BUILDING TRUST IN THE PHYSICIAN/PATIENT ENCOUNTER

by

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ABSTRACT

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Building Trust in the Physician/Patient Encounter

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This study reports the findings of a trust survey completed by 50 employees from a medical claims processing center and 436 employees from one of the local medical facilities in a moderate size mid-western town. The purpose of this study is twofold. First, the study was to identify opportunities for the physician to create trust during the physician/patient encounter. Second, the study investigated patient contributions to the relationship depending on the level of trust established with the physician. The results identified nine elements that physicians can provide which significantly contribute to building trust during the physician/patient encounter and five significant elements that contribute to building trust from outside the encounter of which the top three are physician characteristics. During the encounter, "demonstrating respect for the patient" contributed most to building trust and the 'physician's tone of voice" was highest from outside the encounter. Results from a frequency analysis revealed that when patients totally trust the physician they are "confident the reason for their visit will be held confidential", "recommend the physician to others', and would "agree with treatment recommendations for a

life-threatening illness". The results of this study provide physicians with important information on what they need to bring to the physician/patient encounter that will build patient trust and the benefits they will gain from establishing that trusting relationship.

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CHAPTER I

Statement of the Problem

The purpose of this study was to identify opportunities for building trust during the physician/patient encounter which have a significant affect on the overall trust established in this relationship. Due to the short amount of time allotted for each patient encounter, physicians need to establish trust with their patients as quickly as possible in order to provide the quality of healthcare sought by the patient. If a trusting relationship is not fostered, the quality of care and satisfaction for both parties will be compromised. There were three specific objectives of the study. The first objective was to identify opportunities for trust building that physicians have significant control over. By identifying these opportunities physicians would have a way to increase their patient satisfaction and patient return revenue. The second objective was to identify what actions the patient will engage in as a result of the level of trust present between the physician and the patient. These results directly relate to patient compliance. The third objective was to heighten awareness of physicians to the opportunities and benefits of establishing a trusting relationship with patients.

CHAPTER II

Introduction

The medical community has made several attempts to try and identify what components make for a good patient/physician relationship. Studies identifying communication models (Roter, Stewart, Putnam, Lipkin, Stiles, Inui, 1997; Epstein, Campbell, Cohen-Cole, Mc Whinney, & Smilkstein, 1993;Veatch, 1991;Szasz & Hollender, 1956) and physician behaviors during patient/physician interactions have been a focus of investigation since they have shown to have the most impact on patient compliance and satisfaction (Levinson, Roter, Mulooly, Dull, & Frandel, 1997; Bertakis, Rotor, & Putnam, 1991; Roter, Hull, & Katz, 1987). The presence of trust has been identified to be highly correlated to patient satisfaction (Anderson & Dedrick, 1990). Several studies on trust have been conducted under business and sociological settings, but have not addressed the issue of trust in the medical setting. The present study investigates what physicians need to bring to the physician/patient encounter that will build patient trust and the benefits they will gain from establishing that trusting relationship.

Trust has been noted to be the foundation in which patient/physician relationships are built (Katz, 1984; Macklin, 1993). Few studies have gone beyond the experiences within the patient/physician relationship to identify the components that build trust (Kao, Green, Zaslavsky, Kaplan, & Cleary, 1998; Thom & Campbell, 1997; Anderson & Dedrick, 1990). One study performed by Emanuel and Dubler (1995) identified six elements that are fundamental to the physician/patient relationship: choice, competence, communication, compassion, continuity and no conflict of interest. Together, these basic components of the physician/patient relationship culminate to form the element of trust.

Another study conducted by Thom and Campbell (1997) consisted of qualitative research disclosing several categories of patient experiences that affect their trust of a physician. The first category identified was the physician's ability to thoroughly evaluate problems. The physician was thought of as trusting if the patient felt as though he/she was being thoroughly treated. Examples of this were items such as careful reviewing of patient's history, demonstrating up-to-date knowledge, willingness to refer, test ordering, searching for additional information, and giving best effort.

The second category talked about the physician's ability to understand the patient's individual experiences. Here the patient's trust for the physician lies in how well the patient feels the physician understands him/her at a personal level. Items in this category were patient individual experiences such as knowledge of patient and their family, tailoring treatments to fit the patient, treating the patient as a unique individual, & responding to patient's needs. Patients are more trusting of physicians that consider the "whole person".

The third category dealt with how the physician shows a patient that he/she genuinely cares about the patient. Examples in this category encompass both verbal and non-verbal expressions of caring. The verbal items were items such as offering to help, being hopeful, concern for patient's comfort, & putting the patient's interests first. Expressions of empathy both in words and gestures such as facial expressions or touch was shown to affect physician trust in a positive manner.

The fourth category dealt with how well a physician provided appropriate and effective treatment. This category crosses over somewhat into the first category to the effect that physicians that demonstrate medical competence do so by showing the patient their ability to

recognize, treat, and achieve the desired outcome necessary to meet their treatment needs. Use of preventative services also impacted the element of trust in this category.

