

P158 Southwest Hispanic Concerns in Drug Abuse

## Towards Designing More Efficacious Drug Abuse Treatment Interventions

Felipe González Castro, M.S.W., Ph.D.  
Department of Psychology  
Arizona State University  
Felipe.Castro@asu.edu

Presentation at the Conference on Blending Science and Practice, Albuquerque, NM,  
April 23, 2010.

### Acknowledgement




- \* We greatly appreciate funding support for this study from the **Southwest Interdisciplinary Research Center**, Flavio Marsiglia, Principal Investigator
- \* We also thank the Arizona State University **College of Liberal Arts and Sciences** for their support.

### Acknowledgement



- \* We greatly appreciate and thank **Chicanos Por la Causa** for their many forms of aid and collaboration in the conduct of this study.
- \* We also thank the administration and staff of the **Corazón** program:
  - \* **Pedro Cons**
  - \* **Rolando Moreno**
  - \* **Dottie O'Connell**
  - \* **Christina Perez**
- \* With special thanks to
  - \* **Domingo Rodriguez**
- \* And in memory of
  - \* **Lupe Quinteros**


I



## Overview of General Issues

### Research Question

- \* What **factors** or **variables** from specific **treatment-related** and **sociocultural domains** are associated with **perceived treatment effectiveness**, as evaluated by **addicted drug users** who are in treatment?
- \* What aspects of the **treatment process** are associated with **best treatment**, as evaluated by those undergoing this treatment?




### Rationale

- \* A **four-domain model** of the **determinants of recovery** from **illegal drug use** was examined by **systematically asking those in treatment**.
- \* These factors by **ethnic/racial background**, were examined for a **total sample** of clients, and also separately for **Latino/Hispanic clients** and for **White American clients**.
- \* This is an **evidence-based multiple regression model analysis** to translate **clinical data** into **outcomes** that **inform the design** of more **culturally-relevant drug abuse treatment interventions**.

**Significance**

- \* The analysis of factors associated with **better drug treatment outcomes** aids in understanding “**what works**” in **drug abuse treatment**, and can aid in the design of **more efficacious treatments**.
- \* For **Latinos/Hispanics**, it is important to examine the potential effects of **cultural factors** (Castro & Hernandez-Alarcon, 2002), as potential additional sources of **treatment effectiveness**, given that this has not been a focus of prior drug abuse treatment research.



Castro, F. G. & Hernandez-Alarcon, E. (2002). Integrating cultural factors into drug abuse prevention and treatment with racial/ethnic minorities. *Journal of Drug Issues*, 32 (3), 783-810.

**Approach**

1. In-depth “**Your Life Journey**” interviews were conducted with 216 clients from the **Corazón Drug Treatment Program**, a program of **Chicanos Por la Causa**
2. This study was approved by the ASU IRB
3. Clients were invited to participate prior to their discharge, whether or not completing the full **30-day program**
4. **Refusal rate** was less than 3%
5. **Interviews duration** was from 2 ½ to 3 ½ hours
6. **Participants were paid \$25** for their participation

The Corazón Drug & Alcohol Abuse Treatment Program

- \* The **Corazón** program is a Level 2 behavioral health adult residential alcohol and drug abuse counseling and treatment program.
- \* **Corazón** offers an “**integrated client-centered cognitive-behavioral, culturally-responsive (traditional healing) and evidence-based approach to drug abuse treatment.**”



The Corazón Drug & Alcohol Abuse Treatment Program

- \* Corazon acknowledges the impact of **acculturation** changes and **language barriers** as sources of **cultural conflicts** and the need to adjust to **dominant culture social views**.
- \* Corazon offers: **motivational interviewing, individual sessions, family counseling, group sessions.**
- \* Treatment components include: **drug education, values clarification, talking circles, goal setting, lifestyle changes, art therapy, stages of change, alternative healing practices, relapse prevention training and access to fellowship in self-help groups.**

II



## Factors in Drug Abuse Treatment Effectiveness

Principles of Drug Addiction Treatment

1. **No single treatment is appropriate for all individuals:** importance of **client-treatment matching** (National Institute on Drug Abuse, 1999)
2. **Treatment needs be readily available** - Delay in treatment yields loss of clients
3. **Effective treatment attends to multiple needs, not just drug use** - Address **medical, psychological, social, vocational, legal**, other needs

National Institute on Drug Abuse. (1999). *Principles of drug addiction treatment: A research-based guide*. NIH Publication No. 99-4180. Rockville, MD: National Institute on Drug Abuse.

