

Effect of Health Locus of Control on Patients with Somatization Disorder

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ABSTRACT

Health locus of control characterizes a patient's tendency to regard health related events as controllable by them or by external forces. From all the past researches it becomes evident that health locus of control have a strong effect on the health behaviour and outcomes of health. Somatization disorder is one disorder in which the primary complaint is about health, and for effective treatment planning assessing relationship between health locus of control and severity of somatization disorder can be beneficial. **Aim:** The aim of the present study was to determine the health locus of control in patients diagnosed with somatization disorder as per ICD-10. **Method:** Sample consisted of 100 participants from a private clinic in New Delhi. The data was collected using Multidimensional health locus of control scale and Patient Health Questionnaire. The results obtained were analysed using descriptive statistics and linear regression. **Result:** Findings suggest that health locus of control predict the severity of somatization. The strongest predictors of severity of somatization were found to be internal health locus control. **Conclusion:** Higher the internal locus of control lower the severity of somatization.

Keywords: Somatization Disorder, Internal Health Locus Of Control, External Locus Of Control

Health and illness can be caused by a multitude of factors (Engel 1980) such as biological (Virus), psychological (beliefs) and social (employment). Researches suggest that locus of control effect the patients' health behaviours and outcomes. Health locus of control is found to have a significant relationship with chronic physical and mental illnesses.

Health Locus of control is a widely accepted concept in the study of health behaviour which was defined by Wallston and Wallston (1982), as a patient's tendency to regard health related events as controllable by them or controllable by external forces.

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Internal Locus: The belief that an individual is in control of his/her health, and can take steps on a personal level to become healthy again.

External Locus: The belief that external forces are in control of a patient's health. This is further sub-divided into chance external locus and powerful external locus of control. (Wallston 1982)

Chance external locus: Is the belief on chance. E.g. "Often I feel sick no matter what I do."

Powerful others external locus: This refers to the belief in the control or authority that other powerful people have over one's health (such as doctors). (Banyard, 2002).

Somatization disorder is a disorder with one or more physical complaints (fatigue, gastrointestinal or urinary complaints) with no organic pathology or pathophysiological mechanisms to account for the complaints (Keller, 1990). The physical symptoms or social and occupational impairment are grossly in excess of what would be expected from physical findings (Khouzam & Field, 1999). It is a distinct clinical and epidemiological condition that lies in the borderland between clinical medicine and psychiatry (Mai, 2004). It can be recognised by Primary care and they may wish to refer them to other physicians because of the overwhelming feelings of dread that these patients evoke with their multiple medical complaints (Mai, 2004). Patients with somatization disorder usually present with numerous symptoms, such as headaches, back pain, persistent lack of sleep, stomach upset, and chronic tiredness, all without demonstrable medical causes. They have a persistent conviction of being ill, despite repeated negative results on laboratory tests, diagnostic tests, consultations with specialists, and recurrent hospitalizations (Mai, 2004) they continue to seek medical care, take several medications, and submit to needless diagnostic and surgical procedures even after reassurances (Mai, 2004).

Due to unexplained causes in today's time it overburdens the health care resources and thus poses a serious problem for the society, thus a need for a holistic approach to manage the patients with somatization disorder is necessary to reduce the health care costs and effective management of somatization disorder. Though there is preliminary evidence that psychotherapy and medication can effectively reduce symptoms and disability but more research is needed in understanding the etiological factors especially in terms of attribution for a relatively easier management of patients with somatization disorder.

From the review of literature it becomes evident that health locus of control has a strong effect on the health behaviour, which in turn has a strong effect on an individual's health. There is a meaningful relationship with health attitudes, behaviours and outcomes (Armitage, 2003).

Studies have investigated the relationship between health locus of control with physical or mental illnesses in terms of attitudes and health behaviours and few studies have looked on health locus of control in terms of severity of symptoms in physical and mental illnesses but

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none with somatization disorder even though the prevalence rate is high.(Haslam et al., 2004).The investigations reveal that, Lefcourt (1976) reports people with an internal locus of control tend to suffer less from severe psychiatric disorders and reported well-being is generally higher among people with a strong internal locus of control.

