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ORIGINAL ARTICLE

Suicidal risk, depression, and religiosity: A study of women in a general hospital in Santiago de Chile

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The study protocol was approved by the Bioethics Committee of the Hospital del Salvador and all cases will receive information about the research protocol, and sign an informed Letter of Consent.

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Abstract

Introduction: The purpose of the present study is to compare the role of spiritual and religious beliefs in the prevention of suicidal risk among depressive women with suicidal ideation or attempts, treated in the psychiatric unit of a general hospital in Santiago de Chile (Servicio de Psiquiatría del Hospital del Salvador) between 2010 and 2011.

Method: The relationship among severity of depression, suicidal risk, and religiosity is explored in women treated in Servicio de Psiquiatría del Hospital del Salvador. The sociodemographic and clinical characteristics of believers (n = 121) and nonbelievers (n = 22) were compared, and their global mental health was assessed, as well as their rating in scales for depression, anxiety, aggressivity, and impulsivity.

Results: Most of the patients self-reported to belong to Catholic or other Christian churches. There were few statistically significant differences between them and nonbelievers, who were younger, had more years of education, were more frequently employed, and lived alone or with their parents. When comparing the least religious and the most religious quartiles, there were no differences in the type of affective disorder, attendance to temples, or self-appraisal of religiosity. Nonbelievers had more history of previous suicidal attempts and had more relatives committing suicide.

Discussion: In a country where most of the population is believer, self-reported religiosity seems to have a nonsignificant association with suicidality and severity of depression. Our results could be biased given the small number of nonbelievers in the sample.

Introduction

Suicidal risk has become a global concern: the World Health Organization (WHO) has insisted in the need of preventing it (WHO Department of Mental Health, 2002; Knox *et al.*, 2004). Depression is the psychiatric diagnosis most frequently related to suicidal ideation and attempts (Dervic *et al.*, 2004). The scientific study of suicide and its relationship with religions began in the 19th century with Durkheim's theories (1897) about the protective effects of religiosity in Catholic versus Protestant countries in Europe. His thesis has been tested in North America (Pescosolido and Georgianna, 1989), but not in Latin America.

The definitions of religion, spirituality, and religiosity present methodological challenges to researchers: Argyle (2000) has differentiated the terms *spirituality* to refer to transcendent experiences with and understandings about God or other forces in the universe, whereas he uses the term *religiosity* to refer to an institutionalized system of beliefs, values, and activities based on spiritual creeds. Spirituality can also allude to *intrinsic* religiosity, or the self-appraisal of the person's relation with a transcendent being, in comparison to *extrinsic* religiosity, or the attendance to ceremonies and rituals of an established religion.

South America, as a subcontinent, is one of the most religious in the world, according to UN data

(Denis and Frachon, 2009). With regard to depression and suicidal risk, there are few studies in South America about the religious allegiance of suicidal patients with affective disorder. Data from the 2007 "Encuesta Nacional Bicentenario" carried out by the Pontificia Universidad Católica de Chile and Adimark/GFK, from a national sample of the Chilean population over 18 years old, from both genders, and all socio economic status (n = 2,037 people living in 86 municipalities [Valenzuela, 2007]), show that 86.6% of the Chileans said they belonged to a religious denomination (Catholics 65.5%, other Christian churches 18.3%, other churches 2.5%) and 12.1% to none; 1.6% declared themselves atheists. Among the religious, 21.1% declared they attended churches or temples at least once a week; 14.2% of men and 26.4% of women.

The fact that women are both more religious (Pontificia Universidad Católica de Chile & CEP Adimark 2007) and present more affective disorders (Vicente *et al*., 2002) justifies the relevance of the present study, whose purpose is to compare the characteristics of depressive women with suicidal ideation or attempts, sequentially treated in the psychiatric unit of a public general hospital in Santiago de Chile between 2010 and 2011. This forms part of a wider line of research that explores the role of spiritual and religious beliefs in the prevention of suicidal risk among women (see the Acknowledgment section). This paper presents the baseline data for a cohort of women that will be randomly assigned to an experimental religious intervention or to treatment as usual in a public psychiatric service in Santiago de Chile.

