POWER AND COMPLIANCE IN DOCTOR/PATIENT RELATIONSHIPS

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ABSTRACT

Research has described the importance of compliance in health care, particularly the compliance of a patient with the recommendations of a medical practitioner (Sackett and Haynes, 1979; Sands and Holman, 1985; Sideris, Tsouna-Hadjis, Toumandis, and Vardas, 1986; Winefield, 1992; Winefield and Murrell, 1991). Many, if not most current methods of attempting to reduce medical non-compliance have been arrived at using the medical model. In an exploratory way, this paper examines an alternative social psychological model; one in which we attempt to see how differing methods of social influence strategies can potentially reduce medical non-compliance. The French and Raven (1959; Raven, 1965; 1992, 1994) bases of power taxonomy is applied to the doctor/patient relationship. 105 student subjects read six hypothetical scenarios in which a physician used the differing bases of power to successfully influence a patient to take medication. Subjects then answered a series of questions about subsequent adherence, internal/external attribution, and affect. Informational, Referent and Expert powers, in that order, were rated by subjects as being most conducive to private acceptance of change, internal (rather than external) attribution of causality for change, greatest likelihood of compliance in the absence of surveillance, and most positive affect toward the physician. Legitimate, reward, and coercive powers resulted in least favorable effects on each of these variables. Theoretical and practical implications are discussed.

Key words: Social Power, Compliance, Doctor/Patient Relationship.
RESUMEN

La investigación ha descrito la importancia del cumplimiento en el cuidado de la salud, particularmente el cumplimiento de las recomendaciones del médico (Sackett y Haynes, 1979; Sands and Holman, 1985; Sideris, Tsouna-Hadjis, Toumandis, and Vardas, 1986; Winefield, 1992; Winefield and Murrell, 1991). Muchos de los métodos actuales para intentar reducir el incumplimiento médico han sido extraídos del uso del modelo médico. De forma exploratoria, este artículo examina un modelo alternativo desde la psicología social, en el que intentamos ver cómo diferentes métodos de estrategias de influencia social pueden reducir potencialmente el incumplimiento médico. La taxonomía de bases del poder de French y Raven (1959; Raven, 1965; 1992; 1994) se aplica a la relación médico/paciente. 105 estudiantes leyeron seis escenas hipotéticas en las que un médico usaba diferentes bases de poder para influir con éxito en el paciente para que toma- ra la medicación. Los sujetos contestaron después una serie de cuestiones acerca del cumplimiento consiguiente, de la atribución interna/externa, y del estado afectivo. Los poderes informativo, referente y experto, por ese orden, fueron puntuados por los sujetos como los que más conducen a la aceptación privada del cambio, a la atribución interna (más que externa) de la causalidad para el cambio, a una mayor probabilidad de cumplimiento sin vigilancia, y a un afecto más positivo hacia el médico. Los poderes “legítimo”, de “recompensa” y “castigo” tuvieron efectos menos favorables en cada una de estas variables. Se discuten las implicaciones teóricas y prácticas.

Palabras clave: Poder social, cumplimiento, relación médico/paciente.