According to Benson and Deeter (1992), there is also an evidence that people's expectations of self-control over their environment play a mediating role in their adaptation process and that individuals with internal locus of control are better adjusted than individuals with external locus of control.

Bandura (2005) reported that quality of health is determined by lifestyle and habits, which enable people to exert control over their health status. It is thus assumed that people who believes that they have control over their own health (i.e., internality) are more likely to engage in behaviours that are healthy, which in turn leads to better health outcomes.

Afifi (2007) study done in Alexandria Egypt on health locus of control and depressive symptoms among adolescents reported that the participants with low internal health locus of control and high chance external health locus of control were more likely to have depressive symptoms than others in bivariate and multivariate analysis.

Zawawi et al., (2009) studied Depressive Symptoms and their correlates with Locus of Control and Satisfaction which reported that there is no relationship between externality of locus of control (Powerful others) and depression, while externality of locus of control (Chance) was found to be significantly positively related to depression, and in line to previous studies a significant negative relationship was found between internality of locus of control and depression.

Grotz et al., (2009) studied Health locus of control and health behaviour where results from a nationally representative survey showed that High Chance health locus of control can be regarded as risk factor of adequate health behaviour.

Tobias K.van Dijk et al., (2013), in their study about Multidimensional Health Locus of control and depressive symptoms in the multi ethnic population of Netherlands reported a high score on external locus of control with increased depressive symptoms than low score on powerful others health locus of control score.

Overall it is indicated from above studies that individuals with an internal health locus of control are more responsible for their health, recovery and rehabilitation in contrast to individuals with an external health locus of control, and are more likely to undertake efforts in order to feel well and that internal locus of control is related to lower severity of symptoms.

METHOD

Aim of the study:

To determine the Health locus of control in patients diagnosed with having somatization disorder as per ICD-10

Objective:

- To determine the role of Health Locus of control on severity of somatization.

Hypothesis:

Health locus of control may predict severity of somatization disorder.

Design:

The research design used in the study is explorative in nature. It aims to explore the health locus of control in patients with somatization disorder. The study presented here is a nonexperimental study that evaluated the relationship between Health locus of control in somatization disorder.

Sample:

100 clients fulfilling the specified inclusion and exclusion criteria were taken up for the study after obtaining written informed consent. The sample was purposive taken from a private setup in New Delhi India.

Inclusion Criteria:

- Age Range:20-50years
- Clinical conditions, according to ICD-10(W.H.O, 1992).
- Somatization Disorder (presence of all the following):
 - At least 2 years of multiple and variable physical symptoms for which no adequate physical explanation has been found.
 - Persistent refusal to accept the advice or reassurance of several doctors that there is no physical explanation of the symptoms.
 - Some degree of impairment of social and occupational functioning attributable to the nature of the symptoms and resulting behaviour.
- Patients diagnosed with Somatization disorder as per ICD10 Criteria with or without Comorbidity.
- Gender: Both Male and Female
- Education: Class 12th or above
- On treatment for somatization disorder

Exclusion Criteria:

- Individuals with evidence of psychosis.
- Individuals with presence of any chronic physical disability.

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- Individuals with evidence of organic disorder.
- Individuals with evidence of Mental Retardation.

Procedure:

The study was carried out in the following steps:

1. Clients between ages of 20 to 50 years diagnosed with somatization disorder were screened from the perfect mind clinic New Delhi.
2. Patients who met the inclusion criteria were included in the study after which the informed consent was obtained.
3. Sociodemographic details were elicited.
4. Multidimensional Health Locus of Control (Form A) was filled to assess health locus of control and PHQ15 was applied to see the severity of somatic symptoms.
6. Finally Analysis, the data were analysed using SPSS software version 21 and the results are presented in the appropriate section.

Tools used:

Consent Form To obtain consent from the participants.

Socio-Demographic Profile To record the relevant personal information of the participants. The socio-demographic details were collected using a structured questionnaire. The instrument was developed considering the requirements of the researcher.

Multidimensional Health Locus of Control scale (Wallston1978): The MHLOC has three subscales

- Internal factors (such as self-determination of a healthy lifestyle)
- Powerful others (such as one's doctor)
- Chance (which is very dangerous as lifestyle advice will be ignored - these people are very difficult to help).

The scale consists of 18 statements which measures the personal beliefs on the 6 point Likert scale.

