for ordinal variables and performs well when  $N > 200$  (Rhemtulla, Brosseau-Liard, & Savalei, 2012). Three indices were considered when analysing model adjustment for categorical variables (Beauducel & Herzberg, 2006): the comparative fit index (CFI), the Tucker-Lewis index (TLI) and the root mean square error of approximation (RMSEA). Values for such indicators are considered appropriate when greater than 0.90 (Bentler, 1989; Hu & Bentler, 1999). For RMSEA, lower-end values between .05 and .08 indicate reasonable fit (Browne & Cudeck, 1993). The variable *practicum mark* was used to assess the

instrument's construct validity. Version 26 of the statistics software program SPSS was utilized: to establish descriptive statistics, to evaluate the attitudes of nursing students towards mental health and to determine the scale's performance floor and ceiling effects (a raised percentage, over 15% (McHorney & Tarlov, 1995), of students who respond within the lower and upper range limits for each subscale, respectively). Differences for gender were measured via the ANCOVA statistical method, for which the effect of the covariates *age* and *academic year* were controlled and Cohen's *d* effect size was verified (Cohen, 1988).

## **Results**

### ***Sample***

From the total number of eligible candidates ( $n=400$ ), a response rate of 57.75% was achieved. Finally, 231 students participated with two cohorts: final academic year 2016-2017 ( $n=104$ ; 45%) and 2017-2018 ( $n=127$ ; 55%). Ages ranged from 21 to 53 years ( $M=23.49$ ;  $SD=4.77$ ) and 81.8% were female ( $n=189$ ). Of those participating, 39.90% undertook their placements at hospitalization units, followed by 35.70% at community mental healthcare units, 10.80% at residential mental health centres, 8% at healthcare centres with mentally disabled patients and 5.60% at penitentiary facilities.

### ***Survey scores***

Table 1 shows the mean values, standard deviation and the range of values for each subscale, as well as the ceiling and floor effect.

### ***Confirmatory factor analysis***

The confirmatory factor analysis for the Psychiatric/Mental Health Clinical Placement Survey showed appropriate data fit for the originally proposed model (Figure 1):  $TLI=0.98$ ,  $CFI=0.98$  and  $RMSEA=.07$ .

### ***Internal reliability***

The ordinal alpha coefficient for the total survey score was 0.84, with no improvement achieved via the removal of any item. The values for most of the subscales were adequate:  $PMHF=0.72$ ,  $FC=0.86$ ,  $CE=0.75$ ,  $ASMI=0.66$  and  $VC=0.68$ , with lower scores for subscales  $KMI=0.56$  and  $NS=0.61$ .

### ***Correlations between subscales***

Table 2 displays correlations between the various subscales of the survey. The results show that the majority of factors are related. However, perceived knowledge did not correlate with preparedness for real practice placements, preference for future specialization nor course

effectiveness. Choosing the mental health field as one's workplace did not correlate with academic effectiveness. Those students who felt they were better prepared for practice placements presented less anxiety when faced with mentally ill people ( $r=0.58$ ). They considered their contribution as a nurse to the mental health field ( $r=0.48$ ) and the effectiveness of their academic training ( $r=0.48$ ) to be greater.

### ***Construct validity***

No statistically significant correlations were shown between the subscales and *practicum mark*, except for KMI ( $r=0.16$ ;  $p=.02$ ). Table 2 shows the rest of the correlations found.

