

Hispanic subgroup differences as a moderator of treatment effects in Multidimensional Family Therapy



JOHN MANNING, CRAIG HENDERSON, CARLA G. MUNOZ, JASON LAWRENCE, HSIAO WEN WANG, GAYLE DAKOF, & HOWARD LIDDLE



Sam Houston State University | shsu.edu | MEMBER THE TEXAS STATE UNIVERSITY SYSTEM

Introduction



- Juvenile substance use has been identified as a national health concern, with major consequences associated with these behaviors (CASA, 2011; Johnson, O'Malley, Bachman, & Schulenberg, 2011).
- Comparatively, Hispanic adolescents have higher rates of substance abuse disorder diagnoses, yet previous studies have indicated that Hispanics are less likely to receive treatment than their peers (Cummings, Wen, & Druss, 2011; Shih, Miles, Tucker, Zhou, & D'Amico, 2010).
- Specific treatment modalities are needed that target this growing subgroup.

MDFT and Hispanic Culture



- MDFT has been effective with Hispanic adolescents as demonstrated by previous studies conducted with majority Hispanic populations, and it may be due to the consistency between the core concepts of MDFT and cultural aspects inherent in Hispanic culture (e.g., *familismo*).
- However, there may be some different factors among Hispanic subgroups that may potentially influence treatment outcomes.
 - Family legal status
 - Country of origin/Social facilitation
 - SES

Current Study



- Data from four RTCs in Southern Florida (Greenbaum et al., 2013).
- The current study examines the relationship between national origin and treatment outcomes.
- Treatment condition (MDFT vs. comparison) will also be examined as a possible moderator of the legal status/national origin-treatment outcome relationship.

Hypotheses



1. MDFT will demonstrate higher retention rates than comparison treatments within the Hispanic subgroup.
2. Cuban adolescents will complete treatment at higher rates than their Non-Cuban peers, regardless of treatment condition.
3. Hispanics in MDFT will demonstrate significantly lower rates of post-treatment substance use as compared to comparison treatments.
4. Cuban adolescents will demonstrate lower substance use than their non-Cuban peers.

Method



MDFT v. RTC
(Liddle et al.,
submitted)

**MDFT v. AGT
(young)**
(Liddle et al., 2009)

**MDFT v.
ESAU**
(Liddle et al., 2010)

**MDFT v.
AGT**
(Dakof et al.,
submitted)

Total= 462
80% male
Average age: 15.26,
(SD=1.32)

Hispanic subsample:

***n*= 202 (77% male)**
Cuban – 35%
Non-Cuban – 65%

Methods



Measures

Demographic Questionnaire

Adolescent Substance Use

- ✓ Personal Experience Inventory (PEI; Winters & Henley, 1989).
- ✓ Problem Oriented Screening Instrument for Teens (POSIT; Radhert, 1991).
- ✓ 30 day- TimeLine Follow Back (TLFB; Sobell & Sobell, 1992).
- ✓ Urine screen for five substances.

Retention Status

Measured by length of time spent in treatment (Rowe et al., 2012).

Discontinued treatment within the first 3 months = Score of 0
Remained in treatment at 3 months = Score of 1.

Methods



Procedure

- Previous study data used to compare current study results using Integrative Data Analysis (IDA).
- Data was collected in 8 points in time: Intake (baseline) 6 weeks, and at 2, 3, 4, 6, 9 and 12 months.

Data Analysis

- Descriptive Statistics
- *Logistic Regression*: treatment type, nation of origin (Cuban vs. non-Cuban) and treatment completion.
- *Latent growth curve* methods (Curran & Hussong, 2003) used to examine how nation of origin and treatment type predict change in substance use from intake to 12 months follow-up.
 - 20 calibration samples were calculated using IDA.

Results



Sample Characteristics

| Variable | MDFT | Comparison Treatments | Total |
|-----------------------------------|-----------------|-----------------------|-----------------|
| Age [M (<i>SD</i>)] | 15.32 (1.34) | 15.33 (1.39) | 15.33 (1.36) |
| Gender [<i>n</i> (%)] | | | |
| Male | 87 (80) | 69 (74) | 156 (77) |
| Female | 22 (20) | 24 (26) | 46 (23) |
| Income [M (<i>SD</i>)] | \$24083 (20114) | \$19427 (15763) | \$21976 (18372) |
| Country of Origin [<i>n</i> (%)] | | | |
| Cuba | 38 (35) | 33 (35) | 71 (35) |
| Puerto Rico | 21 (19) | 12 (13) | 33 (16) |
| Nicaragua | 13 (12) | 18 (19) | 31 (15) |
| Dominican Republic | 3 (3) | 6 (6) | 9 (4) |
| Columbia | 8 (7) | 7 (8) | 15 (7) |
| Mexico | 2 (2) | 1 (1) | 3 (1) |
| Other | 24 (22) | 16 (17) | 40 (20) |
| Total | 109 | 93 | 202 |

Results (Treatment Completion)



- Individuals in MDFT Condition more likely to complete than in comparison treatments
 - ($B = 2.314$, $se = .319$, $p < .001$)
- No difference between Cuban and non-Cuban adolescents with regards to treatment completion rate.
- Significant interaction (Condition x Country of origin) with Cuban youth more likely to complete in comparison treatment
 - ($B = 1.745$, $se = .624$, $p = .005$).

Results (Substance Use)



- No significant differences between MDFT and comparison treatments with regards to post-treatment substance use.
- No significant differences between Cuban and non-Cuban adolescents with regards to post-treatment substance use.

Discussion



- MDFT was associated with significantly higher rates of treatment completion when compared to other active comparison treatments.
- It is apparent that this individualized form of therapy, which reaches out to the families and actively removes barriers to participation, results in significantly higher treatment participation regardless of background.
- The original hypotheses assessing adolescent post-treatment substance use were not supported. Results indicated no significant differences based on either type of treatment received or nation of origin.

Grant Acknowledgement



Research funded by NIDA R01 #DA029089