Principles of Drug Addiction Treatment

- Continuous assessment and modification of treatment plan** - Best to **monitor changing needs** and responding accordingly
- Remaining in treatment for adequate time is crucial to success** - Need **retain clients** in **treatment** for at least 3 months
- Counseling and behavioral therapies are crucial components** - Address **motivation, skill building, problem solving, etc.**

National Institute on Drug Abuse. (1999). *Principles of drug addiction treatment: A research-based guide*. NIH Publication No. 99-4180. Rockville, MD: National Institute on Drug Abuse.

Principles of Drug Addiction Treatment

- Medications are important components of treatment** - Medications to reduce **cravings, or psychotropic medications** are important
- Integrated treatment is needed for comorbidity clients** - for clients suffering from both a **major psychiatric disorder** and **substance abuse**

National Institute on Drug Abuse. (1999). *Principles of drug addiction treatment: A research-based guide*. NIH Publication No. 99-4180. Rockville, MD: National Institute on Drug Abuse.

Principles of Drug Addiction Treatment

- Medical detox is important first step** - Is not enough by itself
- Treatment need not be voluntary to be effective** - Family, employment, legal and other **sanctions** aid in treatment

(National Institute on Drug Abuse, 1999)


National Institute on Drug Abuse. (1999). *Principles of drug addiction treatment: A research-based guide*. NIH Publication No. 99-4180. Rockville, MD: National Institute on Drug Abuse.

Principles of Drug Addiction Treatment

- Illicit drug use during treatment must be detected** - use **urinalysis** or other methods, with **feedback of positive drug screening results** to client
- Provide assessment of diseases - HIV/AIDS, hepatitis B or C, TB, etc.,** to reduce high risk behaviors
- Multiple episodes of treatment likely - Relapse will occur; relapse prevention training** is helpful

National Institute on Drug Abuse. (1999). *Principles of drug addiction treatment: A research-based guide*. NIH Publication No. 99-4180. Rockville, MD: National Institute on Drug Abuse.

Principles of Drug Addiction Treatment



- Among **NIDA's 13 Principles of Drug Addiction Treatment**, **none** addresses **cultural factors** as important in drug abuse treatment with **racial/ethnic clients** (Castro, Nichols & Kater, 2007).
- Important to conceptualize the **role of cultural factors** and, from the beginning, **design these into a study**, whether for **prevention** or **treatment** programs for **racial/ethnic minority populations**
  - Includes developing **specific aims** and **hypotheses** that examine the effects of such cultural variables.

Castro, F. G., Nichols, E., & Kater, K. (2007). Relapse prevention with Hispanic and other racial/ethnic populations: Can cultural resilience promote prevention? In K. Witkiewitz & B. Alan Marlatt (Eds.), *Therapist's guide to evidence-based relapse prevention*. Boston, MA: Academic Press.

Important Cultural Variables for Racial/Ethnic People

Cultural Variables	Description
* <b>Acculturation</b>	Belief and behavior that conforms to mainstream U.S. American values, beliefs, behaviors, ways of life
* <b>Afrocentricity</b>	Cultural orientation and pride towards being African American
* <b>Biculturalism</b>	A capacity to function within two distinct cultures based on the acquisition of the norms, values and behavioral routines of the dominant culture as well as those of one's own cultural group
* <b>"Cultural Flex"</b>	Capacity to function effectively and to "shuttle" adaptively between two cultures
* <b>Enculturation</b>	An orientation towards a learning about one's ethnic culture
* <b>Ethnic Identity</b>	Personal identification with one's ethnic cultural group or group of origin
* <b>Ethnic Pride</b>	Positive feelings of towards one's own ethnic group; pride in belonging to the group



Castro, F. G. & Hernandez-Alarcon, E. (2002). Integrating cultural variables into drug abuse prevention and treatment with racial/ethnic minorities. *Journal of Drug Issues*, 32, 783-810.

