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Health Locus of Control and Health Seeking Behaviour. The Ghanaian Experience

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Abstract

This study sought to examine the relationship between health locus of control orientation and health seeking behaviour, using the Ghanaian experience as a case in point. The study used the general population in the new Juaben Municipality as respondents based on their multiethnic backgrounds. Findings revealed that health locus of control did not mediate significantly between their illnesses and respective health seeking behaviour. There were various sociocultural factors like the collectivist cultural system that made a categorization of locus of control of any individual quite difficult. It was concluded that the cultural practices of respondents were the major determinant of individual's behavior. In addition, the health system as practiced over a long period of time did not allow enough room for patients to make choices in terms of illness behaviour, a situation that affected their health locus of control behaviour.

Keywords: locus of control, beliefs, utilisation, self-efficacy, culture, health system, Ghana.

Introduction

Health Locus of Control (HLC) is defined as one's belief that the state of one's health is determined by internal or external factors, as well as, the level of perceived control over desired outcomes (Bane, Hughes, & McElnay, 2006; Takaki & Yano, 2006; McDonald-Miszczak, Maki, & Gould, 2000; Howat, Veitch, & Cairns, 2006; Sarkar, Fisher & Schillinger, 2006). HLC theory consists of three dimensions: 1) Internal HLC, 2) Powerful Others HLC, and 3) Chance HLC (Wallston, Wallston, & DeVellis, 1978). Internal versus external locus of control is the generalized orientation that has received the most attention.

Historically, health researchers and health care providers, have long recognized that individual beliefs and values about maintaining or regaining health as evidenced by one's behavior falls under the theoretical domain of locus of control (LOC) as defined by J.B. Rotter's social learning theory (Rotter, 1954). After decades and many empirical studies, this psychological construct was generally accepted as having a three-dimensional structure: Internal LOC, Powerful

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Others LOC, and Chance LOC (Wallston et al., 1978). Studies have shown positive correlations between internal locus of control and health information seeking behavior (Wallston, Maides, & Wallston, 1976) as well as compliance behavior with recommended medical regimens such as encountered in hypertension (Norman, Bennett, Smith, Murphy, 2008) and weight reduction (Colditz, Willett, Stampfer, Manson, Hennekens, Arky, & Speizer, 1990) programmes.

However, other studies have shown positive correlations between internal locus of control and smoking (Schnoll, Rothman, Newman, Lerman, Miller, & Movsas, 2004), an association that is inconsistent with other health and risk behavioural theories (Hashimoto, & Fukuhara 2004). The results and conclusions of this study were however limited to the utilization of the classification approach. The analysis calls for identifying individuals as oriented toward internal, powerful others, or chance as the agent of control, either with high or low health values, and as belonging to different levels of experience groups.

In a study to establish the Locus of control and health behaviour Steptoe and Wardle (2001) concluded that high chance locus scores were associated with more than 20% reductions in the likelihood of healthy options for six behaviours, while powerful others scores showed more variable associations with healthy actions. Inclusion of health value within the analyses did not change the nature of the relationships observed between variables. People with external locus of control were less likely to engage in healthy behaviours and this was no different from those that were in the powerful others category. Most of the original research using HLC and MHLC tended to ignore situational factors and showed that internals were more proactive and thus, more likely to take charge of their health and change undesirable situations.

Bairan (1985) found that people who valued health highly exhibited more health seeking behaviours and tended to take matters in their own hands concerning their medication regimen. Bairan (1985) also found that internals were more noncompliant compared to other groups. These studies were all done among people with western and individualistic orientation whose culture is very different from the collectivist cultures like that of Africa and Asia and may not necessarily be applicable. Furthermore, the role played by significant others in the health seeking behaviour in Africa, and for that matter Ghana, is very prominent and this cannot be easily discounted. This was not touched on by the researchers.

