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Spiritism in Puerto Rico
Results of an Island-Wide Community Study

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Using data from the first community-based, epidemiological survey of Puerto Rico, this paper examines the current prevalence of use of spiritist healers by Puerto Ricans, the role of spiritism in the provision of mental health services, and the association between spiritism and psychiatric disorders and symptoms. Those who visit spiritists were found to be more likely to work outside the home, to have a low family income, to have sought help for emotional problems from mental health professionals, and to have mild symptoms of depression.

Puerto Rico, a Caribbean island state, is a semi-autonomous Commonwealth in association with the USA; it has a population of about three and a half million. The relationship between spiritism in Puerto Rico and the mental health of those who visit spiritists is incompletely understood. The central reason for this has been the methodology used to study the relationship. Previous studies have largely been anthropological, not epidemiological, and have sought to explore specific nuances of the relationship, not to determine the prevalence of disorder among those who visit spiritists. This study extends the small-sample, culturally sensitive research previously done by anthropologists, to a community-based, epidemiological survey of Puerto Rico (Canino *et al*, 1987*b*). This paper examines the current prevalence of use of spiritist healers by Puerto Ricans, the role of spiritism in the provision of mental health services, and the association between spiritism and psychiatric disorders and symptoms.

Spiritism

The information that does exist about spiritism suggests it serves as an important community support system for many Puerto Ricans with mental health problems. But it is first necessary to examine the history and nature of spiritism in Puerto Rico to understand how this might be the case. Spiritism, or *Espiritismo*, was brought to the Caribbean and Latin America in the late 19th century by a Frenchman. The principles of the belief are codified in two books, *The Spirits Book* and *The Gospel According to Spiritism*, which are still widely sold today in shops throughout the region selling herbs and religious goods. The belief was originally adopted by an elite class in Puerto Rico, who founded a charitable movement which established hospitals, libraries, and orphanages. These institutions were replaced by Western ones with the North American occupation of the island in 1898. In Brazil, however, spiritist institutions have flourished and complement a deficient psychiatric system. In the Rio-Jao Paulo area alone there are more than 75 spiritist psychiatric hospitals which integrate medical and spiritist techniques (Richeport, 1980, 1984, 1985*a*).

Spiritism is based on a belief in reincarnation and in the power of certain individuals, such as mediums, to act as intermediaries between this and other-worldly spheres. Spiritists stress the mediating action of 'fluids' on personal well-being. They believe these fluids are spiritual emanations that surround the body and are derived from three sources: the innate spirit, spirits of the dead, and incarnate spirits close to the living. The fluids may be sick or troubled and can be influenced by six phenomena, which can lead to mental or physical illness: (a) karma (situations from former lifetimes that influence the present); (b) inexperienced mediums; (c) religious negligence (failure to perform prescribed rituals); (d) witchcraft; (e) obsession by spirits; and (f) 'evil eye' (Harwood, 1977; Richeport, 1985*b*). Possession trance, an important 'therapeutic' aspect of spiritism in which the medium plays an important role, provides the individual seeking help from a spiritist with a set of alternative roles and a restructuring of learned cognitions; those participating often report experiencing personal and social transformations (Richeport, 1975, 1982, 1985*b*).

Owing to the dominance of the Roman Catholic Church in Puerto Rico, spiritism has always been a secret, though widespread, belief system. Those who have studied spiritism estimate, from clinical samples, that 36–60% of Puerto Ricans, from all socioeconomic groups, have visited a spiritist at some time in their lives (Garrison, 1977; Koss, 1987). From

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ethnographic research, Garrison (1977) estimates that 80% is a more accurate estimate because of the response bias in a culture where spiritism is covert and involvement is denied. A belief in the possibility of communication with spirits is held by an even greater number than those who actually visit spiritists (Richeport, 1975). These findings for Puerto Rico hold also for Puerto Ricans who have emigrated to New York City (Lubchansky *et al*, 1970; Garrison, 1977). In Brazil, where empirical data are not available, researchers estimate that 50% or more of the population use spiritist services and come from all socioeconomic groups (Pressel, 1974; Renshaw, 1974; Guimaraes & Loyola, 1977).