**Important Cultural Variables for Racial/Ethnic People**


Cultural Variables	Description
* <b>Field Independence</b>	A "self-oriented" preference or style in ways of thinking and in ways of approaching work and tasks
* <b>Field Sensitivity</b>	An "others oriented" preference or style in ways of thinking and ways of relating to others
* <b>Machismo</b>	A traditional Latino gender role orientation that accepts male dominance as a proper form of male conduct
* <b>Marianismo</b>	A traditional Latino female role orientation that accepts motherly nurturance and the demure and pure identity of a virgin (Virgin Mary) as a proper form of female conduct
* <b>Modernism</b>	An emphasis on accepting change and modern beliefs and behaviors as better and preferred ways to live one's life
* <b>Spirituality</b>	A belief in a higher source of strength and well being, and a related appreciation for natural and beneficial aspects of the world
* <b>Traditionalism</b>	An emphasis and value of cultural beliefs and behaviors, customs and traditions as the correct and preferred ways to live one's life

Castro, F. G. & Hernandez-Alarcon, E. (2002). Integrating cultural variables into drug abuse prevention and treatment with racial/ethnic minorities. *Journal of Drug Issues*, 32, 783-810.

**Methodology of the Corazon Study**





**Guiding Four-Domain Model**



- Background Factors** (Control Variables)
- Treatment-Related Factors**
  - \* Days in Treatment
  - \* Prior Treatment Programs
- Cultural Factors**
  - \* Level of Acculturation
  - \* Family Traditionalism
  - \* American Culture Motivation
  - \* Latino Culture Motivation
  - \* Positive Machismo Behaviors
  - \* Negative Machismo Behaviors
- Drug Use Identity Factors**
  - \* Addict Identity
  - \* Recovering Addict Identity
  - \* Pro-Social Identity

**Interview Protocol**




- \* **Integrative Mixed-Methods Methodology**
  - \* A concurrent mixed-methods design (Castro & Coe, 2007)

- Qualitative Audio-Recorded Focus Question Interview**
  - \* Issues of ethnic and familial identity
  - \* Resilience in coping with difficult life problem
- Quantitative Structured Interview - "Your Life Journey"**
  - \* A total of 17 sections including: family history, cultural beliefs, attitudes, practices, macho behaviors, drug use history, health-related behaviors, resilience scale


Castro, F. G., & Coe, K. (2007). Traditions and alcohol use: A mixed-methods analysis. *Cultural Diversity and Ethnic Minority Psychology*, 13 (4), 269-284.

**Table 1. Sample Characteristics**

Variable	Frequency	Percent
<b>Ethnicity</b>		
1. White Americans	85	39.4
2. Hispanics/Latinos	60	27.8
3. Mexican Americans	39	18.1
4. African Americans	13	6.0
5. Other	19	8.8
<b>Education</b>		
* 1 <sup>st</sup> to 8 <sup>th</sup> Grade	13	6.0
* 9 <sup>th</sup> to 11 <sup>th</sup> Grade	60	27.8
* Completed 12 <sup>th</sup> or GED	66	30.6
* Some College	61	28.2
* Completed College	16	7.4
<b>Income</b>		
1. \$ 0 to \$ 7,999	46	21.3
2. \$ 8,000 to \$14,999	39	18.1
3. \$ 15,000 to 24,999	39	18.1
4. \$ 25,000 to 39,999	44	20.4
5. \$ 40,000 to 74,999	34	15.7
6. \$ over \$ 75,000	14	6.5



**Table 1. Sample Characteristics**



	Mean	SD	Min	Max
Age	35.81	8.79	18	69
Days in Treatment	22.51	6.97	3	31
Prior Treatment Programs	1.44	1.31	0	4
Level of Acculturation	3.58	0.92	1.00	5.00
Family Traditionalism	4.14	0.44	1.83	5.00
American Cultural Motivation	3.91	0.49	2.56	5.00
Latino Cultural Motivation	3.87	0.56	2.50	5.00
Positive Machismo Behaviors	3.23	0.61	1.02	4.77
Negative Machismo Behaviors	2.02	0.57	1.00	3.86
Addict Identity	3.97	0.77	1.43	5.00
Recovering Addict Identity	3.44	0.86	1.20	5.00
Pro-Social Identity	4.23	0.45	2.89	5.00

**Table 2. Outcome Measure Indicators**

Question	Frequency	Percent
<b>* How has Corazón changed your way of thinking about drug/alcohol use?</b>		
1. Not at all	3	1.4
2. A little	5	2.3
3. Somewhat	28	13.0
4. Very much	96	44.4
5. The most	84	38.9
<b>* How helpful has the Corazón program been for you?</b>		
1. Not at all	0	0
2. A little	2	0.9
3. Somewhat	22	10.2
4. Very much	108	50.0
5. The most	84	38.9
<b>* How much do you like the Corazón program?</b>		
1. Not at all	1	0.5
2. A little	11	5.1
3. Somewhat	35	16.2
4. Very much	86	39.8
5. The most	83	38.4

