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ARTICLE *in* INTERNATIONAL JOURNAL OF SOCIAL PSYCHIATRY · JULY 2005

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PSYCHIATRIC DISORDERS AMONG THE MAPUCHE IN CHILE

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ABSTRACT

Background: The Mapuche are the largest indigenous group in Chile; yet almost all data on the mental health of indigenous populations are from North America.

Aim: The study examines the differential DSM-III-R prevalence rates of psychiatric disorders and service utilization among indigenous and non-indigenous community residence.

Methods: The Composite International Diagnostic Interview (CIDI) was administered to a stratified random sample of 75 Mapuche and 434 non-Mapuche residents of the province of Cautín. Lifetime prevalence and 12-month prevalence rates were estimated.

Results: Approximately 28.4% of the Mapuche population had a lifetime, and 15.7% a 12-month, prevalent psychiatric disorder compared to 38.0% and 25.7%, respectively, of the non-Mapuche. Few significant differences were noted between the two groups; however, generalized anxiety disorder, simple phobia, and drug dependence were less prevalent among the Mapuche. Service utilization among the Mapuche with mental illness was low.

Conclusions: This is a preliminary study based on a small sample size. Further research on the mental health of indigenous populations of South America is needed.

INTRODUCTION

Studies of North American Indian constitute nearly all the literature on the prevalence of psychiatric disorders among the indigenous populations of the Americas. Other than Kinzie *et al.*'s (1992) representative sample of 131 subjects diagnosed using the Schedule for Affective Disorders and Schizophrenia no other study has explored a broad spectrum of psychiatric disorders in the community. Most of the literature in North America has focused on the increased risk for alcohol use disorders in the population (Garcia-Andrade *et al.*, 1996; Robin *et al.*, 1998).

In South America psychiatric investigations regarding the prevalence of mental illness among indigenous populations are rare. In Chile the Pehuenches were examined using the Self Reporting Questionnaire (SRQ) (Harding *et al.*, 1983; Vielma *et al.*, 1994) and Goldberg's Semistructured Interview (Goldberg *et al.*, 1970; Vicente *et al.*, 1992). The suspected ICD-10 prevalence of disorders among the 57 Pehuenches was 40.4%, with 15.7% having generalized anxiety, 10.5% alcohol use disorder, and 8.8% with a major depressive episode.

Around 500 AD the descendants of the Araucano Indians who became the Mapuche (the People of the Land) established themselves around the lakes in the central valley of Chile and Argentina. During the Spanish persecution of the 17th century the Mapuche population was forced toward the south of the country. The Mapuche resisted the Spanish conquest for over 260 years. Like many indigenous groups their population was decimated by war with the Spanish and disease. Even after the independence of Chile the Mapuche continued to fight for independence. In 1885 began the period known as the 'Pacification of the Araucano People'; the Mapuche territories were integrated into the rest of the nation and jurisdiction. The Mapuche were given about 5% of their ancestral territories to maintain their communities. During most of 20th century the political policy was to integrate the Mapuche people into the rest of Chilean society by having them disband their culture.

Legislative steps to protect indigenous culture in Chile were initiated in 1992. Many of those who continue to live in traditional communities are bilingual, and maintain their traditional grammatical non-written language, 'Mapudungun', used to also communicate with the spiritual forces of man and the land. Their religion and traditions are passed down orally. Traditionally they view the universe as constituting seven platforms: the underworld, the natural world, and five levels of the world above; the underworld and the first level of the heavens is viewed as a negative place. Communication with the four upper levels brings good such as the vital energy of life, health, and the ability to overcome human difficulties. The two negative platforms bring witchcraft and malignant spirits resulting in suffering, disgrace, illness, and death (Vicuña, 1998). The traditional communities focus on agriculture, but originally the Mapuche were nomadic hunter-gatherers.

The Mapuches are the most populace indigenous group in Chile; the next largest indigenous group, the Aymara, have a population of less than 50,000. An estimated 1 out of 14 Chileans over the age of 14, approximately 928,000, consider themselves to be of Mapuche decent (Instituto Nacional de Estadísticas, 1997). Of these approximately 106,000 consider themselves culturally Mapuche and reside in indigenous communities. The largest population of Mapuches still residing in indigenous communities is in the province of Cautín, located in the south of the country. The population of Cautín based on the 1992 census is approximately 411,000, and 147,000 of these individuals are Mapuche of which 72,000 are culturally indigenous. Cautín accounts for 62% of the Mapuche population residing in indigenous communities. Most of the Mapuche are Catholic, 71%, with a sizable population of Evangelical Christians, 22%.

