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Clinical Study on Multidimensional Health Locus of Control, USA

Subhasree Ganapathy Mohan

Consulting Psychologist, United States of America

Abstract: ***This study examines the differences in gender, occupation and medical condition with regards to Multidimensional Health Locus of Control and examines whether these vary depending on the five factor model of health locus of control and as a function of occupation and gender. Previous research has shown that differences based on gender are situation based. This present study examines multidimensional health locus of control and its relationship to men and women in white-collar and blue-collar jobs, with and without lower back pain. The five-factor model of multidimensional health locus of control has been the most pervasive model that has been used to explain personality traits and is used in the present study.***

Keywords: Health locus of Control, occupation, gender

1. Introduction

Locus of control is a term in psychology which refers to a person's beliefs about what causes the results (good or bad) in their life, either in general or in a specific area such as health or academics. Locus of control refers to an individual's generalized expectations concerning where control over subsequent events resides.

According to Weiner (1974) the "attribution theory assumes that people try to determine why people do what they do, i.e., attribute causes behavior." (Weiner, 1974, 1986, p362). There is a three stage process which underlies an attribution. The person must perceive or possibly observe the behaviour; Try and figure out if the behavior was intentional; and determine if the person was forced to perform that behavior. The latter behaviour occurs after the fact, i.e., behaviors are explanations for events that have already happened. Expectancy, which concerns future events, is a critical aspect of locus of control.

Locus of control is also grounded in expectancy-value theory (Martin Fishbein), which describes human behavior as determined by the perceived likelihood of an event and the value placed on that event or outcome. Locus of control is a personality dimension first described by Julian Rotter (1966, 1975, 1990), a prominent social learning theorist. Rotter found that the final choice of behaviour depends both on how strongly individual expect that their performance will have a positive result (positive expectancy) and how much the value their expected reinforcement (reinforcement value).

In any environment, individuals have a variety of possibly relevant behaviours in their repertoire. Some of these are more likely to occur in a particular situation than others. A particular behaviour like, laughing loudly, may have a high behaviour potential in some situations (during a hilarious movie) and low behaviour potential in other situations (during a final exam.
The short- term goal of this study was to study the

a) To assess the health locus of control of the people in the U.S. (previous researches have been conducted on the said topic with many variables like socio- economic status, comparison between countries etc.) However, this present study particularly focusses on people in the U.S and their general health locus of control.
b) To assess the differences in the health locus of control in participants with and without lower back pain. (Lower Back Pain- LBP is defined as pain and discomfort localized below the costal margin and above the inferior gluteal folds, with or without referred leg pain. (www.backpaineurope.org).
c) To study the influence of occupation and gender on health locus of control. (White collar & Blue collar jobs). Specifically, the main focus of the study is to determine the concept of internal versus external control of reinforcements (internal locus of control vs external locus of control)

2. Materials and Methods

The Multidimensional Health Locus of Control (MHLC) scales are widely used to characterize a person's beliefs about control over health outcomes. Health locus of control is one of the widely used measures of an individual's health belief, and is defined as the governing perception an individual has concerning their health. The multi-dimensional health locus of control scale (HLCS) has been designed to determine whether individuals are internalists or externalists.

The scales used in this study are
a. Multidimensional Health Locus of Control (MHLC) – Form A (Wallston, Wallston, & DeVellis, 1978, and
b. Form C (Wallston, Stein, & Smith, 1994, *Journal of Personality Assessment,* 63, 534-553).

It is an 18 item, self-report questionnaire made up of 5 discrete subscales designed to measure health locus of control. The subscales measure expectancies in five general areas: Internal Health Locus of Control, Powerful Others Health Locus of Control, and Chance Health Locus of Control, Other People Health Locus of Control, Doctor's Health Locus of Control. Responses were measured on 1 to 6 point Likert response scale. Scale scores on the MHLC – C are calculated by summing respective items for a total scale

