The image of health status and quality of life in a Caribbean society

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Abstract

Background: Health is defined as the presence or absence of illness. This conceptualization of health status is dominant in health treatment and in fashioning the health care system. However, very little research has been done on how Jamaicans view health status and quality of life (QoL). Aims: This article seeks to understand how Jamaicans conceptualize health status and QoL because definitional content has implications for their health. Material and Methods: The current study utilized two national cross-sectional probability surveys from the Centre for Leadership and Governance (CLG) which looked at QoL among other variables and the Jamaican Survey of Living Conditions (JSLC) which measured living standards including health status. The sample in both surveys was 8,120 participants. Results: The majority of the respondents in the CLG (54%) and the JSLC (82.2%) surveys reported good health status. There was a strong statistical relationship between area of residence and health status (P < 0.0001) unlike the relationship between area of residence and quality of life (P < 0.137). The respondents dichotomized health status and QoL and a significant relationship was found between both variables (P < 0.0001). The respondents’ dichotomization of health status and QoL is explained by the significant relationship between health status and self reported illness (P < 0.0001) where respondents view health status as the absence or presence of illness, excluding QoL. Conclusion: Health status means the presence or absence of illness and excludes QoL which is not in keeping with previous findings. This distinction is culturally determined.

Keywords: Health, health status, quality of life, image of health, cultural determinism, Caribbean.

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Introduction

The satisfaction of basic needs constitutes quality of life (QoL) which is related to health. Maslow’s theory of human motivation posits that there are five basic interrelated needs. These are: physiological needs, safety needs, need of love and affection, need to belong, need for esteem and need for self actualization. All of these operate in a hierarchy of prepotency [1-3]. Each of these needs in the hierarchy has to be satisfied before the higher need can be met [1]. Understanding these needs is important because the greater the acquisition of knowledge of people’s natural way of being, the less difficult it becomes to guide people about how to fulfill their greatest potential, how to respect the self, how to love and be productive, and how to be good and happy [2]. Maslow also posits that healthy people with healthy psyches transcend their environment. This transcendence occurs because these people are guided by internal values and rules that foster a self-governing character, detachment and independence [3].

Maslow’s theory can be used to motivate people to become healthy [4]. Scores on belief in an internal locus of
control and neuroticism were predicted by Maslow’s need for satisfaction [5]. Biopsychosocial health can be explained by the hierarchy of needs. Maslow argues that people have the potential for growth and innate goodness, and are able to strive when faced with adversity. Therefore, positive psychology influences health [6]. The hierarchy of needs also explains gender differences in the meaning of health. Women associated a comfortable life, pleasure, values and happiness with health, unlike men who associated health with national security and family. The values of women satisfied their fundamental needs, while those of men satisfied their higher order needs. This difference suggests that men can be motivated to engage in healthy behavior after they have fulfilled their more fundamental needs, compared to women who may strive for health before they are motivated by other needs [7]. However, there is no gender difference in self-actualization scores, but women score lower on perceived self-presentation, confidence, physical self-efficacy and perceived physical ability [8].

Biological and psychological health is related to the hierarchy of needs. For example, geriatric patients have a hierarchy of needs. Therefore, caring for these patients requires that their self-actualization and self-esteem needs are met, and not just their physiological health [9]. In addition, the unmet physiological and safety needs of patients who suffer from chronic vestibular dysfunction means that these patients cannot progress to higher order needs. This lack of progress leads to psychosocial problems that have to be addressed [10]. Maslow’s hierarchy of needs is also important for health education [11] because the status of people’s basic needs influences their health-promoting self-care behavior. Some 64% of the variance in health-promoting self-care behavior was influenced by the physical: love, belonging, need, satisfaction and self-actualization [12]. Unhealthy behavior and health disparities based on race and class can be reduced through health promotion programmes that respond to the basic needs of people, which will allow them to achieve self-actualization [13]. This self-actualization influences the quality of life. The hierarchy of needs was applied to the development of the quality of life in 88 countries between 1964 and 1994. There is a significant association between the predictions of Maslow’s theory and the quality of life, including part of the S-shaped course and the sequence of needs achievement [14] which influences health.

Published evidence on the health status and quality of life of Jamaicans is lacking, and not much research has been done in this area in the English-speaking Caribbean. This study examined how Jamaicans conceptualize health and quality of life, and investigated any possible relationship between the two variables.

Materials and Methods
The current study utilized two different cross-sectional probability surveys which were conducted in 2007 to examine the health status and quality of life of Jamaicans. These two national surveys were conducted throughout 14 parishes of Jamaica. The studies were conducted by (1) the Centre for Leadership and Governance (CLG), Department of Government, the University of the West Indies (UWI), Mona, and (2) the Planning Institute of Jamaica (PIOJ) and the Statistical Institute of Jamaica (STATIN) – Jamaica Survey of Living Conditions (JSLC). The sample for the current study was 8,120 participants: 1,338 from the CLG and 6,782 from the JSLC. Each survey was independently collected by the organization, and both the CLG and the JSLC collected data at the same time.