Spiritism and psychiatric disorder

The anthropological and epidemiological studies examining spiritism in Puerto Rico and the psychiatric symptoms of Puerto Ricans suggest a link may exist between the use of spiritists and mental disorder: (a) Puerto Ricans report a greater number of psychiatric symptoms than other North Americans (Srole & Fischer, 1962; Dohrenwend & Dohrenwend, 1969; Garcia, 1974*a*,*b*; Dohrenwend, 1976; Haberman, 1976); (b) those seeking help from spiritists are more likely to suffer from mild or moderate personality and anxiety disorders than others, and among males, those who seek the help of spiritists have been found to be more likely to have problems with alcohol abuse (Garrison, 1977); (c) Puerto Ricans use spiritism as a folk psychotherapy, a network therapy, an outlet for the anxiety due to economic and interpersonal problems, and as a community support system for chronic schizophrenics (Rogler & Hollingshead, 1961, 1965; Harwood, 1977; Garrison, 1978); and (d) epidemiological and anthropological data indicate that those with psychiatric disorders who seek assistance from spiritists do not rely only on spiritists but also use the mental health care system (Richeport, 1975, 1982; Martinez *et al*, 1990).

The data from these studies can be interpreted from either the anthropological or epidemiological perspective. However, since one goal of this paper is to consider the role of spiritism in the delivery of mental health services, we believe we must critically evaluate the methodology of these studies from the epidemiological perspective. To interpret these data from that perspective, there are two major methodological issues that should be considered.

Firstly, number of psychiatric symptoms is not necessarily synonymous with degree of psychopathology. The conclusion typically reached from the fact that Puerto Ricans report a greater number of symptoms has been that Puerto Ricans have a higher rate of mental illness. It has been hypothesised that this difference may be a reflection of the magnitude and rapidity of the social change on the island during the 20th century (Canino *et al*, 1987*b*), which has led to an increasing incidence of mental illness. This would suggest a true difference in prevalence of disorder exists. However, it has also been argued that the difference in number of symptoms may be generated by diagnostic measurement instruments that have never been tested for reliability or cultural validity among Puerto Ricans (Canino *et al*, 1987*b*). In this case the difference would be due to a difference in cultural response patterns and would be an artifact.

A systematic prevalence study of psychiatric disorders among Puerto Ricans, which used a Spanish translation of the Diagnostic Interview Schedule (DIS; Canino *et al*, 1987*a*), provides data to suggest that there is no true difference in the prevalence of mental illness between Puerto Ricans and other North Americans. The study showed that lifetime and six-month prevalence rates for most disorders do not differ significantly from those previously reported in the St Louis, Baltimore, and New Haven Epidemiologic Catchment Area (ECA) sites (Robins *et al*, 1984; Canino *et al*, 1987*b*). Thus, the high rates of psychiatric symptoms reported by previous investigators are likely due to differences in cultural response patterns associated with distress and not to true differences in prevalence of psychiatric disorder. Thus it would be incorrect under any circumstances to conclude from the previously found elevated rate of mild and moderate psychiatric disorder among those who use spiritists that spiritism causes or is even associated with the greater rate of mental disorder in Puerto Rico, since no greater rate exists. (We in no way wish to imply that the anthropological literature makes this conclusion, but we do want to address the likelihood that the casual observer might make it.)

Secondly, for a study such as this one which focuses on the use of mental health services (whether spiritists or mental health professionals), the sampling strategy is very important. Previous studies that have used small, clinical probability or convenience samples are appropriate for in-depth investigation of spiritism but cannot be used for prevalence estimates of mental disorder or service use for the entire Puerto Rican population. However, these anthropological studies have provided the culturally sensitive ethnographic basis for our study.

In this paper, we examine the relationship between spiritism and psychiatric disorders and symptoms, while controlling for other factors, using a community-based sample. The analyses focus on the identification of the sociodemographic, mental health

services, and diagnostic characteristics of those who report using spiritists for mental health reasons.

