ORIGINAL RESEARCH

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How patients' trust relates to their involvement in medical care

Trust in the medical profession is associated with greater willingness to seek care and follow recommendations

Practice recommendations

- Do not assume that assertive patient involvement indicates distrust. Patient preferences for participation vary, and it is important to communicate with them about their wishes.
- Promoting trust is unlikely to result in a paternalistic relationship. Listen to patients carefully, give them as much information as they want, and involve them in decisions.

Abstract

Objectives To examine the connection between patients' trust and their attitudes toward seeking care, participating in medical decision making, and adhering to treatment recommendations.

Methods Data were collected from a national telephone survey of English-speaking adults (N=553) in 1999. Eligibility requirements were some type of public or private health care coverage and having seen a physician or other health professional at least twice in the past 2 years. Five questions on preferred role in medical care were asked. Trust in physicians and satisfaction with care were separately measured using validated scales.

Results The most significant predictor of patients' preferred role in medical care is trust in the medical profession. Views also varied by sex, age, health, education, income, number of visits/years with physician, past dispute with a physician, and satisfaction with care, but many of these bivariate associations were no longer significant in multivariate regression models. Views varied slightly by trust in the specific physician. There were no racial differences.

Conclusions A strong connection exists between patients' preferred involvement in medical care and trust in the medical profession, but only a slight connection with trust in their own physician. Increased trust in physicians generally is associated with greater willingness to seek care, to follow recommendations of physicians, and to grant them decisional authority. Higher trust in a specific physician is strongly associated only with greater reported adherence. Although higher trust in the medical profession appears to entail a more deferential role by patients, higher trust is also consistent with more active patient roles such as seeking care and adhering to treatment regimens.

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It is widely perceived and documented that both of the following are valuable attributes of treatment relationships: 1) patients' trust in physicians and in the medical profession,[1] and 2) patients' active involvement in treatment seeking, decision making, and adherence.[2–8] Both patient trust and active patient involvement are desirable in their own right and because they are associated with improved health outcomes. Paradoxically, however, it might be thought that these 2 attributes are in sharp conflict.

Patient trust might be more consistent with a deferential style of patient-physician interaction in which patients are passive, in contrast to assertive patient questioning or limitation of physician authority which might be indicative of patient distrust. If so, then pursuing active patient involvement might lead to lower trust, or promoting trust might lead to more passive patients, either of which might compromise optimal treatment relationships and health outcomes. At a minimum, it is a conceptual puzzle how these 2 views of desirable attributes of medical relationships can coexist without each taking account of the other view. There certainly are skeptics of patient trust who warn that, contrary to conventional wisdom, too much trust might be negative and that patients, for their own good, should be encouraged to trust less to avoid the dangers of paternalistic medicine,[9] especially in managed care settings.[10,11]

Numerous studies examine either patient trust or patients' roles in seeking care, level of participation in medical decisions, and adherence to treatment. However, few studies examine both halves of these 2 sets of attitudes and behaviors, and none examine the full cluster. None of the leading studies of patients' attitudes toward seeking care or participating in medical decisions include measures of trust. A few studies of care-seeking also examine attitudes similar to or overlapping with trust, such as confidentiality or competency,[12,13] but none of these use the trust concept itself or any of the validated instruments that measure trust. Among studies of trust, some have explored trust's connections with adherence,[14] preferred role in decision making,[15] patients' requests for specific services,[16] or willingness to seek care,[17,18] but few studies simultaneously explore these measures,[17,18] and only 1 study examines how they relate to trust in the medical profession, rather than trust in a specific physician.[18] In general, these studies report that trust in a specific physician is associated with greater adherence to treatment recommendations, more willingness to seek care, and giving physicians more control over medical decisions.

Absent in this literature is any concurrent examination of how different types of trust relate to various aspects of patients' views about their involvement in medical care. To advance understanding of these important connections, this study was designed to investigate whether patients' trust in their primary physician and in the medical profession are related to their attitudes toward seeking care, preferred roles in medical decision making, and reported adherence to treatment recommendations.

