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CLINICAL RESEARCH

Do Patient Expectations About Arthroplasty at Initial Presentation for Hip or Knee Pain Differ by Sex and Ethnicity?

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Abstract

Background Many studies show gender and ethnic differences in healthcare utilization and outcomes. Patients' presurgical cognitions regarding surgical outcomes also may vary by gender and ethnicity and play a role in explaining utilization and outcome differences. However, it is unclear whether and to what extent gender and ethnicity play a role in patients' presurgical cognitions.

Questions/Purposes Do gender and ethnicity influence outcome expectations? Is arthroplasty-related knowledge affected by gender and ethnicity? Do gender and ethnicity influence willingness to pay for surgery?

Methods In a prospective, multicenter study we gave 765 patients an anonymous questionnaire on expectations, arthroplasty knowledge, and preferences before their consultation for hip and/or knee pain, from March 2005 to July 2007.

Results Six hundred seventy-two of the 765 patients (88%) completed questionnaires. Non-Hispanics and men were more likely to indicate they would be able to engage in more activities. Non-Hispanics and men had greater arthroplasty knowledge. Hispanics and women were more likely to report they would not pay for a total joint arthroplasty (TJA) relative to non-Hispanics and men.

Conclusions Sex and ethnic differences in patients presenting for their initial visit to the orthopaedists for hip or knee pain influence expectations, knowledge, and preferences concerning TJAs. Longitudinal study of relationships between patients' perceptions and utilization or outcomes regarding TJA is warranted.

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Each author certifies that his or her institution approved the human protocol for this investigation, that all investigations were conducted in conformity with ethical principles of research, and that informed consent for participation in the study was obtained.
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Introduction

In 2006, there were an estimated 44.3 million Hispanics in the United States [43]. Hispanics account for 15% of the

United States population and are the largest ethnic minority population, with blacks second. The growth of the Hispanic population through 2050 is projected to be larger than the growth of all other race or ethnic groups combined, making Hispanics the fastest-growing minority group in the United States [10]. It now is expected that by 2030, the number of primary THAs could reach 572,000 annually, and the number of primary TKAs could reach 3.48 million annually [24].

African Americans and ethnic minorities are less likely than whites to receive a range of procedures, including THAs and TKAs [13]. Similarly less utilization of some surgical interventions is well documented among women, including orthopaedic procedures [19]. Some interrelated elements may affect services utilization after a patient has entered the medical system, including patient preferences for and acceptance of procedures. For example, there is some evidence that African Americans are more likely to refuse cardiac and other procedures compared with whites [7, 30, 37], despite higher recommendation rates [36]. Also, when presented with clinical scenarios, African American patients reported they were less likely to favor surgery than white patients [44]. Thus, patient preferences and acceptance may drive some of the differences in utilization. These variations also have been well documented for patients undergoing primary total joint arthroplasties (TJAs) [5, 6, 12, 14, 15, 20–23, 26, 27, 31, 40, 42, 46].

Patient cognitions and knowledge about surgery may play a role in their eventual utilization decisions. Specific cognitions relevant include expectations, knowledge, and preferences [18, 23]. Expectations regarding a surgical intervention may be influenced by multiple factors, including racial differences, socioeconomic status, education, literacy, social support, and trust in the healthcare system. Expectations are particularly important because they influence patients' postprocedure assessments of outcomes and satisfaction [29]. Therefore, patient-specific factors may not only play a role in the decision-making process but also drive some of the differences in healthcare utilization and outcomes.