### ***Associations with other variables***

No statistically significant differences were observed between academic-year cohorts (4<sup>th</sup> year students from 2016-2017 and 2017-2018) for the majority of subscales. There were three exceptions to this: PMHF (2016-2017:  $M=5.20$ ,  $SD=1.01$ ; 2017-2018:  $M=4.82$ ,  $SD=0.90$ ) ( $t=3.05$ ;  $p=.003$ ), ASMI (2016-2017:  $M=4.83$ ,  $SD=1.21$ ; 2017-2018:  $M=4.36$ ,  $SD=1.16$ ) ( $t=2.97$ ;  $p=.003$ ) and VC (2016-2017:  $M=6.46$ ,  $SD=0.59$ ; 2017-2018:  $M=6.0$ ,  $SD=0.71$ ) ( $t=3.05$ ;  $p<.001$ ). Regarding age, it was observed that the older the student, the greater the knowledge of mental illness they perceived themselves as having ( $r=0.19$ ;  $p<.005$ ). Table 3 shows mean values for all instrument subscales and differences according to gender, while taking into consideration covariables age and academic year.

## **Discussion**

### ***Spanish version***

The present study shows that the Spanish version of the Psychiatric/Mental Health Clinical Placement Survey (PMCPs) presents acceptable confirmatory factor analysis values and retains the original structure (Hayman-White & Happell, 2005). It contains 23 items and 7 subscales: preparedness for clinical experiences (PMHF), knowledge of mental illness (KMI), negative stereotypes (NS), course effectiveness (CE), anxiety surrounding mental illness (ASMI), future career (FC) and valuable contributions (VC).

The newly designed instrument displays acceptable internal consistency (George & Mallery, 2003) for the entire scale, with no improvement to ordinal alpha via the removal of any item. Despite alpha values for three factors being between 0.6 and 0.7, the fact that structurally none of them contain more than four items should be taken into account. Values from 0.6 upward are considered acceptable for scales with fewer than 10 items (Loewenthal,

1996). Comparing the Spanish instrument's consistency with the original version's (Hayman-White & Happell, 2005) reveals the values are similar. There is an observed improvement for subscales NS and CE, albeit both having inadequate results for internal consistency. The slight increase in internal consistency may possibly be due to the ordinal alpha coefficient being used instead of Cronbach's alpha. The utilization of Cronbach's alpha for categorical variables when premises are not met can lead to underestimated reliability (Contreras & Novoa-Muñoz, 2018; Gadermann, Guhn, & Zumbo, 2012).

For future research it is recommended a scale be developed with adequate internal consistency, i.e. greater than 0.7 for each subscale (Mokkink et al., 2018). The subscales requiring appropriate consideration and modification are: knowledge of mental illness (KMI), anxiety surrounding mental illness (ASMI), negative stereotypes (NS) and beliefs on valuable nursing contributions to mental health (VC). Previous studies reported inadequate results for each subscale (Hayman-White & Happell, 2005; Hastings et al., 2017). A study by Thongpriwan et al. (2015), which adapted the scale to the U.S.A., is noteworthy in that it revealed adequate results for internal consistency for all subscales, except KMI and FC.

In order to assess construct validity, students' *practicum* marks were taken into account. A range of studies associate attitudes towards health and mental illness with knowledge and preparation (Happell & Gaskin, 2013; Schafer et al., 2011). However, such results were not evident in the present study, except for the subscale KMI. The students who perceived themselves as more knowledgeable on mental illness presented higher marks for their *practicum*. Despite no correlations being established for the remaining subscales, the authors believe they would have eventually manifested on finalizing *practicums*. Although students were assessed at the onset of their *practicum* placement, a solely theoretical approach may have resulted in erroneous beliefs remaining in place. A study by Ewaldskvist, Högbert, and Lützén (2013) shows how students who had had contact with real patients harboured more positive attitudes than those who had never faced real-life clinical contexts. According to a range of authors, it has been demonstrated that clinical experience has a positive influence on the attitudes of nursing students towards patients with mental illness (Abuhammad, Hatamleh, Howard, & Ahmad, 2018; Happell, 2008a, 2009; Happell & Gaskin, 2013; Happell & Gough, 2007; Hastings et al., 2017).

