LAURA BREIER
COLLOQUIUM DEFENSE
APRIL 22, 2017

Olivet Nazarene University
Coordinator
Ed.D Ethical Leadership

Dr. David Van Heemst, Advisor & Dissertation Coordinator
Dr. Karen Wiegman, Reader
ACCESSING HEALTHFULNESS THROUGH INTRAPERSONAL COMMUNICATION

The Correlation Between Health Locus of Control and Health Outcomes, Behaviors, and Perceptions
LITERATURE REVIEW
Intrapersonal Communication

- Soundless, Inner Speech (Jemmer, 2009)
- Develop thoughts, build beliefs, understand emotions, internalize and makes sense of the outside world, develop social skills (Sokolov, as cited in Jemmer, 2009)
- Intrapersonal communication, in the form of perceptions and emotional interpretations, give rise to our beliefs (Dossey, 2001)
- Create the health that individuals experience (Dossey, 2001)
Health Locus of Control

The degree of control that individuals perceive themselves as having over their own health

(Wallston, Wallston, & DeVellis, 1978)

- Internal Health Locus of Control (IHLOC): Individuals believe that they exert power over their own health

- Powerful Others Health Locus of Control (POHLOC): Individuals believe that powerful others such as doctors, nurses, or family members exert power over their health

- Chance Health Locus of Control (CHLOC): Individuals believe that chance, luck, or fate exert power over their health
HEALTH LOCUS OF CONTROL

(Wallston, Wallston, & DeVellis, 1978)

- **Internal Health Locus of Control:**
  - Better self-rated health (Berglund, Lytsy, & Westerling, 2014)
  - Less Occurrences of
    - Breast cancer (Rowe, Montgomery, Duberstein, & Bovbjerg, 2005)
    - Stress, anxiety, and depression (Roddenbury & Renk (2010)
    - Postpartum depression (Moshki, Beydokhti, & Cheravi, 2013)
    - Disease morbidity (Berglund, Lytsy, & Westerling, 2014)

- **Powerful Others and Chance Health Locus of Control**
  - More Occurrences of
    - Postpartum depression (Moshki, Beydokhti, & Cheravi, 2013)
    - Health anxiety
    - Health issues (Skidmore, Dyson, Kupper, & Calabrese, 2014)
Self-Rated Health

How would you rate your overall health?

- Excellent
- Very Good
- Good
- Fair
- Poor

- Idler & Benyamini (1997): Acts as a predictor of future health
- Low self-rated health:
  - mortality (Mossey & Shapiro, 1982)
  - coronary artery disease, cancer
  - type 2 diabetes (Ramkumar, et al., 2009)
  - general lack of good health behaviors
  - chronic disease on-set
  - chronic disease morbidity (Latham & Peck, 2012)
- Idler & Kasl (1995): Smoking vs Poor Self-Rated Health
COMPLIMENTARY AND ALTERNATIVE MEDICINE (CAM)

Non-standard health services or health practices and medicines that lie outside of the conventional medicine realm (Chang, et al., 2011)

CAM Fields: chiropractic, naturopathic medicine, acupuncture, Chinese medicine, midwifery, homeopathy, message therapy

CAM modalities: massage, meditation, botanical medicine, riki, healing touch (Maizes, et al., 2009)

Benefits of CAM:

■ Alleviates symptoms (Stake-Nilsson, Hultcrantz, Unge, & Wengström, 2011),
■ Increases levels of hope, optimism, and empowerment (Chang, et al., 2011; Swisher, et al., 2002),
■ Restores balance either physically or mentally
■ Addresses the individual needs of each person and their personal reactions to illness and health
■ Addresses growing concerns about ill-effects of pharmaceutical drugs and weariness regarding allopathic practitioners
■ Utilizes a holistic approach
■ Cost effective

(World Health Organization, 2002; World Health Organization, 2013)
Patient Autonomy

Achieved when a patient feels as though they are self-directing or have achieved a state of independence when managing their healthcare (Autonomy, n.d.)