Although multiple studies have reported variations in patient expectations as a function of country of origin, sex/gender, age group, education level, income, and race/ethnic group [17, 18, 28, 33], relatively few studies [18, 23] have examined the relationships between disparities in arthroplasties and expectations of the outcomes. Yet, these two studies [18, 23] highlight the importance of studying patient-level factors that could explain disparities in utilization of arthroplasties. Ibrahim et al. [23] performed a cross-sectional survey of 596 elderly, male, African American or white patients and found that African American patients were less "willing" than white patients to consider joint replacement (odds ratio, 0.50; 95% CI, 0.30–0.84). This difference was explained by the between-group differences in expectations. In the current investigation, when asked about how much they would be willing to pay for a TJA, non-Hispanics were willing to pay more for a TJA than Hispanics. Groeneveld et al. [18], in a cross-sectional study, found that among potential candidates for joint replacement, African American patients have lower expectations for surgical outcomes than white patients. They stated that longitudinal studies are necessary to clearly quantify the relationship between patients' expectations and joint replacement surgery rates. We presume women and Hispanics are more likely to have lower expectations, less knowledge, and less willingness to pay than men and non-Hispanics, respectively.

The aims of this study therefore were to determine whether gender and ethnicity influenced (1) patient expectations, (2) knowledge, and (3) willingness to pay preferences regarding TJA.

Patients and Methods

All 765 new patients seeking medical consultation for hip and/or knee pain in two large-volume private orthopaedic surgical practices located in Philadelphia, PA, USA, and Miami, FL, USA, were asked to complete an anonymous self-administered questionnaire before consulting with their physician from March 2005 to July 2007. All patients in these practices had some type of insurance (including Medicaid). Inclusion criteria for this prospective study required that the patients were at least 18 years old and were fluent in English or Spanish. Patients were excluded if they had any documented cognitive deficits. The recruited patients chose either an English- or Spanish-language version of the questionnaire. A total of 672 patients at the two study sites completed questionnaires designed to assess expectations, knowledge, and preferences (Table 1). Two patients did not identify sex and 28% of patients did not identify ethnicity. Analysis was made on available data. Relative to participants in Miami, Philadelphia participants were more likely to be men (43% versus 32%) and to report hip problems (40% versus 29%). Participants at the Miami site were more likely to be of Hispanic (primarily Cuban or of Cuban descent) origin relative to Philadelphia participants (72% versus < 1%) and also were older (70 years versus 62 years). They were informed participation was voluntary and declining to participate would not affect their subsequent care.

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Table 1. Sociodemographic status of participants enrolled at the two study sites

Variable	All sites		Philadelphia		Miami	
	Number of patients*	Value†	Number of patients	Value†	Number of patients	Value†
Age (years)	570	65.4 (13.05)	333	62.0 (12.7)	237	70.1 (11.9)
Sex						
Men	254	37.9	145	43.4	109	32.4
Women	416	62.1	189	56.6	227	67.6
Ethnicity						
Non-Hispanics	366	76	330	99.4	36	27.9
Hispanics	115	24	2	0.6	113	72.1
Reason for visit						
Hip	168	35.5	132	39.9	36	29.1
Knee	274	58	177	53.5	97	65.5
Both	31	6.5	22	6.6	9	5.3
Level of education						
Less than high school	110	17	22	6.7	88	27.8
Graduated from high school	184	28.4	126	38.1	58	18.3
Some college	127	19.6	61	18.5	66	20.8
Graduated from college	111	17.2	53	16.1	58	18.3
Postgraduate school or degree	115	17.8	68	20.6	47	14.8

* 672 patients participated in the study. Sample size for each sociodemographic indicator varied owing to missing values; †age is expressed as mean, with SD in parentheses; the remaining values are expressed as %.

The questionnaire was developed after an extensive review of the literature, and most importantly the NIH consensus statements [32] that provided insight into important (social and cultural) issues that influence the outcome of joint arthroplasty. We attempted to be inclusive of all factors in the questionnaire without overburdening the patients.

To assess expectations regarding TJA outcomes, patients were asked two questions regarding their beliefs about potential complications and likely functional outcomes (Appendix 1). In Question 30, patients were asked to select the three most common complications after arthroplasty from an 11-item list that included infection, nerve injury, chronic headaches, heart attack, death, loss of the limb, loss of sight, loss of energy, sexual dysfunction, and blood clot in the leg. In Question 33, they were asked to select the activities they would or would not be able to participate in after surgery from a list of 13 activities: walking several blocks without an assistive device, climbing a flight of stairs without rest, lifting and carrying heavy packages such as groceries, kneeling, gardening, swimming, golf, tennis, dancing, running, driving, riding a bicycle, and engaging in sexual relations.