The fifth category addressed physician/patient communication. Communication was found to be an important contributor to patient/physician trust. Both verbal and non-verbal expressions of communication such as active listening, explaining things clearly and honestly, answering questions, and acknowledging the patient's concerns were all found to affect physician trust.

The sixth category discussed the ability of the physician to stimulate building a partnership and sharing power with the patient. When patients feel as though they are seen as a partner in their physician/patient relationship, they feel assured that their needs are being met. When the patient is treated as an equal, they feel trusted by their physician and reciprocate that trust.

The final category of experiences in the physician/ patient encounter that affect trust is that of honesty and respect for the patient. In this category, it was more the absence than the presence of these two components that had the most impact on a patient's trust of a physician.

Thom and Campbell's study (1997) also revealed items that influenced patient/physician trust outside of the physician/patient encounter. Things such as the physician's appearance, age, sex, and training were some of the predisposing factors that affect patient/physician trust. Staffing factors that affected the patient's ability to communicate with the physician influenced the trust in the quality of the care they received rather than their trust in the physician. These were things such as obtaining test results, access to the physician, getting messages to the physician, and the courtesy of the office staff.

The following research study proposes to take more of a quantitative rather than qualitative look at trust compared to the majority of previous studies dealing with trust and the physician/patient encounter (Anderson & Dedrick, 1990; Thom & Campbell, 1997; Kao, Green, Zaslavsky, Koplan & Cleary, 1998). The first part of the current study quantitatively measures how often the physician provided opportunities for building trust with their patients during their encounters and which of these opportunities have a significant affect on the overall trust of the physician.

According to a study done by Johnson & Noonan (1972), the presence of trust makes it possible for open communication to occur which facilitates the exchange of information and feelings. Partha Dasgupta (1988) explains:

> "Trust is of much importance precisely because its presence or absence can have a strong bearing on what we choose to do and in many cases what we can do."

Building trust in the physician/patient relationship is done so on the premise that the physician provides the patient with sufficient information to participate knowledgeably in their health care decisions and give informed consent to procedures to be performed (Purtilo, 1990). Studies revealed that when physicians provide information to the patient and the patient volunteers information back, the patient tends to adhere to treatment regimes (Hall, Roter, & Katz, 1988; Rost, Carter, & Inui, 1989). The presence or absence of the patient's involvement in the encounter plays an important role in the overall success or failure of the medical visit. Inadequate involvement by the patient in the encounter may lead to non-compliance to medical treatments and regimens (Greenfield, Kaplan, & Ware, 1985) which in turn raises concern about issues surrounding the quality of care being provided. The second part of the current study

investigates what actions the patient will engage in as a result of the level of trust present between the physician and the patient. It is the hope of the investigator that the results of this study will heighten awareness of physicians to the opportunities and benefits of establishing a trusting relationship with patients resulting in a higher standard of quality medical care.

CHAPTER THREE

Methods

Participants

The participants in the study came from two locations in Eau Claire, Wisconsin. A convenience sample of 48 participants responded from a medical claims processing center of approximately 400 employees. Two of the respondents were relatives of employees at the processing center. The second group of participants was a random sampling of employees of a medical facility that employs approximately 2700 people. A total of 436 employees from the medical facility responded out of 1200 surveys distributed. The gender breakdown of the population was 84.2% female and 25.8% male. Subjects who were allowed to participate in the study had to be between the ages of 18 or older and working at any of the Eau Claire locations. The age range of subjects varied from 25 to 78 years of age with most common ages (34.2%) falling in the 40 to 50 range. The majority of the participant population was white respondents (95.1%) and female (84.2%). The largest group of participants (34.2%) had a gross income of $11,000 to $25,000 per year with the range of $26,000 to $35,000 being the next most common (22.2%). There was an even distribution between non-medical and medical job types in this population. A medical job type was defined as a job position in which the person had an impact on the direct care of the patient. All other job types that did not meet this description or were not specific regarding their job type (e.g. professional, supervisor) were classified as non-medical.

Materials

Each participant was given a Patient/Physician Level of Trust Survey along with a cover letter informing them of their rights as participants and who they could contact for further information or study results. The survey consisted of four parts. Part one of the survey asked for

general information about the physician visit. Items such as length of time since the patient last saw a physician, type of visit, and the physical and emotional appearance of the physician were asked in this section.

Part two of the survey consisted of 20 statements that described opportunities to create a trusting relationship during an encounter with a physician. The participants were to circle the number that best described the level they felt the physician provided the opportunity during the encounter. The responses were set up on a Likert scale. The Likert scale responses were 1 (Not at all), 2 (Very little), 3 (Occasionally), 4 (Frequently) and 5 (Always).

Part three consisted of 21 statements that had the participant circle the level of trust in which would have to be present between them and the physician before the item in the statement would occur. These were Likert scale responses of 1 (None), 2 (A little), 3 (Somewhat), 4 (Quite a bit), and 5 (Totally). These were items such as telling the physician the location of the pain, allowing the physician to perform invasive procedures, and run routine tests.

Part four of the survey covered demographic information about the patient. The information requested was as follows: age, sex, race, year of school last completed, job type, and level of gross income per year.

