



Preliminary communication

Complementary and alternative medicines usage in bipolar patients from Argentina and Colombia: Associations with satisfaction and adherence to treatment



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ABSTRACT

Background: The use of Complementary and Alternative Medicines (CAM) has been reported by around half the patients undergoing medical treatment for chronic conditions. CAM use could be higher in people affected by bipolar disorders (BD). Some questions about CAM use in BD have not been investigated enough. We report here the results of an anonymous survey on CAM-use conducted among BD outpatients of two centers located in Argentina and Colombia. **Methods:** an anonymous self-survey was administrated to bipolar euthymic outpatients treated at each center. The survey included a self-report measure of adherence to psychiatric treatment and a modified version of CGI to assess satisfaction with the current treatment. **Results:** 200 patients completed the survey. Although samples differ in socio-economic profile, they do not differ in their reported CAM-usage (more than 40%). CAM-usage did not modify the adherence or satisfaction with the psychiatric treatment reported level. Thirty eight percent of those who were still resorting to CAM failed to inform it to their clinician. CAM-usage was rated as “useful” or “very useful” by 52% of patients. **Limits:** adherence to current medical treatment and satisfaction with current treatment were investigated by a self-reported instrument. **Discussion:** the prevalence of CAM usage found is similar to that of other studies. CAM usage seems to be ubiquitous, which takes to posit that a subgroup of patients may be in need of treatment with greater magical-religious components. Half of these patients were reluctant to disclose CAM use. Clinicians may need to consider coexistence between “traditional” treatments and CAM for these patients.

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1. Introduction

Complementary and Alternative Medicines (CAM) are a heterogeneous group of practices which include several medical and health care practices and products that are not an integral part of conventional medicine due to insufficient proof of their safety and effectiveness (Barnes and Ernst, 1997). CAM can include from yoga to a folk medicine provider named “chaman” or a wide variety of potions. Despite our beliefs, recommendations or hopes, medical doctors would need to admit that we share, at least in one-third of cases, our treatments with these non-medical treatments. The use of CAM has been reported by around half the patients

undergoing medical treatment for several chronic conditions, both in developed and in non-developed countries (Eisenberg et al., 1998; Franco and Pecci, 2002; Berenzon and Juárez, 2005; Tindle et al., 2005; Su and Li, 2011). Despite the advances of medicine, the use of CAM is growing. Between 1990 and 2002 usage of CAM among adults in the U.S. increased from 34% to 62% (Pagan and Pauly, 2005). This situation is especially true for psychiatrists. The rates of CAM use could be higher in people affected by psychiatric conditions, specifically depression and anxiety. Eisenberg et al. (2001) found that 41% of people who self-reported severe depression and 43% who reported anxiety had been using CAM in the previous year, a significantly higher rate than the 28% founded in the overall sample. Davidson et al. (1998), using SCID, found that 69% of CAM users met lifetime axis I disorder and 40% for a current axis I diagnosis, most frequently depressive and anxiety disorders. The relationship between CAM use and depressive symptoms may be independent of the illness diagnosis. Depression symptoms correlated positively with recent use of CAM in a sample of women with early stages of breast

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cancer (Burststein et al., 1999). In a study carried out in the general internal medicine program of a university hospital in Buenos Aires, the authors found that 37% of CAM users had been in some time in psychiatric treatment vs. 16% of non CAM users (Franco and Pecci, 2002).

In the last few years a series of works have explored CAM-usage in bipolar patients, including pediatric ones (Bogarapu et al., 2008), finding that close to 40% use these alternative treatments (Kilbourne et al., 2007; Perron et al., 2009; Zeber, 2007). CAM seems used widely among bipolar patients. Contradicting what we might intuitively expect, these studies did not find that the use of CAM was clearly determined by some factor. Perron et al. (2009) did not find a relationship between CAM use and barriers to access conventional treatment among a sample of veterans with bipolar disorders. Although in some studies CAM use was associated with dissatisfaction or complaints with psychiatric treatment (Unützer et al., 2000), new studies have not confirmed this relationship (Kilbourne et al., 2007; Jarman et al., 2010; Perron et al., 2009).