Molassiotis' (2002) findings showed that HLC was a factor associated with compliance to medication regimens. People with internal locus of control were more compliant and responded to treatment better than those with external locus of control. Those with chance locus of control were more unresponsive to treatment. They believed that getting treatment is a matter of luck but not by taking responsibility of one's health related issues. Takaki and Yano (2006) found that individuals with higher self-efficacy scored highest on attributing their health outcomes to their personal control and reported more health seeking behaviours. However, Snyder (2006) and Banes et al. (2006) found that individuals who attributed their health status to internal factors were more noncompliant in medication taking.

Howat et al. (2006) found that people who scored highly on Powerful Others generally believed that health professionals could control one's health outcomes. Therefore those with high Powerful Others HLC scores were more compliant with medication instructions (Howat et al., 2006). O'Hea (2005) also found that individuals who believe their health control lies with their physicians will be more likely to follow their physicians' instructions and turn decisions over to those they think control their health. Much as various behaviours of locus of control have been documented, the extent to which chance LOC and powerful others' LOC have received very little attention, especially in Africa and particularly in Ghana, where religiosity plays a major role in people's lives. Furthermore, very little research has been undertaken in chance locus of control as compared to internal and external locus of control.

Murphy (2006) undertook a study which measured health locus of control, health value and a number of health behaviours as part of the Health in Wales Survey. Measures of smoking, alcohol consumption, exercise and diet were combined to form a health behaviour index, representing key 'lifestyle' indicators. In line with predictions, scores on this measure were positively associated with internal health locus of control scores, and negatively associated with scores on the chance and powerful others dimensions. Classifying respondents according to Wallston and Wallston's (1981) by health locus of control typology revealed that 'pure internals' performed the most health behaviours. Much as some evidence was found to suggest that health value moderates the

relationship between health locus of control and health behaviour, although overall the health locus of control construct was found to be a weak predictor of health behaviour.

Steptoe and Wardle (2001) found an inconsistent and small association between health locus of control and health behaviour compared to what was found in previous studies and concluded that this may be due to the use of small samples, and an overreliance on correlations as measures of association. The study was strictly quantitative, which was able to identify significance levels of analyses but failed to provide answers to the why, how and to what extent of the behaviours of participants, which could better be dealt with when qualitative methods are rather employed.

Norman et al. (2008) hypothesized that those who perceive the cause and course of their illness to lie beyond their personal influence may adhere poorly to treatment, and the theory was tested cross-culturally in the areas of hypertension and diabetes with inconclusive results (Wallace, Rogers, Roskos, Holiday & Weiss, 2006). This notion of 'locus of control' has been applied in clinical anthropology and in cross-cultural research on both diabetes and hypertension (Sturmer, Hasselbach, & Amelang, 2006). A group in Yugoslavia, for example, worked to strengthen the sense of social support for elderly people with hypertension. They identified culturally relevant institutions upon which to style their efforts, and the resulting self-help groups met with some success and were not necessarily based on locus of control (Graham, 2006).

A study of Hindus in 1997, who regularly prayed, showed 70% of immunity to coronary heart disease (Cohen, 2007). Webb and Sheeran (2006) stated in their research on locus of control and spiritual healing that having faith benefits physical and mental health related to thoughts of hope, optimism, and positive expectation; and when persons who are prayed for by prayer groups are compared with persons not prayed for, there is indication of a positive relationship in health improvement due to perceived divine intervention. This is more applicable to those with external locus of control. For this reason, none of the respondents had ready medicine in their homes although taking medicines is not prohibited by the church. The researcher failed to extend to how such belief systems could impact on the lives of the respondents. The question is, is the sole reliance on faith enough to solve all their health problems. What about when surgery is involved? These questions went unanswered.

Examining the relationship between health locus of control and helpfulness of prayer, Saudia, Kinney, Brown and Young-Ward (2001) issued out the Multidimensional Health Locus of Control Scales and the investigator-developed Helpfulness of Prayer Scale to 100 subjects, a day before their cardiac surgeries. Ninety-six subjects indicated that prayer was used as a coping mechanism in dealing with the stress of cardiac surgery, and 70 of these subjects gave it the highest possible rating on the Helpfulness of Prayer Scale. No relationship was found between health locus of control and helpfulness of prayer. Individuals of each locus orientation perceived prayer to be helpful.