Method

Data for the analyses come from a two-stage probability sample of all persons aged 17–64 years living in a household in Puerto Rico. Detailed descriptions of the methods and the sample appear elsewhere (Canino *et al*, 1987*b*). Two independent trimester samples were chosen: 777 households in the first trimester and 774 in the second. In the first trimester, only those who had psychiatric symptoms were asked about use of health services. In the second trimester, all respondents were asked these questions. Therefore, since the second trimester sample is representative of the island population and has complete utilisation data, only that half of the overall sample was used in the data analyses.

The sample was further restricted to those respondents who actually answered the questions about use of folk healers; those with data missing on those questions were eliminated. Finally, to obtain as pure a comparison as possible, the sample was restricted to those who said they had consulted a spiritist ($n = 119$) and those who said they had never consulted a folk healer of any type ($n = 534$). There were 30 respondents who reported consulting another type of healer, such as a *santero*. Analyses comparing these 30 with those who consulted a spiritist showed important differences in several demographic characteristics (gender, age, and education), and so they were excluded.

Non-psychiatric variables

Sociodemographic and mental health services and support variables were included as controls in the multivariate analyses so that the independent effect of psychiatric symptoms on use of spiritists could be examined. However, these variables were also included so that a complete characterisation of those who visit spiritists would be possible.

Since several of the categorical variables from the survey had numerous categories, many with fewer than ten persons total, we collapsed categories for analysis. Because spiritism can be viewed as a social support mechanism, categorical variables related to social support (total number of persons in the household, work status, and marital status) were included, but the number of categories for each variable was collapsed. In particular, the work status variable was created by combining those who reported having positions outside the home as one group and those having no outside job as another; for marital status, the divorced and separated were combined. Religion, which has social support as one of its functions, was collapsed into four groups (Roman Catholic, evangelical, other religions, and atheist). Other variables reflecting where people reported seeking support for emotional problems (clergy, friends, more than one source of support) were also included. Finally, the usual demographic data (sex, area of residence, age, education, and annual salary) were included. Age was collapsed into three categories (17–24, 25–39, 40–64), education into two categories, and annual salary into median quartiles.

Psychiatric diagnoses

Psychiatric status was determined through use of the Spanish version of the DIS, which has been validated in both the United States and Puerto Rico (Robins *et al*, 1981; Karno *et al*, 1984; Boyd *et al*, 1984; Burnam *et al*, 1984; Anthony *et al*, 1985; Bravo *et al*, 1987; Canino *et al*, 1987*a*). The Spanish DIS (similar to the DIS used in the five-site ECA study and validated in both clinical and community settings in the US) is a structured diagnostic interview that can be administered by clinicians or lay interviewers. The psychiatric diagnoses used in these analyses are lifetime diagnoses that meet DSM-III criteria (American Psychiatric Association, 1980) and were generated by computer algorithm. Instruments such as the DIS do not identify culture-specific diagnoses such as *'ataques de nervios'*. However, in order to compare the psychiatric symptoms of the Puerto Rican population with that of other populations, which must be one of the primary goals of the science of psychiatric medicine, a standardised instrument is necessary (Sartorius *et al*, 1986).

For the multivariate analysis, many of the specific diagnoses had few cases, and the estimates of the model became unstable. Therefore the diagnoses were collapsed into schizophrenia disorders, affective disorders, anxiety/somatic disorders, and alcohol abuse or dependence.

Psychiatric diagnoses represent a level of disorder rare in the population and are not likely to be sensitive indicators of perceived need for mental health services. Therefore, we also examined the association between presence of psychiatric symptoms and use of spiritists. For each of the major diagnoses, we specified diagnostic 'symptoms': depression, somatisation, alcohol abuse or dependence, obsessive–compulsive disorder, phobia, panic, and schizophrenia. Each symptom variable was dichotomised (present/absent) so the odds ratios of the logistic regression would be interpretable.

For the models, those who sought help from a spiritist were coded 1 and those who did not were coded 0. Thus, odds ratios greater than 1 indicate that those who visited spiritists were more likely than those who did not to have a particular characteristic; odds ratios less than 1 indicate that those who went to spiritists were less likely than the comparison group to have the characteristic.