Procedure

The investigator obtained permission to make surveys available for employees to fill out at the medical claims processing center. An e-mail went out to all employees explaining the study, who the investigator was, and where they could pick up a copy of the survey if they wanted to fill one out. A time limit of two weeks for returning completed surveys was implemented. Completed surveys were placed by participants into a box labeled “completed

surveys" located at the desk of the investigator. A total of 50 surveys were completed and returned.

An additional collection of surveys was made at one of two medical facilities in a mid-western town. Permission was obtained to distribute surveys among the 2200 employees located at the Eau Claire facility. Sheets of inner office address labels of employee were provided by the facility. Each sheet contained 30 employee names and addresses. The sheets were organized alphabetically according to department first then alphabetically by employee name. The investigator had 1200 surveys to distribute among the 2200 employees. The investigator had an assistant pick a number between one and 30 to start the counting off of mailing names from the first sheet. A survey was sent to every eleventh name starting from the first sheet. When the researcher reached the last sheet of names the cycle was repeated until all 1200 surveys had a name label. Each chosen label was placed on an envelope that contained a copy of the survey, a letter of informed consent, and directions on when and where to return the survey. Participants were given up to two weeks from the mailing time to return completed surveys. The completed surveys were sent to the investigator by way of inner office mail to a designated mailbox at the facility. A total of 436 surveys were returned by the return date deadline.

CHAPTER FOUR

Results

Stepwise regression was employed to determine which variable and/or combination of variables that occur both outside of and during the physician/patient encounter play a significant role in the building of a trusting relationship between physicians and their patients. The analyses were performed using SPSS Regression and SPSS Frequencies to evaluate the influence of these variables on the dependent variable of overall trust.

Table 1 represents the percent of patient responses for questions of Part 1 of the survey that address general information about the physician visit. The most frequent patient responses describe the physician they saw as using a calm tone of voice, dressed professional, sat when speaking with the patient, and was relaxed when entering the room. The distribution of the age of the physician shows 52% being described as older than the patient, 41% being younger, and only 6% being the same.

Table 2 shows a model summary of a stepwise regression analysis of variables dealing with general information about the office visit and patient demographics consisting of age, gender, years of schooling, and income. Five of the items significantly contribute to the overall trust variance at a level of $p>.05$. The physician's tone of voice was found to comprise most of the variance at 13% with a significance of $p > .005$. The variable comprising the least amount of the variance (1%) while remaining significant ($p> .05$) was who the visit was for. Although these five items were found statistically significant, they account for only 21 % of the total variance. The model summary was intended to explain the total and incremental variance predicted by each variable. Table 3 shows the beta table of these models in relation to the

dependent variable of overall trust. Model 5 consists of the optimal combination of variables outside the physician/patient encounter that influence trust formation.

Table 1

Percent of Patient Response Regarding General Information about Physician Visit

Statement	% of Responses
Length of time since your last contact with a physician:	
0 to 3 months	69%
4 to 6 months	17%
7 to 12 months	9%
> 12	3%
Visit was for:	
Self	78%
Family member	21%
Physician's gender:	
Same as self	49%
Opposite of self	50%
Physician's age	
Older	52%
Younger	41%
Same	6%
Type of visit:	
Routine	75%
Urgent care	18%
Hospital	7%
Familiarity with the physician:	
Never seen before	32%
Seen on occasion	21%
Seen regularly for car	47%
Comfortable with staff:	
Yes	97%
No	3%

Table 1 (cont.)

Number of physician/patient encounters last year:	
0 to 2	51%
3 to 5	31%
6 to 10	11%
11 to 15	4%
>15	3%
Physician's tone of voice:	
Calm	78%
Anxious	1%
Business-like	18%
Physician's appearance upon entering room:	
Relaxed	85%
Hurried	14%
Physician's attire:	
Professional	78%
Casual	21%
Posture of the physician the majority of the time during the encounter:	
Stand	12%
Sit	86%

A stepwise regression analysis was performed on the responses to the 18 items of Part 2 of the survey that deal with opportunities the physician can provide to build trust during the physician/patient encounter. Table 4 shows the model summary of the nine items that significantly contribute ($p>.05$) to the total variance of overall trust in rank order from highest to lowest according to their contribution to the overall variance. The highest item, "demonstrate respect for patient", accounted for 66% the variance at a significance of $p>.005$. The variables of concern for patient comfort, encouraged questions, demonstrates medical knowledge, and eye contact each reveal statistical significance, but influence the total variance by less than 1 percent.

Table 2

Model Summary of a Stepwise Regression Analysis of Variables that Build Trust Outside the Physician/Patient Encounter

Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.127	58.966	1	404	.000
2	.038	18.312	1	403	.000
3	.017	8.431	1	402	.004
4	.014	7.052	1	401	.008
5	.010	4.947	1	400	.027

a. Predictors: (Constant), physician's tone of voice

b. Predictors: (Constant), physician's tone of voice, familiarity with physician

c. Predictors: (Constant), physician's tone of voice, familiarity with physician, physician's appearance

d. Predictors: (Constant), physician's tone of voice, familiarity with physician, physician's appearance, comfort with staff

e. Predictors: (Constant), physician's tone of voice, familiarity with physician, physician's appearance, comfort with staff, visit for self or family member

Non-significant variables ($p < .05$) excluded were: gender of patient, age of patient, patient income, gender of physician, physician's age, number of physician encounters, physician's attire, and the posture of the physician during the visit.

