Chinese Polarity Inventory: its adaptation to our setting

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Inventario Chino de Polaridad: su adaptación a nuestro ámbito

Summary

Introduction. *The Chinese Polarity Inventory (CPI) is a self-report scale for bipolar disorder assessment, composed of two scales (mania and depression), with 20 items for each one.*

Objectives. *Translate, adapt and validate the CPI to our context.*

Material and methods. *The questionnaire was applied to 123 patients: bipolar disorder in the manic phase (32), depressed (17), remission (30) and mixed state (3). We also established a control group with 30 patients without affective disorder. Internal consistency was assessed using Cronbach's alpha. On the other hand, validity was established using the Clinician Administered Rating Scale for Mania (CARS-M) in manic patients and the Hamilton scale in the depressed ones as a gold standard.*

Results. *This scale has good psychometrics qualities. Internal consistence index (Cronbach's alpha) for the manic scale was 0.90 and for depression scale was 0.92. The correlation coefficient between the manic scale and the CARS-M was 0.82 and between the depression scale and the Hamilton scale was 0.67.*

Conclusions. *The CPI is an instrument of rapid and easy application that permits self-report of bipolar disorders. The best benefit for this scale is the possibility of application in the entire course of illness, for clinical and investigation activities and assessment of the treatment response.*

Key words: *Bipolar disorder. Self-report. Insight. Psychometry.*

Resumen

Introducción. *El Inventario Chino de Polaridad (CPI) es una escala autoaplicada para la valoración de trastorno bipolar, compuesta por dos subescalas (manía y depresión), con 20 ítems cada una.*

Objetivos. *Traducir, adaptar y validar el CPI en nuestro medio.*

Material y métodos. *El cuestionario fue aplicado a 123 pacientes: bipolares en fase maníaca (32), fase depresiva (17), remisión (30) y episodio mixto (3). Además se obtuvo un grupo control formado por 30 pacientes sin patología afectiva. Se analizó la consistencia interna de la escala mediante el alfa de Cronbach. Por otro lado se realizaron correlaciones con otras escalas ya validadas, la Escala de Valoración de la Manía Aplicada por Clínicos (EVMAC) para manía y la escala de Hamilton para depresión.*

Resultados. *La escala presenta buenas características psicométricas con índice de consistencia interna (alfa de Cronbach) para la subescala de manía de 0,90 y para la de depresión de 0,92. La correlación de la subescala de manía con el EVMAC fue de 0,82 y la de depresión con la escala de Hamilton de 0,67.*

Conclusiones. *El CPI es un instrumento sencillo y rápido de aplicar que permite la autovaloración de los pacientes bipolares. Su importancia radica la posibilidad de utilizarlo en el seguimiento a largo plazo, tanto para efectos clínicos como actividades de investigación, así como para evaluar la respuesta al tratamiento.*

Palabras clave: *Trastorno bipolar. Autovaloración. Conciencia de enfermedad. Psicometría.*

INTRODUCTION

At present, we have many psychometric instruments to assess bipolar disorder. The last ones to arise were self-report scales[1].

The main obstacle for the development of these scales has been the generalized belief that manic patients are not good reporters on their clinical state[2,3].

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Over recent years, studies have been performed on disease awareness in these patients, obtaining the result that manic patients may supply valuable information regarding their experiences[3-6].

In addition, the results obtained with the use of the self-report questionnaires for bipolar patients by some investigator groups have encouraged their use in clinical aspects and research[7-9].

The interest of this type of scales in their application in bipolar patients is found in their application ease and speed, both for clinical objectives as well as for research activities. This type of questionnaire would be useful in the detection of the changes in mood state that characteristically occur during the disease course. In this way, cli-

nical fluctuations, adjustment needs in treatment and effectiveness of this when established could be easily evaluated. In those cases in which psychoeducative tasks are performed, they could be effective instruments to help the patients recognize and record their symptoms[4].

However, the disadvantages that this type of scales may have must not be forgotten. Some of them are inherent to any self-report questionnaires while others are specific to the disease type that we are trying to evaluate. In the first place, their limitations are the patients' cultural level, since an essential condition to be able to apply them would be that the patients know how to read. On the other hand, we should consider the seriousness of the condition suffered by the patient, so that difficulties are frequently found in patients with a very serious mania or depression, without overlooking the fact that the patients may try to minimize or hide their symptoms[6].