Patients:
- Participate
- Ask Questions
- Provide Detailed Information
- Express Opinions and Concerns
  (Street & Haidet, 2011)

Physicians:
- Elicit and Acknowledge Patients' Perspectives
- Support Patients' Initiatives
- Avoiding Judgmental/Controlling Behavior
- Better Understand their Patients' Health Beliefs
  (Lee & Lin, 2010; Street & Haidet)
MULTIPLE SCLEROSIS (MS)

- Disease of the central nervous system
- Brain, Optic Nerves, Spinal Cord

- Myelin becomes damaged
- Over time, the nerves become damaged

- Damage causes delays when messages are sent from brain and spinal cord to other parts of the body
- Delays cause symptoms

“MS Overview”, 2014
ABOUT MS...

SYMPTOMS

- Balance problems, bladder dysfunction, cognitive changes, dizziness, fatigue, numbness, speech difficulties, swallowing disorders, visual impairments
- Symptoms differ from person to person and from flare-up to flare-up

“MS Overview”, 2014
The problem that the current study addressed was the absence of an intrapersonal health communication guide that profiled the different types of locus of control and the health outcomes, behaviors, and perceptions that are associated with each type for individuals diagnosed with MS.
PURPOSE STATEMENT

The purpose of the current study was to correlate the different types of health locus of control with the health outcomes, behaviors, and perceptions of individuals diagnosed with MS in order to assist individuals suffering from MS with creating more desirable health outcomes for themselves and to potentially aid healthcare providers in communicating with their patients in a more health producing manner.
RESEARCH DESIGN & DATA COLLECTION
Quantitative methodology comprised of a single correlational, cross-sectional, sample survey design

**Survey:** gathered information from individuals diagnosed with MS by asking them questions regarding their health beliefs, outcomes, behaviors, and perceptions

- Health Beliefs: Multidimensional Health Locus of Control Scale
- Health Outcomes: 36 Item Short Form Health Survey
- Health Behaviors: CAM and Conventional Medicine Usage Questionnaire
- Health Perceptions: Health Care Climate Questionnaire

**Demographics:** age, gender, education level, confirmation that they had been diagnosed with MS, how long ago they had been diagnosed and for information regarding additional chronic illness diagnoses
## Online Data Collection Platforms

<table>
<thead>
<tr>
<th>Data Collection Method</th>
<th>Number of Participants Recruited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Communities</td>
<td>8</td>
</tr>
<tr>
<td>Craigslist</td>
<td>14</td>
</tr>
<tr>
<td>Facebook</td>
<td>85</td>
</tr>
<tr>
<td>Twitter</td>
<td>28</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
</tr>
</tbody>
</table>
RESEARCH QUESTION #1
What is the correlation between the type of health locus of control (internal, powerful others, chance) in individuals suffering from MS and such health outcomes as self-rated health, activity and work limitations, physical and emotional health interference, and pain interference?
Research Question #1
Data Analysis

Health Locus of Control & Self-Rated Health

- A Spearman rho ($r_s$) correlation was used to determine whether (a) a significant relationship existed between health locus of control and self-rated health and (b) the strength of the relationship between the variables.

- $p$-value of < .05 was used to determine significance for the findings.

Health Locus of Control & Health Outcomes

- Pearson product moment correlation was used to determine whether a significant relationship existed and, if so, the strength of the relationship between health locus of control and the health outcome variables.

- A Hochberg correction was used when determining the $p$-value of the relationships between variables when a high number of correlations are performed.
Research Question #1
Findings & Conclusions

Self-rated Health

<table>
<thead>
<tr>
<th></th>
<th>Self-Rated Health</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_s$</td>
</tr>
<tr>
<td>IHLOC</td>
<td>-.483</td>
</tr>
<tr>
<td>POHLOC</td>
<td>.247</td>
</tr>
<tr>
<td>CHLOC</td>
<td>.389</td>
</tr>
</tbody>
</table>
## Health Outcomes

