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Attitudes of Black, White, and Hispanic Community Residents Toward Seeking Medical Help

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Abstract With regard to racial/ethnic health disparities, a variable that has not been well explored is the person's willingness to seek medical aid when symptoms appear. Until recently, there has been no comprehensive scale to measure these predispositions and their significance for public health. This study's purpose was to determine whether specific attitudinal differences might constitute barriers to medical help-seeking for racial/ethnic subgroups. In a sample of 380 community residents responding to a mailed survey in the Hartford, CT metropolitan area, racial/ethnic differences were examined for four attitudinal aspects of medical help-seeking: action/intention, cynicism/fatalism, confidence in medical professionals, and fear/avoidance. Multivariate analyses controlling for other demographic, health crisis, and health insurance variables indicated that black, white, and Hispanic subgroups differed strongly on the battery of medical help-seeking attitudes. Although all groups were generally favorable to help-seeking, black and Hispanic respondents expressed more favorable, pro-help-seeking attitudes than did white respondents. Their attitudes were highly significant for action/intention and confidence in medical professionals. This study showed no evidence that racial/ethnic health disparities might result from negative predispositions as barriers to medical help-seeking.

Keywords Attitudes · Medical help-seeking · Community survey · Trust · Intention · Race · Health promotion

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Introduction

There are many complex reasons that people do not seek out preventive health care, do not follow through on medical recommendations, or avoid the medical system altogether. Attitudes about seeking medical help are an important factor that have received relatively little attention in the research literature compared to other variables (e.g., perceived risk, self-efficacy, and social support). Considerable variation exists between racial/ethnic groups in the United States in terms of health disparities (Pasick and Burke 2008; Rhodes et al. 2003; Center for Disease Control and Prevention 2011), and it is important to understand whether attitudinal differences may underlie the health discrepancies between racial and ethnic subgroups.

African Americans and Hispanic/Latinos in the United States have a higher risk factor burden and lower likelihood of receiving aggressive treatment for cardiovascular disease (Bhalotra et al. 2007) and cancer detection and survival (Crawford et al. 2010; Robbins et al. 2011; Yee et al. 2011; Freeman et al. 2011). There is also evidence of implicit bias in how health care is delivered to population subgroups. African Americans and Latinos are less likely to be advised to have a mammogram (Caplan et al. 1992) or to receive physician recommendation for cardiac catheterization, even when the clinical and demographic characteristics of the patient indicate that a recommendation

should be made (Schulman et al. 1999). The effect of race influencing physician recommendation for cardiac catheterization has been shown to be more likely to occur at public rather than private hospitals (Ibrahim et al. 2003). Thus, a case can be made that African Americans and Latinos are more likely to receive substandard health care in the United States. However, little is known about the medical help-seeking attitudes of racial/ethnic subgroups. Research in this area is important because attitudes are presumed precursors to health-related behaviors (Anderson 1995).

The literature examining attitudinal differences between black, white, and Hispanics in the United States, with respect to *intention* to undergo health screening, follow-up on abnormal medical results, or engage in health promotion practices, is limited. The results from the majority of studies examining the relationship of race to intention to seek help for medical problems is counterintuitive, given the disproportionate disease burden faced by racial/ethnic minorities. For example, black respondents have been more likely to report that they would take action compared to whites when they experienced cardiovascular symptoms such as chest pain (Mochari-Greenberger et al. 2010). Similarly, African Americans and Hispanics were more likely to report intention to exercise compared to non-Hispanic whites in a large study of adults with type II diabetes mellitus (Gavin et al. 2011). Data from the 1980 Illinois health survey showed that blacks have significantly more positive attitudes toward visiting a doctor compared to whites (Sharp et al. 1983). Given the limited progress that has been made with respect to eradicating health disparities in the United States, there is a need to investigate whether there are differences in racial/ethnic subgroups in terms of attitudes toward seeking appropriate medical help.

