

Dichotomising poor self-reported health status: Using secondary cross-sectional survey data for Jamaica

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Abstract

Background: Caribbean scholars continue to dichotomise self-reported health status without empirical justification for inclusion or exclusion of moderate health status in the dichotomisation of poor health. **Aims** This study will 1) evaluate which cut-off point should be used for self-reported health status; 2) assess whether dichotomisation of self-reported data should be practiced; 3) ascertain any disparity in dichotomisation by some covariates (i.e., marital status, age cohort, social class); and 4) examine the odds of reporting poor or moderate-to-very poor self-reported health status if one has an illness. **Materials and Methods:** The current study used cross-sectional survey data for 2007. The survey used stratified probability sampling techniques to collect the data from Jamaicans. The sample consisted of 6,783 respondents, with a focus on participants aged 46+ years (n=1,583 respondents). Self-reported health status was a 5-item Likert scale question. The dichotomisation was poor health status or otherwise and poor (including moderate) self-reported health. Odds ratios were calculated in order to estimate the effect of the covariates. **Result:** When moderate self-reported health status was used in poor health status, the cut-off revealed moderate effect on specified covariates across the age cohorts for women. However, for men, exponential effects were used on social class, but not on area of residence or marital status across the different age cohorts. **Conclusions:** The cut-off point in the dichotomisation of self-reported health status does not make a difference for women and must be taken into consideration in the use of self-reported health data for Jamaica.

Keywords: Age-dependent covariates, social class, dichotomisation of self-reported health; moderate health status, odds ratios, Jamaica.

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Introduction

Logistic regression has been widely used by Caribbean and/or Latin American scholars to examine parameters and weights of determinants of self-reported health status [1-7] or life satisfaction [8]. This is a global practice [9-14]. Embedded in the use of logistic regression in the study of self-reported (rated) health is the dichotomisation of health status. Self-rated health status is a Likert scale variable ranging from very poor to very good health status. This denotes that the dichotomisation of self-reported health must address where moderate health status should be

placed.

The dichotomisation of self-reported health status brings into focus the issue of a cut-off and the validity of one's choice. By categorising an ordinal measure (i.e., self-reported health) into a dichotomous one, this means that some of the original data will be lost in the process. Another important issue which is unresolved in the choice of a cut-off is the subjective with which Caribbean scholars have continued to make their decision. Their decision as to what constitutes bad or good (including excellent) health is not purely subjective, as this practice is

global one. The decision of a cut-off cannot be subject to international norm if there is no rationale for this approach. Caribbean scholars cannot merely follow tradition in their choice of conceptualisation and operationalisation of a measure, as this is not a scientific enough rationale for the use of a particular measure.

Some scholars have opined that self-reported health status should remain a Likert scale measure or in its continuous form as against the dichotomisation of the measure [15-17]. The work of Finnas et al. showed that the five-point Likert scale variable of self-reported health status can be dichotomised. However, there are some methodological issues that must be considered [18]. Finnas and colleagues' study revealed that the cut-off point of bad versus good self-reported health and the decision as to where moderate self-reported health status be placed does not depend on age. However, when the categorisation of poor self-reported health excludes moderate self-reported health, the covariate of marital status and educational level were found to be highly age-dependent. Within the context of the aforementioned findings, Caribbean scholars need to examine these issues within the available health data in order to be able to empirically make a choice of 1) dichotomisation or 2) non-dichotomisation of self-reported health status.

The discourse on whether or not to dichotomise self-reported health status is unresolved. Therefore, dichotomising the measure simply because it has been done so by non-Caribbean scholars in developed nations is not a sufficient rationale for following suit in Latin America and the Caribbean. Latin America and the Caribbean are developing nations whose socio-economic situations are different from those in First World Countries, emphasising the justification of why Latin America and Caribbean scholars should examine self-reported health data in order to concretise their choice of dichotomisation or not.