INTRODUCTION

Research has described the importance of compliance in health care, particularly the compliance of a patient with the recommendations of a medical practitioner (Sackett and Haynes, 1979; Sands and Holman, 1985; Sideris, Tsouna-Hadjis, Toumandis, and Vardas, 1986; Winefield, 1992; Winefield and Murrell, 1991). Here, compliance is seen as “...extent to which patients follow the advice given to them by health care profession- als...” (Ley, 1988 p. 53). Medical non-compliance represents a significant problem in U.S. health care. It can result in unnecessary prescription refills,
additional physician visits, lost workdays, and most importantly, lingering patient illness (Gerber and Nehemkis, 1988). In 1980 the U.S. department of Health and Human Services estimated the economic costs related to noncompliance at 360-792 million dollars per year, and this probably represents a conservative estimate (Ley, 1988). In examining factors in noncompliance, the characteristics of the patient are often cited, including the nature of the illness, the setting in which patient care takes place, and the difficulty of the requested regimen, etc (Gerber and Nehemkis, 1988; Winefield, 1992). Also found to be related to compliance is affect toward the physician, attribution of locus of control (Jones and Davis, 1965; Kelley, 1967; Weiner, Heckhausen, Meyer and Cook, 1972) and the importance of patient surveillance related to chronic disease (Winefield, 1992; Winefield and Murrell, 1991). Perhaps most crucial to preventing noncompliance are the interpersonal relations between physician and patient in which influence strategies are utilized to gain compliance for prescribed medical regimens (Hulka, 1979; Friedman and DiMatteo, 1989; Stone, 1979). Often, given a very brief period of interaction with her patient, the physician may not have an explicit influence strategy. For an understanding of possible influence strategies, we look toward theories of social influence which have been developed and proposed by various social psychologists. The following social psychological approach represents an exploratory alternative to medical models of physician-patient interactions.

In applying social influence strategies toward medical interaction, many researchers (Freeman and Raven, 1985; Friedman and DiMatteo, 1989; Kristeller and Rodin, 1984; Rodin, 1982; Rodin and Janis, 1979, 1982) have found the bases of power taxonomy developed by French and Raven (1959; Raven, 1965, 1974, 1983, 1992, 1994) useful. The utility of this approach to social influence strategies to health care has been further elaborated in subsequent publications (Hanson, 1986; Raven and Litman-Adizes, 1986). The application of the French and Raven bases of power taxonomy has been reviewed extensively elsewhere. (Raven, 1986; Raven and Litman-Adizes, 1986; Rodin and Janis, 1982; Rodin, 1982). For an understanding of the study which follows, we briefly review that application here.

bases of power and compliance

The bases of power approach defines social influence as a change in the belief, attitude or behavior of one person (the target of influence, here the patient) resulting from the action of some other person (the influencing
agent, here the physician). Social power is defined as the potential for influence. The influencing agent can draw on various resources or bases of power in order to effect change. Six bases of power are delimited, which appear to cover most influence strategies. We will review each of these, with particular reference to the doctor/patient relationships.

**Informational Power**, or persuasion, stems from the logical or persuasive content of the communication between the influencing agent and the target. The physician who uses informational power carefully explains to the patient the reasons for the recommended behavior, showing how such behavior would contribute to the improved health of the patient. When used successfully, informational power will result in the patient actually accepting and understanding the recommendation. The change thus becomes rapidly independent of the agent. The patient might verbalize, “Even though the doctor suggested that I take this medication, I am taking it because I now know this would be best for me in the long run.” Accordingly, surveillance by the physician would not be necessary for such compliance to continue. Change following informational power would tend to be longer lasting and more stable. There is also good reason to believe that in such case, the patient would appreciate the care and respect with which the physician explained the procedures and would evaluate the physician quite positively.

Coercive power and Reward power depend upon the agent (physician) having the means of mediating punishments and rewards for the target (patient), contingent on the target complying with the request. The possibilities of coercive and reward power may be limited for physicians, as compared to supervisors who can threaten to fire an noncompliant worker, or to give bonuses or promotions to the compliant worker. Yes, options do exist. The physician can refuse to treat a patient further if the patient does not comply, or offer to negotiate a reduced fee for the complying patient. Or the threat of strong disapproval and admonishment can be an effective punishment, with expressions of approval being equivalently rewarding. Here, we should emphasize that telling the patient that noncompliance can lead to serious deterioration in health, and that compliance will lead to greatly improved health, are not instances of coercive or reward power, but rather forms of informational power. The physician does not mediate punishments and rewards in such instances, but merely persuasively informs the patient of the resulting consequences. The dynamics are thus quite different. Obviously, it would not require extensive evidence to demonstrate that coercive power and reward power can result in successful
influence under certain circumstances. The resulting change, however, is highly dependent upon the influencing agent, and would tend to be unstable. In particular, both reward power and coercive power, in order to be effective, require surveillance by the influencing agent, since if there is no surveillance, the agent can hardly base rewards and punishments on compliance. The patient who complies solely because of the coercive power of the physician would be especially likely to interpret his or her change in behavior as due to the physician’s request, rather than to his or her own wishes. There might also be a particular tendency to resent this form of influence, and to dislike the physician. Thus compliance, in the absence of the physician’s ability to keep tabs on the patient, would be especially reduced. With reward power, there would be similar tendency, but less strong the positive nature of the reward might mitigate some of the resentment and result in somewhat greater acceptance of the change, and thus surveillance would be less important for reward power than for coercive power.