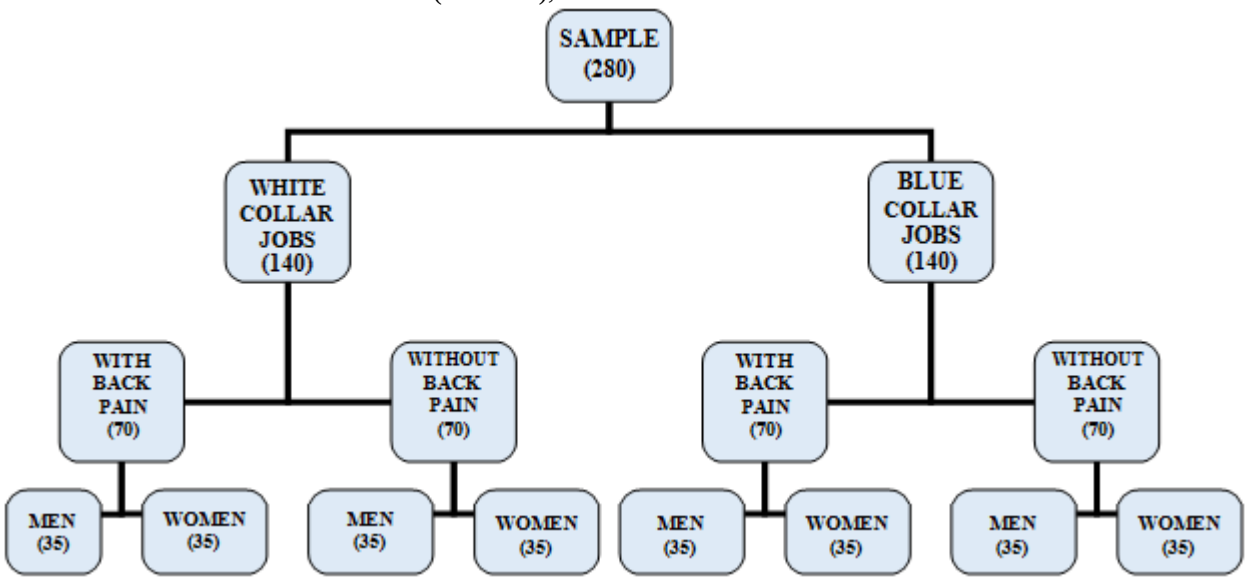
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score (i.e., where 1 = "strongly disagree" and 6 = "strongly agree"). Higher scores reflect stronger endorsement of MHLC scales.

The test-retest reliability for the factors Internal, Chance, and Powerful others using Pearson's moment correlation were 0.60 ($p < 0.001$), 0.58 ($p < 0.002$), and 0.74 ($p < 0.0001$), respectively. (Wallston 1978). The obtained results indicated significant correlation coefficients between the two scale factors i.e., 0.57 for Internal ($P < 0.001$), 0.49 for Powerful Others ($P < 0.01$), and 0.53 for Chance ($p < 0.001$). For bivariate correlation among the subscales, correlation analysis was calculated. In this regard, there was a positive but weak correlation (0.28) between the Internal HLC and Powerful HLC, no correlation was found between the Chance HLC and Powerful Others HLC ($r = -0.31$); and a negatively weak correlation coefficient was found between the Internal HLC and the Chance HLC ($r = -0.20$). Thus the MHLC - A can be used with non-client student populations too, regardless of prior counseling experience.

The sample for the current study consisted of 280 individuals from a significantly varied demographic areas. The participants were divided into two groups (half the participants in each group) depending on their gender and medical condition, all within the age group of 40 to 60. The participants belonged to the White collar jobs and Blue collar jobs. The distribution of the sample is shown in Table 1.

Table 1 showing the distribution of the sample



3. Results and Discussion

The scales MHLC – A and MHLC – B were administered to the said sample in a counterbalanced manner. The study was conducted to assess the differences in the health locus of control in subjects with and without lower back pain. The study was also conducted to check the influence of occupation and gender on health locus of control among subjects with and without lower back pain.

The obtained scores were further calculated. Number of subjects divided by age, gender and medical condition is indicated in Table 2. The results obtained are given in Table 3, Table 4 and Table 5.