Until recently, there was no psychometrically sound measure to assess medical help-seeking attitudes. Models of help-seeking emphasize predispositions, i.e., attitudes, as a key component (Anderson 1995). A recently developed measure of attitudes toward seeking medical help (Fischer et al. 2013) has been published, and four clear factors were identified: intention to seek medical help, fatalism, confidence in the medical system, and avoidance/procrastination. Of these, intention may be the most important, because it is most likely to affect health-related behaviors (Ajzen 2011).

In the present study, this pretested and comprehensive measure was used to see whether poorer health care and health outcomes of minorities are reflected in their attitudes toward seeking appropriate care-or, alternatively, if their attitudes are consistent with the seemingly counterintuitive research findings cited above.

Method

Survey Procedure

Packets containing the survey questionnaire, a cover letter explaining the research project, and a postage paid return envelope were mailed in 2009, to 1,500 randomly selected households in the Hartford, Connecticut metropolitan area, an ethnically diverse region of the state. The survey contained attitude measures (described below), together with a medical history and health insurance questionnaire, and a demographic information sheet. The cover letter stated that the forms could be completed by any household member who was at least eighteen years of age and could read English. Participants were instructed to complete all items, responding to each attitude statement with a check mark on four-point agree–disagree continua. Those who completed and returned the forms were entered by code number into a random drawing offering a cash prize of $50 to one of every 25 persons returning completed forms.

The mailing and later cash awards were managed by a professional mail service and questionnaires returned to the investigators were anonymous. A code number only appeared on the questionnaire forms. A cover letter informed respondents that they need not identify themselves by name anywhere. The code numbers were used to inform the mail service, which parties should be sent follow-up reminder postcards and which were to receive cash awards. All of these operations were handled by the mail service. Respondents had been assured in the cover letter that their completed questionnaires were not identified by name or address to the investigators. This procedure was reviewed and approved by Hartford Hospital's Institutional Review Board.

Participants

A total of 390 questionnaires were returned, for an overall response rate of 26 %. However, seven of the returned forms were considered unusable because of too much missing data (whole pages missed or more than four of the 35 attitude items without responses). Also, three forms were later dropped because their attitude scores were extremely positive outliers. Thus, the final sample consisted of 380 central Connecticut residents who completed and returned usable questionnaires (25.3 % usable response rate).

Measures

The *Attitudes Toward Seeking Medical Care* scale is a 35-item Likert-type measure to assess attitudes toward seeking medical help. Evidence for the internal and

test-retest reliabilities and for the scale's concurrent and predictive validity was established in two prior studies. A complete description of the scale development, subscales, and scoring procedure has been published previously (Fischer et al. 2013). The scale consists of 16 *straight* (pro-help-seeking) and 19 *reversal* (negatively worded) items. Straight items are scored 3, 2, 1, 0, and reversals 0, 1, 2, 3, respectively, for the response alternatives: *agree, partly agree, partly disagree, and disagree*. The scale comprises four attitudinal factors: pro-action/intention (e.g. "If I have a serious symptom, such as continuous pain, bleeding, or coughing, I call for an appointment right away"), cynicism and fatalism ("When your number is up, it is up; going to doctors is not going to help anything"), trust and confidence in the medical profession ("Most medical doctors are able to identify and treat every kind of illness"), and procrastination/avoidance ("I tend to put off going to the doctor because I am afraid of what they might find") (see Appendix).

In a pilot study with college students, the scale items were shown to have a four-factor structure. Also, the pro-action component was strongly related ($r = .56$) to scores derived from Sharp et al.'s (1983) four-item telephone interview scale of attitude toward medical help-seeking. In a second pilot sample, the pro-action subscale correlated $r = .52$ with students' medical office contacts (attitudes and behavioral items assessed at the same time), and $r = .45$ with behavioral assessment done about 2 months later, attesting to the pro-action/intention subscale's predictive validity (DiLorenzo et al. 2012). Test–retest reliability for the pro-action subscale was 0.91 over the two-month interval.