In this study, we present the translation and adaptation of the Chinese Polarity Inventory (CPI), a scale that evaluates both manic as well as depressive symptoms, offering a more global assessment of the disorder. We consider that it can be of interest because we do not have scales of these characteristics adapted to our language.

MATERIAL AND METHODS

Material

In order to review the self-report scales that might have been developed, a bibliographic search was performed in the databases of medical publications, Medline, Psycoinfo until the year 2001. A search was also performed in the Spanish Medical Index (SMI) until the year 2000. According to the information that we presently have, we are unaware of the existence of studies published in regards to the validation and scale's adaptation in our setting.

The study was developed following the usual steps in translation and adaptation of a scale, as is described in the following.

Beginning with the English translated questionnaire, this was translated to Spanish, trying to maintain the sense of the items as created by the author, but adapting the expressions to the characteristics of our language and the cultural characteristics of our setting. This translation was reviewed by a collaborator who had not participated in the translation process. After, a translator performed the back translation, once again to English. This was then sent to the scale's author to review and assure that the meaning of the items had not been changed in the translation process. After reviewing the document, he agreed with the translation proposed.

A change was made in the score site, placing them to the right of the items as we considered that this presentation could make the response more comfortable.

The CPI is a self-report scale, made up of two subscales, with 20 items for each one of them. The first evaluates depressive symptoms, while the second does so with the mania symptoms. The items for each clinical state are symmetric and are placed to the right (depression) and left (mania) of the scale. The sentences evaluate the affective symptoms that may appear in the different episodes of bipolar disorder, mania or depression in a confronted and contrary way. For example, to evaluate the mood state «I'm depressed» on the depression subscale versus «I feel very happy and cheerful» on the mania one.

Seriousness manifested by each one of the subitems is also evaluated, scoring from 0 to 4, with 0: none; 1: occasionally; 2: sometimes; 3: often, and 4: always. It is explained to the patient that his/her feelings during the last week, including the day of the interview, should be evaluated.

To create the scale, items were obtained from several scales, Beigel, Beck, Petterson and Young, for mania and Hamilton depression.

The psychometric characteristics of the original scale are good, with Cronbach's alpha of 0.93 for the depression subscale and 0.92 for that of mania. The correlation for the mania items with the standard instrument, in this case, the Bech-Raelfsen Mania Scale (BRMS) is 0.32 and for depression with the Hamilton Scale 0.33. Based on the total score, the authors established four intervals in the depression subscale, normal (< 20), mild (21-30), moderate (31-45) and severe (> 45). For the mania scale < 15 was considered normal, from 15 to 30 mild, from 31 to 45 moderate and greater than 45 severe[10].

Due to the questionnaire's characteristics, it being a self-report one, patients who had difficulties in writing and reading due to illiteracy or mental retardation were excluded. Its administration also encountered difficulties in those patients in whom the seriousness of their symptoms prevented them from collaborating in the process of filling out the scale, for example during the first days of admission of manic or depressive patients with cognitive symptoms in whom concentration difficulties prevented them from filling out a scale having these characteristics.

The results obtained with the questionnaire were compared with already validated instruments, the Escala de Valoración de la Manía Aplicada por Clínicos (EVMAC) (in English: the clinician administered rating scale for mania [CARS-M]), only using the mania subscale that went from items 1 to 10. This is a scale that has been translated and adapted from the English version (CARS-M) developed by the Altman et al. group. It consists in a semistructured interview filled out by the clinician and it is administered during or after the usual clinical interview. It has a total of 15 items, grouped into two subscales, mania and psychoticism. Each one of the items measures symptom seriousness with a score explicitly defined. The psychometric characteristics of the mania subscale are adequate, with some correlations of the items with the total score, varying between 0.49 to 0.78. Internal consistency measured with Cronbach's alpha is 0.91. Correlation with the gold standard chosen, in this case of the Clinical Global Impression scale (CGI), by Sperman's Rho coefficient was 0.26. Interrater reliability obtained by intraclass correlations between judges of the same patient was 0.94 for the mania subscale and 0.90 for that of psychoticism[11].

The 17 item Hamilton Depression scale version was used to compare the CPI depression subscale in the case of patients with depressive episode, as this scale is extensively published, has been adapted to our setting and its use is widely distributed[12].

On the other hand, we consider it to be of interest to simultaneously compare it with the numeric evaluation scale (NES) that consists in asking the patient to score his/her present mood state from 0 to 100. The reason this scale was introduced was to be able to compare it with the CPI, thus evaluating the correlation between two self-report scales[13].