Table 2: Indicating the number of subjects divided by age, gender and medical condition

	MEN		WOMEN	
	White Collar Job		Blue Collar Job	
Age	>40	<60	>40	<60
With Lower Back Pain	70	70	70	70
W/o Lower Back Pain	70	70	70	70

Table 3: Indicating the scores of the sub scales of the participants based on gender

Sub Scales / Analysis	Internal	Chance	Doctors	Other People	Powerful Others
Mean1(men)	29.771	19.5	12.778	11.935	23.928
Mean 2(women)	27.8	19.05	12.428	11.7	22.314
S. D. 1	6.252	8.374	3.391	3.8325	6.394
S.D. 2	4.951	6.433	3.745	3.5085	6.791
Z – Ratio	**6.968	1.076	*1.550	1.4245	**3.719

From the above Table 3, mean of the sub scales **Internal** is 29.771 and 27.5, of **Powerful others** is 23.928 and 22.314. As the mean of men is relatively more than women, it proves that men perceive greater influence to **Internal** sub scale than women. Whereas, the mean of men and women are comparatively same in regards to sub scales **Doctors** and **Powerful others,** indicating both give importance to these sub scales.

Table 4 indicating the scores of the sub scales of all the participants based on occupation (white collar and blue collar job)

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Sub Scales / Analysis	Internal	Chance	Doctors	Other People	Powerful Others
Mean1(men)	28.978	16.6	12.151	11.15	11.364
Mean2(women)	27.8	19.05	12.428	11.7	22.314
S. D. 1	6.156	6.915	3.254	10.596	6.409
S.D. 2	5.25	7.068	3.87	3.757	6.777
Z - Ratio	0.285	**0.316	0.225	**0.320	0.434

** Significant at 0.05 & 0.01 levels
* Significant at 0.01 level

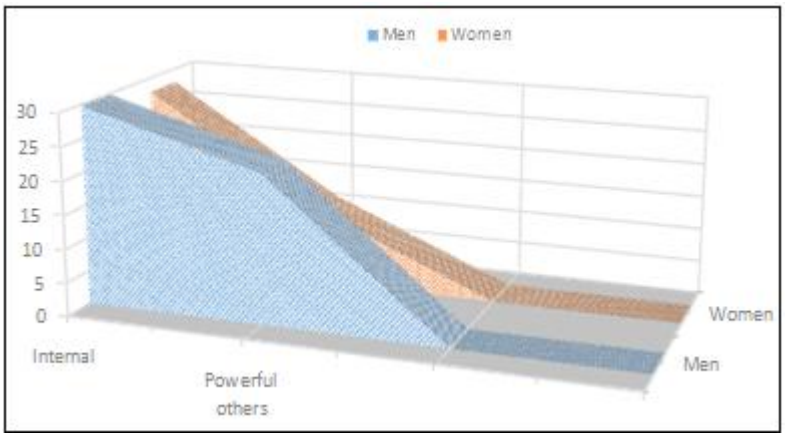
From the above Table 4, the mean of the sub scales **Chance** for white collar jobs and blue collar jobs are 16.6 and 19.05 and that of **Other people** is 11.15 and 11.7 respectively. Since the mean of the **Chance** sub scale of the blue collar jobs is more than white collar jobs, this suggests that people in blue collar jobs perceive more influence on **Chance** than people of white collar jobs. Z- ratio of **Internal, Doctors** and **Powerful others** is 1.351, .791 and .905 suggesting that men perceive greater influence on **Powerful others** and **Chance** sub scales than women, which is much similar to a pervious study by Robert et. al.

Table 5: Indicating the scores of the sub scales of all the participants with and without lower back pain in the experiment.