Patient Health Questionnaire (PHQ15) :It measures the severity of somatic symptoms. A 15 item Somatic Symptom Severity Scale which measure somatic symptoms on three point scale.

Score: Not bothered at all = 0 Bothered a little = 1 Bothered a lot = 2

- 0 – 4 = no somatization disorder
- 5 – 9 = mild somatization disorder
- 10 – 14 = moderate somatization disorder
- 15 + = severe somatization disorder

Validity of the tools:

Multidimensional Health Locus of Control: There is ample evidence in the literature that the MHLC scales validly assess health locus of control beliefs. (Kenneth A. Wallston 2014)

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PHQ15: Evidence supports reliability and validity of the PHQ-15 as a measure of somatization syndromes in the general population.

All the measures, are used in various about of studies increasing the validity of all the tools to be used.

Permission to replicate and use both of the tools was obtained from the authors of the respective tools.

Statistical Analysis:

Data collected was analysed using appropriate descriptive statistics. Such as mean, standard deviation, and frequency to describe data. Simple linear regression was used to predict criterion variable i.e. severity of symptoms of somatization as measured by PHQ15 using the predictor variables naming health locus of control.

Ethical consideration:

Permission to use the questionnaires was taken from the authors prior to the study. Patients had the freedom to withdraw from the study at any point of time. Confidentiality of all information obtained was maintained.

RESULTS

Preliminary Analysis

Table 1: Demographic Details of patients: Characteristics of patients (N=100)

| SOCIO-DEMOGRAPHIC DETAILS | | Percentages (%) |
|---------------------------|---------------------------------|-----------------|
| GENDER | MALE | 34 |
| | FEMALE | 36 |
| RELIGION | HINDU | 87 |
| | MUSLIM | 6 |
| | SIKH | 6 |
| | CHRISTIAN | 1 |
| DOMICILE | DELHI NCR | 64 |
| | OUT OF DELHI | 36 |
| EDUCATION | INTERMEDIATE(12 TH) | 41 |
| | GRADUATION | 44 |
| | POST GRADUATION | 15 |
| OCCUPATION | HOMEMAKER | 51 |
| | SERVICE | 36 |
| | BUSINESS | 10 |
| | STUDENT | 3 |
| MARITAL STATUS | UNMARRIED | 28 |
| | MARRIED | 65 |
| | WIDOW | 4 |
| | SEPRATED/DIVORCED | 3 |
| FAMILY TYPE | NUCLEAR | 58 |
| | JOINT | 42 |

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Table 2: Mean and Standard deviation of various parameters of Age, questionnaires administered

| Measure | Mean (S.D) |
|----------------------------------|--------------|
| Age | 39.40 (8.50) |
| Internal locus of control | 21.94 (7.86) |
| Chance locus of control | 22.42 (8.22) |
| Powerful others locus of control | 25.63 (7.75) |
| Severity of symptoms | 13.12 (6.74) |

Table 3: Simple linear regression predicting severity of somatization disorder from Health locus of control on somatization:

| Variables | R ² | B | F | p |
|---------------------------|----------------|-------|--------|------|
| (health locus of control) | 0.31 | | 14.96* | |
| Internal | | -0.46 | | 0.01 |
| Chance | | 0.09 | | 0.25 |
| Powerful Others | | 0.13 | | 0.15 |

(*= $p < 0.01$)

A simple Linear Regression with enter method was conducted to predict the severity of somatization from health locus of control. Findings suggest that Health locus of control significantly predicts severity of somatization (31% of severity of somatization can be explained by health locus of control).

Further among the various parameters of health locus of control, internal locus of control was a significant predictor of severity of somatization disorder. I.e. with each 1 unit increase in the score of internal locus of control leads to .46 decrease in severity of somatization.

DISCUSSION

The aim of the present study was to determine the role of health locus of control in patients of somatization disorder. It is suggested that a person's health can be effected by biological, psychological and social factors (Engel, 1980), and therefore, for the complete recovery of a patient, understanding and the management of psychological factors such as health locus of control is very important (Ogden, 2004). Evidence suggests that health locus of control predict the health related psychological outcomes (such as quality of life, severity of symptoms, treatment compliance etc.) in physical and mental illnesses (Leventhal, 1980).