Jamaica, which is a part of Latin America and the Caribbean, has been collecting self-reported health data since 1988 [19], and these data have been used repeatedly by scholars to aid public health programmes. An extensive review of the literature did not find a single study that has examined the validity of dichotomisation of self-reported health status. The same was also found for the wider Caribbean, suggesting that scholars have been keeping with the tradition and the practice of using the scholarly information from the developed nations when it comes to dichotomised self-reported health status. The current study fills this gap in the literature, and will be used to guide public health practitioners and other users of self-reported health data on Jamaicans. The objectives of the study are: 1) evaluate which cut-off point should be used for self-reported health status; 2) assess whether dichotomisation of self-reported data should be practiced; 3) ascertain any disparity in dichotomisation by some covariates (i.e., marital status, age cohort, social class); and 4) examine the odds of reporting poor or moderate-to-very poor self-reported health status if one

has an illness.

Materials and Methods

Sample

This study used secondary cross-sectional survey data, which was collected between May and August, 2007 [20]. The Jamaica Survey of Living Conditions (JSLC), which is used for this study, is a joint research conducted by the Planning Institute of Jamaica (PIOJ) and the Statistical Institute of Jamaica (STATIN) [19]. The JSLC is an annual survey that began in 1988. It is a standard exercise; the JSLC's sample is a proportion of the Labour Force Survey (LFS). In 2007, it was one-third of the LFS.

For 2007, the JSLC's sample was 6,783 respondents. The current study extracted 1,583 respondents from the larger sample as the focus was on participants aged 46+ years. The survey was drawn using stratified random sampling. This design was a two-stage stratified random sampling design where there was a Primary Sampling Unit (PSU) and a selection of dwellings from the primary units. The PSU is an Enumeration District (ED), which constitutes a minimum of 100 residences in rural areas and 150 in urban areas. An ED is an independent geographic unit that shares a common boundary. This means that the country was grouped into strata of equal size based on dwellings (EDs). Based on the PSUs, a listing of all the dwellings was made, and this became the sampling frame from which a Master Sample of dwellings was compiled, which in turn provided the sampling frame for the labour force. A total of 620 households were interviewed from urban areas, 439 from semi-urban areas and 935 from rural areas, which constituted 6,783 respondents. The sample was weighted to reflect the population of the nation. The non-response rate for the survey for 2007 was 27.7%.

Data collection

The JSLC is a modification of the World Bank's Living Standards Measurement Study household survey [21]. Face-to-face interviews over the aforementioned period were used to collect the data. A structured questionnaire was used and already trained interviewers were then trained again specifically for this task. The questions covered demographic characteristics, household consumption, health status, health care-seeking behaviour, illnesses, education, housing, social welfare and related programmes, and inventory of durable goods.

Statistical analyses

Data were stored, retrieved and analyzed using SPSS-PC for Windows version 16.0. Descriptive statistics were used to provide background information on the sample. Cross tabulations were done to examine non-metric dependent and independent variables, which provided the percentages. Percentages were computed for dichotomous health statuses (i.e., very poor or poor health status, and the other very poor to moderate health status); these were employed for calculating the odds ratio in each dichotomisation of self-reported health status.

Among men aged 46-54 years, 37.7% of those who reported an illness rated their health status as very poor or poor, as compared to 7.3% of those who did not indicate an illness. Hence, the odds ratio of very poor-to-poor health status was 7.7 [(37.7/62.3)/(7.3/92.7)] indicating that men who reported an illness also have 8 times as high odds of reporting very poor or poor health status than those who did not report a dysfunction.

In age cohort 46-54 years, the percentage of men who reported very poor, poor or moderate health status was 81.4% compared to 39.9% of those who did not report an illness. Hence, the odds ratio of very poor, poor or moderate health status versus non-very poor to moderate health status was 9.6 [(81.4/18.6)/(31.2/68.8)].

The current study expanded on the work of Finnas et al. [18], which examined some of the methodological challenges in self-reported data in Finland. This paper is an expansion of Finnas et al.'s study in a number of respects, such as: 1) their work used age cohort 35-64 years while this study used 45-85+ years; 2) self-reported illness was included among the covariates in the examination of self-reported (rated) health status; and 3) social class and access (or lack of access) to material resources play a critical role in directly and indirectly influencing health, and so this was added to this paper. Although higher education plays a vital role in health status, 2% of the sample had tertiary level education and of this, 0.2% was older than 45 years. Most of the sample had at most primary level education (87.3%), which means that the role of tertiary education would contribute marginally to this sample. Hence, the researcher excluded it from the covariate analysis of self-reported health status.