Methods

How the sample was collected

A random national sample of 2637 households was selected in 1999 from a proprietary database of working residential telephone exchanges in the continental United States. A minimum of 15 attempts was made to reach those numbers that were not answered. Respondent selection within eligible households was done using the next birthday method.[19]

Inclusion criteria for the study included being at least 21 years of age and the ability to speak and understand English. Because this survey was part of a larger study of recent experiences with physicians and health insurers,[20–22] respondents were further screened to select only those with some type of public or private health care coverage and those who had been to a physician or other health professional at least twice during the past 2 years. Health

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Attitudes toward and preferred roles in medical care were measured by the 5 questions listed in Table 1

TABLE 1

Items assessing patients' roles in medical relationships

1	**You always follow physicians' recommendations about treatment.** (5-point scale: strongly agree-strongly disagree)
2	**It is better to rely on the expert judgment of physicians than to rely on common sense in taking care of your own body.** (agree/disagree)[38]
3	**It is almost always better to seek professional help than to try to treat yourself.** (agree/disagree)[38]
4	**Which one statement best describes your attitude towards medical care?**[35] 1. The patient should take complete control 2. The patient should have more control than the physician 3. The patient and the physician should share control equally 4. The physician should have more control than the patient 5. The physician should take complete control.
5	**What role do you prefer to play in your visits to the physician?**[39] 1. You make all of the final decisions 2. The physician and you make the final decisions together 3. The physician considers some of your ideas but still makes most, if not all, of the final decisions 4. The physician takes the initiative and decides what is best for you.

care coverage broadly includes any type of public or private insurance, or access to other type of government or indigent care program or facility.

Contacts with 2172 potentially eligible individuals resulted in the following dispositions: 1117 (51.4%) were interviewed; 571 (26.3%) refused; 484 (22.3%) were unable to participate (not home, ill, non-English-speaking). To reduce respondent burden, the sample was randomly divided and only half (N=553) were asked the battery of questions about trust in the medical profession and following physicians' recommendations. (The other half were asked other questions unrelated to this analysis. There were no statistically significant differences between the 2 halves on age, race, gender, health status, education, or income.)

Due to the particular selection criteria and survey method, this random sample is not fully representative of national norms. There is a somewhat greater representation of whites (84.3%) and females (68.9%) because they are more likely to have insurance and have gone to a physician recently. Otherwise, the majority of our sample was between 30 to 60 years old (58%) and college educated (58%), with a median income of about $40,000. Thus, the sample composition is sufficient to analyze most major demographic and socioeconomic groups.

Telephone interviews lasted approximately 25 minutes and were conducted by trained interviewers at the Survey Research Center of the University of South Carolina using computer assisted telephone interviewing. Verbal informed consent was obtained at the start of the telephone interviews and the study protocols were reviewed and approved by Wake Forest University Medical Center's Institutional Review Board.

Measures

Attitudes toward and preferred roles in medical care were measured by the 5 questions listed in **TABLE 1**. Data were also collected on a range of topics, including demographic characteristics, trust in the subject's regular physician and the medical profession, satisfaction with care, and physical and mental health. Trust in the specific physician and in the medical profession were measured by 5-item scales, whose validation and properties are reported elsewhere (Cronbach's alpha ≥0.77 for all).[23] Satisfaction with medical care was measured with a previously validated 12-item scale asking about health care received from all sources over the past few years.[24]

Statistical analysis

To assess patients' involvement in medical care, frequencies of response categories were calculated for the general study population, as well as key subgroups—men, African Americans, and the elderly (age ≥65 years). Chi-square tests were used to determine whether views varied by sex, race, and the elderly. Spearman correlation was used to assess the relationship of the