The Spanish version of the scale presented acceptable response percentages for both ceiling and floor effects (McHorney & Tarlov, 1995), except for the subscale VC. This was greater than 15% and thus did not enable differentiation between the various beliefs students

might have had regarding the contribution of nursing to mental healthcare. Furthermore, this hindered assessment of response variability whenever present.

### ***Student attitudes***

In terms of the overall description of the nursing students' attitudes, the present results show a raised perception by the nursing students of mental health knowledge and of the importance of their contribution to the field. The nursing students also considered they held a heightened capacity for facing real clinical contexts, with acceptable levels of anxiety. The present results differ from those found in the available international literature in which more negative attitudes towards mental health and practical placements are observed among nursing students (Bennett & Stennett, 2015). This might be explained by the influence of cultural factors (Newman, O'Reilly, Lee, & Kennedy, 2015) or, as suggested in a review by Happell and Gaskin (2013), be due to curricular differences in attitudes and beliefs. The presence of prejudice towards people with mental health disorders was observed in the nursing students. Such beliefs are that they are unpredictable, more likely to commit crimes or unable to assume responsibilities. Curricular changes are required with specific content aimed at demythologising erroneous beliefs (Happell, Platania-Phung, Harris, & Bradshaw, 2014) and encouraging positive attitudes towards mental illness and mental healthcare users, with a view to directly enhancing the quality of care (Newman et al., 2015).

Taking into account the gender perspective, the female participants presented higher levels of anxiety than the males and a lesser sense that their contributions would help those with mental health disorders, despite their level of mental health knowledge being greater (Happell 2008b).

### ***Limitations***

A number of limitations should be taken into consideration. Firstly, an incidental sample was achieved by drawing on the fact practical placements were being held. As such, the structure should be confirmed with representative and randomized samples of nursing students in order to facilitate the generalization of results. Secondly, whether or not motivation to participate was influenced by characteristics inherent to nursing students was not given consideration. Their baseline emotional and physical condition, levels of self-confidence, personal concerns or empathy were also not taken into account. Thirdly, the internal consistency of four of the seven subscales was lower than 0.7. As suggested in the discussion section, further research is needed to achieve an internal consistency adequate.

Accepted Article

Finally, there are at present no means of assessing the concurrent validity of the instrument herein studied. Therefore, future research should focus on measuring the validity of this instrument in comparison with other means of measuring attitudes towards mental health.

### **Relevance for practice**

The Spanish version of the Psychiatric/Mental Health Clinical Placement Survey for the First Day of Placement (PMHCPS) enables the attitudes of students towards mental health to be detected. The present study offers relevant practical implications.

On the one hand, this instrument allows university professors to determine nursing student attitudes towards the mental health field. It also enables them to assess attitudinal changes in students and identify their learning needs or areas requiring improvement. These are prerequisites of modern competence-based academic models, which will affect the quality of future healthcare assistance. Finally, further research into improving assessment tools is required in order to enhance their reliability and validity.