### Internal Health Locus of Control

<table>
<thead>
<tr>
<th>Variable Correlation</th>
<th>$r$</th>
<th>Unadjusted $p$-Value</th>
<th>Hochberg Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHLOC Energy/Fatigue</td>
<td>.300</td>
<td>.000</td>
<td>.002083333</td>
</tr>
<tr>
<td>IHLOC Emotional Well-Being</td>
<td>.369</td>
<td>.000</td>
<td>.002173913</td>
</tr>
<tr>
<td>IHLOC Social Functioning</td>
<td>.311</td>
<td>.000</td>
<td>.002272727</td>
</tr>
<tr>
<td>IHLOC Pain</td>
<td>.353</td>
<td>.000</td>
<td>.002380952</td>
</tr>
<tr>
<td>IHLOC General Health</td>
<td>.489</td>
<td>.000</td>
<td>.0025</td>
</tr>
<tr>
<td>IHLOC Physical Functioning</td>
<td>.248</td>
<td>.001</td>
<td>.003333333</td>
</tr>
<tr>
<td>IHLOC Emotional Health Limits</td>
<td>.244</td>
<td>.002</td>
<td>.004166667</td>
</tr>
</tbody>
</table>
### Health Outcomes
Powerful Others Health Locus of Control

<table>
<thead>
<tr>
<th>Variable Correlation</th>
<th>r</th>
<th>Unadjusted p-Value</th>
<th>Hochberg Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>POHLOC General Health</td>
<td>-.292</td>
<td>.000</td>
<td>.002631579</td>
</tr>
<tr>
<td>POHLOC Emotional Well-Being</td>
<td>-.257</td>
<td>.001</td>
<td>.003571429</td>
</tr>
</tbody>
</table>
Health Outcomes
Chance Health Locus of Control

<table>
<thead>
<tr>
<th>Variable Correlation</th>
<th>$r$</th>
<th>Unadjusted $p$-Value</th>
<th>Hochberg Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHLOC Energy/Fatigue</td>
<td>-.295</td>
<td>.000</td>
<td>.002777778</td>
</tr>
<tr>
<td>CHLOC Emotional Well-Being</td>
<td>-.339</td>
<td>.000</td>
<td>.002941176</td>
</tr>
<tr>
<td>CHLOC General Health</td>
<td>-.410</td>
<td>.000</td>
<td>.003125</td>
</tr>
<tr>
<td>CHLOC Social Functioning</td>
<td>-.254</td>
<td>.001</td>
<td>.003846154</td>
</tr>
<tr>
<td>CHLOC Emotional Health Limits</td>
<td>-.218</td>
<td>.005</td>
<td>.004545455</td>
</tr>
<tr>
<td>CHLOC Pain</td>
<td>-.217</td>
<td>.005</td>
<td>.005</td>
</tr>
</tbody>
</table>
RESEARCH QUESTION #2
What is the correlation between the type of health locus of control (internal, powerful others, chance) of individuals suffering from MS and their usage of specific types of complementary and alternative medicine methods as measured by the complementary and alternative medicine usage survey?
Research Question #2
Data Analysis

- A Spearman’s Rho correlation was used to determine if there was a relationship between the type of health locus of control and the type of measured health behavior and, if a relationship existed, to also determine how strong that relationship was.

- A Hochberg correction to adjust the p-value was performed to avoid a type I error.
Research Question #2
Findings & Conclusions

Health Behaviors

<table>
<thead>
<tr>
<th>Behavior Category</th>
<th>$r_s$</th>
<th>Unadjusted $p$-value</th>
<th>Hochberg Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHLOC OTC Medicine</td>
<td>-.293</td>
<td>.000</td>
<td>.001190476</td>
</tr>
</tbody>
</table>
RESEARCH QUESTION # 3
What is the correlation between the type of health locus of control (internal, powerful others, chance) of individuals suffering from MS and their perceptions of autonomy support during health communication experiences with healthcare providers?
Research Question #3
Data Analysis

- A Pearson product moment correlation was used to determine if there was a relationship between the independent and dependent variables and, if a relationship existed, to also determine how strong that relationship was.
- The generally accepted significance level of $p < .05$ was utilized.
Research Question #3
Findings & Conclusions

Patients Perceptions of Autonomy Support by Physicians

<table>
<thead>
<tr>
<th></th>
<th>IHLOC</th>
<th>POHLOC</th>
<th>CHLOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>r</td>
<td>.019</td>
<td>-.155</td>
<td>-.117</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.810</td>
<td>.052</td>
<td>.140</td>
</tr>
</tbody>
</table>
Limitations

- Reliance upon social media as the method of data collection (Leedy & Ormrod, 2013)
  - Truly fit within the inclusion criteria (O’Connor et al., 2013)
  - Have only completed the survey one time (Birnbaum, 2004)