Sample

The questionnaire was administered to a total of 122 patients whose age ranged from 17 to 65 years. Distribution by gender of the sample was 67 women and 56 men.

The sample collection period was one year and three months.

In the patient selection process, the criteria used to establish the diagnosis were those of the International Disease Classification (ICD-10)[14].

The patient sample was obtained from the acute ward of the University Hospital La Fe of Valencia (49 patients), from the Bipolar Disorders Unit (44), eating behavior disorders (10) and adolescent hospitalization (1) from the same hospital and from the Addictive Behavior Unit of Torrente (18).

A control group formed by mental patients (40) suffering other diseases not included in the affective disorders group was established. The diagnoses of the patients forming this group were eating behavior disorders (11), paranoid schizophrenia (11), personality disorders (4), impulse control disorders (1) and drug addicts in out-patient treatment (13).

Four subgroups were differentiated in regards to the patients diagnosed of affective disorders. The patients had a manic (32), depressive (17), mixed (3) episode or were in remission (30).

The patients' characteristics with manic episode were the following:

— Manic episode (3).
— Hypomanic episode (4).
— Manic episode without psychotic symptoms (16).
— Manic episode with psychotic symptoms (9).

The depressed patients groups was formed by:

— Bipolar disorder. Mild or moderate depressive episode (9).
— Bipolar disorder. Serious depressive episode without psychotic symptoms (9).
— Depressive episode (4).
— Recurrent depressive disorder (2).

It was decided to include the two last diagnostic categories mentioned above in the case of depressive patients, as it was considered that there are no clinical differences between the manifestations of the depressive episodes of the different affective disorders.

Thus, four groups were established in all, depressed, manic, bipolar disorder in remission and control group patients.

The mixed episode patients were considered to be a separate group. Although from our point of view, the characteristics of the questionnaire in this group of patients would have great interest, it was only administered in three cases. Thus, the results should be cautiously evaluated due to the reduced number included in the sample.

Statistical methods

The statistical analysis was performed using SPSS version 11.5.

In the first place, normality of the total score distribution in the sample was evaluated with the Kolmogorov-Smirnof test.

We performed comparisons between the different groups (manic, depressive, mixed episode, bipolar in remission and control group) to assess if there was any difference between the total scores obtained in the CPI. The difference between means was administered by non-parametric tests (Kruskal-Wallis and Mann-Whitney U)[15] in the case of the depression subscale and the analysis of variance of a factor (ANOVA)[16] in the case of the mania subscale.

For the study of the scale's internal consistency, the correlation of each one of the items with the total score of the scale and Cronbach's alpha[17] was obtained.

Concurrent validity was calculated with non-parametric tests, using Spearman's Rho coefficient[18]. From the analysis of the correlations, it was decided to exclude the control group from the analysis, since the objective of the scale is to quantify the symptoms and not to make a differential diagnosis with other psychiatric syndromes.

Influence of disease awareness, in the case of manic patients, on the total score of the scale, was also taken into account. Bivariate correlations were applied to compare the score and item 15 of the CARS-M, in which the clinician evaluated disease awareness. After, the results of the correlation between CPI and CARS-M were compared with those of their partial correlation, controlling item 15.

Finally, the ROC curses were calculated to determine the sensitivity and specificity, and a factorial analysis was performed by rotated component matrix.

During the study design phase, it was considered that the test-retest reliability was not applicable in this case because of the variability characteristics of the study patients symptoms. On the other hand, if the time between the application of two tests is shortened, it could falsify the results by recall of the previously emitted responses.

RESULTS

The results of the normality tests on the distribution of the total results of the different scales showed that the distribution was not normal for the Hamilton, CARS-M,

NES and the Zheng depression subscale. On the other hand, the mania subscale was normally distributed.

In order to compare if there are differences in the results of both subscales between the different groups, the Kruskal-Wallis test was administered to evaluate the existence of differences in the total score between the different groups, in the case of the depression subscale. Significant differences were obtained between the different groups with a chi squared value of 29.29 and a $p < 0.01$.

Subsequently, group to group comparisons were performed with the Mann-Whitney U test, applying the Bonferroni correction. The results obtained with this procedure were significant differences between the patient group with depression and the remaining groups, mania, remission and control group, with a significance less than 0.05. On the other hand, there were no differences between the group of patients with mixed episode in regards to those with depressive and manic episode.