## References

- Abuhammad, S., Hatamleh, R., Howard, K., & Ahmad, M. M. (2018). Correlates and predictors of stigmatization of patients with mental illness among nursing students. *Journal of Psychosocial Nursing and Mental Health Services*, 1-8. doi: 10.3928/02793695-20180907-01
- AL-Sagarat, A. Y., ALSaraireh, F., Masa'deh, R., & Moxham, L. (2015). The impact of a mental health clinical placement on the clinical confidence of nursing students in Jordan. *Nurse Education Today*, 35(8), 760–764. doi: 10.1016/j.nedt.2015.02.008
- Assunção, I. M., Pereira, J. C., & de Jesus, L. M. (2016). Estigma em estudantes de enfermagem: antes e depois do contacto com pessoas com transtornos mentais. *Revista enfermagem UERJ*, 24(1):e12309. doi:10.12957/reuerj.2016.12309
- Asún-Inostroza, R., Zúñiga-Rivas, C., & Ayala-Reyes, M.C. (2013). La formación por competencias y los estudiantes: confluencias y divergencias en la construcción del docente ideal. [Students and competencies formation: convergences and diverfences in constructing the ideal teacher]. *Calidad en la educación*, 38, 277-304. doi: 10.4067/S0718-4565201300008.
- Bates, L. & Stickley, T. (2013) Confronting Goffman: how can mental health nurses effectively challenge stigma? A critical review of the literature. *Journal of Psychiatric Mental Health Nursing*, 20(7):569-75. doi: 10.1111/j.13652850.2012.01957
- Beauducel, A. & Herzberg, P. Y. (2006). On the Performance of Maximum Likelihood Versus Means and Variance Adjusted Weighted Least Squares Estimation in CFA. *Structural Equation Modelin: a Multidisciplinary Journal*, 13(2), 186-203. doi: 10.1207/s15328007sem1302\_2
- Bennett, J. & Stennett, R. (2015). Attitudes towards mental illness of nursing students in a Baccalaureate programme in Jamaica: a questionnaire survey. *Journal of Psychiatric and Mental Health Nursing*, 22, 599–605. doi: 10.1111/jpm.12234
- Bentler, P. M. (1989). EQS Structural Equations Program Manual. Los Angeles, CA: BMDP Statistical Software.
- Browne, M. W. & Cudeck, R. (1993). Alternative ways of assessing model fit. *Sage focus editions*, 154, 136-136.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.



Accepted Article

Contreras, S. & Novoa-Muñoz, F. (2018). Advantages of ordinal alpha versus Cronbach's alpha, illustrated using the WHO AUDIT test. *Revista Panamericana de Salud Publica*, 42:e65. doi: 10.26633/RPSP.2018.65

Cowley, T., Sumskis, S., Moxham, L., Taylor, E., Brighton, R., Patterson, C., & Halcomb, E. (2016). Evaluation of undergraduate nursing students' clinical confidence following a mental health recovery camp. *International Journal of Mental Health Nursing*, 25(1), 33-41. doi: 10.1111/inm.12188

Elosua, P. & Zumbo, B. (2008). Reliability coefficients for ordinal response scales. *Psicothema* 20(5), 896-901.

European Commission. (2005). Directive 2005/36/EC of the European Parliament and of the Council on the recognition of professional qualifications. *Official Journal of the European Union*, 48, 22-142.

Ewalds-Kvist, B., Högbert, T., & Lützén, K. L. (2013). Student nurses and the general population in Sweden: trends in attitudes toward mental illness. *Nord Journal of Psychiatry*, 67(2), 164-170. doi: 10.3109/08039488.2012.694145

Gadermann, A. M., Guhn, M., & Zumbo, B. D. (2012). Estimating ordinal reliability for Likert-type and ordinal item response data: A conceptual, empirical, and practical guide. *Pract Assess Res Evaluation*, 17(3), 1-13

George, D. & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4th ed)*. Boston: Allyn & Bacon.

Hayman-White, K. & Happell, B. (2005). Nursing students' attitudes toward mental health nursing and consumers: Psychometric properties of a self-report scale. *Archives of Psychiatric Nursing*, 19(4), 184-193

Happell, B. (2008a). The importance of clinical experience for mental health nursing – Part 1: Undergraduate nursing students' attitudes, preparedness and satisfaction. *International Journal of Mental Health Nursing*, 17(5), 326-332. doi: 10.1111/j.1447-0349.2008.00555.x

Happell, B. (2008b). The importance of clinical experience for mental health nursing – Part 2: Relationships between undergraduate nursing students' attitudes, preparedness and satisfaction. *International Journal of Mental Health Nursing*, 17, 333-340.