Measurement of variables

Self-reported illness status is a dummy variable, where 1 = reporting an ailment or dysfunction or illness in the last 4 weeks, which was the survey period, 0 = no self-reported ailments, injuries or illnesses [11, 12, 25]. While self-reported ill-health is not an ideal indicator of actual health conditions, because people may underreport, it is still an accurate approximation of ill-health and mortality [26, 27]. Self-reported health status (or health status) was measured by the question: Generally, how would you describe your health currently? The options were: very good, good, moderate (or fair), poor, and very poor. Age group was classified as children (aged less than 15 years), youth (aged 15 through 25 years), and other age cohorts ranging in 5 year intervals from 26-30 years, et cetera. Medical care-seeking behaviour was taken from the question: Has a health care practitioner, healer, or pharmacist been visited in the last 4 weeks? The two options were yes or no. Medical care-seeking behaviour, therefore, was coded as a binary measure where 1=yes and 0= otherwise. Social class is measured using income quintile where it ranges from poorest 20% to wealthiest 20%.

The distribution of the different age cohorts for each sex based on self-reported health status is given in Figures 1a

and 1b. Figures 1a and 1b will be used to argue the case for a cut-off point for the dichotomisation of self-reported health status in Jamaica.

It is well established in biomedical literature that there is a strong negative correlation between health and age; the current study using self-reported health status by different age cohort controlled for sexes revealed that good health decreases as the individual ages and that more women beyond 80 years old reported very good health status compared to men in the same age cohorts. Health status, therefore, can be simply explained by age cohorts, and the aforementioned findings show that sex must be taken into consideration among the covariates in order to comprehend the effects of particular demographic variables on the statistical interpretations of health data. The other covariates must include education level, marital status, area of residence, and social class.

The issue of dichotomising self-reported health status continues to be debated in Jamaica as researchers continue to grapple with whether to use very poor-to-poor health status versus moderate-to-very poor health status. The issue of using moderate health in poor or good health status is critical as this will aid researchers in understanding whether there should be a cut-off point and where it should be, as this is the crux of the interpretation of the logistic regression model. Based on Figure 1, the very poor-to-poor health status is marginal at ages below 46 years, and so for the purpose of dichotomisation, ages 46 years and older will be used.

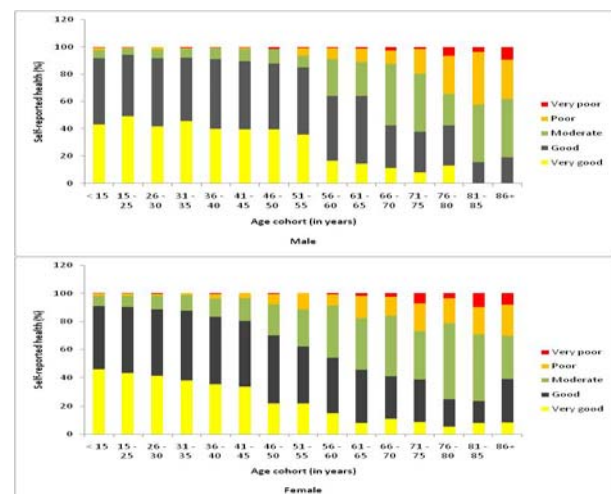


Fig. 1a Health status (in %) by age cohort controlled for sex (i.e. male)

Fig. 1b Health status (in %) by age cohort controlled for sex (i.e. female)

Results

Demographic characteristics

Of the sample (6783), 48.7% was male; 51.3% female; 69.2% never married; 14.9% reported having an illness in the survey period (4-week); 49.0% dwelled in rural areas; 82.2% reported at least good health and 4.8% reported at least poor health status (Table 1). Concomitantly, 61.8% indicated no formal education; 2.0% reported tertiary level education; 20.4% was classified as in the wealthiest 20% and 19.7% was in the poorest 20%. Continuing, the mean

age of the sample was 29.9 years (SD = 21.8 years) with 25 percent of the sample being 12 years old; 50 percent being 26 years old and 75 percent being 44 years old; 2.1% of the sample was at least 81 years old. Furthermore, 31% of the sample was less than 15 years old and 18.9% youth.