Method

Subjects

The population under study included 122 inpatients and 22 outpatients who met the criteria for depressive episode or other affective disorders, sequentially admitted to a psychiatric teaching service in a general hospital in Santiago de Chile ("Servicio de Psiquiatría del Hospital del Salvador") with suicidal ideation or attempt between September 2010 and December 2011. Exclusion criteria were substance abuse as principal diagnosis, delirium, or severe medical illness at the moment of intake. All subjects were required to sign an informed consent form (†) to participate in the survey, as required by the institutional review board of the hospital. Psychiatric diagnoses were made by a psychiatrist in training according to the International Classification of Diseases, 10th Edition categories, and reviewed in daily staffing conferences by trained attending psychiatrists in the ward or outpatient clinic. Sociodemographic characteristics were recorded: age, marital and occupational status, and family type (living alone, with parents, with couple and children). The degree and severity of depression were scored with the Beck Depression Inventory in its Spanish-language validation (Beck *et al*., 2006). The global mental health was assessed with Lambert's Outpatient Questionnaire (OQ 45.2) in its Chilean validation (Correa *et al*., 2006). Three subscales (symptoms, interpersonal relationships, and social role) were also recorded. The level of depression and anxiety were also measured with Halstead's sPaCE inventory (Halstead *et al*., 2007) in its Chilean validation by Leiva *et al*. (2010). Impulsivity and aggressiveness were measured with two scales, adapted from the International Study of Suicide Prevention protocol, developed by WHO EURO and adapted in Chile by Bruzzone *et al*. (2006).

Statistical methods

Data were recorded in an Excel spreadsheet (Microsoft Corporation, Redmond, WA, USA) and analyzed with PABCT – SPSS 18.0 statistical package (SPSS, Chicago, IL, USA). Pearson correlations, *t*-tests, chi-square, and other nonparametric tests were used to identify correlated variables. In order to perform logistic regressions, we dichotomized the religious affiliation in believers and nonbelievers. Both groups were compared in terms of demographic and clinical variables by using chi-square analyses for categorical variables, and *t*-tests for continuous variables. Backward stepwise regressions were conducted for the purpose of data reduction. One regression included all demographic variables that differed significantly between religiously affiliated and nonaffiliated individuals as the dependent variable, and suicide attempt as the outcome variable.

Results

The total number of cases that entered into this descriptive study was 144, all women. Their self-reported religious affiliation was Catholicism (59.4%), other Christian (14.7%), or other religions (10.2%). Among the 21 nonbelievers, there were agnostics (2.2%), atheists (1.4%), or without any beliefs (12.1%).

Table 1. Demographic characteristics of depressed women by religious affiliation status

	Depressed patient group				
	Affiliated with a religion (n = 124)		No religious affiliation (n = 22)		
Characteristic	Mean	SD	Mean	SD	Statistical significance
Age	42.5	13.8	39.0	12.2	$t = -1.163$; $P = 0.247$
Education (years)	10.4	4.8	13.8	2.6	$t = 45.621$; $P = 0.0001$
	n	%	n	%	
Married or living together	48	41.4%	5	23.8%	$X^2 = 1.66$; $P = 0.128$
Number children	1.78		1.72		$t = -1.62$; $P = 0.872$
Number couples	0.84		1.24		$t = -1.464$; $P = 0.146$

Table 2. Suicide history and clinical characteristics of depressed women in Santiago de Chile by religious affiliation status

	Depressed patient group				
	Affiliated with a religion (n = 124)		No religious affiliation (n = 22)		
	Mean	SD	Mean	SD	Statistical significance
Number of prior attempts	3.67	3.42	4.62	4.48	$t = -1.352$; $P = 0.178$
Suicide of relatives	1.38	0.51	5.58	18.51	$t = -1.196$; $P = 0.003$
	Mean	SD	Mean	SD	Statistical significance
Beck Depression	28.9	11.19	28	11.35	$t = 1{,}236$; $P = 0.219$
Rage (IRA) Scale	25.2	7.59	23.8	6.0	$t = 0.762$; $P = 0.447$
Impulsivity Scale	36,4	4.3	35.8	2.6	$t = 0.561$; $P = 0.576$
OQ 45.2 intake score	97.64	28.8	89.1	32.4	$t = 1.112$; $P = 0.276$
Symptom subscale	62.11	19.6	56	19.9	$t = 1.31$; $P = 0.192$
Interpersonal relationship subscale	19.11	7.4	18.23	7.6	$t = 0.498$; $P = 0.162$
Social role subscale	16.1	9.6	14.8	7.7	$t = 0.608$; $P = 0.544$
sPaCE global score	44.6	18.5	42.9	14.4	$t = 0.406$; $P = 0.685$
Anxiety subscale	14.8	6.29	13.4	6.29	$t = 0.92$; $P = 0.359$
Depression subscale	13.7	8.56	13.7	6.59	$t = 0.045$; $P = 0.964$

IRA, aggression scale; OQ, Outpatient Questionnaire.

Subjects with no religious affiliation (Tables 1 and 2) had more mean years of education (mean 13.9 years, SD 2.6) than religious subjects (mean 10.4, SD 4.7). There were no differences in the mean scores of Beck Depression Inventory, OQ 45.2 and its subscales, and sPaCE score and its subscales. There were some trends: nonreligious patients had more relatives with history of suicidal attempts, and more lifetime suicide attempts (mean 4.62, SD 4.48) than those with a religious affiliation (mean 3.67, SD 3.42), but this difference did not reach statistical significance. The same was true for the number of couples: nonreligious had a history of more partners (mean 1.24, SD) than religious patients (mean 0.84, SD).