A caveat in interpreting the results is important. Because we are using estimates of lifetime diagnoses and symptoms and lifetime use of spiritists and mental health professionals, there is no way of knowing if symptoms preceded use of spiritists or mental health professionals, how close in time use followed an individual's recognition of symptoms (if indeed that was the time sequence), how often a source of care was used, or to what degree individuals forgot or concealed use of spiritists or of mental health professionals. Thus, because of the retrospective nature of the data, the results from this study should be considered indicative of trends, not definitive patterns.

TABLE I
Characteristics of Puerto Ricans who used and did not use spiritists

	Used spiritist (n = 119)		*Did not use spiritist (n = 534)*	
	unweighted n	*weighted*[1] %	*unweighted* n	*weighted*[1] %
Sociodemographic				
Sex				
female	76	60.0	287	51.0
male	43	40.0	247	49.0
Age: years				
17–24	19	22.3	125	26.4
25–39	51	35.9	208	36.2
40–64	49	41.8	201	37.4
Area of residence				
rural	31	26.2	197	37.9
urban	88	73.8	337	62.1
Total no. of persons in household				
1	9	3.5	35	2.9
2	31	20.0	103	14.2
3 or 4	41	33.9	231	42.3
5 or 6	30	32.3	126	28.7
7 or more	8	10.3	39	11.8
Educational level				
0–11	47	38.2	280	50.4
12+	72	61.8	254	49.6
Work				
outside home	49	63.6	258	50.8
at home	70	36.4	276	49.2
Annual family salary				
lowest quartile	80	66.3	316	55.3
low–middle quartile	13	11.9	74	14.3
high–middle quartile	13	10.8	72	15.7
highest quartile	13	11.0	72	14.7
Marital status				
married	64	60.5	297	56.2
divorced or separated	22	11.5	55	7.3
widowed	3	1.5	18	2.0
never married	30	26.5	164	34.5
Religion				
catholic	82	67.2	361	67.6
evangelical	19	17.3	79	14.5
other	5	4.0	38	8.0
atheist	13	11.5	56	9.9
Mental health services				
Sought help for emotional problems from:				
MD, psychologist, social worker	112	93.9	453	82.8
clergy	10	7.0	34	6.3
friend	10	6.7	20	3.6
more than one non-professional (clergy, friend, family)	11	9.5	23	4.1
Psychiatric diagnoses				
Schizophrenia and schizophreniform	1	0.4	11	2.7
Affective disorders	16	12.3	45	8.1
depression	9	4.8	26	5.1
dysthymia	9	8.3	30	4.8

(Continued over)

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TABLE I *(continued)*

	Used spiritist (n = 119)		*Did not use spiritist (n = 534)*	
	unweighted n	*weighted*[1] %	*unweighted* n	*weighted*[1] %
Anxiety disorders	22	16.9	66	12.7
phobia	21	16.2	58	11.2
agoraphobia	10	6.5	37	6.9
social phobia	3	2.5	5	1.3
simple phobia	15	10.9	43	7.9
panic	2	1.2	7	1.5
obsessive-compulsive	4	2.0	14	2.8
Somatisation	2	1.4	5	0.9
Alcohol				
abuse	6	5.9	25	4.5
dependence	4	5.1	9	1.8
alcoholism	18	18.9	69	13.4
Psychiatric symptoms				
Any symptoms of				
schizophrenia	9	7.5	41	8.3
*depression	86	72.4	292	53.5
phobia	21	16.2	58	11.1
panic	11	9.5	14	6.2
obsessive-compulsive disorder	4	2.0	32	2.7
*somatisation	108	90.0	420	76.7
alcohol abuse or dependence	30	29.3	119	23.7

*$P<0.05$.

1. The weighted % corrects for the non-random sample design and is based on the age and sex distributions of Puerto Rico in 1980.

Statistical methods

Since the sampling procedure was a complex, two-stage design, ordinary methods of deriving standard errors are inappropriate. Standard statistical packages assume random sampling and can greatly underestimate the variance and overestimate the statistical significance of estimates from a complex sample. Thus the SESUDAAN (Shah, 1981) and RTI Logit (Shah, 1984) programs, which use the Taylor series linearisation method to provide variance estimates, were used to obtain appropriate standard errors for determination of statistical significance. Logistic regression analyses were performed with RTI Logit for two reasons: (a) the effects of each variable can be examined independently, and (b) an analysis of group differences using SESUDAAN to estimate standard errors is extremely conservative. Logistic regression provides 1 d.f. tests for trend, which are more powerful than tests of the null hypothesis in bivariate analyses (Breslow & Day, 1980).