TABLE 2

Views of the general population and subgroups about involvement in medical care

	OVERALL (N=553)	MEN (N=172)	AFRICAN AMERICANS (N=45)	ELDERLY (N=127)
You always follow physicians' recommendations about treatment (N=506)				
Strongly agree	5.5%	6.2%	4.4%	11.1%
Agree	56.3%	57.1%	55.6%	65.9%
Neutral	15.4%	16.8%	15.6%	7.9%
Disagree	22.1%	19.9%	24.4%	14.3%
Strongly disagree	0.6%	0.0%	0.0%	0.8%
***P*-value**		.654	.701	<.001
It is better to rely on the expert judgment of physicians (N=474)				
Agree	62.2%	71.7%	71.4%	75.6%
Disagree	37.8%	28.3%	28.6%	24.4%
***P*-value**		.003	.355	.001
It is almost always better to seek professional help (N=493)				
Agree	83.0%	83.4%	84.31%	87.9%
Disagree	17.0%	16.6%	15.9%	12.1%
***P*-value**		.847	.743	.090
Attitude towards control of medical care (N=496)				
Patient complete control	3.6%	5.0%	0.0%	2.4%
Patient more control	5.4%	6.3%	4.7%	0.8%
Share control equally	77.4%	67.9%	83.7%	72.4%
Physician more control	9.7%	15.1%	7.0%	12.2%
Physician complete control	3.8%	5.7%	4.7%	12.2%
***P*-value**		.009	.586	<.001
What role do you prefer to play in your visits to the physician (N=499)				
You make decisions	9.2%	14.4%	20.9%	2.4%
You and physician make decisions	67.5%	60.6%	44.2%	65.0%
Physician considers your ideas	13.6%	13.8%	20.9%	11.4%
Physician makes decisions	9.6%	11.3%	14.0%	21.1%
***P*-value**		.028	.169	<.001

5 views to each other, as well as to test whether views varied by trust in the physician and the medical profession, satisfaction with care, age, education, income, physical and mental health, number of visits and years with physician, and past dispute with a physician. Finally, multivariate regressions were performed to determine the most significant predictors of involvement in medical care. In all

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Both patient trust and active patient involvement are associated with improved health outcomes

TABLE 3

Correlation between views on involvement in medical care

	RELY ON PHYSICIAN'S JUDGMENT	SEEK PROFESSIONAL HELP	MORE PHYSICIAN CONTROL	MORE PASSIVE PATIENT ROLE
Follow physician recommendations	0.256	0.125	0.244	0.171
Rely on physician's judgment		0.316	0.240	0.167
Seek professional help			0.140	0.192
More physician control				0.316

P≤.005 for all

analyses, a *P*-value of .05 was considered statistically significant. However, in recognition of the multiple testing environment, consistency over the 5 items was considered as well.

Results

TABLE 2 summarizes the response frequencies for the 5 questions and **TABLE 3** shows the correlations of the 5 items with each other. All items are significantly correlated at level 0.005 or below. As one might expect, the questions on relying on physicians' judgment and seeking professional help are most correlated, as are physician/patient control and roles.

Trust and satisfaction

As shown in **TABLE 4**, trust in a specific physician is associated only with always following recommendations. Trust in the medical profession and satisfaction with care are both highly associated with all 5 views towards involvement in medical care. More trust in the medical profession, and greater satisfaction with care, are associated with following recommendations, relying on the judgment of physicians, seeking professional medical help, and granting increased control and decision making to the physician.

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More trust in the medical profession is associated with granting increased control and decision making to the physician

Patient demographics

A number of patient demographic characteristics are significantly associated with patients' involvement in medical care. Women are less likely to want to rely on the judgment of physicians and are more likely to want to share control and make joint decisions. There is also an extremely strong effect of age. The elderly (age ≥65 years) are more compliant, deferential, and passive under each of our measures. Interestingly, race has no significant effects on these measures of involvement.

Patients with less education are more likely to want to follow physicians' recommendations, rely on their physician's judgment, and seek professional medical help (*P*=.0015, <0.001, 0.027, respectively). They are also more likely to give the physician more control and authority to make decisions for them (*P*<.001 for both). People with less income (on a 9-point scale) are also more likely to want to follow physicians' recommendations, rely on their judgment, and give the physician more control and authority (*P*<.007 for all). Patients in worse physical health (on a 5-point scale) are more likely to want to rely on the judgment of physicians and to seek professional medical help (correlation=0.11; *P*=.014, .017). There is no significant association between mental health and any of these views.