The objective of this study was to obtain preliminary data on the rates of mental disorders among the population of Cautín in order to address community mental health needs. Given earlier reports suggesting that indigenous groups may be at high risk for mental illness, we hypothesized that the same may be true of the Mapuche.

METHODS

Sample selection

Four comunas (counties) were selected in the province of Cautin, as part of a larger national household survey on mental illness in Chile. The number of households available on each

block was enumerated, and based on the 1992 national census the number of households required on each block was determined. A list of the inhabitants age 15 and older in descending order by age with males first of each household was generated. One person per household was selected from the list based on a randomly pre-assigned Kish table (Kish, 1965).

Mapuche ethnicity was determined using the same criteria utilized in the census of the community conducted in 1992 (Instituto Nacional de Estadísticas, 1997). Those individuals who had a culturally specific last name and auto-identified themselves were considered to be a Mapuche. Formal informed consent was obtained from each respondent. The University of Concepcion's IRB approved the study. The field work was conducted in 1999.

A weight was used to account for the probability of the comuna, district, block, household, and respondent being selected. The data was adjusted to the 1992 national census based on age, gender and marital status using a second weight.

Diagnostic assessment

The CIDI version 1.1, a lay administered, structured diagnostic interview schedule was used to obtain DSM-III-R (APA, 1987) diagnoses. A section on health service utilization in the six-months prior to the interview was also included in the interview schedule. The translation into Spanish was conducted using the protocol outlined by the World Health Organization (WHO) (Sartorius *et al.*, 1994). The translated CIDI underwent a validation study in the general Chilean population and was found to have kappas ranged from 0.52 for somatoform disorders up to 0.94 for affective disorders (Vielma *et al.*, 1992).

Interviewers and training

The interviewers were all university students in their senior year studying social sciences. Training was conducted following WHO protocol at the University of Concepcion, a WHO CIDI training and reference center. In addition to over 80 hours of instruction and practice sessions, each interviewer had to conduct practice interviews with volunteer adult subjects with and without psychiatric disorders selected from local clinics, as well as a pilot interview on an individual in a non-selected household in the community, as part of the training.

Approximately 80% of the interviews were audiotaped following the subject's consent. About 20% the audiotapes were randomly reviewed to maintain quality control, in addition to the first three conducted by each interviewer.

Analysis procedures

The SUDAAN statistical package (Shah *et al.*, 1997), Taylor series linearization method, was used to estimate the standard errors due to the sample design and the need for weighting. The analysis was conducted using procedures without replacement for non-respondents. The comuna and district selected were used as the defined strata. Logistic regression with the corresponding 95% confidence interval was used to examine the association with demographic risk factors. All results are presented as weighted data.

RESULTS

The sample contained 75 Mapuches and 434 non-Mapuches. The response rate to the interview was robust, 92.5%. Table 1 describes the demographic characteristics of the sample. Statistically significant differences were noted in educational attainment with the Mapuche being considerably less educated. The Mapuche home also contained fewer household amenities (see Table 2). Many Mapuche reside in adobe like homes, 40.2%, in contrast to 7.9% of the non-Mapuche. In addition, fewer have portable water and sewer in the home, 61.3%, in comparison to the non-indigenous group, 95.9%. A sizable number of the Mapuche sample had no available running water 16.4%; a condition found in less than 1% of the comparison group.