Table 1 Socio-demographic characteristic of sample, n = 6,783

	n	%
Sexes		
Male	3303	48.7
Female	3479	51.3
Marital status		
Married	1056	23.3
Never married	3136	69.2
Divorced	77	1.7
Separated	41	0.9
Widowed	224	4.9
Self-reported illness		
Yes	980	14.9
No	5609	85.1
Self-reported health status		
Very good	2430	37.0
Good	2967	45.2
Moderate	848	12.9
Poor	270	4.1
Very poor	50	0.8
Area of residence		
Urban	2002	29.5
Semi-urban	1458	21.5
Rural	3322	49.0
Income quintile		
Poorest 20%	1343	19.8
Poor	1354	20.0
Middle	1351	19.9
Wealthy	1352	19.9
Wealthiest 20%	1382	20.4
Education attainment (level)		
No formal	4071	61.8
Basic	783	11.9
Primary or preparatory	898	13.6
Secondary	709	10.8
Tertiary	131	2.0

Multivariate analyses

Interpretation of the odds ratios

Comparatively, for ages 46-54 years, the odds ratio for reporting an illness when an individual is a male who self-reported that he had very poor-to-poor health status was 7.7 times compared to a male who did not report an illness. For women of the same age cohort, those who reported an illness who had reported a health status of very poor-to-poor was 3.3 times more likely to report an illness compared to a female of the same age cohort who did not report a dysfunction.

The findings revealed that the odds ratio of an 85+-year-old male reporting an illness when he had indicated very poor-to-poor health status was 7.9 times more than for one who had not indicated a dysfunction.

However, the odds ratio of reporting an illness declined for Jamaican males (Table 3). On the other hand, the odds of a female of the same age who reported an illness indicating that she had very poor-to-poor health status was greater at 85+ years than a 46-54-year-old female (Table 3).

Generally, using the odds ratio, males benefited more by being married (Table 3) than females (Table 3). Concomitantly, the variance from adding moderate-to-poor or very poor health status marginally change the odds ratios over very poor-to-poor health status to very moderate-to-very poor self-reported health status. This was the same across area of residence for the sexes. A substantial disparity in the odds ratios occurred in social standing for males, while it was relatively the same for females. Table 3 revealed that by adding moderate self-reported health status to very poor or poor self-reported health status for males, the odds ratios at older ages (i.e., 75+ years) increased exponentially over very poor-to-poor self-reported health status.

Using odds ratios, the cut-off point for poor health status (excluding moderate health) increased over the age cohorts. However, when the cut-off point included moderate health status, the odds ratios from ages 46 years to 84 years showed that as respondents age within this age cohort, their likeliness of reporting poor health increased; this declined for ages beyond 85+ years. Concurrently, the odds ratios are exponentially higher for the latter dichotomisation than the former (Table 4).

Discussion

The findings of the current study show that the choice of cut-off for the dichotomisation of self-reported health status marginally matters for age, marital status, and area of residence. These findings concur with Finnas et al.'s work [18]. However, social class matters for males. The odds ratios for males at the different social classes, when moderate health status is added to poor health status, changed substantially. This suggests that the dichotomisation of self-reporting for males will not shift and will produce a different result from if only poor or very poor were the cut-offs for self-reported health status. The findings of the study showed that the poor or poorest 20% of males benefitted exponentially when moderate self-reported health status is added to the cut-off point in dichotomising poor health status (including very poor). Another important finding of this study, which was not examined by Finnas et al., is the validity of using self-reported illness to measure the health status of people. Even though the likelihood of a person with an illness reporting very poor-to-poor health status is greater than one, it should be noted that that likelihood falls at older ages for males and increases at older ages for females.

For men, when the cut-off point includes moderate health status, the impact of assessing self-reported illness with poor or very poor health status is higher than if the cut-off was only poor or very poor health status. Embedded in this finding is the vast difference that is created by merely

changing the cut-off point from poor health status to moderate-to-very poor health status for males. While this disparity does not emerge for females, health researchers who use sex as a covariate must be aware of this reality when dichotomising self-reported health status. The

cut-off point for dichotomising self-reported health does not matter if one is examining the health status of only females, as the marginal difference in odds ratio is insignificant and would not create a classification disparity in interpreting the final results.