**Table 3. Scales & Measures**

Domain Scale or Measure	Items	Alpha	Range	Comment
Outcome				
* Perceived Treatment Effectiveness	3	.66	1= Not at all; 5= The most	
1. Background Factors				
* Age	1	--		
* Education	1	--		1= 8 <sup>th</sup> Grade or Less; 5= Completed College
* Income	1	--		1= 0 - \$7,999; 6= over \$75,000
2. Treatment-Related Factors				
* Days in Treatment	1	--	7 - 31	Lowest value is 7 days, and maximum is 31 days
* Prior Treatment Programs	1	--		0= None; 4= 4 or more Number of prior drug abuse treatment programs attended

**Table 3. Scales & Measures**

Domain Scale or Measure	Items	Alpha	Range	Comment
3. Cultural Variables				
* Level of Acculturation	5	.83	1= Lowest; 5= Highest	American-Latino dimension that examines: language, friends, neighbors media use.
* Family Traditionalism	8	.77	1= Strongly disagree; 5= Strongly agree	We should not change our customs and traditions as they contain the wisdom of generations of our forefathers.
* American Culture Motivation	12	.85	Likes: 1= Dislike a lot; 5= Like a lot Wants: 1= Not at all; 5= Want very much	I LIKE having many White American friends; I WANT to be friendly and loyal to the United States
* Latino Culture Motivation	12	.84	Likes: 1= Dislike a lot; 5= Like a lot Wants: 1= Not at all; 5= Want very much	I LIKE having many friends who are Latinos or from other cultures; I WANT to improve my relationships with Mexicans / other Latino people.
* Positive Macho Behaviors	13	.76	1= Never; 5= Always	Fulfilled a promise that you made to a loved one.
* Negative Macho Behaviors	14	.81	1= Never; 5= Always	Told your partner to change her outfit when you didn't like what she was wearing.

**Table 3. Scales & Measures**

Domain Scale or Measure	Items	Alpha	Range	Comment
4. Addict Identity Factor				
* Addict Identity	6	.81	1= Strongly Disagree; 5= Strongly Agree	I am and will always be an addict / alcoholic.
* Recovering Addict Identity	8	.87	1= Strongly Disagree; 5= Strongly Agree	I am now cured of addiction; I am now a "normal" person, free of vices.
* Pro-Social Identity	7	.68	1= Strongly Disagree; 5= Strongly Agree	I try to do what society says is right.

IV

# Results

**Table 4. Screening Correlations**

Variable	Total Sample	White Americans	Latinos/Hispanics
	Perceived Treatment Effectiveness (n = 216)	Perceived Treatment Effectiveness (n = 85)	Perceived Treatment Effectiveness (n = 99)
* Age	-.086	-.130	-.132
* Level of Education	-.113	-.022	-.111
* Income	.053	.214 *	-.003
* Days in Treatment	.232 **	.335 **	.195 +
* Prior Programs	-.195 **	-.128	-.274 **
* Level of Acculturation	-.262 **	-.115	-.282 **
* Family Traditionalism	.190 **	.119	.192 +
* American Culture Motivation	.090	.065	.116
* Latino Culture Motivation	.247 ***	.200 +	.295 **
* Positive Macho Behaviors	.250 ***	.279 **	.219 *
* Negative Macho Behaviors	.179 **	.180 +	.073
* Addict Identity	.202 **	.181 +	.234 *
* Recovering Addict Identity	.069	.040	.121
* Pro-Social Identity	.148 *	.195 +	.076

+ p < .10. \* p < .05. \*\* p < .01. \*\*\* p < .001.

Table 5. Regression Model: Total Sample

Predictors	Total Sample		
	$\Delta R^2$	$\Delta F$	Final $\beta$
<b>Step 1 - TREATMENT FACTORS</b>	.086	10.01***	
* Days in Treatment			.228***
* Prior Programs			-.058
<b>Step 2 - CULTURAL FACTORS</b>	.127	6.74***	
* Acculturation			-.194*
* Family Traditionalism			.034
* Latino Orientation			.082
* Positive Macho Behaviors			.191**
* Negative Macho Behaviors			-.081
<b>Step 3 - ADDICT IDENTITY FACTORS</b>	.024*	3.26	
* Addict Identity			-.163*
* Pro-Social Identity			.004
<b>Total R<sup>2</sup></b>	.238		
<b>n</b>	216		
<b>Model F</b>	7.129***		

\* p < .05, \*\* p < .01, \*\*\* p < .001.