The beta table represented by Table 5 illustrates how variables in the models contribute to overall trust. Model 9 is composed of all the variables that, when introduced into the stepwise regression analysis, remain statistically significant in their contribution to overall trust during the physician /patient encounter.

A frequency analysis was performed on the 21 items of Part 3 of the survey which cover what the patient would bring to the encounter depending on the level of trust present between the physician and the patient. Table 6 displays the mean and standard deviation for each item in rank order from the highest to the lowest mean level of trust. The highest level of trust needed was for the patient to feel the physician would keep the contents of the encounter confidential. The least trust needed was for the patient to divulge financial problems to the physician.

Table 3

Stepwise Regression of Variables that Build Trust Outside the Physician/Patient Encounter

Variable	B	SE	β	t	Sig.
Model 1					
Physician tone of voice	-4.87	.63	-.36	-7.68	>.005
Model 2					
Physician tone of voice	-4.53	.63	-.33	-7.24	>.005
Familiarity with physician	2.42	.57	.20	4.28	>.005
Model 3					
Physician tone of voice	-3.96	.65	-.29	-6.08	>.005
Familiarity with physician	2.49	.56	.20	4.43	>.005
Physician appearance	-4.27	1.47	-.14	-2..90	>.005
Model 4					
Physician tone of voice	-4.11	.65	-.30	-6.33	>.005
Familiarity with physician	2.36	.56	.19	4.22	>.005
Physician appearance	-4.01	1.46	-.13	-2.75	>.005
Comfort with staff	-7.07	2.66	-.12	-2.66	>.05
Model 5					
Physician tone of voice	-4.24	.65	-.31	-6.53	>.005
Familiarity with physician	2.29	.56	.19	4.11	>.005
Physician appearance	-4.10	1.45	-.13	-2.82	>.005
Comfort with staff	-7.13	2.65	-.12	-2.69	>.05
Visit for self or family member	-2.61	1.17	-.10	-2.24	>.05

Dependent Variable: Overall Trust

Table 4

Model Summary of a Stepwise Regression Analysis of Physician Variables that Build Trust During the Physician/Patient Encounter

Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.658	931.273	1	484	.000
2	.083	154.822	1	483	.000
3	.026	53.682	1	482	.000
4	.016	34.655	1	481	.000
5	.009	20.647	1	480	.000
6	.004	10.026	1	479	.002
7	.002	5.913	1	478	.015
8	.002	3.980	1	477	.047
9	.002	4.539	1	476	.034

a. Predictors: (Constant), demonstrated respect for patient

b. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns

c. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly

d. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit

e. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit, physician puts patient interests first

f. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit, physician puts patient interests first, concern for patient comfort

g. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit, physician puts patient interests first, concern for patient comfort, encouraged questions

h. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit, physician puts patient interests first, concern for patient comfort, encouraged questions, demonstrates medical knowledge

i. Predictors: (Constant), demonstrated respect for patient, actively listens to patient concerns, communicates information clearly, physician understands reason for visit, physician puts patient interests first, concern for patient comfort, encouraged questions, demonstrates medical knowledge, made eye contact

Non-significant variables ($p < .05$) excluded were: provides information for care, evaluates concerns, considers whole person, keeps information confidential, provided appropriate treatment, gave time to express concerns, answered questions honestly, treats patient as an equal, and open to new therapies and treatments

Table 5

Stepwise Regression Analysis of Physician Variables that Build Trust During the Physician/Patient Encounter

Variable	B	SE	β	t	Sig.
Model 1					
Demonstrate respect for patient	.86	.03	.81	30.52	>.005
Model 2					
Demonstrate respect for patient	.56	.04	.53	16.12	>.005
Actively listens to concerns	.36	.03	.41	12.44	>.005
Model 3					
Demonstrate respect for patient	.41	.04	.39	10.56	>.005
Actively listens to concerns	.26	.03	.29	8.25	>.005
Communicated information clearly	.30	.04	.29	7.33	>.005
Model 4					
Demonstrate respect for patient	.36	.04	.34	9.50	>.005
Actively listens to concerns	.23	.03	.26	7.48	>.005
Communicated information clearly	.27	.04	.26	6.74	>.005
Physician understands reason for visit	.17	.03	.16	5.89	>.005
Model 5					
Demonstrate respect for patient	.33	.04	.31	8.57	>.005
Actively listens to concerns	.17	.03	.19	5.29	>.005
Communicated information clearly	.25	.04	.24	6.40	>.005
Physician understands reason for visit	.14	.03	.13	4.65	>.005
Puts patient's interests first	.15	.03	.16	4.54	>.005
Model 6					
Demonstrate respect for patient	.30	.04	.28	7.41	>.005
Actively listens to concerns	.15	.03	.16	4.43	>.005
Communicated information clearly	.23	.04	.22	5.81	>.005
Physician understands reason for visit	.12	.03	.12	4.25	>.005
Puts patient's interests first	.14	.03	.15	4.40	>.005
Concern for patient's comfort	9.18E-02	.03	.11	3.17	>.005

Table 5 (cont.)