Legitimate power is based on the mutual acceptance of a role-relationship which gives the influencing agent the right to determine behavior and the target the obligation to comply. Such power is evident when the physician either says or implies, “You should follow my recommendations, since, after all, I am the doctor and you are the patient.” Such influence may be effective under some circumstances, and surveillance would not be as important as under reward power or coercive power. However, the change would still be seen as physician dependent, and thus the absence of the physician might diminish compliance somewhat. The patient, feeling that compliance is being pressed with adequate explanation or reason, may still harbor some resentment toward the physician, making the change in behavior less stable than other means of influence, though more stable than following coercion or reward.

Expert power stems from the target attributing superior knowledge or ability to the influencing agent. It is likely that physicians rely particularly upon this basis of power. They may sometimes state it explicitly with such words as, “As you must know, I have had particular training and many years of experience in treating problems such as yours, and on that basis I would recommend the following...” But expertise is also communicated in other ways through a prominent display or diplomas and certificates, through a visible and impressive library, through the very dress and demeanor of the physician. With expert power, the physician does not give explanations or reasons for the recommendation, but relies on the trust of the
patient. Thus, the patient would still attribute some of the change to the wishes of the physician, but expert power would in this regard, and in the importance of surveillance, most closely resemble informational power. The evaluation of the physician would also be more positive than it would be following coercion, reward, or legitimate power.

**Referent power** stems from the patient identifying with the physician, having a sense of one-ness or similarity, and a desire for such mutuality. The agent thus functions as a model for the target of influence, who gains some satisfaction though seeing things and doing things as the influencing agent does. This sense of mutual identification may be less than in earlier days, when family physicians made house calls, and were sometimes seen as members of the extended family. Rodin and Janis (1979, 1982; Rodin, 1982) effectively argue that this form of influence by physicians can be quite effective and is underutilized. With referent power, there is a particularly strong bond between target and agent, leading the target to evaluate the agent particularly positively, more so than with any other form of influence. However, the patient will be less likely to completely internalize that change than would be the case with informational power, somewhat more likely to attribute the changed behavior to the doctor’s influence.

**EXAMINING SOME PREDICTIONS**

From the above considerations, then, we have certain expectations regarding the subsequent responses of patients whose physicians had successfully influenced them to change their behavior, depending on the bases of power used by the physicians. We expect that patients would be most likely to privately accept the changed behavior when physicians used informational power, and least likely to privately accept the change when coercion were used. From the above discussion, we would expect that the ordering from greatest to least private acceptance would be: informational, expert, referent, legitimate, reward, and coercion. We would expect a similar rank ordering for attributing the changed behavior internally, to one’s own desires, as opposed to the physician’s wishes (Raven & Kruglanski, 1970). Furthermore, surveillance would be least necessary for continued compliance with informational power, most necessary for coercive power, with the other bases of power again ranked in between. The one deviation in rank ordering would occur in liking for the physician the major change here would be in the ranking of referent power, which would supplant informational power as resulting in the most positive evaluation of the phy-
sician again coercion should lead to the least liking for the physician, followed closely by reward power, and with legitimate, expert, and informational, in between.