However, some questions about CAM use in bipolar patients remain unexplored. Although CAM can potentially have an impact on treatment compliance (Jarman et al., 2010), it has not been sufficiently investigated. Although some investigations have found ethnic differences in CAM use, little is known about CAM use in bipolar Hispanics who are living and are treated in their own countries (Berenzon and Juárez, 2005; Fang and Schinke, 2007; Kilbourne et al., 2007).

The high rate of CAM-use, its potential interactions with medical treatments and the modifications that it might imply for the patient–doctor relationship, make this an important area of investigation in which an inter-cultural approach could be especially important. We report here the results of an anonymous survey conducted among BD outpatients of two psychiatric centers located in Buenos Aires (Argentina) and Bogota (Colombia) in which we explore the frequency of CAM usage, its associations with social–cultural factors, its relationship with

current medical treatment satisfaction and its impact on treatment compliance.

2. Methods

A self-administered survey, tailored for this study, was administered to the first 100 bipolar euthymic outpatients available at each center to participate in the study. Argentina's sample was collected from the Bipolar Disorder Program of Favaloro University, a private university which assists middle-class patients in Buenos Aires. The Colombian sample was recruited from two general psychiatry practices from the department of psychiatry at Javeriana University, a private university which assists patients from low-medium classes of life in Bogota city.

The inclusion criteria were (a) patients had to be in outpatient treatment in these institutions for a period of not less than 6 months; (b) diagnosis of bipolar disorder type I or II according to DSM-IV by Structured Clinical Interview for DSM-IV (SCID) (First et al., 1996); (c) being euthymic (CGI Mania and CGI Bipolar Depression < 2 points); and (d) age between 18 and 65 years old. Exclusion criteria were (a) substance abuse or dependence within 12 months prior to entry; (b) other co morbid diagnosis for Axis I with exception to General Anxiety Disorder; and (c) presenting an impediment to complete the survey properly without help.

The survey included a list of most prevalent CAMs used in our countries. A self-report measure of adherence to psychiatric treatment (Graphic 1) and a modified version of CGI to self-assess the level of satisfaction with current psychiatric treatment were included (Graphic 2). In previous studies a high percentage of patients informed that they were reluctant to report CAM-usage to their clinicians. Because of that, we have increased the anonymity conditions of the study. Participants were instructed to complete the survey alone, although encouraged to request assistance from the investigator if deemed necessary. After completion, each survey was placed in a ballot box which was

Self-Reported Level of Treatment Compliance

1	Good treatment compliance	Takes regularly the indicated treatment at prescribed dose. Infrequent oversights (i.e. forgets one medicine dose in two weeks period).
2	Partial treatment compliance	Takes regularly the indicated treatment but forgets a dose often (i.e. at least, once a week) and/or changes any medication dose by accident or deliberately.
3	Poor treatment compliance	Takes the prescribed drugs irregularly, does not follow physician indications, frequent oversights some prescription dose.
4	Treatment Non - compliance	Does not follow any prescribed treatment or physician indication.

Graphic 1. Self-reported level of treatment compliance.

Self-reported CGI

Taking into account your personal experience as patient: how much better do you feel with the current treatment you receive at this Hospital?

- | | |
|-----------------------|----------------------|
| 1 ___ far better | 5 ___ slightly worse |
| 2 ___ much better | 6 ___ much worse |
| 3 ___ slightly better | 7 ___ far worse |

Graphic 2. Self-reported CGI.

only opened when the sample recollection was completed. All participants consented their participation by signing an informed consent which was collected independently from the survey. This study was approved by the ethical committees of both institutions.

Data analysis included descriptive statistics as well as Chi Square and *t*-tests for comparisons.

3. Results

Two hundred participants completed the survey, 100 in each center. Samples did not differ significantly in demographic characteristics but differed in socio-economic features (Table 1). Patients from Buenos Aires had a higher number of years of education and higher rates of singles or divorcees. Although 83% reported to commune with some kind of religion without differences between centers (85% Colombia vs. 77% Argentina; $\chi^2=5.68$, $df=1$; N.S.) a smaller percentage of Argentinians reported being Catholic, (59.37% vs. 68%; $\chi^2=17.4$; $df=1$; $P<0.001$). Sixty-four percent of the total sample reported being fully-employed, 6% were students, 23% unemployed and 11% retirees, but a significantly higher percentage of respondents were fully employed in the Argentinean sample (73.46% vs. 46%; $\chi^2=16.3$; $P=0.001$). Although we did not find differences between participant centers in reported illness history, some differences were found in treatment profile; Argentinean patients reported taking a higher number of different medicines and a higher percentage of them reported being in psychological treatment. Moreover, higher levels of adherence and satisfaction with current psychiatric treatment were reported by Argentinean patients (Table 1).

