Does Spirituality or Religion Hinder or Help Adherence to Highly Active Antiretroviral Therapy among Adolescents Living with HIV?

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**Purpose**

To examine the relationship between HAART adherence and religiousness/spirituality among HIV positive youth.

To better understand if HIV positive youth use their spirituality/religion as a way to help themselves to control their HIV by having higher adherence rates to their HAART Therapy.

**Hypothesis**

Higher levels of medication adherence is correlated with higher levels of religious coping; higher daily spiritual experiences; and higher frequencies of attendance at religious services.

**Methods**

**Subjects:** N=53 (Ages 14-21):
- Mean age: 17.9 years
- Gender: 56.6% male
- Race: 94.3% African-American
- Sexuality: 22.6% Homosexual
- Transmission: 73.5% Perinatally infected

**Inclusion/Exclusion Criteria:**

Participant must be between the ages of 14-21, must know HIV status, not currently suicidal, homicidal or psychotic. Also patient cannot have HIV Dementia at the time of participation.

**Procedure:**

- This is an interim analysis of cross sectional baseline data analyzed from adolescents participating in the Longitudinal Pediatric Palliative Care: Quality of Life & Spiritual Study study.
- Patients were enrolled in this 3-site randomized controlled clinical trial from July 2011 to October 2012 at Children’s National Health System, University of Miami, and St. Jude Hospital.
- Measures were administered face-to-face by a trained research assistant.
- Data were entered during the assessment onto Teleforms which were then scanned into a data base and verified independently.

**Measures:**

- Medication Adherence Self-Report Inventory (MASRI) using the visual analogue scale for self-reported percent adherence in the past month;
- Brief RCOPE measured religious coping;
- Brief Multidimensional Measurement of Religiousness/Spirituality (BMMRS) measured daily spiritual experiences and attendance at religious services;

**Analysis:** To deal with non-normality of data in the small sample, Spearman’s correlations were used to test the relationships between medical adherence and spiritual measures.*

**Results**

- Religious preferences were:
  - Christian 75%
  - None 13%
  - Other 8%
  - Islamic 4%
- Daily spiritual experiences (feeling God’s presence Spearman r=-0.03; feeling strength and comfort in my religion Spearman r=-0.001, inner peace Spearman r=0.01, desire to be close to God Spearman r=-0.03, Feel God’s love Spearman r=0.20, spiritually touched by the beauty of creation Spearman r=0.01) were not significantly associated with adherence.
- The majority of adolescents reported feeling God’s presence some days to many times a day with almost half (41%) reporting feeling God’s presence every day. However, this was not significantly correlated with adherence (r=-0.03, p=0.86). This was the only item significantly different by transmission category on the BMMRS: 85.71% (12/14) of behaviorally infected adolescents reported feeling God’s presence (p=0.01).
- Adolescents with higher levels of organized religious practices did not have higher levels of HAART adherence (attendance at religious services: Spearman r=-0.11, p=0.44; take part in other religious activities: Spearman r=0.07, p=0.63).
- 7 (14%) reported they had ever stopped medications because of belief in a miracle.

**Table 1. Medication Adherence Self Report Inventory (MASRI)**

| Total subjects N=47 | ≥90% adherence in the past month | 48.9% (23/47) | 0% adherence in the past month | 8.5% (4/47) |

**Table 2. Religious Coping Brief RCOPE**

| Mean Adherence Data | Total sample | 74.7% (SD=30.7; Range1-100) |
| Total N=53 | Negative Coping | 26.6 6.3 13-41 | Positive Coping | 8.8 2.5 3-14 | Nonadherence | 9.5 4.6 2-6 |

**Conclusions**

- Contrary to our hypothesis no statistically significant associations were found between medication adherence and spirituality/religiosity.
- “Ever stopped their medications because of belief in miracles” is clinically meaningful.
- This more recent age cohort may have experienced less spiritual struggle than earlier age cohorts.
- Further research is needed to analyze spirituality and religion’s correlation to adherence to HAART therapy.

**Limitations:**

- Small sample size
- Spearman’s correlation coefficient measures a monotonic relationship. No monotonic relationship does not necessarily mean no nonlinear (e.g., quadratic) relationship.

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