In the current sample, by inspection of scree plot, eigenvalues, and item loadings, the same four-factor attitude structure was obtained and, moreover, was stable across different subpopulations such as elderly only and minority respondent sonly. Alpha reliability (internal consistency) estimates for the four subscales were as follows: pro-action, $r = .86$; non-fatalistic, $r = .84$; med-trust/confidence, $r = .75$; and non-avoidant, $r = .80$.

Independent variable: This study's principal independent variable was race/ethnicity, consisting of the sample's three major racial/ethnic groups, as indicated on the demographic information form. These three groups were identified by two questionnaire items to which the respondent indicated his or her race—African American/Black, Asian, Caucasian/White, or Other and whether Hispanic/Latino (yes/no). Those identified as Hispanic/Latino had checked "Other" for race and "yes" for Hispanic/Latino.

Dependent variables were the four-factor-derived attitude measures of which Factor 1—*Pro-Action/Intention*—was of primary interest, for its potential to predict medical help-seeking (cf. DiLorenzo et al. 2012).

Control variables: Covariates in the initial multivariate analyses were the demographics, sex age, and level of formal education (classed into high school graduate or less, partial college, and full four-year college or more), and three medical variables: health insurance coverage, adequacy of coverage, and whether or not the respondent had ever been treated for a serious medical condition. The two health insurance items were Do you (your family) have medical health insurance (yes/no), and: If yes, do you (your family) think that your health insurance coverage is adequate to cover your medical expenses? (yes, adequate/no, inadequate/unsure—scored 2, 0, and 1, respectively). The medical crisis items asked whether the person ever had to face a personal physical or medical crisis that concerned and worried them as to its outcome and, if so, to briefly state the nature of that crisis and how it was resolved. These responses were categorized into serious medical conditions such as cancer, heart disease, or traumatic injuries resulting from assaults or accidents versus no such experiences.

Both the personal medical and demographic items followed the attitude survey items.

Data Analyses

The factorial scores for Factors 1 (*Pro-Action/Intention*), 2 (*Non-Fatalistic*), and 4 (*Non-Avoidant*) were moderately skewed in the pro-help-seeking direction and adjusted by square root transformations to approximate normal distributions. Factor 3 (*Med-Trust/Confidence*) was essentially normally distributed and analyzed as is. A one-way between-subjects multivariate analysis of covariance (MANCOVA) was calculated for the four attitude measures, with three ethnic groups as the independent variable (IV), controlling for sex, age, educational level, and for the health insurance and serious medical illness variables, as covariates.

Significant racial/ethnic differences shown by the MANCOVA were then further examined in post hoc, pairwise, comparisons (Tabachnick and Fidell 2007).

Results

Sample Description

The sample descriptors are shown in Table 1. As indicated, there were nearly equal numbers of city and suburban residents and women and men in the sample ($N = 380$). Ages ranged from 18 to 95 (*Median* = 56), with almost one-third of the sample age 65 or older. Nearly one-half of the respondents were college graduates. Thus, the sample was cast toward the elderly and college-educated.

Table 1 Sample characteristics

	N	%
Residence		
Suburban	188	49.7
City	190	50.3
Sex		
Women	199	52.4
Men	181	47.6
Age		
18–41 years	80	21.2
42–52 years	74	19.6
53–60 years	75	19.9
61–72 years	76	20.2
73–95 years	72	19.1
Race/ethnicity		
African American/black	73	20.1
Hispanic/Latino	41	11.3
Caucasian/white	250	68.7
Education		
High school or less	102	27.2
Some college	92	24.5
College graduate (4 years)	181	48.3
Health insurance		
Insured	347	92.3
Not insured	29	7.7
Health insurance perceived adequate		
Yes	241	68.7
Unsure	45	12.8
No	65	18.5
Serious medical illness (e.g., cancer, heart disease, and traumatic injury)		
Yes	75	19.7
No	305	80.3

However, there were sufficient numbers and variation in both these demographics, so that they could be statistically controlled for, where necessary. Most respondents (92 %) were covered by medical insurance. Eight percent uninsured is consistent with census bureau data for Hartford (city) and Hartford County (Hartford Courant 2011). Of those who were insured, 69 % believed their coverage was adequate. One-fifth of the respondents had experienced a serious medical crisis such as a heart attack, cancer, or traumatic injury.