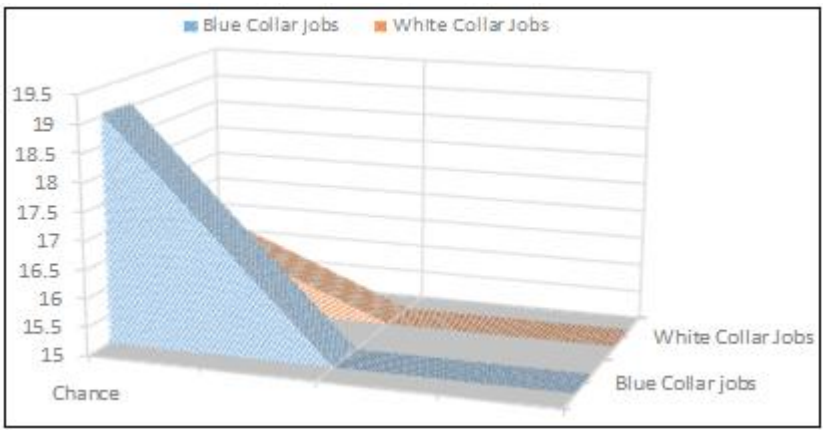
Sub Scales / Analysis	Internal	Chance	Doctors	Other People	Powerful Others
Mean1(men)	27.8	18.37	13.421	12.292	----
Mean 2(women)	29.771	20.071	11.785	11.342	23.121
S. D. 1	6.252	8.408	3.209	3.4	----
S.D. 2	4.951	6.279	3.735	3.874	6.596
Z - Ratio	**6.968	**5.226	**7.343	**4.167	----

** Significant at 0.05 & 0.01 levels
* Significant at 0.01 level

From the above Table 5, mean of the sub scales **Internal**, **Chance, Doctors** & **Other people** for participants with and without lower back pain are 27.8 & 29.77, 18.37 & 20.07, 13.42 & 11.7, 12.29 & 1.34 respectively. As the mean of the participants with lower back pain is comparatively same as without lower back pain, it proves that participants give almost equal importance to sub scales **Chance, Doctors** & **Other people** to balance their health.



Showing the sub scales Internal and Powerful others of men and women



Showing the Chance sub scale of participants in White collar and Blue Collar jobs

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4. Conclusion and Future Research

a) The findings of the present study conclude that the health locus of control of the people in the U.S is more towards internal factors than external factors.
b) In reference to gender, the present study indicates that men perceive greater influence to internal factors than women. Also, men perceive greater influence on Powerful others and chance factors than women.
c) Likewise, in reference to occupation, the study indicates that people in blue collar jobs perceive more influence to chance factors than people in white collar jobs.
d) In reference to medical condition, people with and without lower back pain give equal importance to doctors, chance and other people in order to balance their health.

All participants in the present study were heterosexual in nature. This study is thus not a representative of the homosexual or trans-gender community. Future research can include feminine males or masculine females. Also, the individuals chosen for the present study were confined to a limited demographic and geographic location, and thus cannot be considered as a representation of the entire population. The research is limited in its scope with regards to gender and occupation factor only. Hence, further studies can be conducted with variable like countries, family background etc. This research can further be extended based on the differences between other ethnic groups within the U.S and also between different countries.

References

[1] Phares EJ (1976): Locus of control in personality. Morristown. General Learning Press.
[2] Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Journal of Educational Research*, 74(3): 185-190).
[3] Rotter J.B (1960): Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80 (whole no. 609)
[4] Wallston, B. S. & Wallston, K. A. (1978). Locus of control and health: A Review of the literature. *Health Education Monographs*, *6*, 107-117.
[5] Wallston, K. A, Stein, M. J., & Smith, C. A. (1994). Form C of the MHLC Scales: A condition-specific measure of locus of control. *Journal of Personaliiy Assessment*, *63*, 534-553.
[6] Wallston, Stein, & Smith, 1994, *Journal of Personality Assessment*, 63, 534-553.
[7] Wallston, Stein, & Smith, 1994, *Journal of Personality Assessment*, 63, 534-553.
[8] Wallston KA,WAllston BS, DeVilles R: Development of the multidimensional health locus of control (MHLC) scales. Health Educ Monog 1978, 6(2): 160 - 170
[9] Wallston KA: the validity of multidimensional health locus of control. Health Psychol 2005, 10:623 – 631
[10] Wallston, K. A, Wallston, B. S., & DeVellis, R. (1978). Development of the Multidimensional health locus of control (MHLC) scales. *Health Education Monographs, 6,* 160-1 70.

Author Profile

Subhasree Ganapathy Mohan is Specialized in Clinical Psychology & Consultant Psychologist, USA

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