Table 6. Regression Models: White and Latino Sub-Groups

White American Males				Latino Males			
Predictors	$\Delta R^2$	$\Delta F$	Final $\beta$	Predictors	$\Delta R^2$	$\Delta F$	Final $\beta$
<b>Step 1 - BACKGROUND FACTORS</b>	.046	3.99*		<b>Step 1 - TREATMENT FACTORS</b>	.075	7.87**	
* Household Income			.170*	* Prior Programs			-.198*
<b>Step 2 - TREATMENT FACTORS</b>	.111	10.78**		<b>Step 2 - CULTURAL FACTORS</b>	.115	4.45**	
* Days in Treatment			3.04**	* Level of Acculturation			-.162
				* Latino Culture Motivation			.221*
				* Positive Macho Behaviors			.119
<b>Step 3 - CULTURAL FACTORS</b>	.038	3.80*					
* Positive Macho Behaviors			.201*				
<b>Total R<sup>2</sup></b>	.194			<b>Total R<sup>2</sup></b>	.190		
<b>n</b>	85			<b>n</b>	99		
<b>Model F</b>	6.51***			<b>Model F</b>	5.51***		

\* p < .10, \*\* p < .05, \*\*\* p < .01, \*\*\*\* p < .001.

Summary of Effects: **Total Sample**



- \* **More Days in Treatment**, **lower Level of Acculturation**, and **higher Addict Identity** were associated with **higher Perceived Treatment Effectiveness** (program **change**, **helpfulness** and **liking** of the program)
- \* Importance of keeping clients **engaged in treatment**
- \* A match: **culturally-responsive** program appeals more to **culturally-oriented clients**
- \* Importance for clients to have a **“life-long addiction awareness”** where **recovery is seen as a life-long challenge**

Items for Addict Identity Scale

**Attitude:** (1)= Strongly Disagree; (2)= Disagree; (3)= No Opinion; (4)= Agree (5)= Strongly Agree



- \* **I am and will always be a drug addict/ alcoholic.**
- \* **(R) I have just used drugs, but am not addicted to them.**
- \* **I admit that I am addicted to drugs.**
- \* **No matter what I do, others still see me as a drug addict/alcoholic.**
- \* **(R) I have used drugs in the past, but I am not a drug/addict/alcoholic.**
- \* **(R) I do not consider myself an addict, despite having used drugs/alcohol in the past.**

Summary of Effects: **Sub-Group Analyses**

- \* **White Americans**
  - \* **More Days in Treatment** associated with greater **Perceived Treatment Effectiveness**
- \* **Latinos**
  - \* **Less exposure to Prior Treatments**, and **higher Latino Cultural Motivation** are associated with **higher Perceived Treatment Effectiveness**
  - \* **Conclusion: Among Latinos, client appreciation of Latino culture when matched with greater treatment program cultural responsiveness appears to be a client-treatment cultural match that promotes better perceived efficacy in drug abuse treatment.**

Items for Latino Cultural Motivation Scale

**Likes:** (0)= Does Not Apply; (1)= Dislike It a Lot; (2)= Dislike It; (3)=Unsure/Don't Care; (4)= Like It; (5)= Like It a Lot

**Wants:** (0)= Does Not Apply; (1)= Not at All; (2)= Don't Want To; (3)= Neither/Don't Care; (4)= Want To; (5)= Want to Very Much

**Likes**

- \* Having many friends who are Latino...
- \* Identifying as a Mexican American/Latino(a).
- \* Being able to speak Spanish well.
- \* (R) - Abandoning Mexican/Latino culture and values.

**Wants to**

- \* Start new friendships with Mexican Americans...
- \* Learn more about Mexican/Latino(a) identity ...
- \* Be friendly and loyal to the Mexican culture and its people.
- \* (R) - Discourage family ... from speaking Spanish.


V



# Discussion



Conclusions and Implications



- \* **Tailoring** a program to various **client needs** and **preferences** is a contemporary challenge to increase **program efficacy**
- \* Important to **engage clients** actively in treatment
- \* For Latinos, **matching program content** with their **Latino cultural orientation** may promote greater **program involvement**, as indicated by their higher ratings of **Perceived Treatment Effectiveness** involving greater client **changes, perceived helpfulness** and **appreciation** (liking) of the drug abuse treatment program.