The same procedure of comparison between groups was applied for the mania subscale, with the difference, in this case, that we applied parametric tests, given that the scale's total score distribution fulfilled the normality criteria.

To do so, the ANOVA test of a factor, considering the homogeneity of variances test, the intergroup differences and the post-hoc tests, was used. In this way, we obtained differences between the different groups with a significance level < 0.01.

When a one to one comparison was performed with the different groups using the post-hoc tests, a difference was found between the results of the subscale for the manic patients with the depressed patients, with the bipolar patients in remission and with the group formed by the remaining diagnoses. On the other hand, no differences were seen with the mixed episode patients, as also occurred in the case of depression. The characteristics of this group of patients, who obtained high scores in both subscales could be mentioned in this way, always evaluating these data cautiously, due to the reduced number of cases included with this diagnosis, as we have previously explained. The CPI validation process was performed by analyzing each one of the two subscales making it up separately.

The scale's internal consistency was evaluated by the correlation of each one of the items with the total score and by Cronbach's alpha. For the depression items, the correlation of each one of the items ranged from 0.34 to 0.80, with Cronbach's alpha being 0.92. For the mania items, the correlation varied from 0.14 to 0.77 and Cronbach's alpha was 0.92 (table 1).

Item 5 («I worry a lot about little things») and 19 («I have no sexual drive») obtained low correlation with the scale's total score, with values of 0.34 and 0.36 respectively.

In the mania subscale, low correlation was obtained by item 3 («I want to hurt someone when I get angry»), item 5 («I don't worry about anything») and 8 («I get annoyed over little things), with some values of 0.15, 0.17, 0.27 respectively. A possible lack of sincerity in the case of 3 and 8 is suggested as a hypothesis for the results of these items as they are questions related with social desirability scales. Item 5 may lead to errors as it has a double negation.

TABLE 1. Reliability analysis

CPI depression	*Correlation item-total score*	*Alpha if we eliminate the item*	*CPI mania*	*Correlation item-total score*	*Alpha if we eliminate the item*
ZHENGD1	0.4856	0.9166	ZHENGM1	0.6874	0.8947
ZHENGD2	0.6747	0.9125	ZHENGM2	0.7561	0.8922
ZHENGD3	0.6969	0.9137	ZHENGM3	0.1511	0.9063
ZHENGD4	0.4582	0.9180	ZHENGM4	0.6494	0.8954
ZHENGD5	0.3523	0.9196	ZHENGM5	0.1709	0.9074
ZHENGD6	0.5961	0.9144	ZHENGM6	0.5643	0.8980
ZHENGD7	0.6454	0.9130	ZHENGM7	0.3007	0.9042
ZHENGD8	0.4634	0.9170	ZHENGM8	0.2777	0.9051
ZHENGD9	0.4244	0.9178	ZHENGM9	0.5668	0.8979
ZHENGD10	0.7254	0.9111	ZHENGM10	0.7163	0.8941
ZHENGD11	0.6490	0.9129	ZHENGM11	0.5486	0.8983
ZHENGD12	0.6768	0.9124	ZHENGM12	0.6970	0.8944
ZHENGD13	0.5098	0.9163	ZHENGM13	0.6299	0.8964
ZHENGD14	0.5210	0.9158	ZHENGM14	0.4941	0.8997
ZHENGD15	0.4925	0.9166	ZHENGM15	0.5438	0.8985
ZHENGD16	0.7204	0.9112	ZHENGM16	0.6474	0.8955
ZHENGD17	0.8057	0.9093	ZHENGM17	0.6912	0.8944
ZHENGD18	0.7558	0.9103	ZHENGM18	0.4715	0.9005
ZHENGD19	0.3412	0.9201	ZHENGM19	0.3843	0.9033
ZHENGD20	0.6219	0.9136	ZHENGM20	0.6881	0.8940

Once the analysis of the scale's internal consistence was established, we studied the correlations of each one of the subscales with the tests that we had chosen as standard, in the study design.

Spearman's Rho correlation coefficient, between the depression subscale of the CPI and Hamilton, was 0.67 (table 2).

The correlation obtained between the CPI and CARS-M mania subscale, using the Spearman Rho coefficient, was 0.82, with a significance level less than 0.01 (table 3).

Another point of view that was suggested was the comparison of CPI with another self-applied scale such as the NES.