METHODS

A proper examination of social power, taking into account the importance of surveillance, long term compliance, and other previously described factors would necessitate cooperation of health practitioners and patients in a long-term panel study with measures of these variables over time. It was our first objective to assess the feasibility of these concepts and hypotheses by simply asking a number of young adults, all of whom had some experience with physicians’ recommendations, how they think they would respond to hypothetical situations in which such influence strategies were utilized by physicians. For this purpose, we utilized a research approach which had been applied previously to long-term compliance of workers with supervisors in an industrial setting (Litman-Adizes, Fontaine, & Raven, 1978).

Respondents

One hundred five undergraduate students, 51 male and 54 female, participated in this study as part of their required experience in an introductory psychology course. Three male subjects were dropped from the experiment, as they did not complete their text packet.

Basic Procedure

Subjects all read six hypothetical scenarios in which a physician used each of the differing bases of social power to successfully influence a patient to take a medication for a certain length of time. After each scenario, subjects answered a series of dependent measures with regard to subsequent adherence, maintenance, and affect.

Scenarios. The following is a scenario, presented to subjects with examples of the various bases of social power actually utilized by a hypothetical scenario physician: “You have not been feeling well. You go to visit your doctor, Doctor Betty Greenfield [Doctor John Freed]. She [he] examines you and prescribes medication for a period of two weeks [two months], to be taken four times a day. You are hesitant because of the possible side effects and tell the doctor so. Doctor Greenfield [Doctor Freed] tells you...” At this point, one of six statements was included, according to the social power base which was to be examined in the particular scenario. [(a) 'in numerous cases similar to yours this medication had been shown to be
ninety-nine percent effective.’ (informational); (b) ‘as your doctor, I prefer that you follow my directions.’ (legitimate); (c) ‘I have specialized in treating your condition for over twenty years.’ (expert); (d) ‘If you follow the prescription for the first week, then I’ll reduce the cost of your medication in the future.’ (reward); (e) ‘if you do not follow my instructions, I’ll have to recommend that you no longer be treated at this office.’ (coercion); (f) ‘You have been impressed with the similarity between the doctor and yourself. The doctor then says, ’I remember when I had the same illness as you. I took exactly the same medication.’” (referent)] Each scenario then ended with the statement: “The next day you are taking the prescription.”

Thus the scenario, in each case, regardless of the basis of power used, ended with the subject (playing the role of the patient) complying with the request.

**Design and Materials**

This study employed a mixed design in a 2x2x6 experiment with one repeated measure. Varied between subjects in the scenarios was the sex of the physician and the chronicity of the disease. Our repeated measure for each subject was the base of power; each of the six bases of power were presented to the subject. Half of our subjects responded to a scenario in which the physician was male, for the other half the physician was female. Half of the subjects in both of these conditions were presented with a scenario in which the patient was to receive long-term care, half short-term care.¹ Proper counter-balancing took place with regard to all variables. Including the six bases of power, twenty-four different experimental conditions were presented to subjects, with each subject responding to six scenarios. Within the above the four experimental conditions, to minimize ordering effects, the presentation of the six bases of power was randomly ordered.

Given the importance of the social power scenarios, particular attention was given to proper operational definitions of each basis of power and their reasonable representation of doctor/patient interaction. The six scenarios were presented to five experts who were aware both of the bases of power taxonomy and health care.² The scenarios were remodified until there was complete agreement that the scenarios accurately represented the six bases of power.

**Dependent measures**

After reading each scenario, subjects rated a series of questions measuring the extent to which they saw the change as (a) privately accepted as appropriate; (b) internally (as opposed to externally) motivated; (c) depen-
dent upon surveillance; plus (d) the extent to which the subject/"patient" liked the doctor. Subjects rated the same dependent measures in the same order after each scenario. Specific dependent measures are presented more precisely in the results section.