- The need for participants to be familiar with computers, have knowledge on how to use the internet, and possess the physical ability to use a computer (Gu, 2014; Robson, 2011)

- Three possible limitations that stemmed from the utilization of the measurement instruments
  - 36-Item Short Form Health Survey
  - Health Care Climate Questionnaire
  - Current physical and mental health conditions
Implications

Addition to the body of knowledge through findings that show IHLOC to be associated with:
Better emotional well-being, general health, social and physical functioning
More energy/less fatigue
Less pain
Fewer emotional health limitations

The utilization of the self-rated health question and the MHLOC scale as part of the clinical patient profile so that physicians could gain more insight into patients’ health beliefs, and, by extension, their future health

The utilization of health locus of control findings to design and implement participatory educational intervention programs so that patients can learn more about their health beliefs and their potential impact on their emotional and physical health
Recommendations

1. Utilize Facebook, Twitter, and snowball sampling when designing an online recruitment strategy

2. Use survey instruments that are more clearly representative of and understood by individuals who have been diagnosed with MS

3. Limit the number of correlations performed for each research question

4. Take the disabilities of the participants into consideration when designing an online methodology

5. The findings and conclusions of this study should be carried forward to other chronic illnesses or to chronic illness in general through future research
References


Gu, L. (2014). Facebook, Twitter, & QR Codes: An exploratory trial examining the feasibility of social media mechanisms for recruiting youth participation to an online survey (master’s thesis). Retrieved from ProQuest. (UMI Number 1570644)


doi:10.1093/geronb/gbs104


Robson, C. (2011). Real World Research (2nd ed.). West Sussex, United Kingdom: John Wiley & Sons Ltd.


## A Closer Look at Self-Rated Health

### Health Outcomes

<table>
<thead>
<tr>
<th></th>
<th>Self-Rated Health</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_s$</td>
<td></td>
</tr>
<tr>
<td>Energy/Fatigue</td>
<td>-.504</td>
<td>.000</td>
</tr>
<tr>
<td>Emotional Health Limitations</td>
<td>-.343</td>
<td>.000</td>
</tr>
<tr>
<td>Emotional Well-Being</td>
<td>-.469</td>
<td>.000</td>
</tr>
<tr>
<td>General Health</td>
<td>-.819</td>
<td>.000</td>
</tr>
<tr>
<td>Pain</td>
<td>-.553</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Functioning</td>
<td>-.655</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Health Limitations</td>
<td>-.464</td>
<td>.000</td>
</tr>
<tr>
<td>Social Functioning</td>
<td>-.565</td>
<td>.000</td>
</tr>
</tbody>
</table>

### Health Behaviors

<table>
<thead>
<tr>
<th></th>
<th>Self-Rated Health</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$r_s$</td>
<td></td>
</tr>
<tr>
<td>Acupuncture Usage</td>
<td>-.172</td>
<td>.028</td>
</tr>
<tr>
<td>General Practitioners Usage</td>
<td>.256</td>
<td>.001</td>
</tr>
<tr>
<td>Hospital Usage</td>
<td>.207</td>
<td>.008</td>
</tr>
<tr>
<td>OTC Medicine Usage</td>
<td>.156</td>
<td>.046</td>
</tr>
<tr>
<td>Pharmaceutical Usage</td>
<td>.306</td>
<td>.000</td>
</tr>
<tr>
<td>Yoga Usage</td>
<td>-.162</td>
<td>.038</td>
</tr>
</tbody>
</table>
I need your help!

I am currently in the process of recruiting participants for my doctoral dissertation research. This research explores how thoughts, emotions, and beliefs impact our health.

Having been diagnosed with Multiple Sclerosis (MS) over 3 years ago, I couldn’t think of a better group of people to focus my research on than those with MS.

So here is what I am looking for...individuals 18+, who have been diagnosed with MS, and are willing to take a brief (10 minute) online survey.

If you do not fit this description that is ok...YOU CAN STILL HELP! Please like and/or share this post and encourage your FB friends to do the same. The more people who see this the better!

Link to the website (you can click on the monkey below): https://www.surveymonkey.com/s/lbreiersstudy

Participants who complete the survey can register to win one of two $50.00 gift cards.

Thank you in advance for your help. It is very much appreciated.