Table 1
Demographic characteristics of the Mapuche and Non-Mapuche samples

Sample Size Demographic Characteristics	Mapuche	Non-Mapuche	Chi-square	<i>d.f.</i>	<i>p</i>
	75 %	434 %			
Gender			0.09	1	0.77
Male	45.4	47.6			
Female	54.6	52.4			
Age			10.95	5	0.21
15-24	28.5	26.8			
25-34	28.4	22.5			
35-44	14.6	17.8			
45-54	8.8	12.7			
55-64	11.6	9.5			
≥ 65	8.1	10.7			
Education			17.85	3	0.04
No education	6.9	0.6			
Basic	43.8	11.7			
Medium	33.1	38.9			
High	16.2	48.8			
Income (\$U.S.A.)			20.52	3	0.04
100-400	81.5	43.4			
401-800	12.5	21.7			
801-1500	6.0	13.3			
≥ 1501	0.0	21.6			
Marital Status			13.62	4	0.11
Married	45.0	53.2			
Widowed	4.9	5.9			
Separated/Annulled	0.9	2.1			
Never married	39.7	35.7			
Common law	9.5	3.1			
Urbanicity			3.34	1	0.13
Urban	57.8	96.6			
Rural	42.2	3.4			

Table 2
Amenities in Mapuche and Non-Mapuche households

Amenity	Mapuche %	Non-Mapuche %	Chi-square	<i>d.f.</i>	<i>p</i>
Television	67.0	92.7	2.87	1	0.15
Washing machine	37.4	69.5	3.33	1	0.13
Telephone	38.8	77.2	5.56	1	0.06
Second automobile	11.1	34.9	14.87	1	0.01

Few statistically significant differences were found between the two groups in the prevalence rate of lifetime and 12-month psychiatric disorders (see Table 3). Generalized anxiety disorder, simple phobia, and drug dependence were found at a higher rate among the non-Mapuche. No Mapuche male met diagnostic criteria for an affective disorder, and no Mapuche female had a substance use disorder including nicotine dependence. As the Mapuche were found to be in a lower social economic status (SES) and SES is inversely related to mental illness (Kohn *et al.*, 1998) the lack of differences in the rates could possibly be due to the SES disparity between the groups. Logistic regression analysis was carried out with covariates for education and income to adjust for SES. The Mapuche were noted to have statistically significantly lower rates of lifetime mental illness than the control group across a number of the diagnoses examined: psychosis, affective disorders as a group, panic disorder, generalized anxiety disorder, alcohol abuse, drug abuse, drug dependence, eating disorders, and all disorders combined. The Mapuche after adjusting for SES were found to have higher rates of cognitive disorder. As for 12-month prevalent disorders, the Mapuche had lower rates of psychosis, manic disorder, dythymia, panic disorder, generalized anxiety disorder, simple phobia, drug dependence, and all disorders combined.

Of the 27 Mapuche with a lifetime diagnoses of a DSM-III-R psychiatric disorder only 6.5% sought mental health treatment in the past six months. None sought specialized mental health care. Among the 166 diagnosed individuals in the control group 22.3% obtained mental health treatment (OR = 4.1, 95% CI (0.5, 31.4)), and 9.6% sought out specialized mental health care. Similarly, the 18 Mapuche with a 12-month prevalent disorder only 7.6% sought mental health treatment, while of the 119 non-Mapuche 27.2% sought care (OR = 4.5, 95% CI (0.5, 41.3)). None of the Mapuche with a diagnosis had gone to traditional healers or religious leaders for mental health treatment.

DISCUSSION

The data on the prevalence of mental illness in the Mapuche population in Chile should be viewed as a preliminary investigation into their mental health needs, as the sample size is small. The results, however, do raise a number of issues that merit further investigation. Unlike other reports on indigenous groups the rates are not greater than those expected in a general population sample. In particular, no increased risk for alcohol related disorders

Table 3
12-month and lifetime prevalence rates of DSM-III-R disorders for Mapuche and Non-Mapuche