A multiple logistic regression (Table 3) model was developed through a stepwise correlation with the sociodemographic items that had demonstrated a significant difference between believers and nonbelievers. Women treated with a diagnosis of affective disorder and suicidal risk had 7.55 more chances of being nonbelievers if they were employed, if they had more years of education, and if they lived with their parents or alone. On the other hand, they had more chances of being believers if they were housewives, had less years of education, and were married or lived with a partner and their children.

Table 3. Logistic regression: stepwise correlation in suicidal women with affective disorder: role of occupation, family type, years of education

	B	S.E.	Wald	d.f.	Sig.	Exp (B)
Occupation	2.016	0.812	6.169	1	0.013	7.510
Type of family	1–422	0.589	5,833	1	0.016	4.144
Years of education	0.192	0.074	6.781	1	0.009	1.211
Constant	–5.975	1.276	21.921	1	0.000	0.003

Finally, we compared (Table 4) the quartile with the lowest depression in the Beck Scale (n = 35) with the one most depressed (n = 34). There were not significant differences in the scores in the overall religi-

Table 4. Comparison, lower and higher quartile in Beck Depression Inventory, women treated with affective disorder and suicidal risk, Santiago de Chile, 2010–2011

	Lower quartile		Higher quartile			
	Least depressed (n = 35)		Most depressed (n = 34)			
	Mean	SD	Mean	SD	*t*-test	Significance
Religiosity scale†	33.00	9.02	31.76	7.47	0.62	0.537
Frequency of attendance	3.11	1.76	2.88	1.47	0.6	0.55
Self-appraisal of religiosity	2.86	0.944	2.50	1.080	1.46	0.15

†Available by request from the principal author.

osity scale, in the frequency of attendance to temples, and in the self-appraisal of religiosity. There were no differences either in the specific clinical diagnosis (recurrent or persistent depression, bipolar disorder, or depressive episode).

Discussion

Most of the evidence for the protective role of religiosity for suicidal behavior is epidemiological. There are few clinical studies that correlate depression, suicidal risk, and religious affiliation. Dervic *et al*. (2004) did not find relation with scores in Beck Depression Inventory, Hamilton Depression Scale, Life Events Scale, or Global Functioning Scale. They found that religious affiliation was correlated with the number of suicidal attempts, age, education, and the number of couples and children. This study replicates their findings, without differences for severity of depression or other symptoms in the scales we used.

Our results could be biased given the small number of nonbelievers in the sample: in a country where most people label themselves as Christian (mostly Catholics), the 22 patients who did not belong to an established church were not enough to perform statistical tests that require a normal distribution. In fact, most Levene's tests for homogeneity of the variance were nonsignificant. We might need a larger sample of nonbelievers to be compared with believers.

It might be that self-reported affiliation or lack thereof is not the best indicator of religiosity. The definitions of religiosity or spirituality have been a subject of controversy (Hill and Pargament, 2003), and the questions we used were designed for epidemiological, not clinical, surveys. There is a need to explore in-depth the openness to sacred or peak experiences, in comparison to the observance of rituals and belief in the theologies of established religions. The classification used in this research measures the second but not the first realm.

The allegiance to societal and family values increases among religious groups, and in societies with clear attitudes against suicidal behavior, religion can be a protective factor. In this sample, believers tended to remain married, have fewer partners, and were less educated. This can be related to the fact that had less number of suicidal attempts. The trend found in these data confirms the finding of Dervic *et al*. (2004), who thought that moral constraints against suicide was the mediator between severe depression and minor number of attempts among believers. In this sample, the difference existed but did not reach statistical significance. The severity of the depression in this group was higher than in the New York sample of Dervic *et al*. (2004).

The religiosity of mental health practitioners has been studied, finding that psychologists and psychiatrists consider themselves less religious, but not necessarily less spiritual than the general population (Shafranske, 2000). Sperry and Shafranske (2005) have remarked that therapists need to have knowledge of the spiritual and religious history of their patients, and to have cultural sensitivity to those aspects in a positive way. The lack of religiosity of the founder of psychoanalysis, Sigmund Freud, has been related to the antagonism of many clinicians trained in psychoanalytic therapies to inquiry into the beliefs of religious patients. Studies in the US (Shafranske, 2000) have found that psychiatrists and other mental health professionals are less religious than their patients. In a former study with representative samples of Chilean mental health professionals (Florenzano *et al*., 2010), we found that 67% of the psychiatrists, 57.1% of the psychologists, and 37.5% of the psychoanalysts considered themselves believers in comparison to 87% of the general population (Florenzano *et al*., 2010). This issue relates to the type of therapy that is better attuned to the needs of deeply committed individuals: spiritually oriented therapies have been on the rise among evangelical Christians and Islam believers (Worthington *et al*., 1996; Razali *et al*., 1998; Watts, 2000).