Happell, B. & Gaskin, C. J. (2013). The attitudes of undergraduate nursing students towards mental health nursing: a systematic review. *Journal of Clinic Nursing*, 22(1-2), 148-158. doi.org/10.1111/jocn.12022

- Happell, B. & Gough, K. (2007). Undergraduate nursing students' attitudes towards mental health nursing: Determining the influencing factors. *Contemporary Nurse*, 25(1-2), 72-81. doi: 10.5172/conu.2007.25.1-2.72
- Happell, B., Platania-Phung, C., Harris, S., & Bradshaw, J. (2014). It's the anxiety: facilitators and inhibitors to nursing students' career interests in mental health nursing. *Issues in Mental Health Nursing*, 35(1):50-7. doi: 10.3109/01612840.2013.837123.
- Hastings, T., Kroposki, M., & Williams, G. (2017). Can Completing a Mental Health Nursing Course Change Students' Attitudes?. *Issues in Mental Health Nursing*, 38(5), 449-454. doi: 10.1080/01612840.2017.1278810
- Henderson, S., Happell, B., & Martin, T. (2007) So what is so good about clinical experience: A mental health nursing perspective?. *Nurse Education Practice*, 7,164–172. doi: 10-1016/j.nepr.2006.06.003
- Hu, L. & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. doi: 10.1080/10705519909540118
- Loewenthal, K.M. (1996). *An introduction to psychological tests and scales*. London: UCL Press.
- Martínez, M. (2018). Un camino innovador construido por los docentes de las universidades: Una visión analítica. [University Teaching and Innovation Evolution and challenges through the CIDUI]. In Carrasco, S. & de Corral, I. *Docencia universitaria e innovación. Evolución y retos a través de los CIDUI. [A road to innovation built by university instructors: An analytic perspective]*. Barcelona, Spain: Octaedro.
- McHorney, C. A. & Tarlov, A. R. (1995). Individual-patient monitoring in clinical practice: Are available health status surveys adequate?. *Quality of Life Research*, 4, 293–307.
- Mokkink, L., Prinsen C. A. C., Patrick, D. L., Alonso, J., Bouter, L. M., de Vet, H. C. W., & Terwee, C. B. (2018). COSMIN methodology for systematic reviews of Patient-Reported Outcome Measures (PROMs): user manual. <http://www.cosmin.nl/>.
- Moxham, L., Taylor, E., Patterson, C., Perlman, D., Brighton, R., Sumskis, E., ... Heffernan, T. (2016). Can a clinical placement influence stigma? An analysis of measures of social distance. *Nurse Education Today*, 44, 170-176. doi: 10.1016/j.nedt.2016.06.003
- Newman, D., O'Reilly, P., Lee, S. H., & Kenndy, C. (2015). Mental health service users' experiences of mental health care: an integrative literatura review. *Journal of Psychiatric and Mental Health of Nursing*, 22(3), 171-182. doi: 10.1111/jpm.12202

- Ong, H., Seow, E., Chua, B., Xie, H., Wang, J., Lau, Y., ... Subramaniam, M. (2017). Why is psychiatric nursing not the preferred option for nursing students: A cross-sectional study examining pre-nursing and nursing school factors. *Nurse Education Today*, 52, 95-102. doi: 10.1016/j.nedt.2017.02.014
- Rhemtulla, M., Brosseau-Liard, P. É., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. *Psychological methods*, 17(3), 354-373
- Schafer, T., Wood, S., & Williams, R. (2011). A survey into student nurses' attitudes towards mental illness: Implications for nurse training. *Nurse Education Today*, 31(4), 328-332. doi: 10.1016/j.nedt.2010.06.010
- Surgenor, L. J., Dunn, J., & Horn, J. (2005). Nursing student attitudes to psychiatric nursing and psychiatric disorders in New Zealand. *International Journal of Mental Health Nursing* 14(2), 103–108. doi: 10.1111/j.1440-0979.2005.00366.x
- Tejada-Fernández, J. & Ruiz-Bueno, C. (2015). Evaluación de competencias profesionales en educación superior: retos e implicaciones. [Evaluation of professional competences in higher education: challenges and implications] *Educación XXI*, 19(1). doi: 10.5944/educxx1.12175.
- Thongpriwan, V., Leuck, S. E., Powell, R. L., Young, S., Schuler, S. G., & Hughes, R. G. (2015). Undergraduate nursing students' attitudes toward mental health nursing. *Nurse Education Today*, 35(8) 948-953. doi: 10.1016/j.nedt.2015.03.011
- Thornicroft, G. (2007). Most people with mental illness are not treated. *The Lancet*, 370, 807-808. doi: 10.1016/S0140-6736(07)61242-2
- Tzouvara, V., Papadopoulos, C., & Randhawa, G. (2016). Systematic review of the prevalence of mental illness stigma within the Greek culture. *The International Journal of Social Psychiatry*, 62(3), 292–305. doi: 10.1177/0020764016629699
- Wynaden, D., Orb, A., McGowan, S., & Downie, J. (2000). Are universities preparing nurses to meet the challenges posed by the Australian mental health care system?. *Australian and New Zealand Journal of Mental Health Nursing*, 9, 138–14