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In the current study, the sample consisted of 100 patients who were diagnosed with somatization disorder. Among the patients: 87% were from Hindu religion, 64% were resident of Delhi/NCR, 44% – graduates, 51% – homemaker, 65% were married and 58% were from nuclear type family set-up. The mean age of participants was 39.40 ± 8.50 and their age ranged from 20 to 50 years.

Our hypothesis is that health locus of control may predict severity of somatization disorder. We used simple linear regression with enter method which suggested that health locus of control significantly predicts severity of somatization disorder. As per the analysis, 31% of severity of somatization disorder can be predicted by health locus of control. This means that the extent to which individuals attribute their health to their own actions or environmental circumstances predicts the severity of somatization disorder.

These results are in line with previous findings in the field of chronic physical and mental illnesses, where the health locus of control has a close association with different physical and mental illnesses (Arshan et al., 2009; Coyne et al., 2011; Field & Kurger 2008; Nabors et al., 2010).

A Study by Armitage (2003), suggests that health locus of control has meaningful relations with health attitudes, behaviors, coping styles, and outcomes gives support to our findings that health locus of control predicts the severity of somatization disorder.

Further, among all the three parameters of health locus of control assessed in this study (Internal, Chance and Powerful Others), the internal locus of control was a significant predictor of severity of somatization disorder. Which means that an increase in the internal locus of control results in a reduction in the severity of somatization.

Lefcourt (1976) reported that people with an internal locus of control tend to suffer less from severe psychiatric disorders, and that the well-being was generally higher among people with a strong internal locus of control. The individuals who have an internal locus of control have better mental health in comparison to individuals with an external locus of control (Mahnaz, 2014).

The results of present study can be explained by the assumption by Bandura (2005), that patients who believe that they can control their health are more likely to engage in healthy behaviour, which will lead to better physical and psychological health outcomes (such as severity of symptoms).

Results of present study can also, be explained by assumption of Rotter's (1966), where he reported that the severity of symptoms in people with an internal locus of control is much lesser as such people have a strong belief that they can control their own destiny and thus are likely to be more aware of environmental factors that may influence future behaviour, take steps to

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improve environmental conditions, place greater value on skill or achievement reinforcement, are resistive to conformity, and display other subtle attempts that influence their health related behaviour (Rotter, 1966).

Other explanations for the results of present study could be that people with high internal locus of control take an active responsibility for their own health, and are thus more likely to engage in health promoting behaviour, in contrast to those who believe on chance and tend to engage less in health protective, and more in health damaging behaviours (Wallston, 1992).

CONCLUSION

In conclusion, health locus of control plays a significant role in Somatization Disorder. Health locus of control found to predict the severity of somatization by 31%.

Different health locus of control affect severity of symptoms of somatization differently. Where the strongest predictors was internal health locus of control. An inverse relationship between internal locus of control and severity of somatization disorder was seen, which means that higher the internal locus of control of a patient, lower the severity of somatization.

Results found in present study are clinically valuable for therapeutic intervention. Modification in a person's health locus of control might help a person in the recovery and outcome (severity of somatization).

LIMITATIONS

The present study has some limitations:

- The data has been collected from only one centre, thus the results could not be generalised.
- No distinction was made on the basis of duration of illness. The duration range was from 2 to 18 years of illness.
- No distinction on the basis of pre and post treatment was made, which could have affected the results.
- Qualitative analysis, apart from the information from questionnaire, could not be elicited due to time constraint.
- There are possible demographic predictors that were not included in this study, and thus, prevent discovering some important data. This supports further analyses and replication with these kinds of predictors.
- Despite these limitations, the present study has successfully provided some useful information for planning and designing effective counselling interventions.

IMPLICATIONS

Finding the locus of control might help in intervention planning for Somatization Disorder.

FUTURE DIRECTIONS

Future studies, there is a necessity to conduct more researches in this area to cross validate the role of health locus of control in other psychiatric disorders.

It would be helpful to conduct more such researches with different methodologies, a comparative study would be beneficial in extracting the distinct health locus of control in patients with somatization disorder.

Also, pre and post treatment group of patients could be studied to investigate the difference between their beliefs, and can thus provide further insight into this topic.