RESULTS

Bases of Power and Private Acceptance of Change

In order to assess the extent the subjects, playing the role of patients, would personally accept the value of the physician’s recommendations, our subjects were asked, “Even after complying with the doctor’s recommendation, some patients think that the doctor’s recommendation was not a good one, while others believe that the doctor’s recommendation was a good one. After you have complied, would you think that this was a good recommendation or a bad recommendation?” Subjects then checked a nine-point scale from “1 - very bad recommendation” to “9 - very good recommendation.” Our expectations were that information power would lead to the greatest degree of private acceptance, expert and referent power would show somewhat less private acceptance. Coercion would lead to most private rejection, followed by reward, and then legitimate power.

Table 1.- Private Acceptance of Change: Mean Ratings of Private Acceptance of Change as a Function of Doctor’s Bases of Social Power.

<table>
<thead>
<tr>
<th>Information</th>
<th>Expert</th>
<th>Referent</th>
<th>Legitimate</th>
<th>Reward</th>
<th>Coercive</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.03</td>
<td>6.60</td>
<td>6.51</td>
<td>4.92</td>
<td>3.68</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Note: Subjects were asked, “Even after complying with the doctor’s recommendation, would you think that this was a good recommendation or a bad recommendation?” Answers were made on a nine-point scale ranging from “1-very bad recommendation” to “9-very good recommendation”.

As we can see in Table 1, the data are precisely in the order predicted: Informational, expert, and referent power all are on the “good recommendation” end of the scale; coercive, reward, and legitimate power on the negative side. Manova results (Brecht and Woodward, 1983) indicated a significant effect of the bases of power [F(5,97)=101.18; p<.001]. Individual comparisons between pairs of means indicated highly significant differences between informational, referent, and expert power, as compared to legitimate, reward, and coercive power. Thus, even when they complied,
the subjects felt that they would not tend to think the recommendation was a good one if coercion, reward, and legitimate power were utilized by the physician.

**Internal vs. External Attribution for Change**

To measure extent to which the subjects attributed the influenced change internally, as opposed to externally, the following questions were posed: “Sometimes patients do as doctors say because they really wanted to do it, and sometimes because they feel that they must comply with the doctor. In this situation, to what extent did you feel that the change in your behavior was due to each of the following reasons: (a) Because the doctor personally wanted your change in behavior. (b) Because you wanted that change.” Subjects then indicated their responses for each of these by checking on a scale from “1 - not at all” to “9 - to a large extent.” A difference score was calculated (b-a), so that scores could range from +8 (indicating great internal control, attributing change to own desires) to -8 (external control, attributing change to doctor’s wishes).

**Table 2.- Internal and External Attribution: Mean Ratings of Internal and External Attribution of Causality as a Function of the Doctor’s Bases of Social Power.**

<table>
<thead>
<tr>
<th>Information</th>
<th>Expert</th>
<th>Referent</th>
<th>Legitimate</th>
<th>Reward</th>
<th>Coercive</th>
</tr>
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<tbody>
<tr>
<td>6.48</td>
<td>6.16</td>
<td>5.88</td>
<td>5.15</td>
<td>4.59</td>
<td>4.38</td>
</tr>
<tr>
<td>4.96</td>
<td>5.78</td>
<td>5.33</td>
<td>5.18</td>
<td>4.98</td>
<td>4.92</td>
</tr>
<tr>
<td>1.52</td>
<td>.38</td>
<td>.55</td>
<td>-.03</td>
<td>-.39</td>
<td>-.54</td>
</tr>
</tbody>
</table>

Note: Subjects were asked (a) Internal: “To what extent do you feel the change in your behavior was because you wanted that change?” (b) External: “To what extent do you feel that the change in your behavior was due to the doctor personally wanting that change?” Answers were made on a nine-point scale ranging from “1- not at all” to “9- to a large extent.”