## Appendix 1.

### Escala primer día Prácticas Clínicas de Salud Mental y Psiquiatría (PCSMPS)

#### Versión española

Juliá-Sanchis, R., Cabañero-Martínez, M.J., Cabrero-Garcia, J., Congost-Maestre, N., and Escribano, S.

1. Me siento / me sentí bien preparado realizar mis prácticas clínicas de salud mental	1	2	3	4	5	6	7
2. La enfermería de salud mental ayuda positivamente a las personas con algún trastorno mental.	1	2	3	4	5	6	7
3. Me crea ansiedad trabajar con personas que experimentan algún problema de salud mental	1	2	3	4	5	6	7
4. Comprendo bien el rol de la enfermera de salud mental	1	2	3	4	5	6	7
5. No estoy seguro de cómo actuar ante alguien con un trastorno mental	1	2	3	4	5	6	7
6. Me inscribiré en un programa de posgrado en enfermería salud mental	1	2	3	4	5	6	7
7. Me siento capaz de cuidar personas que experimentan algún problema de salud mental	1	2	3	4	5	6	7
8. Las personas con trastorno mental son impredecibles.	1	2	3	4	5	6	7
9. Un trastorno mental no es un signo de debilidad en una persona.	1	2	3	4	5	6	7
10. Mi formación teórica en materia de salud mental me preparó para mis prácticas clínicas.	1	2	3	4	5	6	7
11. Las prácticas clínicas en salud mental me proporcionarán / han proporcionado una valiosa experiencia para mis habilidades prácticas.	1	2	3	4	5	6	7
12. Tengo la intención de seguir mi carrera en el campo de la salud mental	1	2	3	4	5	6	7
13. Mi formación me ha preparado para trabajar como enfermera médico-quirúrgica	1	2	3	4	5	6	7
14. Mi formación me ha preparado para trabajar como enfermera pediátrica	1	2	3	4	5	6	7
15. Mi formación me ha preparado para trabajar como enfermera en salud mental	1	2	3	4	5	6	7
16. Mi formación me ha preparado para trabajar como enfermera geriátrica	1	2	3	4	5	6	7
17. Conozco gente que ha experimentado algún problema de salud mental	1	2	3	4	5	6	7
18. Cuando una persona desarrolla un trastorno mental, no es culpa suya	1	2	3	4	5	6	7
19. Los servicios de salud mental proporcionan una asistencia valiosa	1	2	3	4	5	6	7
20. Las personas con trastorno mental no pueden asumir demasiada responsabilidad.	1	2	3	4	5	6	7
21. Me siento / sentí seguro durante las prácticas clínicas en salud mental	1	2	3	4	5	6	7
22. Las actitudes de la gente hacia las personas con trastornos mentales pueden influir en cómo se sienten	1	2	3	4	5	6	7
23. Las personas con algún trastorno mental es más probable que comentan delitos o crímenes	1	2	3	4	5	6	7