Ethnically, the analysis sample included 20 % who identified themselves as black or African American and not Hispanic ($n = 73$), 69 % white and non-Hispanic ($n = 250$), and 11 % as racially "other" and Hispanic or Latino ($n = 41$). Eight participants did not provide ethnic/racial information or the information was ambiguous, and there were too few Asian ($n = 3$) or mixed-racial/ethnic ($n = 5$) participants to conduct analyses for these ethnic subgroups. So those 16 cases were dropped for the analyses.

Table 2 MANCOVA tests of four medical help-seeking attitudes for racial/ethnic subgroups

Omnibus multivariate tests, controlling for health and other demographic covariates			
Roy's largest root	*F*	*df*	*p*
IV: Racial/ethnic subgroups:	11.96	4,317	.000
Covariate			
Sex	0.38	4,316	.821
Age	5.70	4,316	.000
Education	9.22	4,316	.000
Health insurance	2.01	4,316	.025
Coverage (adequacy)	6.14	4,316	.000
Medical crisis	2.15	4,316	.074
Between-subjects (racial/ethnic subgroup) effects on			
Action/intention	13.69	2,319	.000
Non-fatalistic	1.06	2,319	.347
Med-trust	10.29	2,319	.000
Non-avoidant	2.98	2,319	.052

The sample's ratio of minority to white residents is similar to the 2010 U S Census Bureau data for Hartford County, i.e., approximately 30 % minority to 70 % white majority.

Relationship of Race/Ethnicity to Other Demographic and Medical Variables

Race/ethnicity was significantly linked to every other demographic variable—*sex*: black (66 %) and Hispanic (63 %) respondents were predominantly female, compared to whites (46 %) [$\chi^2 = 11.29$, 2, $p < .005$]; *age*: whites ($M = 59.3$) were the oldest, blacks ($M = 53.4$) and Hispanics ($M = 45.4$) were younger [F (2, 359) = 14.35, $p < .001$]; and *education*: proportionately, more white (62 %) than black (22 %) or Hispanic (20 %) respondents had four-year college degrees ($\chi^2 = 67.43$, 4, $p < .001$).

As to personal serious medical events, ethnic differences were non-significant: 21 % of the black, 21 % of the white, and 12 % of the Hispanic respondents had experienced a medical crisis such as a heart attack or cancer diagnosis ($\chi^2 < 2$, *n.s.*). The great majority of each group had health insurance: 89 % of the black, 96 % of the white, and 78 % of Hispanic subjects ($\chi^2 = 16.65$, 2, $p < .001$), and their insurance coverage was considered adequate by 62 % of the black, 73 % of the white, and 55 % of the Hispanic *S*s ($\chi^2 = 7.64$, 4, $p < .11$).

It was thus important to rule out potentially spurious relationships between ethnicity and attitudes, where one or

Table 3 Mean factor scores for action/intention and med-trust variables (DVs)

	Pro-action/intention		Med-trust	
	M	(*SD*)	*M*	(*SD*)
Black ($n = 73$)	1.07	(0.39)	2.60	(0.84)
Hispanic ($n = 41$)	0.92	(0.35)	2.79	(0.87)
White ($n = 250$)	0.87	(0.35)	2.15	(0.89)

Bonferroni's multiple comparisons of racial/ethnic identity for pro-action/intention and med-trust/confidence scores

Factor score	Pro-action			Med-trust		
	M diff.	*SE*	*p*<	*M* diff.	*SE*	*p*<
Comparison						
Black–white	0.196	0.047	.001	0.449	0.117	.001
Black–Hispanic	0.140	0.069	.131	−0.187	0.172	.833
Hispanic–white	0.056	0.060	.999	0.636	0.148	.001

Scores have been transformed to all positive values; higher scores = pro-help-seeking direction

more of these other demographic or medical factors may have confounded that relationship. These other variables were treated as covariates, statistically controlling for them in the multivariate analyses.