Disorders	12-month prevalence				Lifetime prevalence			
	Mapuche %	95% CI	Non-Mapuche %	95% CI	Mapuche %	95% CI	Non-Mapuche %	95% CI
Affective disorders								
Major depressive episode	3.9	(0.0, 11.7)	5.3	(3.5, 7.1)	6.7	(3.4, 10.0)	10.2	(8.6, 11.8)
Manic episode	–	–	1.1	(0.0, 3.1)	1.2	(0.0, 3.6)	1.5	(0.0, 4.0)
Dysthymia	–	–	3.5	(0.0, 8.4)	7.8	(2.5, 13.1)	5.8	(0.0, 12.5)
Any affective disorder	3.9	(0.0, 11.7)	7.9	(2.2, 13.6)	9.3	(0.9, 17.7)	14.6	(8.3, 20.9)
Anxiety disorders								
Panic disorder	–	–	0.6	(0.0, 2.0)	–	–	1.3	(0.1, 2.5)
Agoraphobia without panic	3.3	(0.0, 7.8)	2.1	(0.7, 3.5)	6.9	(2.2, 11.6)	5.2	(3.2, 7.2)
Generalized anxiety disorder	0.1	(0.0, 0.3)	1.9	(0.7, 3.1)*	0.1	(0.0, 0.3)	3.3	(1.9, 4.7)*
Social phobia	2.0	(0.0, 4.9)	5.5	(2.4, 8.6)	6.6	(0.0, 16.2)	7.5	(3.0, 12.0)
Simple phobia	4.4	(2.6, 6.2)	11.3	(6.4, 16.2)*	4.7	(2.5, 6.9)	14.5	(11.0, 18.0)*
Any anxiety disorder	6.0	(2.1, 9.9)	15.4	(8.1, 22.7)*	14.5	(6.5, 22.5)	21.9	(18.4, 25.4)
Substance use disorders								
Alcohol abuse	3.0	(0.0, 8.1)	3.3	(1.5, 5.1)	6.4	(0.7, 12.1)	7.3	(4.9, 9.7)
Alcohol dependence	1.4	(0.0, 3.9)	2.9	(2.0, 3.9)	4.0	(0.0, 9.7)	5.1	(3.9, 6.3)
Drug abuse	–	–	–	–	–	–	0.1	(0.0, 0.3)
Drug dependence	–	–	0.5	(0.0, 1.5)	–	–	1.4	(1.2, 1.6)*
Nicotine dependence	2.6	(0.0, 8.1)	4.6	(3.0, 6.2)	5.9	(0.0, 13.3)	5.4	(3.8, 7.0)
Any alcohol or drug use disorder	4.4	(0.0, 9.1)	6.4	(3.7, 9.1)	10.3	(1.9, 18.7)	12.6	(9.9, 15.3)
Any substance use disorder	7.0	(0.0, 14.6)	8.3	(5.6, 11.0)	12.3	(4.7, 19.9)	14.9	(12.2, 17.6)
Other disorders								
Nonaffective psychosis	–	–	0.1	(0.0, 0.3)	–	–	0.1	(0.0, 0.3)
Somatoform disorder	1.7	(0.0, 4.4)	3.2	(1.8, 4.6)	5.2	(0.0, 12.6)	3.3	(2.1, 4.5)
Eating disorder	–	–	1.8	(0.0, 4.0)	–	–	1.8	(0.0, 4.0)
Cognitive disorder	–	–	–	–	5.7	(1.2, 10.2)	0.5	(0.0, 1.3)
Any CPSS disorder	15.7	(6.9, 24.5)	25.7	(18.6, 32.8)	28.4	(17.2, 39.6)	38.0	(33.3, 42.7)

* $p < 0.05$

Nonaffective psychosis includes schizophrenia, schizophreniform disorder, schizoaffective disorder, delusional disorder, and atypical psychosis; Any CPSS disorder does not include nicotine dependence, or cognitive disorder

were found. The lack of substance use in women and the failure to diagnose men with affective disorders should be explored further. Although there may be cultural sanctions preventing women from being diagnosed with alcohol related disorders; this is a more difficult argument to make for the affective disorders and men. The increased risk for cognitive disorders among the Mapuche, after adjusting for education and income, measured in the CIDI by a modified Mini-mental State Examination (Folstein *et al.*, 1975) most likely is due to the instrument not being culturally fair (Chandra *et al.*, 1998).

Although the sample size was too small to study psychosis, the clinical psychiatric literature contains two reports focusing on the Mapuche being at increased risk for psychosis, in particular what was known as 'oneriform' psychosis (Muñoz *et al.*, 1966; Biedermann *et al.*, 1983). The earlier study compared Mapuche and non-Mapuche patients psychiatric hospital discharge diagnoses. In addition to the increased risk for psychosis a lower risk for both alcohol and neurotic disorders was noted.

The rate of mental health service utilization among the Mapuche was low. This also may reflect the limited availability of services in Cautin in comparison to the rest of the nation. There are 57 primary care physicians and 2.2 psychiatrists per 100,000 in contrast to 151 and 17.4 respectively per 100,000 nationally. Each of the regional primary care centers, however, has a nationally funded mental health team that treats mild to moderate cases, and refers those with serious mental illness to nearby psychiatric facilities, which have outpatient clinics.