**Table 1.** Survey scores for nursing students.

	<i>M</i>	<i>SD</i>	<i>min</i>	<i>max</i>	<i>Floor effect</i> <i>n (%)</i>	<i>Ceiling effect</i> <i>n (%)</i>
<b>PMHF</b>	4.99	0.97	2	7	1 (0.4)	2 (0.9)
<b>KMI</b>	5.85	0.80	3.5	7	1 (0.4)	29 (12.6)
<b>NS</b>	3.02	1.05	1	5.7	4 (1.7)	3 (1.3)
<b>FC</b>	4.58	1.47	1	7	21 (9.1)	2 (0.9)
<b>CE</b>	4.69	1.11	1	7	1 (0.4)	8 (3.5)
<b>ASMI</b>	4.57	1.20	1.33	7	1 (0.4)	3 (1.3)
<b>VC</b>	6.20	0.70	3.33	7	1 (0.4)	53 (22.9)

**Note:** PMHF = Preparedness for clinical experiences; KMI = Knowledge of mental illness; NS = Negative stereotypes; ASMI = Anxiety surrounding mental illness; FC = Future career, VC = Valuable contributions; CE = Course effectiveness; *M* = Average; *SD* = Standard deviation; *min* = Minimum; *max* = maximum.

**Table 2.** Correlations between subscales and practicum mark.

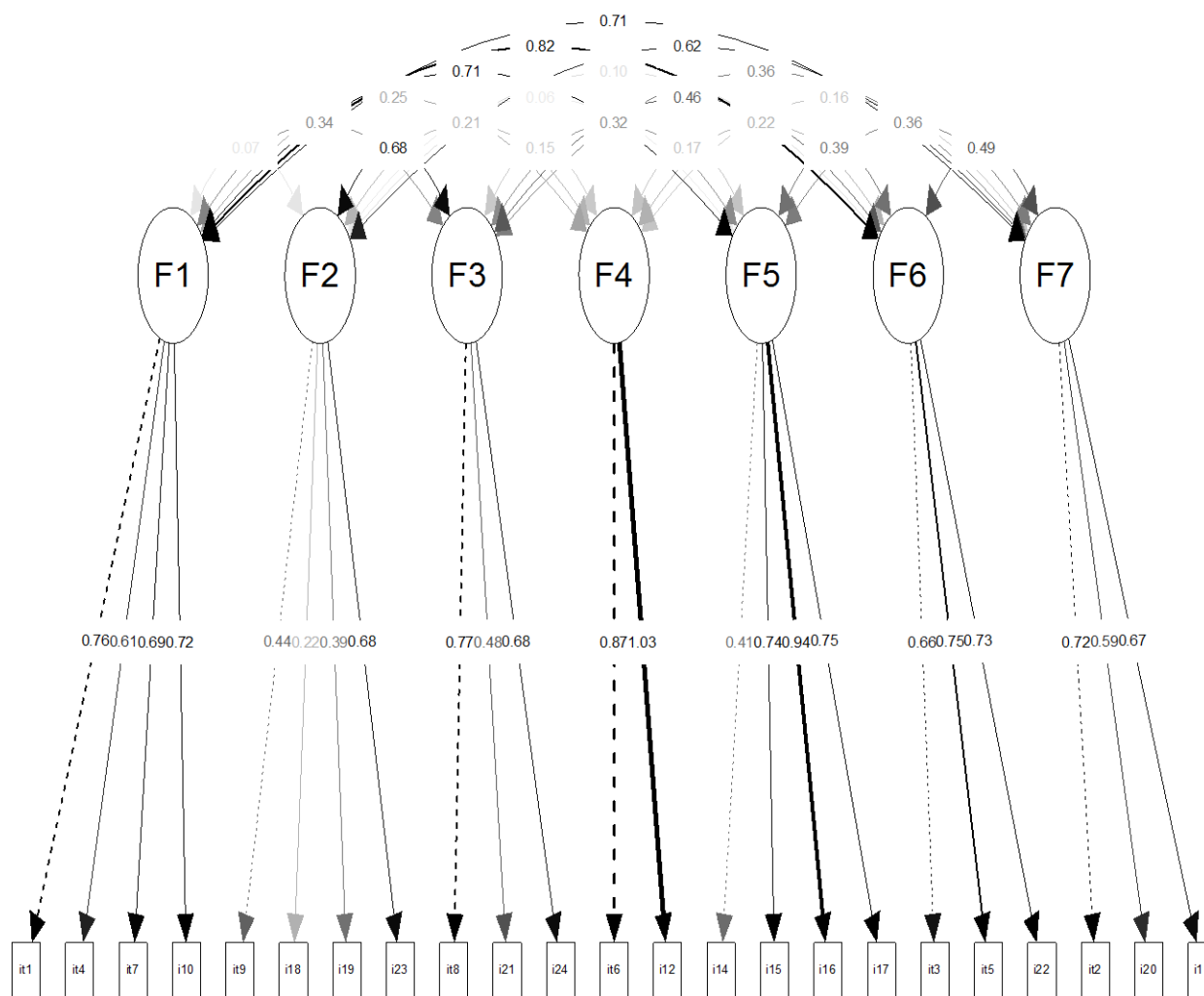
	<b>PMHF</b>	<b>KMI</b>	<b>NS</b>	<b>FC</b>	<b>CE</b>	<b>ASMI</b>
<b>KMI</b>	0.15					
<b>NS</b>	-.21**	-.26**				
<b>FC</b>	0.23**	.035	0.12			
<b>CE</b>	0.48**	.012	-.22**	0.11		
<b>ASMI</b>	0.58**	.004	-.32**	0.17*	0.25**	
<b>VC</b>	0.48**	0.14*	-.19**	0.13*	0.20**	0.28**
<b>Practicum</b>	.051	0.16*	-.08	.09	.08	-.05