We developed an arthroplasty knowledge score (AKS) based on questionnaire answers. The purpose of this instrument was to quantify the basic knowledge patients had about arthroplasty. Making use of the results of this instrument, we could determine if arthroplasty-related knowledge was affected by gender and ethnicity. The AKS was calculated based on the answers of participants to five questions regarding general knowledge of TJA: (1) Do you think a TJA is an effective surgery? (Yes, no, or unsure); (2) How long will I be in the hospital after a TJA? (1 day, 2 days, 5–7 days, 10 days, 2 weeks, or unsure); (3) If you do have pain, do you think it will be appropriately controlled? (yes, no, or unsure); (4) The amount of pain I would expect after a TJA is none, trace, minimal, moderate, or extreme; (5) I expect the pain to last for (hours, a few days, a few weeks, a few months, over 1 year). Participants were assigned a score of 1 for each correct response. Participants answering at least four of five questions correctly were considered to have a high degree of knowledge about the surgical procedure.

To evaluate patient preferences, a willingness to pay (WTP) approach was used to indicate the value to the individual of that service (ie, their preference) [41]. In a WTP approach, the patient's WTP for a procedure and the maximum money the patient is willing to pay for a service serve as quantifiable measures of preferences. The WTP approach initially was used in environmental economics literature as a means to measure stated preferences for goods not sold in a marketplace [11]. However, WTP has been increasingly adopted as a measure to value healthcare options, patient preferences, and estimate demands for

medical care in terms of marketing [34]. This method seeks to analyze what value people give to healthcare outcomes or interventions by asking them how much they would pay to receive the benefits of treatment or to avoid certain illness. The WTP approach suggests, the larger the stated amount is, the higher the preferences for a particular service or outcome will be. For this study, WTP was determined by the checklist method [8]. Patients were asked two questions: if your insurance company did not cover a TJA, would you be ready to pay for yourself? (yes or no); and how much would you be willing to pay for a TJA? (Nothing, < $100, $100–$500, $500–$1000, > $1000, or unsure).

Level of education is an important domain to consider when evaluating the need and willingness to undergo TJA [22]. We used the following levels of education in our model: less than high school, graduated from high school, some college, graduated from college, and postgraduate school or degree (Table 1).

We used chi-square analyses using crosstabulations to explore relationships between subgroups of patients categorized by sex (men versus women) and ethnicity (Hispanic versus non-Hispanic) for patient expectations (perceived complications and expected activity participation). We also used chi-square analyses using crosstabulations to explore relationships between subgroups of patients categorized by sex (men versus women) and ethnicity (Hispanic versus non-Hispanic) for the AKS and WTP controlling for site and level of education. T-tests were used to determine differences in education level across gender, ethnicity, and site.

Results

Education level varied by gender ($p < .001$), ethnicity ($p < .001$), and site ($p < .001$) with men, non-Hispanics, and patients from Philadelphia having higher levels of education than women, Hispanics, and patients from Miami.

In terms of expectations of outcomes after TJA, expectation regarding complications differed by ethnicity, but not gender; whereas, expectations regarding functional outcomes differed by ethnicity and gender. Regardless of sex and ethnicity, the most commonly selected complication was infection followed by death and loss of energy. There was no difference between men and women on perceived complications after arthroplasty. A greater percentage ($p < 0.001$) of non-Hispanics believed infection was the most common complication than did Hispanics: 91% versus 67%, respectively. Additionally, more non-Hispanics perceived ($p < 0.001$) death to be the most frequent complication of surgery: 43% versus 9%, respectively. In contrast, more Hispanics than non-Hispanics believed that nerve injury (41% versus 14%, respectively; $p < .001$) and blood clots (28% versus 12%, respectively; $p < 0.001$) were frequent complications of surgery. With respect to expectations of functional outcomes after TJA, a greater percentage of men indicated they believed that they would be able to perform a variety of activities after arthroplasty relative to women (Table 2). A greater percentage of non-Hispanics indicated that they expected to be able to engage in all activities compared with Hispanics (Table 3).