We had predicted that internal locus of control, attributing change to one’s own desire, would be greater for informational power, followed by referent and expert power. External control (the doctor’s wishes) would be most likely attributed for coercive power, followed by reward power, and legitimate power. As we can see from Table 2, the means are in the order
predicted, and, again, the overall analysis of variance for effects of bases of power is highly significant \[F(5,97)=8.44; p<.001\]. Coercive power results in the greatest tendency to attribute the change to the desire of doctor, rather than the desire of the patient (-.54), followed by reward (-.39), and legitimate (-.03). Information leads to the greatest tendency for internal over external attribution (+1.52), followed by expert (+.55) and referent (+.38). Information, expert, and referent power are each significantly different from coercive, reward, and legitimate power, respectively (p<.001).

**Bases of Power and the Importance of Surveillance**

We predicted that reward and coercive power would be especially dependent upon surveillance, and that patients whose doctors used these bases of power would be especially likely to reject the influence once the possibility of the doctor determining the degree of compliance was eliminated. To assess the importance of surveillance, subjects were asked, “If the doctor were to move his/her practice out of the state within a week, how likely is it that you would have continued taking this prescription?” Responses were made on a nine-point scale from “1- very definitely reject it” through “5 - may continue or may reject it” to “9- very definitely reject it.”

**Table 3.** Importance of Surveillance: Mean Ratings of Importance of Surveillance as a Function of the Doctor’s Bases of Social Power.

<table>
<thead>
<tr>
<th>Information</th>
<th>Expert</th>
<th>Referent</th>
<th>Legitimate</th>
<th>Reward</th>
<th>Coercive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.09</td>
<td>6.03</td>
<td>5.82</td>
<td>4.58</td>
<td>3.47</td>
<td>2.94</td>
</tr>
</tbody>
</table>

*Note: Subjects were asked “If the doctor were to move his/her practice out of state within a week, how likely is it that you have continued taking this prescription?” Answers were made on a nine-point scale ranging from “1-very definitely reject it” to “9-very definitely continue it.”

As can be seen in Table 3, the bases of power did indeed affect the extent to which surveillance was important \[F(5,97)=65.04; p<.001\]. Only reward and coercive power were clearly on the rejection side of the scale, with their means around “3 - probably reject it.” Legitimate was close to the middle, or uncertainty, point on the scale. Informational and referent power, not significantly different from one another were on the “probably continue it” side of the scale. The ratings for coercive, reward, and legitimate power were each significantly less than for the other three bases of power (p<.001).
Bases of Power and Personal Evaluation of the Doctor

To measure the "patients" liking for the doctor, we simply asked our subjects, "How much do you like the doctor as a person?" to which they responded on a nine-point scale ranging from "1 - not at all" to "9 - very much." We expected that affect for the doctor would be most positive with respect to referent power, somewhat less when expert or legitimate power were used, and most negative following coercive power. Our prediction for reward power was uncertain, since the promise of reward, we felt, might lead to positive affect, while the fact that it was contingent on compliant behavior might undermine the positive affect.

Table 4.- Affect Toward Physician: Mean Ratings of Personal Evaluation of the Doctor as a Function of the Bases of Social Power.

<table>
<thead>
<tr>
<th>Information</th>
<th>Expert</th>
<th>Referent</th>
<th>Legitimate</th>
<th>Reward</th>
<th>Coercive</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.51</td>
<td>5.76</td>
<td>5.28</td>
<td>4.35</td>
<td>3.50</td>
<td>2.20</td>
</tr>
</tbody>
</table>

Note: Subjects were asked "How much do you like the doctor as a person?" Answers were made on a nine-point scale ranging from "1-not at all" to "9-very much".