Findings suggest that prayer is perceived as a helpful, direct-action coping mechanism and warrants support by health personnel. It is recommended that further research explore the effect of prayer on patients' ability to cope with stressful situations. Burish (2004) investigated the relationship between locus of control and health seeking behaviour and suggested a positive relationship between health locus of control and participation in health related behaviour. He asserted that engaging in positive health behaviours will likely result in positive health benefits for individuals. The study however, failed to indicate how the various loci of control orientations influence health seeking behaviour. Furthermore, it could not determine the extent to which locus of control affect behaviour. The study concluded that empirically evaluating the relationship between spirituality, health locus of control and participation in health/wellness behaviours is currently limited.

Gary (2000) examined health locus of control and helpfulness of prayer in preoperative cardiac surgery patients and found that gaining knowledge about the individual's use of prayer as a coping mechanism in dealing with stressful situations can facilitate incorporating support of this mechanism into a plan of care for the patient. He found that those who scored high on powerful other LOC and chance LOC were more reliant on prayer for successful surgery as compared to those who scored high on internal LOC. Findings suggested that while prayer is perceived as a helpful direct action coping mechanism and warrants support by health personnel, others also believed that it is their will power that sustains them. The study was however silent on the effect of the various orientations on the overall health of respondents. That is while some overly rely on external forces, others rely on their own strength, both of which could have negative repercussions on them.

Methods

Study Design

This study employed a cross-sectional descriptive design for data collection and analysis. Data was mainly collected using questionnaires.

Setting

This study was conducted in the New Juaben Municipality of Ghana. The Municipality has 52 communities. The municipality has a fine combination of people with diverse cultural and ethnic backgrounds that provides a multiplicity of beliefs among those participants in relation to health locus of control. These include Akans, Guans, Ewes, Ga-Adangbes, Gruma, Mole-Dagbani and Grusi.

Participants

Participants for the study involved a sample selected from a cross section of the population in the New Juaben Municipality, Eastern Region-Ghana. The Municipality has a population of 147,528 residents who qualified for this purpose. The Epi Info version 3.5.1 StatCalc was used for the computation. The Estimated Representative Sample was 550 participants. Based on this calculation, six hundred [600] copies of questionnaires were given out to respondents in order to cater for attrition. Five hundred and eighty [580] questionnaires, representing approximately 97% were finally retrieved. Of the 580 questionnaires retrieved, 560 [96.55%] were used for the final analysis after data cleaning.

Respondents for the study had diverse demographic backgrounds. Female participants were dominant in the sample, 296 (53%) compared to their males 264 (47%). The population composition consisted of 35% of people aged below 15 years, 60% for those between 15-64 years, and 5% above 65 years.

Measures

The Multidimensional Health Locus of Control Form C (MHLC – C) is an 18 item scale developed by Wallston, Stein and Smith (1994). It measures five main domains; 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. Other tools assessed development of illnesses and health seeking behaviour.

Results

The study explored the health locus of control will have a mediating effect on the relationship between the development of illnesses and health seeking behaviour. To test if health locus of control orientation will have a mediating effect on relationship between illness development and health seeking behaviour, the study used three regression equations to examine the statistical significance of the mediator effect in line with the method specified by Baron and Kenny (1986) of health locus of control orientation. The categorical multiple regression analysis (optimal scaling method) was conducted. In the first set of regression equations, the mediator – health locus of control orientations – was regressed on the independent variable which is illness development. The results are shown in [Table 1](#).