Thirty-six point two percent of the sample resorted to CAM prior to their first contact with the healthcare system (HS) and 46.7% had used it concurrently with psychiatric treatment, 36% taking oral potions. Thirty-four percent were still using CAM (Table 2). Reported CAM-usage (prior or concurrent) in general did not differ between the two centers but a higher percentage of

Colombian patients reported having used oral potions (Table 2). A significantly higher percentage of patients who have reported being psycho-educated, still used CAM (54% vs. 46%; $df=1$; Fischer's exact test, $P=0.016$).

CAM users and non users did not differ in gender, age, education level, religion, or level of satisfaction with the current psychiatric treatment. Furthermore, no difference in history of illness was found between CAM users and CAM non users. CAM-usage, prior or concomitant, did not modify the adherence level reported (Table 3). Forty six percent of those who first resorted to CAM considered this fact may have delayed consultation to the HS but this was not confirmed by the number of years between reported age at symptoms' start and the reported age to first contact HS (Table 3). Of those who in the past had used CAM concurrent to psychiatric treatment, 48% did not inform their treating physician. A significantly higher percentage of men (65.4% vs. 41%; $\chi^2=4.34$; $df=1$; $P=0.032$) and patients treated in the Colombian center (see Table 2) did not inform usage of CAM. Thirty eight point five percent of those who still were resorting to CAM failed to inform it. Having disclosed or not the use of CAM does not correlate with the level of adherence reported and to having received psycho-education. The most reported cause of not informing the use of CAM was the fear that this practice was prohibited by the clinician (32% of those who did not inform their doctor of the use of CAM).

Concurrent use of CAM was rated as "useful" or "very useful" by 52% of patients. Yoga, particularly, was rated as "useful" by 26% and "very useful" by 47.5% of patients. The main reason reported for CAM use was looking for relief from the illness

4. Discussion

We found that at least one out of three bipolar patients undergoing treatment in the participant centers had resorted to CAM prior to their first contact with the HS and almost half of them did so concurrently with psychiatric treatment. The prevalence of CAM usage found in this work is similar to that of other

Table 1
Demographics and history of the disease among centers.

	Total	Argentina	Colombia	Arg. vs. Col.
Age (years)	44.54 ± 13.87	43.58 ± 12.68	45.5 ± 14.97	$t=0.983$; $df=198$; N.S.
Females	69.5	73	66	$\chi^2=1.5$; $df=1$; N.S.
Years of education*	13.74 ± 3.34	14.3 ± 2.35	13.17 ± 4.03	$t=2.41$; $df=198$; $P=0.006$
Age (years) at symptoms start	25.98 ± 12.83	25.31 ± 12.62	26.64 ± 13.07	$t=0.723$; $df=198$; N.S.
Age (years) at 1 contact	29.37 ± 12.92	29.05 ± 12.8	29.68 ± 13.09	$t=0.33$; $df=195$; N.S.
Pharmacological treatment	100%	100%	100%	–
Psychological treatment*	46.5%	63%	30%	$\chi^2=16.36$; $df=1$; $P<0.001$
Psycho-education	19.5%	16%	23%	$\chi^2=1.5$; $df=1$; N.S.
No. of medicines*	2.91 ± 1.36	3.36 ± 1.36	2.68 ± 1.38	$t=3.51$; $df=196$; $P=0.001$
Level of treatment compliance reported*	3.62 ± 0.741	3.89 ± 0.314	3.35 ± 0.925	$t=-5.52$; $df=198$; $P<0.001$
CGI (self-reported)*	1.65 ± 0.88	1.42 ± 0.8	1.89 ± 0.9	$t=3.63$; $df=178$; $P<0.001$

* $P<0.005$.

Table 2
CAM-use in Argentina and Colombia Sample; differences between centers.