As is evident in Table 4, bases of social power do indeed determine the degree of liking for the physician \(F(5,97)=106.61; p<.001\). Coercive power results, by far, in the most negative affect, and referent power leads to the most positive feelings, with the other bases of power in between. Reward power, moreover, tends to lead to relatively low liking, so that, apparently, the fact that the physician offers the reward in a contingent fashion seems to mitigate the positive tone of the reward. The differences between pairs of bases of power again indicates that referent, informational, and expert power each lead to more positive liking for the physician than do legitimate, reward, or coercive power \(p<.001\).

Effects of Sex of Doctor and Sex of Patient

The results for the independent variables, as presented above, held for both male and female doctors, and for male and female subject/patients. There were some effects of the sex variables: compared to male doctors, influence for female doctors was even more likely to be internally attributed following the use of information and expert power; more likely to be externally attributed following reward power \(p<.01\). There was also a significant tendency for subjects to make more external attributions for reward, coercive, and legitimate influence when the doctor was the same.
sex as the patient (p<.05). Due to space limitations, we will not explore these results or their implications further in this paper.3

DISCUSSION

Results of this simulation experiment on the after effects of doctors influencing patients are generally in line with predictions drawn from the French and Raven bases of power theory and from attribution theory. The tables generally show a common ordering (with the exception of the attraction variable), with similar breaking points as follows: information, expert, referent // legitimate // reward, coercion. These orderings correspond to the independent/ private dependent/ public dependent differentiation made in the original theory (French & Raven, 1959). Thus our subjects, playing the role of patients, replicate previous results demonstrating the inherent high potential for influence that information, referent, and expert powers can have (Armstrong, Glanville, Bailey and O'Keefe, 1990; Hall and Roter, 1988; Hall, Roter, and Katz, 1988; Rodin and Janis, 1979). This study shows that the use of informational, referent, and expert powers lead to the greatest degree of private acceptance of the changed behavior, greatest tendency to attribute the changed behavior internally (to the desire of the target/patient) rather than externally (desire of the agent), and to greater likelihood of continuing the change after the influencing agent had left the scene and could not maintain surveillance. The attraction variable was slightly exceptional in that referent power, which, by definition is based on positive evaluation of the influencing agent, resulted in the greatest liking for the physician. Relative to compliance we explore the potential meaning of some of the more important findings.

It is encouraging to note that the results of this study of doctors and patients are quite parallel to those obtained by Litman-Adizes, Fontaine, & Raven (1978) in their simulation study of supervisors and workers. However, some differences did occur: In the Litman-Adizes et. al (1978) study reward power appeared to have more favorable effects, surpassing expert power in private acceptance, internal attribution, and positive feelings toward the agent. In part, this may be the result of the different role relations in supervisor/worker, as compared to the physician/patient, relationship. It may be more acceptable for a supervisor to promise to reward a worker than for a doctor to promise rewards to a patient. The phrasing of reward power in the supervisor/worker study may also be a factor: “If you
use this method instead, you’ll probably get promoted soon” may include a measure of expertise as well as reward. The data clearly indicate that in this simulated physician/patient situation the use of reward power is not accepted favorably by our college student subjects. Coercive power, the threat of punishment, is viewed even less favorably and leads to the greatest rejection of the recommendation when the doctor is not available to maintain surveillance.

In this, as in a number of studies in related areas, informational power seemed to make a significant impact (Whitcher-Alagna, 1983; Winefield, 1992). We note that there have been similar findings in studies in industrial settings (Bachman, Bowers, and Marcus, 1968; Cobb, 1980; Frost and Stahelski, 1987; Litman-Adizes, et al., 1978; Student, 1968), in educational settings (Jamieson & Thomas, 1974), in conjugal relations (Raven et al., 1975), and in parent-child relationships (Smith, 1970; Rollins and Thomas, 1975; Schmidt and Raven, 1985a, 1985b; Schmidt, Yanagihura and Smith, 1987). We speculate that the use of informational power may increase a physician’s influence to gain compliance by giving more complete information regarding the patient’s medical condition, as well as what the ensuing treatment implies. Patients will benefit from this interaction by gaining more usable information. Furthermore, even though such information is apparently independent of the physician, we believe that using informational influence will be attributed to the quality of the physician. This may enhance the patient’s respect for the physician and increase both expert and legitimate power.