During the months of July and August 2007, CLG conducted a stratified probability sample of 1,338 respondents. The sampling design used for the study was that used by STATIN. Face-to-face interviews were used to collect the data on an instrument which took about 90 minutes. The instrument consisted of questions about Abraham Maslow’s hierarchy of needs (physiological needs, safety needs, social needs, self-esteem and self-actualization) which were used to determine the participant’s quality of life [3]. The instrument was administered as part of a larger CLG study. It was vetted by senior scholars, researchers, and interviewers from STATIN and the Social Development Commission (SDC). After the vetting phase, the questionnaire was pre-tested in a number of communities across the 14 parishes of Jamaica, as well as among UWI faculty members and the student population. Modifications were made at a training symposium, based on the comments of the different interviewers and the remarks of trained researchers. All the interviewers employed by the CLG’s team were data collectors from either STATIN or SDC.

The interviewers who are trained data collectors underwent further training with the CLG team for a 3-day period. The project manager of CLG travelled across the country to verify the data collection process. A data template was created before the data was entered and data entry clerks were trained to work with the instrument. Three different groups independently entered the data, which was cross-referenced and reviewed for accuracy by two members of the research team, who also validated the data entry process and cleaned the data.

The JSLC was commissioned by PIOJ and STATIN in 1988, and these organizations have been collecting data since 1989 [15]. The JSLC is done through the administering of questionnaires modeled on the World Bank’s Living Standards Measurement Study (LSMS) household survey [16]. The JSLC questionnaire consists of variables dealing with demographics, health, the immunization of children aged 0-59 months, education, daily expenses, non-food consumption expenditure, housing conditions, inventory of durable goods and social assistance. Interviewers are trained to collect the data from household members. The survey is conducted annually between April and July.
Table 1: Demographic characteristics of sample for CLG and JSLC, 2007

| Variable          | CLG   | JSWC  |
|-------------------|-------|-------|
| Gender            |       |       |
| Male              | 574   | 3303  |
| Female            | 723   | 3479  |
| Social class      |       |       |
| Working           | 766   | 2697  |
| Middle            | 476   | 1351  |
| Upper             | 57    | 2734  |
| Educational level |       |       |
| Primary or below  | 60    | 5752  |
| Secondary         | 892   | 709   |
| Tertiary          | 339   | 131   |
| QoL               |       |       |
| Very poor         | 13    | 1.0   |
| Poor              | 59    | 4.5   |
| Moderate          | 536   | NA    |
| Good              | 575   | 43.6  |
| Very good         | 136   | 10.3  |
| Health status     |       |       |
| Very poor         | 50    | 0.8   |
| Poor              | 270   | 4.1   |
| Moderate          | 848   | 12.9  |
| Good              | 2967  | 45.2  |
| Very good         | 2430  | 37.0  |
| Current economic situation compared to 1 year ago |       |       |
| Very good         | 58    | 4.4   |
| Good              | 361   | 27.1  |
| Moderate          | 660   | 49.5  |
| Poor              | 164   | 12.3  |
| Very poor         | 90    | 6.8   |
| Area of residence |       |       |
| Urban             | 291   | 21.7  |
| Rural             | 1051  | 77.8  |
| Age Mean (SD)     |       |       |
| Total             | 35.0 years (13.6) | 29.9 years (21.7) |

QoL = 1/5*∑Ni where i is each need (i.e. I = 1, 2, 3, 4, 5), and where the QoL index is: 0 ≤ QoL ≤ 10.

Cohen and Holliday stated that correlation can be very low/weak (0.0-0.19); weak (0.2-0.39); moderate (0.4-0.69); strong (0.7-0.89) and very strong (0.9-1.0) [17]. Cohen and Holliday’s interpretation will be applied to categorizing QoL into five groups: very poor (values range from 0 to 1.9); poor (values from 0.2 to 3.9); moderate (values from 4.0 to 6.9), good (values ranging from 7.0 to 8.9) and very good (values ranging from 9 to 10). Health status was measured by the question “Generally, how do you feel about your health?” Answers to this question were on a Likert scale ranging from excellent to poor.