Further, analysis with demographic predictors would be helpful in discovering evidences for prevalence of somatization disorder.

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Conflict of Interests

The author declared no conflict of interests.

REFERENCES

- Afifi, M. (2007). Health locus of control and depressive symptoms among adolescents in Alexandria, Egypt. *Eastern Mediterranean health journal*, 13(5), 1043-1052.
- Armitage, C. J. (2003). The relationship between multidimensional health locus of control and perceived behavioural control: How are distal perceptions of control related to proximal perceptions of control, *Psychology and Health*, 18(6), 723-738.
- Basinska, M. A., & Andruszkiewicz, A.(2012). Health Locus of Control in Patients With Graves-Basedow Disease and Hashimoto Disease and Their Acceptance of Illness. *Int J EndocrinolMetab International Journal of Endocrinology & Metabolism*, 10(3), 537-542. doi:10.5812/ijem.3932
- BASS, C. (2001). Somatoform disorders: severe psychiatric illnesses neglected by psychiatrists. *The British Journal of Psychiatry*, 179(1), pp.11-14.
- Buddelmeyer, H., & Powdthavee, N. (2016). Can having internal locus of control insure against negative shocks? Psychological evidence from panel data. *Journal of Economic Behavior& Organization*, 122, 88-109
- Bundek, N. I., Marks, G. and Richardson, J. L. (2015). Role of health locus of control beliefs in cancer screening of elderly Hispanic women. *APA: Health Psychology*, Vol 12(3), May1993, 193-199.
- Butterfield, E. C. (1964). Locus of control, test anxiety, reactions to frustration, and achievement attitudes1. *Journal of Personality*, 32(3), 355-370.

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- Escobar, J. (1987). Somatization in the Community. *Arch Gen Psychiatry*, 44(8), p.713.
- ESCOBAR, J., RUBIO-STIPEC, M., CANINO, G. and KARNO, M. (1989). Somatic Symptom Index (SSI): A New and Abridged Somatization Construct. *The Journal of Nervous and Mental Disease*, 177(3), pp.140-146.
- Garralda, E. (2005). Somatization and somatoform disorders. *Psychiatry*, 4(8), pp.97-100.
- Khan, M. A., Khan, K. S., & Khan, A. A. (2011). A Study of Health Locus of Control among Female High and Low Performers University Athletes. *World*, 5(3), 142-148.
- Khouzam, H. R., & Field, S. (1999). Somatization disorder: clinical presentation and treatment in primary care. *Hospital Physician*, 35, 20-24.
- Kuehn, A. F., & Winters, R. K. (1994). A Study of Symptom Distress, Health locus of Control, and Coping Resources of Aging Post-Polio Survivors. *Image: The Journal of Nursing Scholarship*, 26(4), 325-331.
- Kuwahara, A., Nishino, Y., Ohkubo, T., Tsuji, I., Hisamichi, S., & Hosokawa, T. (2004). Reliability and validity of the Multidimensional Health Locus of Control Scale in Japan: relationship with demographic factors and health-related behavior. *The Tohoku journal of experimental medicine*, 203(1), 37-45.
- Lefcourt, H. M. (1966). Internal versus external control of reinforcement: a review. *Psychological bulletin*, 65(4), 206.
- Lefcourt, H.M. 1976. Locus of control: Current trends in theory and research. New York: Halstead Press
- Levenson, H. (1973). Multidimensional locus of control in psychiatric patients. *Journal of Consulting and Clinical Psychology*, 41, 397-404.
- Lewis, G. (1996). DSM-IV. Diagnostic and Statistical Manual of Mental Disorders, 4th edn. By the American Psychiatric Association. (Pp. 886; £34.95.) APA: Washington, DC. 1994.
- Psychological Medicine*, 26(03), p.651.
- Lieb, R., Zimmermann, P., Friis, R., Höfler, M., Tholen, S. and Wittchen, H. (2002). The natural course of DSM-IV somatoform disorders and syndromes among adolescents and young adults: a prospective-longitudinal community study. *European Psychiatry*, 17(6), pp.321-331.
- Mahmoud, S., & Abdelaziz, N. A. (2015). Association between Health Locus of Control, Self-care and Self-efficacy in Patients with End Stage Renal Disease Undergoing Haemodialysis. *Life Science Journal*, 12(11).
- Marin, C. and Carron, R. (2002). The Origin of the Concept of Somatization. *Psychosomatics*, 43(3), pp.249-250.
- Masters, K. S., & Wallston, K. A. (2005). Canonical correlation reveals important relations between health locus of control, coping, affect and values. *Journal of Health Psychology*, 10(5), 719-731.
- Mai, F. (2004). Somatization disorder: a practical review. *Canadian journal of psychiatry*, 49(10), 652.