Race/Ethnicity and Attitudes

As shown in Table 2, the MANCOVA analysis indicated that three-group race/ethnicity was highly significant for the combination of four attitude measures, when controlling for the other demographic and the health and health insurance variables ($p < .0001$ in the omnibus test). The effect size—partial eta squared (Wilks's Lambda)—for race/ethnicity was 0.074 with and 0.099 without the covariates (for Roy's largest root, the comparable partial effect sizes were 0.131 and 0.167, respectively).

Among the covariates age, level of education, and insurance coverage were significant—older and college-educated people, and those with adequate health insurance expressed more favorable (pro-help-seeking) attitudes.

Table 2 also indicates that the effects of the race IV were highly significant for the action and trust/confidence factors (both $ps < .001$), but were non-significant for the fatalism and avoidant factors ($ps > .05$).

The mean scores and post hoc comparisons with Bonferroni-adjusted p values for the pro-action and med-trust/confidence DVs are shown in Table 3.

For the *Pro-Action/Intention* measure, black respondents scored more favorably (more pro-help-seeking) than whites ($p < .001$). Hispanics also scored more favorably than whites and less favorably than blacks, but neither of these comparisons was statistically significant ($ps > .10$).

For *Med-Trust/Confidence* attitudes, both black and Hispanic participants expressed more confidence than whites ($ps < .001$), but the two minority groups did not differ significantly.

Although these attitudinal differences between racial groups were strong, all three groups expressed pro-help-seeking attitudes by the absolute standard of the scale itself. For instance, when the *Pro-Action* subscale is sum-scored (Likert method), each of its 12 items equally weighted, the possible range of scores is 0–36, with a midpoint of 18, indicating neutrality (neither pro nor con). Scored this way the mean values are 31.7 for black, 30.0 for Hispanic, and 29.5 for white respondents, all reflecting favorable help-seeking attitudes.

Discussion

This is the first study that we are aware of that examines the relationship of race/ethnicity to multiple dimensions of attitudes about seeking medical help. Overall, results indicate that black and Latino respondents living in central Connecticut are more likely to express intention to seek medical help and greater levels of confidence in the health care system compared to white respondents, though all three groups were generally positive in terms of all attitude dimensions. Black respondents in particular were most likely to report positive intentions to undergo preventive health screening or seek medical treatment once symptoms are recognized. There were no significant racial/ethnic differences in terms of fear and avoidance of or cynicism/fatalism regarding the health care system.

Similar findings for psychiatric help-seeking, that is, black populations expressing positive intentions no different than or even more affirmative than those of whites, have been reported (Brown et al. 2010; Diala et al. 2001; Shim et al. 2009).

The results presented in this paper indicate that health disparities favoring the white majority (e.g., better health indices and longevity) *are not* a function of corresponding attitudinal differences, i.e., of minority groups' hesitancy or less willingness to take appropriate action when confronted with serious medical symptoms. The findings that black respondents have more favorable intentions are consistent with reports that African Americans are more likely to report that they would take action compared to whites when they experience cardiovascular symptoms, such as chest pain (Mochari-Greenberger et al. 2010), are more likely to report intention to exercise (Gavin et al. 2011), and have significantly more positive attitudes toward visiting a doctor compared to whites (Sharp et al. 1983). The results presented in our paper indicate that any

differences in actual health promotion behaviors between black and white racial groups are not a function of different intentions to take action.

It may be speculated that through health promotions and extensive coverage in the media, health problems of African Americans in comparison with whites, especially their population vulnerability to specific serious diseases (such as diabetes, hypertension and stroke, and lung and prostate cancers for men), have become salient for black people. Understandably, this could easily translate to more affirmative help-seeking attitudes among black and other minority populations, especially for those able to afford adequate health care.