Statistical significance was determined with two-tailed confidence intervals for the bivariate analyses and maximum-likelihood estimates of goodness-of-fit for the logistic regression. The final model was built in stages and was the best, most parsimonious model. All analyses were weighted to the 1980 US Census age and sex distributions of Puerto Rico.

Results

Of the entire population of Puerto Rico, 18% reported they had, at some time in their lives, sought the help of folk healers who identified themselves as spiritists. In the bivariate comparisons in Table I, no significant demographic, health services, or diagnostic differences emerged between those who had sought help from spiritists and those who had not. However, those who sought the help of a spiritist were more likely to have reported symptoms of depression or of somatisation than those who did not seek help from a folk healer.

Table II shows the results of the regression of the sociodemographic and mental health services variables on use of a spiritist (d.f. = 23,102). Two variables emerged as statistically significant. Those who worked outside the home were twice as likely and those who sought help for emotional problems from mental health specialists were almost three times as likely to have visited a spiritist at some time. Because as the number of variables in an equation increases, the number of degrees of freedom decreases (and therefore variables that would have been significant in a model with fewer variables are not), other variables were considered for the final model: gender, educational level, lowest quartile of annual income, and seeking help from friends and from more than one non-professional (see Table III).

The logistic regression model of the major psychiatric disorders (d.f. = 4,102) in Table II shows only one significant difference between those who used spiritists and those who did not: those who reported seeking help from spiritists were significantly less likely to have received a diagnosis of schizophrenia. The model for psychiatric symptoms (d.f. = 8,102) shows that those who visited a spiritist at some time in their lives were almost twice as likely

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TABLE II
Logistic regression models of factors predicting use of spiritists

	Odds ratio	*95% confidence interval*	P
Sociodemographic and mental health services model			
Sex			
male[1]	1.00		
female	1.49	(0.88–2.52)	0.14
Age: years			
17–24	1.00		
25–39	0.99	(0.47–2.08)	0.98
40–64	1.38	(0.60–3.12)	0.44
Area of residence			
urban[1]	1.00		
rural	0.74	(0.41–1.33)	0.31
Total no. of household members			
1	0.97	(0.28–3.30)	0.96
2	1.08	(0.46–2.55)	0.87
3 or 4	0.67	(0.29–1.51)	0.34
5 or 6	0.92	(0.38–2.24)	0.86
7 or more[1]	1.00		
Educational level			
0–11[1]	1.00		
12+	1.55	(0.93–2.59)	0.10
*Work			
at home[1]	1.00		
outside home	2.06	(1.16–3.65)	0.02
Annual family salary			
lowest quartile	1.93	(0.94–3.97)	0.08
low–middle quartile	1.77	(0.64–4.88)	0.27
high–middle quartile	1.06	(0.38–2.98)	0.91
highest quartile[1]	1.00		
Marital status			
married	1.90	(0.42–8.58)	0.40
divorced or separated	2.48	(0.58–10.64)	0.22
never married	1.26	(0.28–5.71)	0.77
widowed[1]	1.00		
Religion			
catholic[1]	1.00		
other	0.54	(0.18–1.58)	0.26
evangelical	1.30	(0.71–2.40)	0.40
atheist	1.38	(0.75–2.55)	0.30
*Sought help for emotional problems from:			
MD, psychologist, social worker	2.93	(1.13–7.60)	0.03
clergy	1.05	(0.46–2.41)	0.90
friend	2.15	(0.80–5.75)	0.13
more than one non-professional (clergy, friend, family)	1.86	(0.85–4.09)	0.12
Psychiatric diagnostic model			
*Schizophrenic disorders	0.09	(0.01–0.74)	0.03
Affective disorders	1.67	(0.71–3.90)	0.24
Anxiety or somatic disorders	1.28	(0.61–2.72)	0.51
Alcohol abuse or dependence	1.56	(0.75–3.22)	0.24
Psychiatric symptoms model			
Schizophrenia	0.64	(0.22–1.81)	0.40
*Depression	1.99	(1.49–2.48)	0.01
Phobia	1.31	(0.63–2.71)	0.48
Panic	1.23	(0.55–2.77)	0.61
Obsessive–compulsive disorder	0.45	(0.13–1.65)	0.23
*Somatisation	2.27	(0.99–5.21)	0.06
Alcohol abuse or dependence	1.22	(0.68–2.17)	0.51

*Significant difference between those using and not using spiritists.
1. Reference category.