When examining the highly significant and positive ratings of referent power, it appears possible to develop means of using this base which does not undermine the inherent expertise of the physician (Henbest and Stewert, 1989, 1990; Friedman and DiMatteo, 1989). Referent power, which is based on a sense of mutual identification between patient and physician seems to lead to the greatest degree of personal attraction toward the physician. Rodin (1982) and Rodin and Janis (1982) speculate that although referent power is seldom used in the medical setting it is likely one of the most important methods of influence available to physicians. The sense of mutuality implicit within referent power may have other advantages—a patient may feel more ready to offer his or her own observations and opinions, based on her direct experiences with a malady which might not otherwise be immediately available to the physician. This contention is supported by Winefield and Murrell (1991) who, in exploring the actual physician patient relationship, found that patients “...felt most contented where
there had been some co-participant dialogue..." (p.113). Patient contentment relative to “co-participant” dialogue appears analogous to patients describing their satisfaction with their physician interaction as at least partially dependent on the extent to which referent power exists in the relationship. Such satisfaction, found in the use of referent power we speculate, can lead to higher rates of compliance.

Though the results of this study are consistent with theory-based predictions, we must, of course, be cautious in our generalization from a paper-and-pencil role-playing simulation. Our respondents do anticipate that they would behave in accordance with our theory, but would they really see things the same way if they were actually patients who were interacting with physicians? We cannot be certain that they would.

This limitation of our study is further compounded by the nature of our respondents young, generally healthy college students, probably excluding, for example, many of those more chronically ill than the general population, those in poverty. Presumably, even though they would likely have been patients in the past, few in our sample would have experienced desperate total dependence upon the medical practitioner, which a poverty-stricken, desperately ill patient would have experienced. Obviously, in order to generalize this study to a large and diverse population, a broader representation of respondents would be necessary.

Unfortunately, data on actual doctor-patient interactions, viewed in terms of different social influence strategies are very rare indeed. Given that there is a tradition of sanctity and privacy in physician/patient interaction there is still difficulty in getting cooperation from physicians and patients to perform research in such situations. The studies by Winefield (1992) and Winefield and Murrell (1991) are exceptional in that actual physician/patient interactions were examined. While not all bases of power were recorded systematically in their studies, some parallel findings are indicated.

As stated above, direct application of the role of social power in determining and implementing instructive regimens for physicians to work with their patients in influencing strategies has not been completely determined. Researchers described within this paper have begun to test the importance of informational and referent powers, however, it does not appear that these lines of research make actual comparisons between bases of power in the actual physician-patient relationship. This study has shown the potential importance of the satisfaction of the patient, however, it has been found recently that physician satisfaction is also a key component in gaining
patient compliance (DiMatteo et al., 1993). We believe that both the physician and the patient could benefit from a more comprehensive exploration of the bases of social power, explicitly examined within the physician/patient relationship. In concluding, we believe that the cost of determining and implementing specific interactive regimens for physicians and future physicians is low compared to the social and economic cost of non-compliance both to the consumer and producer of health care. Clearly, further research in the actual doctor/patient interaction situation is needed.

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Footnotes:

1 The degree to which the disorder being treated was chronic (requiring treatment for two months) or short-term (requiring one-half month treatment) was included on an exploratory basis and manipulated as a between-subjects variable. There were no significant effects of this variable and it is not discussed further in this report.

2 The bases of power scenarios were judged by Patricia English-Zemke, Jacqueline Goodchilds, Tchia Litman-Adizes, Bertram H. Raven, and Jay Wagener.

3 Further information regarding these variables is available from the authors.

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