Table 2. Percentage of men and women reporting they would be able to do the following activities after TJA

Activity	Men (%)	Women (%)	p value
Walking several blocks without assistive device	88	75	< 0.001
Climbing a flight of stairs	92	70	0.001
Lifting and carrying heavy packages such as groceries	74	59	< 0.001
Kneeling	68	56	0.005
Gardening	67	53	0.001
Swimming	76	57	< 0.001
Golf	52	27	< 0.001
Tennis	34	20	0.001
Dancing	65	55	0.017
Running	31	24	0.011
Driving	83	71	0.002
Riding a bicycle	73	47	< 0.001
Engaging in sexual relations	79	53	< 0.001

TJA = total joint arthroplasty.

Table 3. Percentage of non-Hispanics and Hispanics reporting they would be able to do the following activities after TJA

Activity	Non-Hispanics (%)	Hispanics (%)	p value
Walking several blocks without assistive device	90	62	< 0.001
Climbing a flight of stairs	87	53	< 0.001
Lifting and carrying heavy packages such as groceries	72	54	< 0.001
Kneeling	69	46	< 0.001
Gardening	72	32	< 0.001
Swimming	78	36	< 0.001
Golf	51	12	< 0.001
Tennis	35	9.3	< 0.001
Dancing	71	32	< 0.001
Running	33	21	0.009
Driving	86	58	< 0.001
Riding a bicycle	71	32	< 0.001
Engaging in sexual relations	78	39	< 0.001

TJA = total joint arthroplasty.

Ethnic and gender differences were identified in terms of the amount of arthroplasty-related knowledge. Seventy-six percent of patients completed the five questions of the AKS. Men were more likely ($p = 0.03$) to receive a score of 4 or 5 on the AKS compared with women (41% versus 32%, respectively). Non-Hispanics also were more likely ($p = 0.04$) to receive a score of 4 or 5 on this scale relative to Hispanics (40% versus 30%, respectively‘). Controlling for site, men were more likely ($p = 0.014$) to get a score of 4 or 5 on the AKS compared with women in Philadelphia (46% versus 32%). This relationship did not exist in Miami. When controlling for level of education, men and women were equally likely to score 0 to 3 or 4 to 5 on the AKS. This relationship existed for both cities.

Analyses of WTP preferences revealed differences by ethnicity and gender regarding whether patients were willing to pay and how much they were willing to pay. Overall, 81% of patients completed the WTP questions. By gender, men exhibited increased WTP overall in comparison to women (Table 4), and greater WTP in terms of specific dollar amounts (Table 5). Exploring the relationship between ethnicity and WTP, Hispanics and non-Hispanics reported they would not pay for TJA (73% versus 86%). Further, when asked how much they would be willing to pay for TJA, non-Hispanics were willing to pay more for TJA than Hispanics (Table 6).

Table 4. Difference between sexes concerning WTP for arthroplasty

Sex	Willingness to pay		
	Yes	No	Unsure
Women	26.60%	34.30%	39.10%
Men	37.70%	28.80%	33.50%

WTP = willingness to pay.

Table 5. Differences between sexes regarding amount patients were willing to pay for TJA

Sex	Amount patients were willing to pay					
	Nothing	< $100	$100–$500	$500–$1000	> $1000	Unsure
Women	20.7%	1.3%	2.6%	5.2%	7.2%	63.0%
Men	11.5%	1.4%	4.3%	4.3%	16.3%	62.0%

TJA = total joint arthroplasty.

Table 6. Differences between ethnicities regarding amount patients were willing to pay for TJA

Ethnicity	Amount patients were willing to pay					
	Nothing	< $100	$100–$500	$500–$1000	> $1000	Unsure
Hispanics	42.1%	1.9%	0.0%	3.7%	9.3%	43.0%
Non-Hispanics	7.0%	1.2%	4.4%	5.6%	12.0%	69.9%

TJA = total joint arthroplasty.