**Note:** PMHF = Preparedness for clinical experiences; KMI = Knowledge of mental illness; NS = Negative stereotypes; ASMI = Anxiety surrounding mental illness; FC = Future career, VC = Valuable contributions; CE = Course effectiveness; Practicum = Practicum mark; \* $p < .05$ ; \*\* $p < .01$ .

**Table 3.** Attitudes towards Mental Health according to gender.

	<b>Women</b>	<b>Men</b>	<b>F</b>	<b>d</b>
	<b>n = 189</b>	<b>n = 42</b>		
	<b>M (SD)</b>	<b>M (SD)</b>		
<b>PMHF</b>	4.94 (0.98)	5.22 (0.87)	3.94*	0.34
<b>KMI</b>	5.91 (0.79)	5.60 (0.81)	5.07*	0.39
<b>NS</b>	3.02 (1.02)	3.01 (1.29)	0.59	
<b>FC</b>	3.58 (1.44)	3.58 (1.63)	0.28	
<b>CE</b>	4.65 (1.12)	4.85 (1.06)	1.39	
<b>ASMI</b>	4.51 (1.96)	4.86 (1.20)	4.42*	0.36
<b>VC</b>	6.21 (1.19)	6.17 (0.73)	9.78**	0.54

**Note:** PMHF = Preparedness for clinical experiences; KMI = Knowledge of mental illness; NS = Negative stereotypes; ASMI = Anxiety surrounding mental illness; FC = Future career, VC = valuable contributions; CE = Course effectiveness; *M* = Average; *SD* = Standard deviation; *F* = F de Snedecor; \**p* < .05; \*\**p* < .01; *d* = Cohen's *d* effect size.



**Figure 1.** Confirmatory factor analysis of the original structure proposed by Hayman-White and Happell (2005); graph extracted via the Lavaan package in the R freeware.