Table 2 Very poor or poor and moderated-to-very poor self-reported health status of sexes (in %)

	Very poor-to-poor					Moderate-to-very poor				
	46-54yrs	55-64yrs	65-74yrs	75-84yrs	85+yrs	46-54yrs	55-64yrs	65-74yrs	75-84yrs	85+yrs
Men										
Self-reported illness										
Yes	37.7	40.0	50.7	46.7	41.7	81.4	87.5	92.5	93.3	91.7
No	7.3	10.4	13.6	21.4	27.3	31.2	39.9	42.4	64.3	72.7
Area of residence										
Urban	12.1	14.5	21.9	22.0	25.0	49.2	60.9	50.0	55.6	62.5
Semi-urban	18.3	27.0	38.2	50.0	60.0	46.2	65.1	79.4	96.0	90.0
Rural	20.2	24.7	35.3	35.7	30.0	48.3	56.8	70.6	92.9	70.0
Marital status										
Married	16.8	19.5	31.3	30.0	25.0	48.8	56.4	64.2	60.0	62.5
Not	18.3	25.9	33.8	33.3	35.7	57.2	62.9	72.3	88.9	92.9
Social class										
Poorest20%	19.6	22.4	28.1	33.3	25	54.6	59.7	65.6	100	100
Poor	20.7	29.4	42.9	50.0	33.3	46.7	58.8	81.0	100.0	100.0
Middle	18.0	24.2	30.3	30.0	20.0	47.0	61.3	66.7	71.4	83.3
Wealthy	18.6	22.0	33.3	50.0	57.1	52.0	62.7	73.3	87.5	85.7
Wealthiest20%	12.0	16.4	20.1	25.0	18.4	40.7	54.5	50.0	25.0	33.3
Total n	266	207	156	97	23	266	207	156	97	23
Women										
Self-reported illness										
Yes	29.1	35.1	37.1	41.7	47.4	77.2	81.8	79.8	79.2	73.7
No	11.1	13.6	15.3	18.5	17.4	44.3	51.8	60.0	59.3	52.2
Area of residence										
Urban	9.7	11.9	16.1	25.0	25.0	53.0	60.6	59.7	56.3	41.7
Semi-urban	14.2	14.5	17.2	28.6	28.6	52.2	62.3	72.4	71.4	71.4
Rural	26.8	33.9	36.9	32.1	34.8	64.5	69.6	77.4	75.0	69.6
Marital status										
Married	18.6	22.7	32.3	0	0	58.8	69.3	80.6	0.0	0.0
Not	19.0	23.1	25.2	30.0	31.7	58.2	64.3	68.5	70.0	63.3
Social class										
Poorest20%	28.7	33.8	43.8	33.3	28.6	65.7	70.4	75.0	77.8	71.4
Poor	19.0	23.7	22.9	28.6	27.3	64.0	74.6	77.1	71.4	63.6
Middle	19.0	21.7	26.1	31.3	38.5	57.1	62.7	69.6	62.5	56.8
Wealthy	18.6	22.8	25.8	50.0	50.0	61.9	68.4	71.0	80.0	80.0
Wealthiest20%	9.8	14.5	12.9	20.0	22.2	46.2	53.9	58.1	60.0	55.6
Total n	284	216	172	119	43	284	216	172	119	43

However, the same cannot be said about males, particularly those of older ages. Therefore, with regards to using self-reported health status, combining people from broad age groups should not be done, as this will not capture the challenges identified in health data on males in Jamaica.

Studies have shown that health deteriorates with age [22-30], indicating the critical role that age plays in the understanding health of people. Therefore, in an examination of poor health status, cautioned must be used by the researcher(s), as people are less likely to report very poor-to-poor health at ages 15-30 years. On examination of self-reported health status for Jamaicans, the researcher became aware of this fact and so the study of dichotomisation of poor health did not use that age cohort. It is this rationale, and why the researcher concurred with

Finnas et al., that it was decided that these should be used as covariates. Within the context of the current study, which revealed that small percentages of particular age cohorts are likely to report very poor-to-poor health status, the researcher chose age cohorts that are more likely to report very poor-to-poor health status as this was critical to study. Unlike Finnas et al.'s work, which cuts off at age 64 years, this study extended as far as to study respondents up to 85+ years. In 2007, 3.8% of Jamaicans were 75+ years (i.e., 101,272); 1% were older than 84 years (26,821), and given that people at these ages are more likely to report poor or very poor health, the researcher believes that stopping the study at age 64 would have excluded a critical proportion of those who are likely to be reporting poor health status.