Table 2: Quality of life and health status by gender of respondents, CLG and JSLC

| Variable          | CLG   | JSWC  |
|-------------------|-------|-------|
| Gender            |       |       |
| Male              | 574   | 3303  |
| Female            | 723   | 3479  |
| QoL and Health status |       |       |
| Very poor         | 6     | 71.0  |
| Poor              | 24    | 24.0  |
| Moderate          | 222   | 111   |
| Good              | 245   | 148   |
| Very good         | 74    | 58    |
| Total             | 565   | 713   |

Table 3: Quality of Life and health status by area of residence, CLG and JSLC

| Variable | Area of residence | CLG   | JSWC  |
|----------|------------------|-------|-------|
|          | Non-urban | Urban | Non-urban | Urban |
| QoL and Health status |       |       |
| Very poor | 9 | 41.4 | 42 | 0.9 |
| Poor      | 47 | 12.4 | 215 | 4.7 |
| Moderate  | 435 | 294 | 15.1 |
| Good      | 432 | 895 | 46.0 |
| Very good | 104 | 695 | 35.7 |
| Total     | 1027 | 1947 |

Table 4: Quality of life, health status and standardized health status

| Classification | QoL | JSWC | Standardized JSWC |
|----------------|-----|------|-------------------|
| Very poor      | 13  | 50   | 10                |
| Poor           | 59  | 270  | 54                |
| Moderate       | 536 | 848  | 171               |
| Good           | 575 | 2967 | 596               |
| Very good      | 136 | 2430 | 488               |
| Total          | 1319| 6565 | 1319              |

Results

In examining the demographic characteristics of the sample as well as QoL and health status, forty three percent of the CLG’s respondents (n = 1338) were males compared to forty nine percent for the JSLC (n = 6,782; Table 1). Fifty-four percent of CLG’s respondents indicated at least good QoL (of which 10.3% claimed very good) compared to 82.2% of those in the JSLC who indicated at least good health status (of which 37% mentioned very good).

A statistical relationship was found between QoL and gender [QoL – χ² (DF = 4) = 11.9, P < 0.018], and health status and gender [JSWC – χ² (DF = 4) = 46.5, P < 0.0001; Table 2]. A cross-tabulation between QoL and area of residence revealed no significant statistical relationship [QoL – χ² (DF = 4) = 6.98, P < 0.137; Table 3]. However there was a significant relationship between health status and area of residence (JSWC – χ² (DF = 4) = 27.51, P < 0.0001].

Measure

Quality of life was defined as the overall self-reported life satisfaction of an individual. It was measured as the mean summation of the five-item needs from Abraham Maslow’s hierarchy. These items were physiological needs, safety needs, social needs, self-esteem and self-actualization [1]. Each item was on a 10-point Likert scale. Using Cronbach alpha for the five-item scale, reliability was 0.841 (or α = 84%).
Using the standardized health status and QoL a significant statistical association was found between the two variables \( \chi^2 (DF = 4) = 388.9, P < 0.0001; \text{Table 4}. \). In addition, a statistical association was found between the two variables \( \chi^2 (DF = 16) = 85.477, P < 0.0001; \text{Table 5}. \)

Using data from JSLC’s survey, a statistical relationship was found between the health status and self-reported illness of respondents’ variables \( \chi^2 (DF = 4) = 1323.470, P < 0.0001 \). The statistical association was moderate, as given by the contingency coefficient with a value of 0.450. Of those who indicated that they had an illness \((n = 976)\), 3.0% claimed very poor; 17.4% said poor; 36.8% indicated moderate; 31.3% mentioned good and 11.6% reported very good health status. In the same way, of those who indicated that they had an illness \((n = 976)\), 3.0% claimed very poor; 17.4% said poor; 36.8% indicated moderate; 31.3% mentioned good and 11.6% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. The way of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. The way of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status. In the same way, of those who indicated that they had not experienced an illness in the last 4-week period \((n = 5569)\), 0.4% reported very good health status.

**Table 5** QoL by economic situation of individual and family, CLG

| QoL       | Much worse | A little worse | Same | A little better | Much better |
|-----------|------------|---------------|------|----------------|-------------|
| Very poor | n (%)      | n (%)         | n (%)| n (%)          | n (%)       |
| Poor      | 3 (5.1)    | 3 (1.2)       | 2 (0.4)| 2 (0.5)       | 3 (2.7)     |
| Moderate  | 34 (57.6)  | 124 (48.8)    | 192 (41.0)| 155 (37.5)   | 29 (26.1)   |
| Good      | 17 (28.8)  | 88 (34.6)     | 213 (45.6)| 200 (48.4)    | 49 (44.1)   |
| Very good | 3 (5.1)    | 15 (5.9)      | 43 (9.2) | 50 (12.1)     | 23 (20.7)   |
| Total     | 59         | 254           | 468   | 413            | 111         |

**Discussion**

This study examined how Jamaicans view health status and QoL. The majority of the respondents in the CLG and JSLC surveys stated that they had good health status. The JSLC survey had the greater majority with 28.2% more of the respondents stating that they had good health status than their counterparts in the CLG survey. The respondents stated that they had good health status as their conceptualization of health as the presence or exclusion of basic needs in their health status. The respondents’ view of health status suggests that their conceptualization of health as the presence or absence of illness is culturally determined, because this is different from the findings of previous studies \[18, 19\]. Therefore, the Jamaican culture QoL is multi-dimensional and health status is one-dimensional, so these conceptualizations are antonymous.