None of the Mapuche with a diagnosis reported having gone to a traditional healer based on the service utilization questionnaire, which was biased toward exploring use of the established health care system. The only traditional healers known to exist in Chile are female healers known as Macchis. There is usually one per community, particularly in Cautin. Most Mapuche and non-Mapuche in Cautin are believed to use both the official and traditional medicine; however, these two forms of health care providers do not acknowledge each other.

Further information on their knowledge and attitudes toward mental illness is needed in order to improve intervention. Establishing more formal communication between the official health care system and the traditional healers may be one avenue to decrease barriers to care. The impact of the low SES on mental illness and health promotion among the Mapuche also merits exploration. Programs to improve mental health literacy within the indigenous community need to be implemented.

This study was based on a psychiatric schedule designed for the general Chilean population, and not an indigenous group. Whether or not this resulted in respondent bias is unclear. One can argue justifiably that the CIDI has not been validated for use in indigenous samples, which is in part true, and that the approach taken in this study provides an uncritical acceptance of DSM-III-R categories. The acceptability of the interview schedule and the lack of differences between the indigenous and non-indigenous groups may suggest otherwise. In addition, similar studies have been conducted worldwide including among rural Africans (Awas *et al.*, 1999) suggesting that there may be considerable cross-cultural applicability of established diagnostic categories and the use of the CIDI. In a WHO review of mental health of indigenous people the lack of data was highlighted and footnoted with the statement that when data does exist methodological issues raise questions of their accuracy and that all cross-cultural psychiatry faces problems of diagnostic reliability (Cohen, 1999). Such positions

have contributed to the lack of research among indigenous populations, and the resulting inability to produce data to address their mental health needs. Clearly, the epidemiological approach should be combined with one that addresses social cultural issues; the ideal study should incorporate anthropological methods along with epidemiological ones (Bonander *et al.*, 2000).

CONCLUSIONS

Although this is a small sample study, it is one of the few to begin to address the mental health issues in indigenous people. This study, other than lower rates of anxiety disorders and drug use disorders, found little evidence to support differential rates of mental illness between Mapuche and non-Mapuche communities. The mental health needs of this population, as with most indigenous groups in Latin America, does not appear to be adequately addressed based on their low use of the established health care system.

ACKNOWLEDGEMENTS

The authors wish to thank the Pan American Health Organization/World Health Organization for their technical and financial support. We also wish to acknowledge the financial support of FONDECYT (N° 90–229, 92–233, 1971315, 1990325) and Dirección de Investigación de la Universidad de Concepción (N° 201.087.027–1.0).

REFERENCES

- AWAS, M., KEBEDE, D. & ALEM, A. (1999) Major mental disorders in Butajira, southern Ethiopia. *Acta Psychiatrica Scandinavica*, **S397**, 56–64.
- AMERICAN PSYCHIATRIC ASSOCIATION (1987) *Diagnostic and statistical manual of mental disorders, DSM-III-R, third edition revised*. Washington, DC: American Psychiatric Association.
- BIEDERMANN, N., BARRIA, C., MAASS, J. & STEIL, W. (1983). Estudio de diez casos de psicosis en mapuches. *Acta Psiquiátrica y Psicológica América Latina*, **29**, 294–300.
- BONANDER, J., KOHN, R., ARANA, B. & LEVAV, I. (2000) An anthropological and epidemiological overview of mental health in Belize. *Transcultural Psychiatry*, **37**, 57–72.
- CHANDRA, V., GANGULI, M., RATCLIFF, G., PANDAV, R., SHARMA, S., BELLE, S., RYAN, C., BAKER, C., DEKOSKY, S. & NATH, L. (1998) Practical issues in cognitive screening of elderly illiterate populations in developing countries: the Indo-US Cross-National Dementia Epidemiology Study. *Aging (Milano)*, **10**, 349–357.
- COHEN, A. (1999) *The Mental Health of Indigenous Peoples: An International Review*. Geneva: World Health Organization.
- FOLSTEIN, M.F., FOLSETEIN, S.E. & MCHUGH, P.R. (1975) Mini-mental state: a practical method for grading the cognitive state of patients for the clinician. *Journal of Psychiatric Research*, **12**, 189–198.
- GARCIA-ANDRADE, C., WALL, T.L. & EHLERS, C.L. (1996) Alcohol expectancies in a native American population. *Alcohol Clinical and Experimental Research*, **20**, 1438–1442.
- GOLDBERG, D.P., COOPER, B., EASTWOOD, M., KEDWARD, H.B. & SHEPHERD, M. (1970) A standardized psychiatric interview for use in community surveys. *British Journal of Preventative and Social Medicine*, **24**, 18–23.