Table 1. Categorical Multiple Regression of Health Locus of Control Orientations on Ill-health Condition

Mediating Categorical Variables	Ill-health Condition z-scores			
	R-square	Standardised Beta (β)	F _(1,554)	ρ
Internal Health locus of control orientation	.004	-.060 ^{ns}	1.975	.160
Chance Health locus of control orientation	.005	-.072 ^{ns}	2.924	.088
Powerful others Health locus of control orientation	.001	.028 ^{ns}	.428	.153

Notes: ns = not significant

From Table 2, the development of illness was not a significant predictor of Internal Health locus of control orientation [$\beta = -.060, \rho = .160$], Chance Health locus of control orientation [$\beta = -.072, \rho = .088$] and Powerful others Health locus of control orientation [$\beta = .028, \rho = .153$]; that is, there is no significant relationship between illness and any of the health locus of control orientations.

Health seeking behaviour – the study's dependent variable – was regressed on ill-health condition in the second regression equation. This was followed by a third regression equation where health seeking behaviour was regressed on both illness and health locus of control orientation simultaneously [see Table 2].

Table 2. Categorical Multiple Regression of Health Seeking Behaviour on Health Seeking and Health Locus of Control Orientations

Variables	R-square	Changed R-square	β	F
Independent Variables	.282**	.282**		216.58**
All Variables	.284**	.003 ^{ns}		54.53**
Internal Health locus of control orientation			-.051 ^{ns}	
Chance Health locus of control orientation			-.014 ^{ns}	
Powerful others Health locus of control orientation			.001 ^{ns}	

**p<.01; ns=not significant

When Health Seeking Behaviour was regressed on health seeking, a significant model emerged [$F_{(1,553)} = 216.583, \rho < .01$] where R^2 is .282, that is, Health seeking behaviour accounted for 28.2% variance in health seeking behaviour. Health seeking and Health Locus of Control Orientations were simultaneously introduced into the model with a significant model emerging [$F_{(4,549)} = 54.530, \rho < .01$]. The R^2 was .284 indicating that the model as a whole explained 28.4% of the variance in Health Seeking Behaviour, however the Health Locus of Control Orientations just explained additional 0.3% [Changed $R^2 = .003$] of the variance in Health Seeking Behaviour. The contribution of the Health Locus of Control Orientations [Changed $R^2 = .003$] was statistically insignificant, [Changed $F_{(3,549)} = .650, \rho = .589$].

In line with two conditions proposed by Baron and Kenny (1986) that must be met for a mediator effect to be present: (a) the mediator is a significant predictor of the outcome variable and (b) the direct relationship of the independent variable to the outcome variable is less significant than it was in the second equation, the present study's analysis showed that Internal Health locus of control orientation [$\beta = -.051, \rho = ns$], Chance Health locus of control orientation [$\beta = -.014, \rho = ns$] and Powerful others Health locus of control orientation [$\beta = .001, \rho = ns$] did not have significant mediating effects on relationship between health locus of control and health seeking behaviour. Thus Health locus of control orientation will have a mediating effect on relationship between the development of illnesses and health seeking behaviour was not supported by the results.

Discussion

Although there were no significant results showing whether participants' health seeking behaviours were influenced by their LC, qualitative analysis revealed that people social network did influence them. Focus group discussions and interviews showed that among participants of the study, illness and consequent treatment is not always an individual or familial affair. At times the whole village or the community may be perceived as affected by such diseases and healing must be done at community level. In this case various suggestions are put up by family and community members as to when to start treatment outside the usual home remedies, where to get the best form of treatment and how to go about the treatment regime.

The study showed that it is the cultural values that dictate how a patient's ailment must be treated (Saudia et al., 2001). This involvement of family and the community is likened to powerful others

orientation but has more to do with ingrained cultural orientation and belief systems that influence the health seeking behaviours of respondents. In this case the power of the sick person is devolved to other people, which make them dependent on others for health enhancing behaviours. This finding suggests that in order to increase risk awareness and proper education among individuals who are generally influenced by cultural practices there is the need to explore interventions that involve the family and other community members (Helman, 1990; Nagda, 2004).

A major reason why the health locus of control did not significantly influence health seeking behaviour for could be due to the reciprocal attitudes of health professionals toward their patients and the perception of patients of health professionals. This study found that, there is a subculture in the health system in Ghana, whether orthodox or traditional, where healthcare professionals have generally built a kind of “informational flow wall” and a “barrier of disclosure” between themselves and patients and their caregivers and that makes it difficult for patients and clients to ask questions about their own state of health, despite their awareness of the patient charter that requires that a patient has the right to know their true state of health.