The dichotomous conceptualization of QoL and health status may be explained by the finding that a significant relationship was found between health status and self-reported illness. The respondents in this study viewed their health status based on the absence or presence of an illness, and did not include QoL. The respondents’ exclusion of basic needs in their health status suggests that their conceptualization of health as the presence or absence of illness is culturally determined, because this is different from the findings of previous studies \[18, 19\]. Therefore, within the Jamaican culture QoL is multi-dimensional and health status is one-dimensional, so these conceptualizations are antonymous.

The preponderance of illness accounting for most of health is not atypical to Jamaica, as a study conducted by Hambleton et al. \[20\] involving elderly Barbadians (60 years) revealed similar results. Hambleton et al.’s work found that 88% of the variability in health status was accounted for by current illness. While this study cannot allude to the generalizability of this to the Caribbean, clearly in both of the aforementioned nations, health still carries a narrow definition. This narrow definition of health was the justification of the World Health Organization’s (WHO) concept of health in 1948 \[21\]. The WHO postulated a definition which states that health is more than the absence of disease, as it includes social, psychological and physical wellbeing \[21\]. Health is therefore more than the absence of illness. This is a negative approach to the image and study of health, and does not encompass wellbeing or the positive side to health \[22, 23\]. Both the WHO in the preamble to its Constitution in 1948, \[21\] and Engel \[24-26\], have sought to conceptualize and provide a rationale for the image and study of health that extends beyond illness or the antithesis of disease. Despite the contributions of social scholars as well as the WHO and Engel to the discourse of health, in contemporary Jamaica the image of health is still the antithesis of illnesses.

Bok \[27\] opined that the WHO’s conceptualization of
health is too broad, and therefore poses a problem to operationalize in research. Embedded in Bok’s claim is the difficulty in quantifying social and psychological conditions in health, and explaining the use of diagnosed illnesses, mortality and life expectancy instead of wellbeing. Like other scholars [28-30], Bok sees health as an objective phenomenon which explains the use of life expectancy, diagnosed illness and mortality. Life expectancy relies on mortality data, and while it is an objective measure of the health of people or a society, it is similar to the use of the antithesis of illness and not wellbeing. It is this narrow approach to the use of life expectancy that justifies the World Health Organization’s (WHO) introduction of healthy life expectancy [31]. Recognizing the limitations of life expectancy, the WHO discounted life expectancy for disability. Disability Adjusted Life Expectancy (DALE) summarizes the expected number of years of life of an individual, which might be termed the equivalent of “full health.” To calculate DALE, the years of ill health are weighted according to severity, and subtracted from the expected overall life expectancy, to give the equivalent years of healthy life [31].

This study has contributed to our understanding of health status by highlighting the culture-bound conceptualization of health status in Jamaica, which is different from how it is conceptualized in the literature which includes QoL. Another contribution is the generalization of the findings, with the combination of the findings from two large-scale random national surveys. However, there are a couple of limitations. We did not measure the factors influencing how Jamaicans conceptualize illness which would inform interventions. Also, the CLG and JSLC surveys relied on self-reports so there was the possibility of social desirability bias, where the respondents might have told the interviewers what they wanted to hear to get their approval.

QoL is concerned with how people assess their lives which includes a wide range of issues from health, life satisfaction, momentary moods, economic wellbeing, happiness to needs satisfaction and a global assessment of all aspects of life [32-34]. QoL, therefore, is subjective wellbeing, and its coverage extends beyond illness [35]. Health status, however, is synonymous with physical health (illness) which means that collecting data on illness and self-rated health status is one of the same and therefore adds nothing new to understanding general health as defined by the WHO [21]. In keeping with the broad definition of health forwarded by the WHO, QoL should be used in addition to illness or self-rated health status, as self-reported illness and self-rated health status are the same events.

**Conclusion**

This study examined how Jamaicans conceptualize health status and QoL. Jamaicans view their health status and their QoL as distinct domains in their lives. This surprising distinction is culturally determined because the difference has not been empirically observed elsewhere except Barbados. The absence or presence of illness influences how Jamaicans conceptualize their health status. The exclusion of QoL or basic needs from their conceptualization of health status should be noted by medical practitioners and researchers when they assess the health of Jamaicans.

The aforementioned findings highlight that collecting data on health status and illness in Jamaica is one and the same, and therefore other subjective indices such as QoL, life satisfaction and happiness would yield more information than health status and/or illness. If health is multi-faceted, then health status would not be a good measure of this broad conceptualization. Further research is needed to uncover the reasons for the one-dimensional view Jamaicans have of their health status, and how this conceptualization affects their health.

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