Variable	B	SE	β	t	Sig.
Model 7					
Demonstrate respect for patient	.29	.04	.27	7.30	>.005
Actively listens to concerns	.13	.03	.14	3.71	>.005
Communicated information clearly	.20	.04	.20	4.85	>.005
Physician understands reason for visit	.12	.03	.12	4.26	>.005
Puts patient's interests first	.14	.03	.15	4.45	>.005
Concern for patient's comfort	7.33E-02	.03	.09	2.46	>.05
Encouraged patient questions	7.47E-02	.03	.09	2.43	>.05
Model 8					
Demonstrate respect for patient	.29	.04	.27	7.30	>.005
Actively listens to concerns	.13	.03	.14	3.78	>.005
Communicated information clearly	.19	.04	.18	4.43	>.005
Physician understands reason for visit	.10	.03	.10	3.33	>.005
Puts patient's interests first	.13	.03	.14	4.14	>.005
Concern for patient's comfort	7.38E-02	.03	.09	2.49	>.05
Encouraged patient questions	7.11E-02	.03	.08	2.32	>.05
Physician demonstrates medical knowledge	6.18E-02	.03	.06	2.00	>.05
Model 9					
Demonstrate respect for patient	.30	.04	.28	7.52	>.005
Actively listens to concerns	.13	.03	.15	3.98	>.005
Communicated information clearly	.18	.04	.18	4.39	>.005
Physician understands reason for visit	.13	.03	.11	3.87	>.005
Puts patient's interests first	.13	.03	.14	4.16	>.005
Concern for patient's comfort	7.47E-02	.03	.09	2.52	>.05
Encouraged patient questions	7.11E-02	.03	.08	2.32	>.05
Physician demonstrates medical knowledge	7.35E-02	.03	.07	2.34	>.05
Physician made eye contact	-623E-02	.03	-.06	-2.13	>.05

Dependent Variable: Overall Trust

Table 6

Patient Contributions to the Physician/Patient Encounter in Rank Order According to Mean Level of Trust Required Between the Physician and the Patient

(Likert Scale Levels of Trust: 1 (none), 2 (a little), 3 (somewhat), 4 (quite a bit), and 5 (Totally)

Statement	M	SD	n
Physician will keep visit and its contents confidential	4.71	.62	482
Recommend physician to others	4.65	.62	477
Agree with treatment recommendations for life threatening illness	4.59	.77	463
Allow physician to perform invasive procedures	4.45	.87	476
Agree with treatment recommendations for chronic illness	4.42	.74	466
See physician about an unusual lump you discovered	4.31	1.06	476
Allow the physician to perform routine exams	4.31	.98	477
Feel as though physician is not judging you	4.30	.94	475
Ask questions openly	4.30	.98	479
Express your concerns about your medical treatments	4.23	.98	476
Tell the physician the location of the pain	4.23	1.16	483
Admit to physician you have not taken your medications correctly or at all	4.16	1.04	473
Follow a treatment plan through its entire duration	4.15	1.01	476
Admit that the medicine or therapy is working	4.14	1.18	482
Allow physician to run routine tests on you	4.14	1.04	477
Agree with treatment recommendation for common ailments	4.09	1.03	475

Table 6 (cont.)

(Likert Scale Levels of Trust: 1 (none), 2 (a little), 3 (somewhat), 4 (quite a bit), and 5 (Totally)

Statement	M	SD	n
Disclose family issues	4.06	1.15	477
Wait longer for appointment to see physician	4.05	1.03	474
Call physician at his/her office	3.96	1.15	477
Inform physician about use of non-traditional medical treatments	3.91	1.22	445
Divulge financial problems to physician	3.59	1.40	462

CHAPTER FIVE

Discussion

The responses from the population surveyed showed physicians are frequently to always providing a variety of opportunities to build trust during physician/patient encounters. The opportunities for building trust were divided and analyzed as to whether they were predisposing to the encounter (Part One of survey and demographics) or occurred during the patient/physician encounter (Part Two of survey). Predisposing items in which the physician had no control over, such as their age, gender, and the number of physician/patient encounters the patient had over the past year were found to be non-significant in their contribution to trust. Patient demographics, such as patient age, income, and education, were previously found to have no significance in predicting trust (Kao, Green, Zaslavsky, Koplan, & Cleary, 1998). The regression analysis of the current study including these demographics confirmed Thom and Campbell's (1997) study results of predisposing factors influencing trust. Of the 13 predisposing factors, five of them accounted for approximately 20% of the total variance of which the factor of "physician's tone of voice" made up 13% of this variance. The majority of the responses reported that the physician's tone of voice was calm indicating that physicians using a calm tone of voice may be regarded as more trusting by patients. It is important to note that 12 out of the 14 significant opportunities to build trust are under the control of the physician thus placing the burden of establishing trust on the shoulders of the physician.