Discussion

Many studies have identified differences in the utilization of medical interventions on the basis of sex and race [1, 3, 4, 14, 16, 19, 21, 35, 38, 39, 45]. The spectrum of medical interventions, from preventive to diagnostic, is affected by sex and race, even after adjusting for diagnosis and severity of illness. It is unclear why these disparities exist, although some potential explanations have been discussed, the most obvious being access to care. The aims of this study therefore were to determine whether gender and ethnicity influenced (1) patient expectations, (2) knowledge, and (3) WTP preferences regarding TJA.

This study had several limitations. First, the patient cohort used in this study may not be truly representative of the general US population and inferences made to the general population may not apply. We recommend much larger prospective studies using probability sampling techniques, validated instruments, and incorporating many sites from around the country. Second, although we found multiple differences between Hispanics and non-Hispanics, Hispanics are not a uniform group. The individuals in this study are primarily Cuban or of Cuban descent, and the ethnicity-related factors may differ for other Hispanic groups, such as Mexicans. Third, the choices for WTP levels were created arbitrarily. However, the WTP method used in our study describes patient preferences regarding sex and ethnicity. Further research is needed to find the most appropriate levels of dollar amounts that best describe overall payment.

Expectations regarding TJA in terms of complications and functional outcomes differed by ethnicity, although only gender difference was found in relation to expectations regarding outcomes. Overall, the most common complication chosen was infection; however, there were no differences between women and men. Pertaining to ethnicity, Hispanics chose nerve injury more frequently whereas non-Hispanics chose infection. Men and non-Hispanics had a higher rate of expecting to complete activities after TJA. In 2003, Dunlop et al. [12] found, after adjusting for access to insurance and health status, the odds of undergoing TJA among African Americans and Hispanics were lower when compared with whites. Two studies documented, among candidates for TJA, African Americans have lower expectations for surgical outcomes than whites [13, 18]. Our study data are in agreement with those findings in showing that the minority group had lower expectations regarding outcomes (Table 3). Hawker et al. [21] reported, when compared with men, women were

less likely to have undergone arthroplasty, and those with potential need were less likely to have discussed arthroplasty with a physician. After adjustment for the degree of willingness to undergo this procedure, the potential need for arthroplasty was more than three times greater in women than in men. Our results help to explain such findings as men clearly had higher expectations than women when visiting an arthroplasty specialist. Men expected a higher level of activity and number of activities they were going to achieve after the procedure when compared with women.

Concerning knowledge of arthroplasties, men reported greater knowledge of arthroplasties compared with women, especially in Philadelphia. As noted above, Hawker et al. [21] reported that women were less likely to undergo an arthroplasty. Our data suggest that a deficit in knowledge about arthroplasties may contribute to women's apparent reluctance to undergo TJA. Regardless of city, non-Hispanics reported having greater knowledge of arthroplasties. As in the case of women, it is possible that the deficit in knowledge about arthroplasties for Hispanics in relation to non-Hispanics may explain a portion of the variance in healthcare utilization by ethnicity that has been noted in the literature [12]. Lower-income, less-educated individuals are more likely to have difficulty understanding alternatives and accessing and receiving appropriate care [2]. In this study, education level likely plays a substantial role, as education level was lower in the groups (Hispanics and women) that had lower expectations, less knowledge, and less WTP.

Pertaining to WTP, men were more likely to report being ready to pay, yet greater than ⅓ of men and women were unsure whether they would pay. Women had a higher rate of not wanting to pay for surgery, although almost ⅔ of women and men were unsure of how much to pay. In Philadelphia, men with higher education were more likely to pay for the procedure. Interestingly, regardless of the site, approximately 25% of women who had some college wanted to pay nothing for TJA. Furthermore, Hispanics were more likely to want to pay nothing for an arthroplasty and this was true for those who had less than high school education, some college, and postgraduate education. Minorities are more likely to be uninsured; however, disparities in healthcare utilization are not explained solely by financial constraints [3]. In our study, everyone had insurance, so financial constraints are likely less relevant.