TABLE III
Final logistic regression model of factors predicting use of spiritists

	Odds ratio	*95% confidence interval*	P
Work outside home	1.91	(1.24–2.95)	0.01
Annual family salary: lowest quartile	1.61	(1.04–2.50)	0.05
Sought help for emotional problems from: MD, psychologist, social worker	2.78	(1.23–6.31)	0.03
Symptoms: depression	2.09	(1.32–3.30)	0.002

to report symptoms of depression and over two times as likely to report symptoms of somatisation, although the latter is only marginally significant. Again both symptom variables were retained for testing in the final model.

The final model (d.f. = 4,102), including the statistically significant sociodemographic characteristics, mental health services characteristics, and psychiatric symptoms, appears in Table III. Since this is a community sample, it was decided that psychiatric symptoms were a more sensitive and appropriate measure of perceived need for mental health services or support than were psychiatric diagnoses. Therefore, symptoms, not diagnoses, were tested in the model.

The model indicates that those who have visited a spiritist at some time in their lives were 90% more likely to work outside the home, 60% more likely to be in the lowest income quartile, 2.8 times more likely to visit mental health specialists, and 2.1 times as likely to report symptoms of depression as those who had not visited a spiritist.

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Discussion

From this representative, community sample of the entire island of Puerto Rico, two main findings emerge. First, use of spiritists was not found to be associated with increased lifetime risk of diagnosable psychopathology. In fact, those who consulted spiritists were found to be significantly less likely to have a diagnosis of schizophrenia. However, they were more likely to report symptoms of depression, although not at a diagnosable level. Contrary to previous research (Koss, 1987), the presence of somatic complaints was not a significant independent predictor of use of spiritists; controlling for level of income, working status, use of mental health services, and presence of symptoms of depression, those who have never visited a spiritist for emotional problems are just as likely to have somatic complaints as those who have visited a spiritist.

Second, these data add further credence to the anthropological studies which have indicated that spiritism may be used as an important source of social support among Puerto Ricans seeking help for problems with mental disorders and/or psychological distress. Those who went to spiritists were significantly more likely than those who had never gone to spiritists to go to mental health professionals. However, less than a quarter of the population (18%) reported ever having used a spiritist for emotional problems. Thus, even though spiritists seem to provide an additional source of support to those with non-severe emotional problems, spiritists do not appear to be major participants in the treatment of mental health problems in Puerto Rico. Considering the covert pattern of spiritist practices among Puerto Ricans, this statement would obviously need validation with additional research.

Two important weaknesses of this study, which limit the power of the conclusions, must be acknowledged. First, as was stated in the methods section, the diagnoses and symptom counts are lifetime measures, as is the measure of use of spiritists or mental health professionals. This means that use of spiritists may have been independent in time from the presence of psychiatric symptoms. Second, because the study was retrospective, we do not know if those who had not gone to a spiritist would have done so if a crisis were to occur.

Thus it is important for future epidemiological work in this area to be prospective. Research in this area needs to be focused on when and under what circumstances individuals who use spiritists do so and why only a subgroup of these also use the services of professional mental health specialists. Harwood's (1977) research provides a clue as to when the services of a spiritist are sought. He found that those visiting spiritists were likely to be experiencing a life-cycle transition, such as puberty, early marriage difficulties, or menopause. If this and our findings of no serious mental disorder among those visiting spiritists is confirmed in further research, then spiritists could be seen as a valuable asset to the formal mental health care system, since they would appear to serve people without serious mental health disorders and perhaps divert them from excessive use of the professional mental health system.

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