Controlling Health: Medical Self-Efficacy, Energy-Fatigue, and Disclosure of HIV Status

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Definitions

- **Locus of Control** – a person’s belief about whether the outcomes of their actions are contingent on what they do (internal) or on events outside of their personal control (external)
- **Self-Efficacy** – the belief that one is capable of performing in a certain manner to attain certain goals
- **Disclosure** – the speech or act of making something evident, e.g. disclosing HIV Status
- **Quality of Life** – the degree of well-being reported by an individual
- **PLH** – People Living with HIV

Center for Psychosocial Health
Locus of control predicts and explains health behavior (Ubbiali et al., 2008)

PLH who do not disclose their HIV status to sexual partners report higher levels of risky sexual behavior as well as significantly lower levels of self-efficacy (Kalichman & Nachimson, 1999)

HIV disclosure is positively associated with overall quality of life (Chandra et al., 2003)
The use of a locus of control measure in PLH to understand medical outcomes and decisions of PLH have not yet been examined.

The effects of disclosure in relation to energy or fatigue have yet to be studied.
Internal Locus of Control Theory

(Levensen, 1973)
Methodology

- Study conducted with approval obtained by the Institutional Review Board (IRB)
- HIV+ individuals recruited from AIDS Service Organizations (ASO) in the Dallas-Ft. Worth metropolitan area
- Participants met inclusion criteria:
  - Over the age of 18
  - English-speaking
  - Diagnosis of HIV
- Provided informed consent
- In compensation, participants received $15 per baseline survey collected
Medical Self-Efficacy

- Self-Efficacy of Managing Chronic Disease (HIV) scale (SEMCD; Lorig et al., 2001)
- 6-item scale measured on a 6-point Likert-type scale
- 1 – Not at all confident
- 6 – Totally confident
- Reliability: Internal Consistency (α = .91)
- Sample Question: “How confident are you that you can do things other than just taking medication to reduce how much your illness affects your everyday life?”
Using the Medical Outcomes Survey – HIV (MOS-HIV; Wu et al., 1994; \( \alpha = .87 \))

- Energy and Fatigue is the subscale we used to measure (Wu et al., 1994; \( \alpha = 78 \))

- A 4-item subscale measured on a 6-point likert-type scale

- 1 – None of the time
- 6 – All of the time

- Validity: Construct Validity

- Sample Question: “How often, during the last 4 weeks, did you feel worn out?”
Disclosure

- Using the HIV Stigma Scale (HSS; Berger, Ferrans, & Lashely, 1996; \( \alpha = .96 \))
  - Disclosure is a subscale we used to measure (Berger, Ferrans, & Lashely, 1996; \( \alpha = .90 \))
- A 10-item scale measured on a 4-point likert-type scale
  - 1 – Strongly disagree
  - 4 – Strongly agree
- Validity: Construct Validity
- Sample Question: “In many areas of my life, no one knows I have HIV”
Internal Locus of Control

- Using the Multidimensional Health Locus of Control Scales (MHLC; Wallston, Wallston, & DeVellis, 1978; $\alpha = .60 - .75$)
  - Internal Locus of Control subscale used to measure (Wallston, Wallston, & DeVellis, 1978; $\alpha = .65$)
- A 6-item scale that was measured on a 6-point likert-type scale
- 1 – Strongly disagree
- 6 – Strongly agree
- Reliability/Validity: Test re-test reliability, concurrent validity (Moshki et. al, 2007)
- Sample Question: “The main thing that affects my health is what I do to myself”
# Results

## Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>47.5 (7.5)</td>
<td>24 - 61</td>
</tr>
</tbody>
</table>

**N = 61**

## Frequency Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>32 (52.5)</td>
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<tr>
<td><strong>Ethnic Background</strong></td>
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<tr>
<td>African American</td>
<td>41 (67.2)</td>
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<td>European American</td>
<td>18 (29.5)</td>
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<td><strong>Sexual Orientation</strong></td>
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<td>Straight</td>
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<tr>
<td>Gay/Lesbian/Bisexual</td>
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<tr>
<td><strong>Have Seen a Mental Health Professional</strong></td>
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<tr>
<td>Yes</td>
<td>49 (80.3)</td>
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<tr>
<td><strong>Household Income</strong></td>
<td></td>
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<td>Below 10,000/yr</td>
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## Univariate

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<th>Variable</th>
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<tr>
<td>Self-Efficacy</td>
<td>39.5 (14.1)</td>
<td>6 – 60</td>
<td>.93</td>
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<tr>
<td>Energy</td>
<td>12.8 (4.5)</td>
<td>4 – 22</td>
<td>.83</td>
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<tr>
<td>Disclosure</td>
<td>26.3 (5.8)</td>
<td>10 – 40</td>
<td>.70</td>
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## Correlations

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<th>8</th>
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</tbody>
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** p<.01   *p<.05   \( ^t \)trending

1 – Age  
2 – Gender  
3 – Ethnicity  
4 – Education  
5 – Sexual Orientation  
6 – Mental Health  
7 – Income  
8 – Self-efficacy  
9 – Energy  
10 – Disclosure  
11 – Internal Locus of Control
Regression Analysis

Linear Regression

<table>
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<tr>
<th></th>
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<th>t</th>
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<tbody>
<tr>
<td>Self-Efficacy</td>
<td>.33</td>
<td>2.53</td>
<td>.014*</td>
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<tr>
<td>Energy</td>
<td>.27</td>
<td>1.95</td>
<td>.057t</td>
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<tr>
<td>Disclosure</td>
<td>.33</td>
<td>2.63</td>
<td>.011*</td>
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\[ F(6, 54) = 2.52, \ p<.02 \ \text{Adj. } R^2 = .20 \]

Tolerance = .92, VIF = 1.09

** p<.01   *p<.05   ^trending
Our findings suggest positive medical outcomes of PLH will help with the ability to effectively manage their HIV.

Effective management of HIV may play a significant role in the improvement of quality of life among PLH.

Improving quality of life may help people living with HIV to adopt positive coping strategies (Préau et al, 2005).
Clinical Implications

✧ Internal locus of control specific to the HIV+ populations may improve the understanding of psychosocial variables that could play a role in HIV populations.

✧ In order to increase the health and social benefits associated with higher levels of internal locus of control, clinicians must work towards understanding barriers in the:
  ✧ Self-efficacy of managing chronic diseases,
  ✧ Willingness to disclose HIV status,
  ✧ And factors affecting physical and emotional energy and fatigue;

that PLH face in the context of their medical condition and well-being.
Limitations

✧ The cross-sectional, correlational design of our study limits causal inferences
✧ Sample population was only selected from one geographic location limiting generalizability
✧ Ethnically imbalanced, which also limits generalizability
Future Research

- Longitudinal studies
- Studies of other quality of life variables (role limitations, health distress, emotional well-being) in relation to internal locus of control
- Qualitative and focus group studies
Acknowledgements

- Dr. Mark Vosvick – Faculty Mentor
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- The UNT Ronald E. McNair Program
- The UNT Honors College
- References available upon request