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TABLE 4

Correlation between trust and satisfaction and medical views

	FOLLOW PHYSICIAN'S RECOMMENDATION	RELY ON PHYSICIAN	SEEK HELP	PHYSICIAN CONTROL	PASSIVE ROLE
Trust in physician	0.170 (*P*<.001)	0.017 (*P*=.712)	0.031 (*P*=.495)	0.002 (*P*=.960)	0.060 (*P*=.180)
Trust in medical profession	0.440 (*P*<.001)	0.302 (*P*<.001)	0.195 (*P*<.001)	0.245 (*P*<.001)	0.206 (*P*<.001)
Satisfaction with care	0.309 (*P*<.001)	0.131 (*P*=.005)	0.107 (*P*=.018)	0.103 (*P*=.023)	0.166 (*P*<.001)

Patients' relationship with physicians

Several aspects of the patient/physician relationship were significantly associated with patients' involvement in medical care. Not surprisingly, willingness to seek professional medical help increases with number of visits to the physician (*P*=.039), and granting increased control and decision making to the physician increases with continuity of care, as measured by number of years with the physician (*P*=.001, .037). Additionally, having had a past dispute with a physician was significantly related to patients' involvement in medical care. Patients with a past dispute were less likely to always follow physicians' recommendations, rely on the judgment of physicians, or seek professional medical help. They were also more likely to take control and make medical decisions themselves.

Multivariate regression models

Multivariate regression models were used to determine the most significant predictors of patients' involvement in medical care. Multivariate linear regression was used for the outcomes of following physicians' recommendations and physician/patient control and roles. Logistic regression was used for the binary outcome variables—rely on physician's judgment and seek professional help.

The predictor variables used in the model were sex, age, education, physical health, number of physician visits, number of years with physician, past dispute, trust, and satisfaction with care. Income and elderly were not used as they are correlated with education and age, respectively, which were more predictive of patient involvement. Significant predictors are shown in **TABLE 5**. Notably, the patient's trust in their specific physician did not predict any of these views, and satisfaction with care predicted only following physicians' recommendations. Demographic, health status, and other variables were also nonsignificant in many or most regressions. Only trust in the medical profession predicted all 5 views.

Discussion: What predicts involvement in medical care?

Trust a key predictor. Trust in the medical profession is a key predictor of people's involvement in medical care. It is a significant predictor of self reports of: 1) following physicians' treatment recommendations, willingness to 2) seek care and to 3) rely on physicians' judgment, and wanting to 4) give physicians more control and 5) let them make decisions for patients. Most other relationship factors (trust in a specific physician, length and continuity of treatment relationship, past dispute with physician) predict fewer of these variables and are no longer significant in multivariate analyses. In bivariate analyses, satisfaction with care is also a consistent predictor of all 5 measures of involvement in medical care, but it usually no longer remains significant

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Patients with a past dispute with a physician were less likely to always follow physicians' recommendations

TABLE 5

***P*-values for significant predictors in the multivariate analysis**

	FOLLOW PHYSICIAN'S RECOMMENDATION	RELY ON PHYSICIAN'S JUDGMENT	SEEK PROFESSIONAL HELP	PHYSICIAN CONTROL	PASSIVE ROLE
Trust in physician	NS	NS	NS	NS	NS
Trust in medical profession	**<.001**	**<.001**	**.010**	**<.001**	**.001**
Satisfaction with care	.003	NS	NS	NS	NS
Sex	NS	**.007**	NS	NS	NS
Age	NS	NS	NS	**.001**	**.002**
Education	NS	**.015**	NS	**.003**	**.001**
Physical health	NS	NS	**.047**	NS	NS
No. of physician visits	NS	NS	NS	NS	NS
No. of years with physician	NS	NS	NS	**.033**	NS
Past dispute	NS	NS	NS	NS	NS
R^2	0.243	**	**	0.143	0.124

* NS=not significant
** R^2 is not defined for logistic regression.

in regression analyses once trust in the medical profession is added to the models.