These health professionals, as found in this study have over the years tried to keep the true state of health conditions of their patients as professional secrets and diagnoses of patients as sacred which must be concealed from everybody, including the patients and their caregivers. For instance, some health professionals in the study maintain that it is in the best interest of a patient not to know what they suffer from. They further maintain that even if patients are aware of their diagnoses, they would not understand, and for that reason there is no need to tell them anything. This attitude of healthcare givers have gradually turned patients into passive receivers of healthcare who may be erroneously construed as having powerful others locus of control but are rather constrained by societal, cultural and systemic barriers which prevent them from acting out their true behaviours (AbuSabha, & Achterberg, 2007; Graham, 2006).

Another reason why the health locus of control did not significantly influence health seeking behaviour could further be due to perceptual differences between healthcare givers on one hand and patients on the other hand (Howat et al., 2006). This study found that, there is a subculture in the Ghanaian health system, whether orthodox or traditional, where healthcare professionals have generally built a kind of “informational flow wall” and a “barrier of disclosure” between themselves and patients and their caregivers and that makes it difficult for patients and clients to ask questions about their own state of health, despite their awareness of the patient charter that requires that a patient has the right to know their true state of health. Health professionals, as found in this study have over the years kept diagnoses and the true state of health conditions of their patients as professional secrets.

This attitude of healthcare givers have gradually turned patients into passive receivers of healthcare who may be erroneously construed as having powerful others locus of control but are rather constrained by societal, cultural and systemic barriers which prevent them from being their true selves. Patients, on the other hand have regarded health professionals as people to be feared and therefore found it difficult to ask questions even if they did not understand instructions given to them. This could explain why patients who insist on their rights in order to get a better understanding of their state of health at the health facilities are regarded as rebellious and are therefore treated with contempt and in some situations not given the necessary care they deserve. In this instance, even those who hold internal orientation could not have exhibited these characteristics for fear of being verbally abused or neglected by health professionals.

These attitudes of health professionals found in this study may have turned patients who would otherwise have fit into any of the locus of control orientations, into docile receivers of healthcare. This reception by healthcare providers towards people for being assertive could be a direct result of sociocultural practices where assertiveness is frowned upon as a sign of arrogance. Some researchers have reported that there are inconsistencies in the impact of health locus of control and its ability to distinguish participation in health behaviors due to the factors explained above (AbuSabha, & Achterberg, 2007; Cappucio et al., 2004; Wurtele, Britcher, & Saslawsky, 2007).

Limitations

Though this study sought to fill some research gaps, especially with the Ghanaian experience, there were a few limitations worthy of mentioning. First, the study was undertaken in an

environment where the collectivist family system is strong with very little independence for an individual to operate on his or her own. This study site is in contrast to the urban environment where formal education has led to people being more independent-minded and could therefore take independent decisions.

Further, though the scale for the measurement of health locus of control was adapted, it has not been standardized, using Ghanaian norms, and could therefore not necessarily be completely applicable to the Ghanaian situation.

Notwithstanding these limitations, findings of this study may serve as a good basis for future studies in relation to health locus of control.

Conclusion

The Ghanaian cultural situation provides a unique case where locus of control orientations have not been able to fit well in terms of health seeking behaviours. This is evident in terms of situations where an individual finds himself or herself in an extended family setting where cultural practices defines a person's actions in terms of illness. This makes the role of the person very insignificant, and therefore cannot be categorically referred to as having an external locus of control. The health system also plays a paternalistic role, where patients who attend hospitals to not appear to have any significant role to play in their own healthcare but rather become passive recipients of healthcare. This is as a result of long standing practices in the Ghanaian health system where healthcare givers appear to have an absolute control over the sick person. Due to such factors, categorizing someone as having a particular health locus on control orientation becomes quite problematic.

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