As can be concluded from these results, there is a negative correlation between the depression subscale and the NES, that is, the greater the score in the CPI, the low the score of the patients in the NES. The opposite occurs in the case of mania, since a positive correlation is obtained. This means that the patients with greater score in

TABLE 2. Correlation between Hamilton and CPI depression subscale

	CPI depression
Hamilton	
Spearman's Rho	0.671
Sig. (bilateral)	0.000
N	82

TABLE 3. Correlation between CARS-M and CPI mania subscale

	CPI mania
CARS-M	
Spearman's Rho	0.815
Sig. (bilateral)	0.000
N	82

the corresponding scale of CPI have a higher score in the NES.

The possible influence of disease awareness in the manic patients of responding to a self-report questionnaire was evaluated through comparisons with item 15 of the CARS-M, which evaluates disease awareness in manic patients.

In the first place, a bivariate correlation was applied between item 15 of the CARS-M and the CPI mania subscale. In the second place, a partial correlation was applied between the total scores of the CARS-M and CPI, controlling item 15.

For the case of the correlation with item 15, a positive and significant correlation was obtained with an 0.56 value. These results may be interpreted by stating that when there is lower disease awareness for mania (greater score in item 15, lower disease awareness), a higher score is obtained in the CPI. That is, the manic patients obtain high scores in the CPI, in spite of presenting low disease awareness (table 4).

Partial correlation between the mania and CARS-M subscale, considering the previously mentioned item, was 0.64. If we compare this result with the correlation between these two scales, without considering disease awareness, a significant and positive correlation is also obtained, although with greater absolute value; in this case, it is 0.76. Thus, we could say that disease awareness does influence the CPI mania subscale score. In spite of this, when considering this variable, there is still adequate correlation with the gold standard test that we have chosen (table 5).

Sensitivity and specificity of both subscales were analyzed with the ROC curves (figs. 1 and 2).

In the depression subscale, the area under the curve (AUC) is 0.81. Cut-off was considered to be a score of 41, with 0.80 sensitivity and 0.82 specificity.

For the mania subscale, an AUC of 0.87 was obtained. The cut-off chosen was 34 with an 0.82 sensitivity and 0.83 specificity.

TABLE 4. Correlation between mania scale and disease awareness

	Item 15 of CARS-M
CPI mania	
Spearman's Rho	0.562
Sig. (bilateral)	0.000
N	81

TABLE 5. Partial correlation between mania scale and CARS-M, controlling disease awareness

	CARS-M	*ZHENGM*
CARS-M	1.000	0.6406
	(0)	(78)
	p = ,	*p* = 0.000

The confidence interval of both AUCs does not include the 0.5 value, which indicates that it is capable of distinguishing between healthy and ill, which indicates its adequate discrimination capacity.

The factorial analysis was performed with the rotated component matrix with the varimax method.

In the case of the depression scale, three components that explain 60% of the variance were obtained. The first factor was formed by items 3, 4, 10, 11, 12, 16, 17, 18, 19, 20, which basically reflects inability feelings. Items 1, 2, 5, 6, 7, 8, 13 represent feelings of guilt. The last factor, formed by items 15, 9, 14 is related with anhedonia.

In the case of the mania scale, only one component that explains 40% of the variance was obtained. This is made up by items 1, 2, 4, 6, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, represented by hyperactivity.

DISCUSSION

The CPI is a scale with good psychometric characteristics, whose application in bipolar patients belongs to

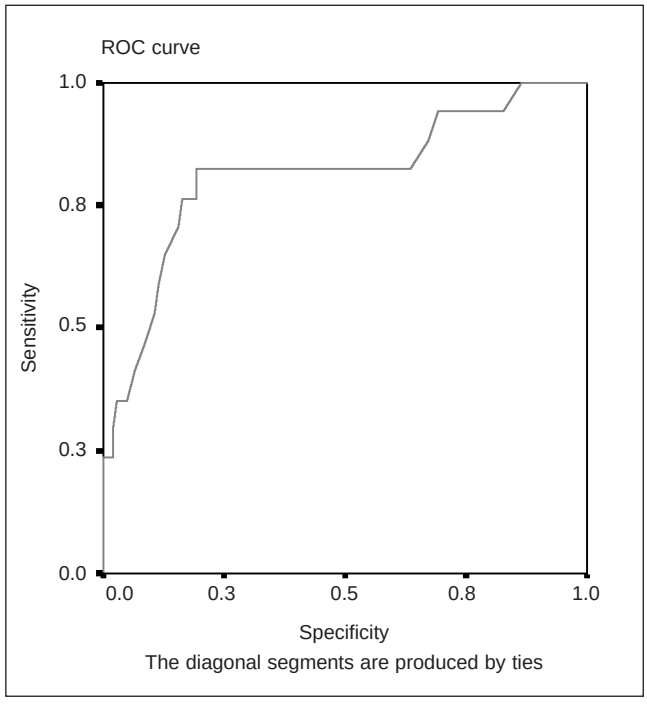

Figure 1. ROC curve of the mania subscale.