Demographics not significant. Similarly, demographic characteristics such as age, sex, or education often are no longer significant in regression models that control for trust in the medical profession, suggesting that, in some instances, these factors may influence views about involvement through their effect on trust in the medical profession.

Patient roles and control of medical care. In general, increased trust in the medical profession is associated with a more deferential patient role in medical relationships. Higher trust is associated with greater willingness to give control to physicians and allow them to make decisions for the patient. However, other aspects of patient involvement are not as easily classified as deferential in the sense of the term that connotes a passive patient role. Trust in the medical profession is also associated with greater willingness to seek care and to comply with treatment recommendations.

To the extent that trust is associated with deferential or passive patient roles, it is notable that this association exists primarily only with the measures that refer to the medical system as a whole (including satisfaction with care generally), and not with the measures that are specific to particular physicians. The latter include trust in the patient's personal physician, past disputes with that physician, number of visits with that physician, and length of relationship with that physician. Each of these is much less predictive of patients' involvement in medical care than is trust in the medical profession or satisfaction with care generally.

What does this say about patient relationships in general?

This suggests, consistent with prior research,[18,22] that patients' views about particular physicians are substantially (but not entirely) independent from their views about the medical system in general. This finding is also consistent with prior explanations that the nature of interpersonal physician trust evolves over the course of an ongoing treatment relationship to accommodate both more active and more passive patient roles.[25] In fact, in our sample, trust in the specific physician was generally quite high regardless of preferred involvement in medical care.

Throughout all of these associations, the direction of possible causality is not established by this study. A person's attitudes about involvement in medical care may be determined by their trust in the medical profession, or their trust may be determined by the types of involvement they have had in medical care. Most likely, there is a cyclical relationship between the 2.[1]

These findings provide reassurance that promoting trust will not likely cause a reversion to excessively paternalistic medical relationships. Trust in specific physicians is only weakly related to patients' views about active vs passive roles. Trust in the medical profession is much more pertinent to these views, but that type of trust is distinct from trust in specific physicians. Moreover, trust in the medical profession is consistent with some desirable forms of patient involvement.

These findings also suggest that trust is able to form in relationships where patients are either active or passive. Assertive patient involvement should not be seen as indicative of distrust. Instead, other studies suggest that trust is promoted by communicating effectively with patients such as by listening carefully, answering questions clearly, giving them as much information as they want, and involving them in medical decisions.[26,27]

Attitudes towards involvement in medical care. Apart from the relationship to trust, these findings shed important light on general attitudes toward involvement in medical care. Overall, the majority of people report following their physicians' recommendations and think that it is better to rely on the expert judgment of physicians and seek professional help. Most people think the physician and patient should share control equally and make decisions together. More patients give control to their physicians than to themselves. These findings are consistent with previous studies.[8,28–36]

Also, consistent with prior studies, we found that younger and more educated patients prefer more assertive roles, as do women. We found no racial differences, but this may be due to the under representation of minorities in our sample. Finally, the small amount of variability explained in our models indicates that while we have identified predictive factors, many other factors affect people's views towards medical care. Physicians need to be aware that patient desires for participation vary, and communication about such desires is necessary during visits.

Limitations of this study

Several study limitations should be noted. First, our measures of involvement in medical care are self-reported and do not necessarily reflect patients' actual behaviors. However, most measures have been previously validated to some extent. Second, the selection criteria for the study do not allow for generalization to populations that less routinely seek care or are uninsured. Lastly, this is an exploratory study that was not driven by specific hypotheses derived from prior studies or firm theory. The empirical study of trust and its connection with other attitudes and relationship characteristics is still in its infancy,[37] which calls for more exploratory approaches that identify areas of focus for future research. The connection between trust and patients' involvement in medical care is one such area deserving further study. ■

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Patients' views about particular physicians are substantially independent from their views about the medical system in general

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