Among the social determinants of health are social class

and area of residence [1-6, 31-33]. People are not only defined by their ages, but by where they live and the social class in which they belong. The current study revealed that rural Jamaican women indicated the greatest percentage of very poor-to-poor health status, while this was not the case for men. However, the inclusion of moderate health status

to poor or very poor health status across the age cohorts by area of residence revealed marginal differences as was the case without the inclusion of moderate health status. Among men of 85+ years, the odds ratio of reporting very poor-to-poor health approximately doubled over the previous age cohort (75-84 years) and this was marginally

Table 3 Odds ratios for very poor or poor and moderate-to-very poor self-reported health of sexes by particular variables

	Very poor-to-poor					Moderate-to-very poor				
	46-54yrs	55-64yrs	65-74yrs	75-84yrs	85+yrs	46-54yrs	55-64yrs	65-74yrs	75-84yrs	85+yrs
Men										
Self-reported illness										
Yes	7.7	5.7	6.5	3.2	1.9	9.6	10.5	16.8	7.7	4.1
No	1	1	1	1	1	1	1	1	1	1
Area of residence										
Urban	0.5	0.5	0.5	0.5	0.8	1.0	1.2	0.4	0.1	0.7
Semi-urban	0.9	1.1	1.1	1.8	3.5	0.9	1.4	1.6	1.8	3.9
Rural	1	1	1	1	1	1	1	1	1	1
Marital status										
Married	0.9	0.7	0.9	0.9	0.6	0.7	0.8	0.7	0.2	0.1
Not	1	1	1	1	1	1	1	1	1	1
Social class										
Poorest20%	1.8	1.5	1.6	1.5	1.5	1.8	1.2	1.9	large	large
Poor	1.9	2.1	3.0	3.0	2.2	1.3	1.2	4.3	large	large
Middle	1.6	1.6	1.7	1.3	1.1	1.3	1.3	2.0	7.5	10.0
Wealthy	1.7	1.4	2.0	3.0	5.9	1.6	1.4	2.7	21.0	12.0
Wealthiest20%	1	1	1	1	1	1	1	1	1	1
Total n	266	207	156	97	23	266	207	156	97	23
Women										
Self-reported illness										
Yes	3.3	3.4	3.3	3.2	4.3	4.3	4.2	2.6	2.6	2.6
No	1	1	1	1	1	1	1	1	1	1
Area of residence										
Urban	0.3	0.3	0.3	0.7	0.6	0.6	0.7	0.4	0.4	0.3
Semi-urban	0.5	0.3	0.4	0.8	0.8	0.6	0.7	0.8	0.8	1.0
Rural	1	1	1	1	1	1	1	1	1	1
Marital status										
Married	1.0	1.0	1.4	0.0	0.0	1.0	1.3	1.9	0.0	0.0
Not	1	1	1	1	1	1	1	1	1	1
Social class										
Poorest20%	3.7	3.0	5.3	2.0	1.4	2.2	2.0	2.2	2.3	2.0
Poor	2.2	1.8	2.0	1.6	1.3	2.1	2.5	2.4	1.1	1.4
Middle	2.2	1.6	2.4	1.8	2.2	1.5	1.4	1.7	1.1	1.0
Wealthy	2.1	1.7	2.3	4.0	3.5	1.9	1.9	1.8	2.7	3.2
Wealthiest20%	1	1	1	1	1	1	1	1	1	1
Total n	284	216	172	119	43	284	216	172	119	43

Table 4 Odds ratios of poor health status by age cohorts

Poor Health status	Age cohorts					
	46-54yrs	55-64yrs	65-74yrs	75-84yrs	85+yrs	
Very poor-to-poor health						
Yes		0.004	0.020	0.046	0.167	0.228
No		1	1	1	1	1
Moderate-to-very poor health						
Yes		0.091	0.529	1.861	5.444	5.048
No		1	1	1	1	1
Total n		550	423	328	216	66

the same when moderate health was included in the dichotomisation of very poor-to-poor health. For women, this was not the case as the odds ratios were mostly the same for the two dichotomisations.