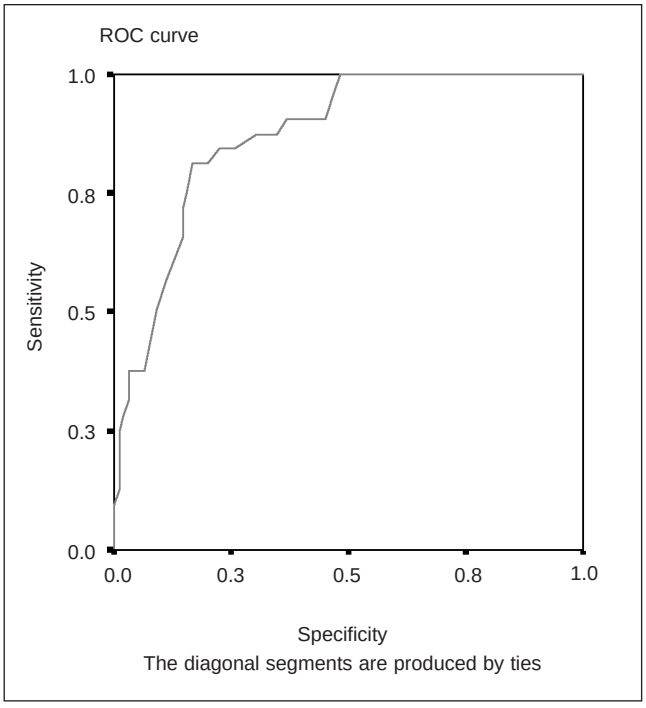

Figure 2. ROC curve of the mania subscale.

our setting reproduces the results of the author, in regards to its internal consistency, after its translation and adaptation.

Zheng obtains a Cronbach's alpha coefficient of 0.93 and 0.92 for depression and mania, respectively, while the coefficient obtained in the present study is 0.92 in the depression subscale and 0.90 in the mania one.

The results of the concurrent validity obtained by the author were 0.59 in the comparison of the total score for the Hamilton depression scale, while those obtained in our study, compared with the same questionnaire, were 0.67. In the case of mania, although significant and positive correlations were obtained in both studies, the results differ, probably due to using different questionnaires as comparison instrument (the authors used the BRMS while this study used the CARS-M). While Zheng obtains a 0.53 correlation, this study obtained a result of 0.81. In these comparisons, it should also be taken into account that the statistical methods used are different, since the author used parametric correlations in his study, and thus, the correlation value is lower. Regarding the debatable influence of lack of disease awareness of the manic patients in the self-report questionnaires, the results of the correlations previously explained indicate that the self-applied scale that we are evaluating obtains good results in spite of this variable.

In the analysis of the ROC curves of both subscales, the result of the AUC is acceptable, with values of 0.813 for depression and 0.872 for mania.

These results could not be compared, as the author of the scale being studied did not present them.

In that study, seriousness ranges of the depressive symptoms were established, considering normal as < 20, mild 21 to 30, moderate 31 to 45 and severe those scores greater than 45. These criteria were obtained by comparison with the Hamilton seriousness criteria.

In the present study, the cut-off that was established was 41, which would be located in the moderate depression interval of the original scale.

In the case of mania, the author established normality for score less than 15, mild form 15 to 30, moderate from 31 to 45 and severe greater than 45. The cut-off that we established in the validation process was 34, which corresponds to moderate grade of mania, according to the results of the scale's author.

After these results, it can be observed that the cut-offs obtained in our study are more specific, but lose sensitivity, because the objective of the scale is to evaluate seriousness and not to establish a diagnosis, which should be performed in all the cases by the clinician and by psychiatric interview.

The results of the factorial analysis showed three factors for the depression scale and one factor in the mania scale. It is common that several factors are obtained in the depression questionnaires, while the number of factors is generally less in those of mania.