Observation of the regression analysis of opportunities that occur during the encounter indicate that 9 out of the 18 significantly contribute to overall trust and account for approximately 80% of the total variance. The other 20% unaccounted for may be composed of variables which are influenced by random fluctuations, and/or individual differences and

perceptions of what makes up the element of trust. A more in-depth perception of the regression of these opportunities reveals that the opportunities which contribute the most to overall trust during the encounter appear to focus around how the physician implicates to the patient that they are the center of the physician's attention. Physicians portraying verbiage or actions contrary to this focus may jeopardize forming a trusting relationship with the patient.

Since each of the opportunities for building trust during the encounter are so broadly defined and their presence or absence is determined by the physician, further investigation that hones in on specific physician behaviors would give physicians a foundation of items to work from that can enhance the probability of the formation of a trusting relationship. For example, "demonstrating respect for the patient captured 66% of the total variance of overall trust. This item has a strong influence on developing a trusting relationship, but it does not tell the physician what he/she does that the patient interprets as demonstrating respect. Several studies (Thom & Cambell, 1997; Moore, Adler, & Robertson, 2000; Roter, Stewart, Putnam, Lipkin, Stiles, & Inui, 1997; Epstien, Campbell, Cohen-Cole, McWhinney, & Smilkstein, 1993; Wolraich, Albanese, Stone, Nesbitt, Thomson, Shymansky, Bartley, & Hanson, 1986) have identified more specific physician communicative behaviors which can be used as a starting point from which to construct a list categorizing these behaviors under the appropriate opportunity for building trust.

The frequency analysis of patient contributions to the physician/patient encounter and their connection to the level of trust present shows that "quite a bit" or "total" trust must be present in order for the patient to provide or partake in any opportunity to build a trusting relationship during the encounter. Ninety-six percent of the participants said that they would have to have quite a bit or total trust in their physician to recommend them to others. Word of mouth is one of the most effective marketing tools across all lines of business. A study done by Laurus Health Alliance (1999) found 44% of patients select physicians by information obtained

by word of mouth. If physicians want to retain or gain patient business, they will need to develop and nurture a high level of trust during physician/patient encounters.

A portion of overall trust has been known to develop simply through repeated encounters with the same physician. In this study, 21% of the patients indicated that the physician they encountered was one they have seen on occasion and 47% responded the physician was seen for regular care. Future research being considered would be to investigate patient first encounters with a physician to identify what trust components need to be present during the encounter and if they are similar to the ones for patients seeing physicians they are familiar with. This research would provide information as to the role first impressions play in establishing physician/patient trust. This could supply the health care industry valuable information as to the role trust plays in retaining patients.

The internal validity of the survey used was previously established with a coefficient alpha of .93. Although any type of self-reporting requires some caution, the survey did not contain items that would prompt a participant to report untruthfully for social expectation reasons. The average length of time in which the patient last had contact with a physician for care was approximately three months. The lengthy spans of time since the encounter may influence the accuracy of patient responses for those items directly connected with the encounter. Ideally, future surveys should be completed directly following the encounter. The external validity of the study was not very high. Generalizing the results to populations other than those employed at similar facilities and are of similar demographic representations cannot be made.

A statistical regression analysis was chosen for the data analysis to identify a subset of independent variables that is useful in developing trust while eliminating independent variables that do not provide additional strength to those variables already in the equation. Of the

regression analyses provided by SPSS, the stepwise regression seemed to be the best fit for this study. The process in which variables are added to the equation or eliminated has some drawbacks. If two independent variables (I.V.) are both highly correlated with the dependent variable (D.V.), the choice between the two is made by which one having the higher full correlation with the dependent variable (Tabachnick & Fidell, 1996). The problem occurs when two I.V.'s are highly correlated with one another and highly correlated with the D.V. .When this overlap occurs, the overlap portion goes to the I.V. with the higher full correlation. This then takes strength away from the losing I.V. that was highly correlated to the D.V. when it is put back in the equation causing it to be eliminated because its contribution to R^2 is no longer significant (Tabachnick & Fidell, 1996). When a correlation analysis was performed on the independent variables that contribute to building trust during the encounter, several of the variables eliminated from the equation were found to be highly correlated with independent variables that were added to the equation (Table 7). The three eliminated variables of "evaluates patient concerns", "considers the whole person", and "gave time to express concerns" were highly correlated with one or more of the accepted variables. One accepted variable in particular was found to be correlated with each of the variables that were eliminated: "demonstrates respect for patient". Tabachnick & Fidell (1996) advise when using regression analysis to compare the relationship of the I.V. with the D.V. and the correlations of the I.V. with each other in order to see the entire picture of the function of the I.V. in regression. For this reason caution should be taken when interpreting the stepwise regression results.