Health literature has shown that the poor had the lowest health status [34]. Among men, the effect of social class on health showed no consistent pattern and this was the same for women. However, when moderate health status is included in the cut-off for very poor-to-poor health status,

significant changes were observed over the age cohorts. For men, exponential increases occurred with the inclusion of moderate health status to the cut-off point, while this was not the case for women. The current study revealed that the dichotomisation of self-reported health status fundamentally increased the odds ratio, suggesting that the moderate-to-very poor exponentially takes in more men based on how self-reported health status is dichotomised in Jamaica at older ages (75+ years). Embedded in the finding is the disparity between the percentages of sexes who reported moderate health at older ages for men more than women.

This study included self-reported illnesses, unlike Finnas et al.'s work, and the findings indicated that cut-off point for dichotomisation of health status was somewhat changed for women, but exponentially changed for men. The findings revealed that women ages 85+ years—when self-reported health status was dichotomised using very poor-to-poor health—had the highest odds of reporting poor health status. When poor health status was expanded to include moderate health status, the younger ages recorded greater odds of indicating moderate-to-very poor health status. This indicates that at longer ages using the latter dichotomisation approach the odds were age-dependent. Men of 85+ years recorded the least odds ratio of very poor-to-poor and moderate-to-very poor health status. There was no clear pattern of age-dependence of self-reported illness for men. Embedded in the findings is the greater likelihood of men to report moderate health than poor health at higher ages (85+ years). This suggests that they are under-reporting their true very poor-to-poor health status at higher ages. It follows that the narrower categorisation of age was able to capture this which was lost in a wider categorisation.

Marital status as a covariate indicated that marriage benefits Jamaicans men more than it does women. Among men, the odds of reporting very poor-to-poor status are less than for those who were unmarried, across the age cohorts. Interestingly, beyond 84 years, the odds ratio of very poor-to-poor health status of men declines, suggesting that the benefits of marriage at this age increases compared to earlier ages. When the cut-off point included moderate health status for men, the odds were relatively the same except for men above age 75. The odds ratios of reporting poor health (i.e., including moderate health status) for those of 75+ years fell substantially, which means that health status for men over 75+ years increased with marriage. Among women, the odds ratio for those under 55 years who were married was the same as for their unmarried counterparts. It was found that marriage becomes beneficial for women when they are older than 75+ years, compared to unmarried women of the same age. When the dichotomisation of poor health included moderate health, marginal disparities in odds ratios were found among women in different areas of residence compared to when poor health status excluded moderate health. Embedded in this finding is the fact that poor health is weakly age-dependent, as there were not clear patterns for the sexes. However, owing to narrowing

age groups, this is a new finding which has emerged in health research literature for Jamaica—that marriage substantially benefits women at older ages (75+ years) than their younger counterparts.

One of the critical findings of this study is that a narrower definition of poor health status (excluding moderate health status) had odds ratios that were closer across the age groups, suggesting that it would be better to exclude moderate health status from very poor-to-poor health status on dichotomising health status. However, if researchers decide to include moderate as a part of the dichotomisation of poor health status, they should be aware of some of the methodological implications of their choice, and how this will impact on the interpretation, in particular for men, within the different social classes.

Conclusion

In summary, the odds ratios vary substantially for men in different social classes as well as for self-reported illness based on the dichotomisation cut-off point for poor health. Among women, there was no clear age dependency based on the cut-off point of poor health; the vast disparity that was present for men was not found for women in the different social classes. Like the study conducted by Finnas et al., this paper agrees that the choice of cut-off point in dichotomising poor health status cannot be made primarily on variables such as age, because sex and social class must also play a factor in this choice, as well as the nature of the study. Concurrently, this study differs from Finnas et al.'s work in that with a narrower classification of poor health, the effect of marital status and area of residence were not found to be highly age-dependent. The current study found that dichotomising poor health status is acceptable assuming that poor health excludes moderate health status, and that it should remain as is and ordinal logistic be used instead of binary logistic regression.

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