CONCLUSIONS

The results of this study indicate that the CPI is a valid measurement instrument of the seriousness of manic and depressive symptoms and is capable of discriminating them from bipolar patients who are in remission.

In addition, it is seen as an instrument capable of reproducing the results obtained with other already validated heteroapplied scales with similar results in both the depression as well as mania subscale.

It also reproduces the results of the NES as reference of the self-applied scale.

In spite of being a self-report scale, it is capable of adequately evaluating manic patients, which supports the hypothesis defended in this study, that these patients are good reporters of their experiences as well as of their symptoms.

As possible applications of the scale, we consider that it may be useful in the long-term follow-up of patients. In this way, it would be a monitoring method of the symptoms together with the use of the life chart[19]. Other situations in which it would be of interest are the assessment of rapid cyclers and in the evaluation of treatments. These characteristics should be verified with future investigations that include seriated evaluations.

A special case is made up by mixed episodes, whose interest is found in the lack of psychometric tests for their evaluation. The results obtained are interesting, in the sense that this group of patients would obtain high scores in both subscales. However, because the group in-

APPENDIX. Chinese Polarity Inventory

Instruction: this inventory contains 20 items. Each of them has two statements located on the right and left side. The numbers between the two statements represent, respectively, for each side, as follows:

0: none 1: occasionally 2: sometimes 3: often 4: always

Please compare the statement on the right with that on the left and circle the appropriate numbers for both statements for each item according to your experiences in the last week, including today

D1	I'm tired and unable to sleep well	4 3 2 1 0	M1	I'm energetic and don't need much sleep	4 3 2 1 0
D2	I'm a weak person in life	4 3 2 1 0	M2	I'm a strong person in life	4 3 2 1 0
D3	I want to kill myself	4 3 2 1 0	M3	I want to hurt someone when I get angry	4 3 2 1 0
D4	My memory is much worse than usual	4 3 2 1 0	M4	My memory is much better than usual	4 3 2 1 0
D5	I worry a lot about little things	4 3 2 1 0	M5	I don't worry about anything	4 3 2 1 0
D6	I'm mentally inferior to others	4 3 2 1 0	M6	I'm mentally superior to others	4 3 2 1 0
D7	I feel everything is my fault	4 3 2 1 0	M7	I feel I'm never at fault	4 3 2 1 0
D8	I get annoyed over little things	4 3 2 1 0	M8	I'm annoyed if my wants aren't wholly satisfied	4 3 2 1 0
D9	I'm becoming thinner and uglier	4 3 2 1 0	M9	I look younger and more beatiful than usual	4 3 2 1 0
D10	I have lost all my energy to do things	4 3 2 1 0	M10	I'm unusually energetic	4 3 2 1 0
D11	I feel lonely	4 3 2 1 0	M11	I have many friends whom I see frequently	4 3 2 1 0
D12	I feel like my daily life is hell	4 3 2 1 0	M12	I feel like my daily life is in paradise	4 3 2 1 0
D13	I'm being punished because of my faults	44 3 2 1 0	M13	I'm a well-known and powerful person	4 3 2 1 0
D14	I speak more softly or less frequently than usual	4 3 2 1 0	M14	I speak more loudly or frequently than usual	4 3 2 1 0
D15	I'm not interested in the things around me	4 3 2 1 0	M15	I'm interested in everything around me	4 3 2 1 0
D16	I feel sorry for myself	4 3 2 1 0	M16	I have extraordinary abilities	4 3 2 1 0
D17	I'm depressed	4 3 2 1 0	M17	I feel very happy and cheerful	4 3 2 1 0
D18	I feel fearful without any reason	4 3 2 1 0	M18	I'm afraid of nothing	4 3 2 1 0
D19	I have no sexual drive	4 3 2 1 0	M19	I'm more interested in sex	4 3 2 1 0
D20	My thinking is slower and less clear than usual	4 3 2 1 0	M20	My thinking is faster and clearer than usual	4 3 2 1 0

Zhen YP and Lin KM. The reliability and validity of the Chinese Polarity Inventory. Acta Pscyhiatr Scand 1994;89(2)126-31. Adapted to Spanish by: Benavent Rodriguez P, Álvarez Más P, Livianos Aldana L, García Valls JM, Rojo Moreno L.

cluded in this study is very small, future investigations are necessary in this sense.

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