	Total	Argentina	Colombia	Arg vs. Col
CAM contact before first contact with health system	36.2%	34.34%	38%	$\chi^2=0.29$; $df=1$; N.S.
Do you consider the previous use of CAM may have delayed consultation to the HS? (Yes)	45.9%	50%	42.42%	$\chi^2=0.350$; $df=1$; N.S.
CAM treatment at the concomitantly to psychiatric treatment	46.7%	40.81%	52.52%	$\chi^2=2.71$; $df=1$; N.S.
Did you take some oral potion? (Yes)	36%	22.72%	45.90%	$\chi^2=5.94$; $df=1$; $P=0.015$
Still using CAM (Yes)	34.2%	30%	36%	$\chi^2=7.41$; $df=1$; N.S.
Did you still taking oral potions? (Yes)	21.4%	25%	20%	$\chi^2=0.225$; $df=1$; N.S.
Did you comment the CAM use to your psychiatrist? (Yes)	51.7%	72.97%	36%	$\chi^2=11.64$; $df=1$; $P=0.001$

Table 3
Demographics and history of the disease among users and nonusers of CAM.

	Prior use of CAM			Concomitant CAM use		
	Yes N=73 (36%)	No N=127 (63.5%)		Yes N=94 (47%)	No N=106 (53%)	
Age (years)	44.2 ± 13.9	44.85 ± 13.8	$t = -0.306$; $df = 197$; N.S.	43.5 ± 13.09	45.36 ± 14.32	$t = -0.95$; $df = 196$; N.S.
Females	36%	64%	Fischer's exact test; $df = 1$; N.S.	45.5%	55.5%	$\chi^2 = 0.172$; $df = 1$; N.S.
Years of education	13.72 ± 3.5	13.72 ± 3.25	$t = -0.004$; $df = 197$; N.S.	14.02 ± 3.16	13.48 ± 3.5	$t = 1.13$; $df = 196$; N.S.
Married (yes)	38%	62%	$\chi^2 = 0.369$; $df = 1$; N.S.	41.7%	58.3%	$\chi^2 = 2.46$; $df = 1$; N.S.
Unemployed	28.8%	71.1%	$\chi^2 = 1.47$; $df = 1$; N.S.	44.44%	55.56%	$\chi^2 = 0.146$; $df = 1$; N.S.
Reported profess any religion	37%	63%	$\chi^2 = 0.54$; $df = 1$; N.S.	50.3%	49.7%	$\chi^2 = 3.16$; $df = 1$; N.S.
Psychological treatment (yes)	35%	65%	$\chi^2 = 0.145$; $df = 1$; N.S.	45%	55%	$\chi^2 = 0.135$; $df = 1$; N.S.
Psycho-education (yes)	41%	59%	$\chi^2 = 0.493$; $df = 1$; N.S.	51.3%	48.7%	$\chi^2 = 0.453$; $df = 1$; N.S.
Number of medicines	3.18 ± 1.45	2.93 ± 1.35	$t = -1.23$; $df = 195$; N.S.	3.02 ± 1.5	3 ± 1.33	$t = -0.109$; $df = 196$; N.S.
Level of compliance self-reported	3.56 ± 0.76	3.65 ± 0.72	$t = -0.89$; $df = 197$; N.S.	3.6 ± 0.78	3.63 ± 0.7	$t = -0.32$; $df = 176$; N.S.
Self reported CGI Score	1.66 ± 0.82	1.65 ± 0.91	$t = -0.07$; $df = 178$; N.S.	1.64 ± 0.8	1.67 ± 0.94	$t = -0.23$; $df = 176$; N.S.
Age (years) at symptoms start	25.8 ± 14.3	26.1 ± 12.06	$t = -0.152$; $df = 193$; N.S.	25.6 ± 13.22	26.35 ± 12.6	$t = -0.37$; $df = 192$; N.S.
Age (years) at first episode	28.6 ± 13.57	29.85 ± 12.6	$t = 0.632$; $df = 194$; N.S.	28.23 ± 13.1	30.51 ± 12.7	$t = -1.22$; $df = 193$; N.S.
Age (years) at first contact with HS	29.4 ± 13.9	29.29 ± 12.5	$t = -0.088$; $df = 194$; N.S.	27.65 ± 13.2	30.9 ± 12.7	$t = 1.74$; $df = 193$; $P = 0.083$
Time between bipolar-symptoms start and first contact to HS (years)*	3.57 ± 7.88	2.97 ± 7.9	$t = -0.508$; $df = 191$; N.S.	1.84 ± 5	4.4 ± 9.6	$t = 2.26$; $df = 190$; $P = 0.025$
Percentage of patients with a diagnostic delay > 1 year	60.5%	57.6%	$\chi^2 = 0.164$; $df = 1$; N.S.	62.9%	55.2%	$\chi^2 = 1.17$; $df = 1$; N.S.
Use of CAM before first contact to HS*	-	-	-	58%	42%	$\chi^2 = 6.729$; $df = 1$; $P = 0.012$