Of the four attitudinal dimensions considered in this study, intention is the most important because intentions are most likely to be predictive of actual health behaviors (DiLorenzo et al. 2012; Sniehotta 2009; Sniehotta et al. 2010; Brug et al. 2006; Hausenblas et al. 2008). Attitudes, including behavioral intentions, are modifiable; research guided by the Theory of Planned Behavior (Ajzen 2011) has focused on modifying intentions by making a plan for behavioral action (e.g., constructing a plan for participation in a cardiac rehabilitation program) (Sniehotta et al. 2010).

Study Limitations

Since there was no social desirability measure used in this study, it is unknown whether some of the racial/ethnic variation in attitudes may have been affected by a social desirability response set, e.g., racial/ethnic minority participants more subject to this than white subjects, leading to more positive attitudes for the black and Latino/Hispanic subjects. There is some evidence that ethnic minority subjects can be more subject to giving socially desirable responses (Warnecke et al. (1997). However, the mode of survey administration (face to face, telephone, or mailed survey) has been shown to mitigate potential racial and ethnic differences in social desirability response (Johnson and Van de Vijver 2003). It would seem unlikely that a social desirability response could explain the racial/ethnic attitude differences in the present study in view of the instructions ("There are no 'wrong' answers; the only right ones are what you honestly feel or believe"), anonymous questionnaire procedure, and third party mailing arrangement (see Method section). Also, as we found in ad hoc examination of attitude scores by educational levels, help-seeking attitudes were more positive even among those black respondents with the highest education (who, research indicates, are less subject to social desirability sets—cf. Burris et al. 2003: Johnson and Fendrich 2002).

It is possible that there was a racial/ethnically based selection bias in which minority respondents with more pro-health-seeking attitudes and white subjects with less positive attitudes were more apt to return the questionnaire but it seems likely that a selection bias would influence all participant responses in the same direction.

The sample was self-selected and more heavily weighted toward older and college-educated respondents, but there was good representation of the three major ethnic groups and substantial numbers of lower education and younger subjects. Also, the proportion of subjects with no health insurance and the proportion of minority group residents were comparable to the 2010 census data for Hartford and Hartford county (Hartford Courant 2011), indicating the sample was representative with regard to these two important demographics.

Future Research

Future research should address how and to what extent these racial/ethnic differences manifest themselves in actual health practices, and the question of why important attitudes toward medical help-seeking might be more favorable among ethnic minority groups than among white participants. It would also be useful to conduct a national survey with representation from racial/ethnic minority groups across the United States to determine whether geographic residence also affects attitudes toward medical help-seeking, independent of ethnicity. Within racial and ethnic subgroups, there are likely to be important cultural differences affecting these attitudes. In this study, black respondents likely included both African Americans and West Indians whose attitudes with respect to some health practices (e.g., breast feeding) are different (Nommsen-Rivers et al. 2010), and it would be useful to understand whether there are other attitudinal differences in medical help-seeking especially within these subgroups. Future research should also examine whether there are differences in attitudes toward seeking medical care between immigrants and US-born residents since immigrant status is often associated with differential utilization of the health care system (Pasick and Burke 2008; Rhodes et al. 2003).

Conclusion

In this survey, respondents identified as black/African American or Latino/Hispanic had favorable attitudes toward seeking medical care. This was especially pronounced on the action/intention and trust/confidence attitudinal dimensions. Thus, there was no indication that either of these ethnic/racial subgroups are reluctant to utilize the health care available to them. Better understanding about attitudes toward medical help-seeking might help to explain differences in health promotion practices and health care utilization. Clinical intervention trials designed to modify

health care practices may also benefit from incorporating a comprehensive measure of attitudes toward medical help-seeking, rather than relying on brief and psychometrically untested attitude measures, in order to accurately gauge the degree to which attitudes account for variation in response to intervention. If mistrustful, fatalistic or avoidant attitudes regarding help-seeking or negative intentions are shown to predict health behavior change, educational programs could be designed to alter such attitudes, presumably resulting in improved health promotion practices.

