

Spirituality and its Relationship to Substance Use and Comorbid Conditions in an Ethnically Diverse Adolescent Treatment Population

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Sample Demographics

- 368 adolescents (of 9276 total) who were administered the GAIN measure of mental health
- 50% female
- Race/Ethnicity
 - 50% White (N=1189)
 - 21% African-American (N=487)
 - 12% Hispanic (N=282)
 - 17% Multi-racial (N=410)
- Age 15-17 years old at intake
- 75% from a single parent home
- Age of first use 10-14 years old
- Level of care
 - 81% outpatient
 - 15% residential
 - 4% other
- Primary substance – marijuana
- Time since last use
 - 14% Use
 - 34% Abuse
 - 8% Dependence
 - 44% Dependence w/ physio

GAIN-I Scales Used

GAIN-I is a comprehensive psychosocial assessment administered at intake. Created for both treatment and research, the instrument yields DSM/ICD diagnoses and ASAM/other treatment planning information; its scales have a strong history of psychometric integrity. For these reasons, data from the following GAIN-I scales were used:

- Spiritual Social Support Index (SSSI)** – past year measure of one's level of spiritual development (described further below).
- Substance Problem Scale–Past Year (SPSY)** – past year measure of symptoms related to substance use, including DSM-IV symptoms of Substance Use Disorders and Substance Induced Disorders. Higher scores indicate a more severe substance use problem.
- Internal Mental Distress Scale (IMDS)** – past year measure of symptoms of somatization, depression, anxiety, trauma, and suicidal thoughts. Higher scores indicate greater levels of internal mental distress.
- Behavior Complexity Scale (BCS)** – past year measure of symptoms of inattention, hyperactivity/impulsivity, and conduct disorder. Higher scores represent greater problems controlling external behavior.

Measure of Spirituality

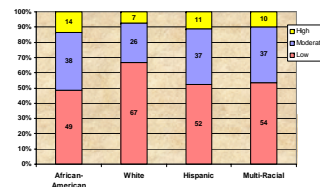
Spiritual Social Support Index

- 7 items in yes/no format
- Total scores range from 0 to 7
- Higher scores represent greater importance of one's spirituality as a source of support
- Interpretive ranges
 - Low 0-2
 - Moderate 3-5
 - High 6-7
- Coefficient alpha for this population = .83
- Based on a measure from the National Longitudinal Study of Adolescent Health and Jessor & Jessor (1977).
- Full set of items and scoring syntax are available at www.chestnut.org/li/gain.

Item content

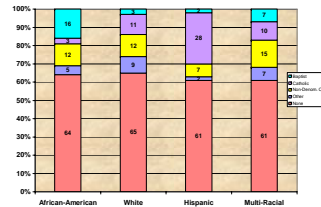
- Identification with organized religious group
- Member in good standing
- Attendance at services or ceremonies
- Strength of beliefs
- Importance of religion in own life
- Impact of religious beliefs on decisions
- Importance of friends sharing beliefs

Percent Adolescents in Spirituality Groups by Race/Ethnicity



Spirituality Results

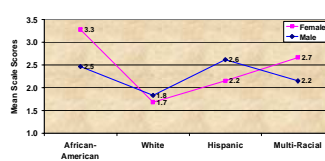
Percent Adolescents Endorsing Religious Affiliation



Crossed Two-Way Analysis of Variance

	F	Sig.
Race/Ethnicity	24.46	.000
Gender	1.89	.170
Race/Ethnicity x Gender	5.19	.001

Mean Spirituality Scores – Race/Ethnicity x Gender



Post Hoc Testing

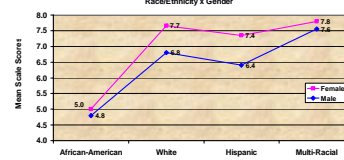
- White adolescents had significantly lower spirituality scores than minority adolescents.
- African-American and Multi-racial girls had significantly higher spirituality scores than boys of their own race/ethnicity.

Substance Use Results

Crossed Three-Way Analysis of Variance

	F	Sig.
Race/Ethnicity	22.91	.000
Gender	6.51	.011
Spirituality	0.46	.633
Race/Ethnicity x Gender	0.54	.656
Race/Ethnicity x Spirituality	1.35	.230
Gender x Spirituality	2.03	.132
R/E x Gender x Spirituality	0.96	.447

Mean Substance Use Severity Scores – Race/Ethnicity x Gender



Post Hoc Testing

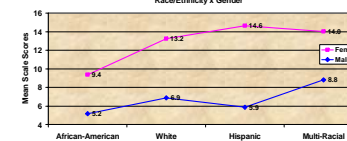
- African-American adolescents had significantly lower substance problems scores than all other adolescents.
- Multi-racial adolescents had significantly higher substance problems scores than all other adolescents.
- Hispanic and White adolescents did not differ in their substance problem scores.
- Girls' substance problem scores were significantly higher than those for boys.

Internal Distress Results

Crossed Three-Way Analysis of Variance

	F	Sig.
Race/Ethnicity	15.41	.000
Gender	132.61	.000
Spirituality	0.30	.741
Race/Ethnicity x Gender	1.66	.175
Race/Ethnicity x Spirituality	3.31	.003
Gender x Spirituality	1.60	.202
R/E x Gender x Spirituality	3.53	.002

Mean Internal Distress Scores – Race/Ethnicity x Gender

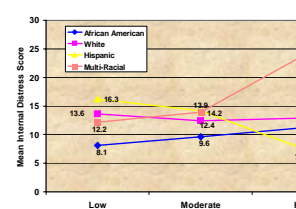


Post Hoc Testing

- African-American adolescents had significantly lower internal distress scores than all other adolescents.
- Multi-racial adolescents had significantly higher scores than all other adolescents.
- Girls were significantly higher in internal distress than boys.
- Within each racial/ethnic group, girls were significantly higher than boys on internal distress.

- For adolescents with low or high level of spirituality, there were no differences between the 4 racial/ethnic groups in internal distress scores.
- For adolescents with a moderate level of spirituality, African-American adolescents had significantly lower internal distress scores than White and Multi-racial adolescents.
- For Hispanic females, increasing level of spirituality was associated with diminished internal distress; the opposite effect was observed for Multi-racial females. There was no relationship between internal distress and spirituality for males.

Internal Distress Race x Spirituality within Females



External Distress Results

Crossed Three-Way Analysis of Variance

	F
Race/Ethnicity	15.24
Gender	20.49
Spirituality	0.04
Race/Ethnicity x Gender	0.44
Race/Ethnicity x Spirituality	0.88
Gender x Spirituality	2.26
R/E x Gender x Spirituality	0.33