This study supports the conclusion of earlier research that trust is a valuable commodity in the physician/patient relationship (Anderson & Dedrick, 1990; Katz, 1984; Macklin; Thom & Campbell, 1997; Kao, Green, Zaslavsky, Koplan & Cleary, 1998). Without it, physicians could experience decreased satisfaction, increased disenrollment, increased demand for referrals, and

poorer compliance with medical treatment. Even though many variables were found to significantly influence the building of trust, these variables can change over time and from individual to individual regarding what they believe is essential to form a trusting relationship with their physician. The questions and answers supplied by this study are only a fraction of the information that can be gained by future research on trust among physicians and their patients. The more information researchers provide to physicians on trust, the better the quality of health care they can provide for their patients.

Table 7

Correlations Between Statements Describing Opportunities to Build Trust

Subscale	1	2	3	4	5	6	7	8	9 (N=486)	10	11	12	13	14	15	16	17	18
1. Dr. Understands visit	--	.620**	.700**	.607**	.574**	.595.**	.509**	.553**	.385**	.525**	.529**	.555**	.497**	.474**	.539**	.458**	.230**	.564**
2. Made eye contact	--	--	.580**	.537**	.474**	.504**	.488**	.486**	.346**	.410**	.486**	.497**	.454**	.433**	.507**	.436**	.217**	.528**
3. Provides healthcare information	--	--	--	.715**	.644**	.589**	.506**	.579**	.419**	.585**	.576**	.655**	.573**	.533**	.605**	.487**	.205**	.564**
4. Demonstrates medical knowledge	--	--	--	--	.582**	.570**	.508**	.509**	.392**	.556**	.536**	.592**	.516**	.575**	.521**	.436**	.183**	.539**
5. Evaluates concerns	--	--	--	--	--	.827**	.719**	.683**	.407**	.683**	.714**	.720**	.659**	.713**	.776**	.623**	.273**	.709**
6. Puts patient interests first	--	--	--	--	--	--	.733**	.650**	.437**	.662**	.683**	.685**	.620**	.708**	.740**	.633**	.306**	.690**
7. Considers whole person	--	--	--	--	--	--	--	.699**	.427**	.640**	.647**	.648**	.651**	.656**	.726**	.677**	.407**	.656**
8. Concern for patient comfort	--	--	--	--	--	--	--	--	.480**	.574**	.688**	.719**	.720**	.627**	.715**	.688**	.324**	.732**
9. Keeps information confidential	--	--	--	--	--	--	--	--	--	.376**	.477**	.473**	.480**	.457**	.466**	.463**	.291**	.535**
10. Provided appropriate treatment	--	--	--	--	--	--	--	--	--	--	6.11**	.628**	.550**	.646**	.644**	.613**	.314**	.602**
11. Time to express Concerns	--	--	--	--	--	--	--	--	--	--	--	.800**	.740**	.683**	.735**	.616**	.304**	.747**
12. Communicated information clearly	--	--	--	--	--	--	--	--	--	--	--	--	..754**	.679**	.753**	.631**	.316**	.777**
13. Encouraged questions	--	--	--	--	--	--	--	--	--	--	--	--	--	.680**	.731**	.643**	.300**	.684**

Table 7 (cont.)

Correlations Between Statements Describing Opportunities to Build Trust

Subscale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
14. Answers questions honestly	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.798**	.715**	.300**	.684**
15. Actively listens to concerns	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.715**	.343**	.704**
16. Treats patient as an equal	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.444**	.620**
17. Open to new therapies and treatments	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	.294**
18. Demonstrates respect for patient	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Appendix A

Physician/Patient Relationships

Research Participant:

My name is Patricia Cartmill. I am a graduate student at the University of Wisconsin-Stout in the Applied Psychology Program. I am currently conducting research on the Physician/Patient relationship and the elements that are necessary for a quality relationship to exist. The following survey is being conducted to investigate the level of trust and disclosure offered between physician and patient during a medical visit. The information you provide will help lead to a better understanding for both patient and physician of the role that trust plays in the physician/patient relationship.

All information provided on the survey will be kept confidential. There will be no co-mingling of information with any company records. There is no direct way to connect you and your survey answers and none will be attempted. The survey is and will remain strictly anonymous. If completing this survey at any time makes you uncomfortable, you may skip the question and/or discontinue the survey and withdraw from the study without any negative consequences or sanctions. Your participation in the study is strictly voluntary.

Information regarding the results of the study can be obtained by sending a self-addressed envelope to: Patricia Cartmill, c/o Dr. Richard Tafalla, Department of Psychology, University of Wisconsin-Stout, Menomonie, Wisc., 54751. If you have questions or concerns about the study, you may call me at 715-879-5330 or write me at my website: mouse1@ecol.net.

Your participation is greatly appreciated.

Patricia Cartmill & Advisor-Dr. Richard Tafalla

Appendix B

Patient/Physician Level of Trust Survey

The following survey investigates the level of trust in Physician/Patient encounters. **For Part 1 and Part 2** please refer back to the last encounter you had with a physician whether you were the patient or you accompanied a family member through a physician visit when answering the survey questions.