Overall, our data suggest women and Hispanics may be less exposed to the benefits of TJA and, as a result, are less willing to undergo TJA than men or non-Hispanic patients. In a previous study, the association between poor preoperative status and ethnicity was discussed [27]. Our observations suggest a difference in the expected number of activities and less arthroplasty-related knowledge may help explain why Hispanics delay seeking treatment resulting in worse preoperative functional status. Postsurgical activities as reported in the literature clearly show these low expectations of the type of activities that patients are able to perform after these surgeries are indicative of lack of information or ignorance with respect to the postoperative outcomes [9, 25].

Patients presenting for their initial visit to the orthopaedist for hip or knee pain have gender and ethnic differences regarding expectations, knowledge, and preferences concerning TJA. Although delay in seeking treatment for joint arthritis is multifactorial, we believe patient cognitions and beliefs about TJA may play a major role in utilization decisions and could result in poor preoperative status and suboptimal outcome, especially for women and Hispanics. A future, longitudinal study that assesses patient expectations and knowledge from the time of their initial visit through postsurgical outcomes is warranted to more fully delineate the relationship. The clinical implications may be to institute education to change expectations and knowledge, which conceivably could affect WTP, utilization decisions, and outcomes.

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Appendix 1. Joint Questionnaire

Please check the appropriate response to each of the following questions/statements or fill in the space where appropriate. Please ensure the survey is completed in full.

1) Your gender: □ Male □ Female

2) Your age: _____

3) Your race:
□ Caucasian □ African American □ Asian or Pacific Islander
□ Hispanic □ Native American
□ Other (please specify) _____

4) How much schooling have you completed?
□ Less than high school □ Graduated from high school □ Some college
□ Graduated from college □ Postgraduate school or degree

5) Your occupation: _____

6) You are being seen today for: □ Hip □ Knee

7) Have you ever had a total joint replacement surgery? □ Yes □ No

8) If yes, what procedure and when? _____

9) Healthcare services in my community are
□ Excellent □ Good □ Fair □ Poor □ Nonexistent

10) My healthcare providers are easy to get to
□ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree

11) Do you have a regular source of care such as a family physician or internist?
□ Yes □ No

12) If yes, how often do you see them? _____

13) Please choose a response to the following statements by placing a check in the corresponding box.

	Always	Most of the time	Sometimes	Never	Not applicable
A (my) physician explains my problem to me					
A (my) physician explains what he/she is doing					
A (my) physician makes me aware of all treatment options					
A (my) physician involves me in treatment decisions					
My primary care physician appropriately refers me to other healthcare specialists					
My physician is interested in my opinion					
My physician is thorough during my visits					
I receive quality care					
My physician is kind and courteous					
My physician's expectations of a visit are the same as mine					
I can be open with my physician					
My physician uses words that I can understand					
I feel that I have control over my care					

14) I need to arrange transportation to a healthcare provider
□ Always □ Most of the time □ Sometimes □ Seldom □ Never

15) Childcare is an issue when I schedule an appointment
□ Always □ Most of the time □ Sometimes □ Seldom □ Never

16) When I am ill, I can take care of myself better than a doctor
□ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree

17) I prefer home remedies to a physician's care
□ Always □ Most of the time □ Sometimes □ Seldom □ Never

18) Home remedies provide effective treatment
□ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree

19) Please rate the effectiveness of the following care modalities.

	Very effective	Somewhat effective	No difference	Increased symptoms	Didn't try
Prayer					
Medicated creams					
Herbal medicines					
Massage					
Heat					
Cold					
Acupuncture					

20) I understand my own body better than a doctor does
□ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree

21) I ask friends and/or family for advice when I am sick/in pain
□ Always □ Most of the time □ Sometimes □ Seldom □ Never

22) Do you know of anyone who has had a total joint replacement surgery?
If so, what is their relation to you? _____

23) Is a total joint replacement for the treatment of arthritis an option that is appealing to you?
□ Yes, definitely □ Probably □ Maybe □ No □ Unsure