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- Milte, C. M., Luszcz, M. A., Ratcliffe, J., Masters, S., & Crotty, M. (2015). Influence of health locus of control on recovery of function in recently hospitalized frail older adults. *Geriatrics & gerontology international journal*, 15(3), 341-349.
- Morowatisharifabad, M., Mazloomi Mahmoodabad, S., Baghianimoghadam, M., & Rouhani Tonekaboni, N. (2009). Relationships between locus of control and adherence to diabetes regimen. *Journal of research in health sciences*, 9(1), 37-44.
- Ogden, J. (2012). *Health psychology*. London: McGraw-Hill.
- Parkes, K. R. (1984). Locus of control, cognitive appraisal, and coping in stressful episodes. *Journal of personality and social psychology*, 46(3), 655.
- Rock, D. L., Meyerowitz, B. E., Maisto, S. A., & Wallston, K. A. (1987). The derivation and validation of six multidimensional health locus of control scale clusters. *Research in nursing & health*, 10(3), 185-195.
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological monographs: General and applied psychology*, 80(1), 1.
- Strudler Wallston, B. and Wallston, K. (1978). Locus of Control and Health: A Review of the Literature. *Health Education & Behaviour*, 6(1), pp.107-117.
- Taylor, S. (1999). *Health Psychology*. 4th edn. Boston: McGraw-Hill. A thorough overview of health psychology with an emphasis on health care delivery and work from the US.
- Van Dijk, T. K., Dijkshoorn, H., van Dijk, A., Cremer, S., & Agyemang, C. (2013). Multidimensional health locus of control and depressive symptoms in the multi-ethnic population of the Netherlands. *Social psychiatry and psychiatric epidemiology*, 48(12), 1931-1939.
- Wallston, B. S., Wallston, K. A., Kaplan, G. D., & Maides, S. A. (1976). Development and validation of the health locus of control (HLC) scale. *Journal of Consulting and Clinical Psychology*, 44, 580-585.
- Wallston, B., Wallston, K., Kaplan, G. and Maides, S. (1976). Development and validation of the Health Locus of Control (HLC) Scale. *Journal of Consulting and Clinical Psychology*, 44(4), pp.580-585.
- Wallston, K. A. (2005). The validity of the Multidimensional Health Locus of Control Scale. *Journal of Health Psychology*, 10, 623-631.
- Wallston, K. A., & Wallston, B. S. (1978). Preface. *Health Education & Behavior*, 6(1), 101-105. doi:10.1177
- Wallston, K. A., & Wallston, B. S. (1982). Who is responsible for health? The construct of health locus of control. In G. Sanders & J. Suls (Eds.), *Social psychology of health and illness* (pp. 65-95). Hillsdale, NJ: Lawrence Erlbaum & Associates.
- Wallston, K. A., Wallston, B. S., & DeVellis, R. (1978). Development of the multidimensional health locus of control (MHLC) scales. *Health Education & Behavior*, 6(1), 160-170.
- Wallston, K. A., Wallston, B. S., Smith, S. and Dobbins, C. J. (1987). Perceived Control and Health. *Current Psychological Research & Reviews*, spring 1987, vol. 6, no.1, 5-2

Effect of Health Locus of Control on Patients with Somatization Disorder

Wallston, K. A. (1992). Hocus-pocus, the focus isn't strictly on locus: Rotter's social learning theory modified for health. *Cognitive therapy and research*, 16(2), 183-199.

Zawawi, Jehad Alaedein, and Shaher H. Hamaideh. "Depressive symptoms and their correlates with locus of control and satisfaction with life among Jordanian college students." *Europe's Journal of Psychology* 5.4 (2009): 71-103.

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