In future studies in this line of research, and after finding here that believers and nonbelievers do not differ in their clinical characteristics nor in the severity of depression or other variables when they arrive to treatment, we plan to focus on the impact of an intervention that takes into account those beliefs in comparison to patients who receive "treatment as usual" in a public health setting in Santiago de Chile. We plan also to increase the size of the sample of nonbelievers to ascertain if the lack of differences found in this study was due to the small size of the sample.

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References

Argyle M. (2000) Psychology and Religion: An Introduction. Routledge, London.

Beck A., Steer R., Brown G. (2006) BDI-II: Inventario de Depresión de Beck, 2ª edn. Paidos, Buenos Aires (Spanish Version).

Bruzzone C., Reynal J., Florenzano R., Juegati M., Tolosa P., Tapia A. (2006) Estudio piloto de la aplicación del protocolo SUPRE MISS de la OMS para la evaluación de pacientes suicidas hospitalizados. Rev Chil Neuropsiquiatr. 44(4), 84.

Correa J., Florenzano R., Rojas P., Labra J.F., Del Rio V., Pasten J.A. (2006) El uso del Cuestionario OQ 45.2 como indicador de psicopatología y de mejoría en pacientes psiquiátricos hospitalizados. Rev Chil Neuropsiquiatr. 44(4), 258–262.

Denis J.P., Frachon S. (2009) El Atlas de las Religiones, Le Monde Diplomatique. Capital Intelectual, Buenos Aires.

Dervic K.O., Grunebaum M.A., Ellis M.F., Burke A.S., Mann J. (2004) Religious affiliation and suicidal attempt. Am J Psychiatry. 161(12), 2302–2308.

Durkheim E. (1897) Suicide, 1987 edn. Routledge and Kegan, London.

Florenzano R., Cataldo E., Ojeda H., Taha N., Prado M., Hirmas C. (2010) Religiosity of psychotherapists in Santiago de Chile: results of a survey. Abstract Book, Society for Psychotherapy Research 41st International Meeting, Asilomar, CA.

Halstead J.E., Leach C., Rust J. (2007) The development of a brief distress measure for the evaluation of psychotherapy and counseling (sPaCE). Psychother Res. 17(6), 656–672.

Hill P., Pargament K. (2003) Advances in the conceptualization and measurement of spirituality and religiosity. Am Psychol. 58, 54–74.

Knox K.L., Yeates C., Caine E.D. (2004) If suicide is a mental health problem, what are we doing to prevent it? Am J Public Health. 94(1), 37–45.

Leiva P., Cisternas R., Florenzano R., et al. (2010) Validación en Chile del cuestionario sPaCE. X Congreso Chileno de Psicoterapia, Reñaca, Chile.

Pescosolido B., Georgianna S. (1989) Durkheim, suicide, and religion: toward a network theory of suicide. Am Sociol Rev. 54(1), 33–48.

Razali S.M., Hassanah C.I., Aminah K., Subramaniam M. (1998) Religious– sociocultural psychotherapy in patients with anxiety and depression. Aust N Z J Psychiatry. 32(6), 867–872.

Shafranske E.P. (2000) Religious involvement and professional practices of psychiatrists and other mental health professionals. Psychiatr Ann. 30(8), 525–532.

Sperry L., Shafranske E.P. (2005) Spirituality Oriented Psychotherapy. American Psychological Association, Washington, DC.

Valenzuela E. (2007) Encuesta nacional Bicentenario UC- Adimark: "una mirada al alma de Chile". Pontificia Universidad Católica de Chile, Vicerrectoría de Comunicaciones y Asuntos Públicos, Santiago de Chile.

Vicente B., Rioseco P., Saldivia S., Kohn R., Torres S. (2002) Estudio Chileno de Prevalencia de patología psiquiátrica. Rev Méd Chile. 130, 527–536.

Watts R. (2000) Biblically based Christian spirituality and Adlerian psychotherapy. J Individ Psychol. 56(2), 316–328.

WHO Department of Mental Health (2002) Multisite Intervention Study on Suicidal Behaviours – SUPRE-MISS. WHO, Geneva.

Worthington E., Karasu T., McCullough M., Sandage S. (1996) Empirical research on religion and psychotherapeutic processes and outcomes: a 10 year review and research perspective. Psychol Bull. 119, 448–487.