- GREBE VICUÑA, M.E. (1988) *Culturas Indígenas de Chile: Un Estudio Preliminar*. Santiago, Chile: Pehuén.
- HARDING, T.W., CLIMENT, C.E., DIOP, M., GIEL, R., IBRAHIM, H.H.A., MURTHY, R.S., SULEIMAN, M.A. & WIG, N.N. (1983) The WHO collaborative study on strategies for extending mental health care: II. The development of new research methods. *American Journal of Psychiatry*, **140**, 1474–1480.
- INSTITUTO NACIONAL DE ESTADÍSTICAS (1997) *Los Mapuches: Comunidades y Localidades en Chile*. Chile: Instituto Nacional de Estadísticas.
- KINZIE, J.D., LEUNG, P.K., BOEHNLEIN, J., MATSUNAGA, D., JOHNSON, R., MANSON, S., SHORE, J.H., HEINZ, J. & WILLIAMS, M. (1992) Psychiatric epidemiology of an Indian village. *Journal of Nervous and Mental Disease*, **180**, 33–39.
- KISH, L. (1965) *Survey Sampling*. New York: John Wiley & Sons.
- KOHN, R., DOHRENWEND, B.P. & MIROTZNIK, J. (1998) Epidemiologic findings on selected psychiatric disorders in the general population. In *Adversity, Stress, and Psychopathology* (ed. B.P. Dohrenwend). New York: Oxford University Press.
- MUÑOZ, L., MARCONI, J., HORWITZ, J. & NAVEILLAN, P. (1966). Crosscultural definitions applied to the study of functional psychoses in Chilean Mapuches. *British Journal of Psychiatry*, **112**, 1205–1215.
- ROBIN, R.W., LONG, J.C., RASMUSSEN, J.K., ALBAUGH, B. & GOLDMAN, D. (1998) Relationship of binge drinking to alcohol dependence, other psychiatric disorders, and behavioral problems in an American Indian tribe. *Alcohol Clinical and Experimental Research*, **22**, 518–523.
- SARTORIUS, N. & KUYKEN, W. (1994) Translation of health status instruments. *Quality of Life Assessment in Health Care Settings, Volume 1* (eds. J. Orley & W. Kuyken). Berlin: Springer.
- SHAH, B.V., BARNWELL, B.G. & BIELER, G.S. (1997) *SUDAAN User's Manual. Release 7.5*. Research Triangle Park, NC: Research Triangle Institute.
- VICENTE, B., RIOSECO, P., CRUZAT, M., SANHEZA, M. & VIELMA, M. (1992) Confiabilización de una entrevista psiquiátrica estandarizada (ESE). *Revista de Psiquiatría*, **9**, 1009–1017.
- VICENTE, B., RIOSECO, P., MEDINA, E., RIVER, B., VIELMA, M. & SALDIVIA, S. (1998) Estudio exploratorio de la salud mental de los pehuenches de alto bio-bio. *Acta Psiquiátrica y Psicológica América Latina*, **44**, 169–176.
- VIELMA, M., VICENTE, B., RIOSECO, P., CASTRO, P., CASTRO, N. & TORRES, S. (1992) Validación en Chile de la entrevista diagnóstica estandarizada para estudios epidemiológicos CIDI. *Revista de Psiquiatría*, **9**, 1039–1049.
- VIELMA, M., VICENTE, B., RIOSECO, P., MEDINA, E., ESCOBAR, B., SALDIVIA, S., CRUZAT, M. & VICENTE, M. (1994) Validación del autorreportaje de síntomas (SRQ) como instrumento de screening en estudios comunitarios. *Revista de Psiquiatría*, **11**, 180–185.

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