Part 1-*General Information about the Visit (Please circle the appropriate lettered answer)*

1) When did you last have contact with a physician for care?_____months

2) Was the visit for yourself or for a family member?

   a) self b) family member

3) Was the physician you encountered the same sex or opposite sex of yourself?

   a) same b) opposite

4) Did the physician appear older or younger than yourself?

   a) older b) younger

5) Was the visit:

   a) Routine b) Urgent care c) Hospital

6) Was the physician you saw one that you have:

   a) never seen before b) seen on occasion c) seen regularly for care

7) Did you feel comfortable with the staff who you encountered prior to the physician visit?

   a) yes b) no

8) How many times did you encounter a physician as a patient last year?

   a) 0-2 b) 3-5 c) 6-10 d) 11-15 e) more than 15

9) Was the physician's tone of voice:

   a) calm b) anxious c) business-like

10) When the physician entered the room, did he/she appear:

a) relaxed b) hurried

11) Was the physician's attire:

a) professional b) casual

12) Did the physician stand or sit the majority of the time when talking with the patient?

a) stand b) sit

Place a checkmark by any of the following non-traditional forms of medicine or therapies that you partake in:

__ Forms of meditation
__Aromatherapy
__Homeopathic medicine
__Acupuncture
__Chiropractors
__Herbal remedies
__ Imagery
__Massage
__Eastern Medicine (Please list_____)
__Traditional ethnic forms of medicine (Please list_____)
__Other (Please list_____)

Part 2- *The following statements describe opportunities to create a trusting relationship between a physician and a patient during a physician encounter.* ***Circle the number*** *that best describes the level you feel the physician provided these items during the encounter.*

1-Not at all **2**-Very little **3**-Occasionally **4**-Frequently **5**-Always

Understands the patient's need for the visit	1	2	3	4	5
Made eye contact with the patient	1	2	3	4	5
Provided the information needed to make the appropriate choice for treatment or health care	1	2	3	4	5
Demonstrated adequate medical knowledge	1	2	3	4	5

Part 2 (continued)

Thoroughly evaluated the patient's problem(s) and concerns	1	2	3	4	5
Put the patient's interest first	1	2	3	4	5
Considered the "whole person' and not just the Illness	1	2	3	4	5
Expressed concern for the patient's comfort	1	2	3	4	5
Will keep all information disclosed confidential	1	2	3	4	5
Provided appropriate and effective treatment	1	2	3	4	5
Gave enough time to express concerns	1	2	3	4	5
Communicated information clearly and completely	1	2	3	4	5
Encouraged questions	1	2	3	4	5
Answered questions honestly	1	2	3	4	5
Actively listened to concerns	1	2	3	4	5
Treat patient as an equal in treatment decisions	1	2	3	4	5
Open to new ideas of therapies and treatments	1	2	3	4	5
Demonstrated respect for the patient	1	2	3	4	5
Overall, to what degree would you trust this physician	1	2	3	4	5

Part 3- *For the following statements **circle the number** that best describes the level of trust you would have to have with a physician for each item to occur.*

1-None **2**-A little **3**-Somewhat **4**-Quite a bit **5**-Totally

Feel comfortable that your physician will keep the visit and its contents confidential	1 2 3 4 5
Tell the physician the location of the pain	1 2 3 4 5
Admit that the medicine or therapy is working	1 2 3 4 5

Part 3 (continued)

See the physician about an unusual lump you discovered recently	1 2 3 4 5
Admit to the physician you have not been taking your medication correctly or at all	1 2 3 4 5
Disclose family issues that are bothering you	1 2 3 4 5
Call the physician at their office	1 2 3 4 5
Wait a little longer for an appointment to see the physician	1 2 3 4 5
Feel as though the physician is not judging you	1 2 3 4 5
Express your concerns about your medical treatment	1 2 3 4 5
Inform the physician of your use of non-traditional medical treatments (examples: acupuncture, herbal remedies)	1 2 3 4 5
Divulge to the physician that you are having financial troubles	1 2 3 4 5
Follow a treatment plan through its entire duration	1 2 3 4 5
Ask questions openly	1 2 3 4 5
Agree with treatment recommendations for common ailments (examples of ailments: sore throat, fever, diarrhea)	1 2 3 4 5
Recommend the physician to others	1 2 3 4 5
Allow the physician to perform routine exams	1 2 3 4 5
Allow the physician to perform invasive procedures	1 2 3 4 5
Run routine testing on you	1 2 3 4 5
Agree with treatment recommendations for a chronic illness	1 2 3 4 5
Agree with treatment recommendations for a life-threatening illness	1 2 3 4 5

Part 4-*Demographic Information about you*

AGE:_____yrs.

SEX: (circle answer) Female Male

RACE: (circle answer)
Caucasian
Afro-American
Native American
Asian
Other

Year of school last completed: (circle answer)

K 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 >20

Job Type: (e.g., teacher)_____

Level of Gross Income per year: (circle answer)

Less than $10,000
$11,000-25,000
$26,000-35,000
$36,000-50,000
$51,000-90,000
$91,000-150,000
Greater than $150,000