Appendix: Item Loadings in Four Medical Help-Seeking Attitude Factors

Note: The item number precedes each item. Decimals and ± signs have been removed from the item loadings (shown in parentheses, based on ML/Oblimin).

Factor 1: pro-Action/Intention (12 items)

1. I would rather live with some physical problems than go through a lot of medical tests and checkups. (46)

2. I would want to get medical help right away if I had a health problem that was worrying me. (52)

3. If I have what I think is a medical symptom (such as continuous pain or a suspicious lump), I go to the doctor right away to have it checked. (73)

4. Considering all the time and expense connected with medical checkups, and the inconclusive results they come up with, routine checkups are hardly worth the bother. (46)

7. I always have a doctor that I trust, who knows me and my medical situation thoroughly. (49)

17. When I have doubts or questions about my physical health, I find out what is wrong from a medical professional. (71)

19. I would never go for more than a year without seeing my doctor, at least for a checkup. (50)

20. If I had a physical problem that I thought could be serious, I would contact a doctor or go to a hospital emergency room without hesitation. (77)

25. I would willingly talk about personal problems with a doctor if I thought it could help me, or a member of my family. (48)

26. If I have a serious symptom such as continuous pain, bleeding, or coughing, I call for an appointment right away. (69)

27. Even when I know I probably should go to the doctor, I tend to put it off. (59)

29. If I believed I had a potentially serious medical problem, my first action would be to get professional attention for it. (76)

Factor 2: non-Fatalistic (11 items)

8. When your number is up, it is up; going to doctors is not going to help anything. (51)

9. Most illnesses take care of themselves; those that do not usually cannot be remedied by what a doctor does or through the medicine they prescribe. (61)

11. There are probably as many patients who are harmed as helped by medical treatments. (53)

12. If you have a serious disease, it is going to run its course for a good or bad outcome no matter what any medical professional can do for you. (69)

14. So-called health problems, like many things, tend to work out by themselves. (45)

15. If you are destined to have a bad disease, there is little that even modern medicine can do to help you. (66)

16. I see no need to go to a doctor unless there is some urgent emergency such as severe pain that lasts, or broken bones. (57)

21. Doctors are no more than guessing when they try to treat a serious disease. (59)

22. Even the medical specialists cannot do much to help a person who is ill with cancer, a heart problem, or some other life-threatening disease. (61)

30. Doctors still cannot cure or prevent the most serious diseases and health problems. (42)

31. Modern medicine claims it is based on science, but most doctors are pretty much guessing when they try to treat diseases. (64)

Factor 3: Med-Trust/Confidence (7 items)

5. Nowadays, the standard laboratory tests, X-rays, CAT scans, and blood tests make doctor's decisions nearly foolproof. (52)

6. These days, there is excellent medical help available for most kinds of diseases. (47)

13. Modern medicine can cure or greatly relieve and minimize almost every critical medical problem. (58)

Factor 3: Med-Trust/Confidence

23. Even severe forms of cancer and heart disease can be cured or greatly relieved by medical specialists. (40)

24. Most medical doctors are able to identify and treat every kind of illness. (78)

28. Nowadays, most serious medical problems and diseases can be prevented or cured if you get to a doctor early enough. (60)

34. Most medical doctors are well trained to identify and treat all types of serious diseases. (53)

Factor 4: non-Avoidant (5 items)

10. I tend to put off going to the doctor because I am afraid of what they might find. (64)

18. It is embarrassing to have to discuss your personal health problems with a doctor or nurse, and it is something I try to avoid. (61)

32. The idea of going to be examined by a medical doctor makes me feel nervous. (62)

33. I try to avoid medical examinations because I do not like them using all their tests and procedures on me. (76)

35. I try to avoid medical examinations because I do not want them to find out something bad. (73)

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