24) Do you think a total joint replacement is an effective surgery?
□ Yes □ No □ Unsure

25) How long will I be in the hospital following a total joint replacement?
□ 1 day □ 3 days □ 5-7 days □ 10 days □ 2 weeks □ Unsure

26) If you do have pain, do you think it will be appropriately controlled?
□ Yes □ No □ Unsure

27) The amount of pain I would expect following a total joint replacement is
□ None □ Trace □ Minimal □ Moderate □ Extreme

28) I expect the pain to last for
□ Hours □ A few days □ A few weeks
□ A few months □ Over 1 year

29) Please list 3 fears or concerns you have regarding a total joint replacement.
_____
_____
_____

30) What do you think are the 3 most common complications of a total joint replacement?
□ Infection □ Nerve injury □ Chronic headaches □ Heart attack
□ Death □ Loss of the limb □ Blood clot in the leg
□ Loss of sight □ Loss of energy □ Sexual dysfunction
□ Blood clot in the lung

31) Do you expect your activity level to increase following a total joint replacement?
□ Yes □ No □ Unsure

32) If yes, by what percentage do you expect your activity level to increase by?
□ 100% □ 75% □ 50% □ 25% □ 10%

33) Do you expect to be able to do the following activities after a total joint replacement?

	Yes	No	Unsure
Walking several blocks without an assistive device			
Climbing a flight of stairs without rest			
Lifting and carrying heavy packages such as groceries			
Kneeling			
Gardening			
Swimming			
Golf			
Tennis			
Dancing			
Running			
Driving			
Riding a bicycle			
Engaging in sexual relations			

34) If I were to have a total joint replacement, I would be discharged from the hospital to
□ Home □ A rehabilitation center □ A skilled nursing facility

□ Friend or family's home

35) Who will take care of you when you return home? _____

36) Total joint replacement is an effective treatment for arthritis of the knee/hip
□ Strongly agree □ Agree □ Neutral □ Disagree □ Strongly disagree

37) Which statements describe your current employment situation? (Check all that apply)
□ Currently working □ Homemaker □ On leave of absence
□ Unemployed □ Student □ Retired (not due to ill health)
□ Disabled and/or retired because of ill health □ Other (please specify)
_____

If you have answered retired/homemaker/student, please skip to question 43

38) If you are currently out of work because of your knee or hip, do you expect to return to work following a total joint replacement?
□ Yes □ No □ Unsure

39) How long would you expect to be out of work following a total joint replacement?
_____

40) Do you think your job would be in jeopardy if you were to be out of work following a total joint replacement?
□ Yes □ No □ Unsure □ Not applicable

41) If you were out of work, would you continue to get paid?
□ Yes □ Yes, but only part of my current pay □ No □ Unsure

42) If you are currently working, do you expect to see an improvement in your job performance following a joint replacement ?
□ Yes □ No □ Unsure

43) Are you insured? ☐ Yes ☐ No

44) If you are covered by Medicare, do you have supplemental insurance?
☐ Yes ☐ No ☐ Not applicable

45) Does your insurance company require a co-payment?
☐ Yes ☐ No ☐ Unsure

46) Do you have difficulty paying your co-payment?
☐ Yes ☐ No ☐ Sometimes ☐ Not applicable

47) If your insurance company did not cover a total joint replacement, would you be prepared to pay for it yourself?
☐ Yes ☐ No ☐ Unsure

48) How much would you be willing to pay for a total joint replacement?
☐ Nothing ☐ Less than $100 ☐ $100-$500
☐ $500-$1000 ☐ Greater than $1000 ☐ Unsure

49) Are you currently on or planning to apply to any of the following programs? (Please circle yes or no)

	Already on it		Applied for it		Planning to apply for it	
a. Social Security	Yes	No	Yes	No	Yes	No
b. Disability	Yes	No	Yes	No	Yes	No
c. Workers Compensation	Yes	No	Yes	No	Yes	No

50) My overall understanding of the total joint replacement procedure is
☐ Excellent ☐ Good ☐ Fair ☐ Poor ☐ Nonexistent

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