* $P < 0.005$.

studies in both psychiatric and non-psychiatric patients, carried out in developed and non-developed countries (Jarman et al., 2010; Kilbourne et al., 2007; Perron et al., 2009; Unützer et al., 2000; Franco and Pecci, 2002; Russinova et al., 2002). Like in previous works, no demographic or historiographical variable, including level of education and religion, was associated to prior or concurrent usage of CAM. More than half reported having used CAM looking forward to reducing suffering due to illness and half of them considered it useful or very useful.

Having used CAM previous to the first contact with HS does not modify the time from reported initiation of bipolar symptomatology to the first consult with a health professional due to this cause. Although previous data have suggested that CAM use could be related to dissatisfaction with psychiatric treatment (Eisenberg et al., 2001; Astin, 1999), in this work CAM usage was not related to the level of satisfaction to current psychiatric treatment reported, which agrees with other works specifically designed for bipolar patients (Jarman et al., 2010; Kilbourne et al., 2007). According to this finding, we did not find that CAM was associated to the self-reported level of adherence to concurrent medical treatment, which agrees with other works (Kilbourne et al., 2007; Jarman et al., 2010). However, a significant percentage of those who had reported using CAM reported being reluctant to inform their psychiatrist about it. Moreover, 38.5% of those who were still resorting to CAM failed to inform it, which potentially represents a barrier in therapeutic relationship and implies potentially dangerous drug interactions when oral CAM is used. The percentage of patients who have not disclosed CAM use to their doctor was significantly high among males and in the Colombian sample but we did not find any explanation for these differences.

Some limitations of this work should be taken into account to interpret this data. First, adherence to current medical treatment was investigated by a self-reported instrument developed for this study. However, the results found are similar to other studies in which compliance was the main aim (Colom et al., 2000). In the same way, satisfaction with current treatment was explored using a self-report adaptation of CGI, which sets aside other aspects

such as interpersonal relationship with doctors, satisfaction with institutions, medical costs, etc.

To our knowledge, this is the first study conducted outside the United States about CAM usage in bipolar patients. Both the frequency of use and the lack of association of CAM use with socio-demographic variables, complaints regarding psychiatric treatment and psychiatric treatment adherence which we have found in this work, are consistent with the results of previous studies. Likewise, CAM use was similar in these two samples although they were extracted from two different countries and from two medical centers with different socio-cultural profiles in their attendance.

CAM usage seems to be ubiquitous. This regularity in the data regarding the use of CAM takes to posit that a subgroup of patients may be in need of treatments with greater suggestion, spiritual or magical-religious components, independently of their opinion on current psychiatric treatment and socio-cultural background. Moreover, in this work like in others, most of those who reported CAM-usage considered it "useful" and this data shows that being exposed to psycho-education has not discouraged these patients from using CAM. Only when CAM was used previous to first-contact to HS was it related to a low-adherence to psychiatric treatment at the moment of this survey. May be, this represents a subgroup of patients with previous and persistent disagreements with medical treatment. Finally, although this work and others show that CAM usage is more a reality than an exception in bipolar patients, half of these patients were reluctant to disclose CAM use fearing a prohibition to continued use. This reported fear should encourage psychiatrists to openly discuss this issue regarding the risks which this break in patient-doctor communication implies. More research in CAM use is needed and qualitative approaches should be considered to understanding reasons for using CAM. Meanwhile, present clinicians may need to consider an intelligent coexistence between "traditional" treatments and other alternative medical approaches for those with challenging fears and prohibitions, insisting on making use of the latter.

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Conflict of interest

No conflict declared.

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