



THE SIGNIFICANCE OF BELIEF AND EXPECTANCY WITHIN THE SPIRITUAL HEALING ENCOUNTER

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Abstract—Historically, traditional cultures recognized the importance of belief and expectancy within the healing encounter and created complex rituals and ceremonies designed to elicit or foster the expectancy and participation of both the healer and patient, as well as the community as a whole. This holistic approach to health care was a fundamental component in the spiritual healing rituals of virtually all traditional native cultures. The focus of the current study was to assess the impact of healer and patient expectations on mental and physical health parameters following a spiritual healing session. A pre-post methodological design which incorporated extensive psychophysiological health outcome measures along with independent medical diagnoses was utilized. The study was conducted in a northern California suburb of Marin County utilizing an American-born spiritual healer trained in the Philippines.

The results indicated that there was a statistically significant difference between the pre-treatment and post-treatment scores for all fourteen dependent variables examined. The data also demonstrated a significant difference between the high versus low expectancy subjects for both patient and healer groups, as well as a significant relationship between high expectancy in patients and healer and the effectiveness of the spiritual healing encounter. The results of the study therefore suggest that high healer and patient expectancy may be important elements which can serve as both predictors as well as facilitators of the healing process. The degree of bonding or communication between the healer and patient was postulated as an important factor in this regard.

Due to the fact that a majority of the conditions reported (75%) were organic disorders that would not commonly disappear within the 3 week time frame of the study, the significant results obtained suggest that spiritual healing in combination with traditional allopathic medicine may have the potential to be an effective treatment protocol for severe or long-term disorders. An important contributing feature of this study was that an independent means of assessing the patients' self-reports, i.e. an allopathic medical examination, was included in the experiment. There was a significant correlation between the patient's expectation level and their assessment of improvement, as well as a significant relationship between the patient's assessment of their condition and the objective evaluations provided by independent medical examinations.

Key words—therapeutic touch, spiritual healing, laying on of hands, espiritista, complementary medicine

INTRODUCTION

Spiritual healing techniques have been a fundamental component of the healing rituals of virtually all societies since the advent of man [1]. Early Egyptian and Greek civilizations depicted the ancient healing practice of the laying on of hands in their hieroglyphics, pictographs and cuneiform writings [2]. Biblical reference to healing performed by Jesus, Peter, John and others helped make spiritual healing a commonly accepted practice of early Christianity [3]. Whether used for curing illness or preventing disease, the primary purpose of most forms of spiritual healing was to maintain the physical, psychological and spiritual well-being of the individual and the community.

Traditionally, spiritual healing practitioners believed that illness manifested on the physical level due to an imbalance in the psychological or spiritual aspects of the individual. The role of the healer was to correct this imbalance by utilizing culturally accepted and proven methods of healing [4, 5]. Within this

framework, the diagnosis of illness and the development of a treatment regimen were undertaken from a holistic perspective which cultivated the patient's belief and expectancy of healing [6–8]. Complex rituals and ceremonies were often utilized specifically to elicit the full participation and belief of the patient and the community in the healing process [9]. With the advent of modern medicine, however, the significance of cultivating belief and expectancy within the healing encounter was abandoned in reliance upon a reductionistic, mechanistic and non-ritualistic approach to healing [10]. This approach ignored the psychological and spiritual aspects of health and focused on biological abnormalities and specific microorganisms as the primary cause of disease [1]. Recently, however, research within the field of mind/body medicine has re-examined the relationship between the individual's psychological and spiritual perspective and their physical health [11, 12]. This research has facilitated a renewed interest in a more traditional holistic approach to health care, as well as contributed to a significant increase in experimental

scientific studies conducted within the field of spiritual healing [13].

In order to analyze the various components of the spiritual healing encounter, researchers have traditionally utilized both laboratory-based experimental approaches and in field investigative techniques [13, 14–17]. While the literature contains over two hundred experimental studies examining various forms of spiritual healing such as Therapeutic Touch, Intercessory Prayer, Reiki, LeShan, etc. [1, 13, 18–26], only a small percentage of these studies have attempted to systematically assess the outcome of spiritual healing therapies and correlate the results with psychological aspects of health and illness including patient and healer belief or expectancy. With the exception of the anthropological literature [7, 27–34], most of the spiritual healing research has concentrated on the use of objective quantifiable measures and advanced scientific techniques for assessing potential treatment effects. Although valuable information has been obtained utilizing this approach, it is too reductionistic in nature and therefore of limited applicability for examining the many levels of health and illness and the multitude of psychological and spiritual factors which may affect a person's physical well-being. The few studies that have examined treatment outcome in relation to such psychological variables as belief and expectancy have generally concentrated on the importance of positive belief and expectancy on the part of both the patient and the healer [22].

In a detailed investigative survey of spiritual healing techniques and cure rates conducted by Strauch [35], for example, it was determined that both patient expectancy and healer intention were important factors in the healing process. The majority of the patients studied were chronically ill individuals whose condition had not improved sufficiently under treatment by conventional medicine. In evaluating the effectiveness of the spiritual healing treatments, Strauch used patient pre-post interview data and medical clinic screening reports. The medical reports showed some degree of improvement in 11% of cases, no change in 75% and less than expected improvement in 14% of cases. The patient reports were considerably more impressive with 39% noting definite improvement, 22% reporting temporary improvement, 29% noting no change and 10% reporting a deterioration of their condition. Strauch concluded that a patient's initial attitude towards or level of belief in spiritual healing were key indicators in determining whether a treatment session would yield positive results.

In a related questionnaire study conducted in The Netherlands, Attevelt [36, 37] collected self-reports from patients who were treated by spiritual healing practitioners during a 2 year period. Although the findings were not validated by medical reports, two-thirds of the patients reported definite improvement in both organic and functional disorders. Attevelt

noted that the patients' responses were highly correlated with the healers' opinion regarding the patients' progress. A similar study conducted in Iceland by Haraldsson and Olafsson [38], noted that two-thirds of the respondents reported that they had benefited from spiritual healing treatments. Self-reports by the patients indicated full improvement in 40% of the cases, some improvement in 32% and no improvement in 28% of the cases. The patients' prior hopes of recovery through spiritual healing did not correlate significantly with the reported results of the spiritual healing sessions.

The relationship between a patient's belief system and the spiritual healing process was examined by Finkler [30, 39] in a study of Spiritualist healers in Mexico. Patients were individually interviewed with responses to treatment being assessed by the Cornell Medical Index (CMI) and patient reports. An improvement in 25% of the cases examined was reported. According to Finkler, the improvement was due to both concrete manipulation of physiological symptoms as well as symbolic manipulation of cultural imperatives by the Spiritualist healers. The spiritual healing encounter was said to be a culturally significant event for the patients which was expected to be efficacious and which, therefore, facilitated a positive alteration in the patients' subjective evaluation of their illness.

The studies mentioned above emphasize the importance of the psychological state of both the patient and healer in determining the effectiveness of the spiritual healing encounter. Recent research conducted within the field of psychoneuroimmunology (PNI) has also suggested that psychological perspectives—including belief and expectancy—appear to be important considerations in determining the patient's level of mental and physical health [11, 40]. The PNI studies have indicated that a change or shift in the emotions, attitude or the level of belief and expectancy within the patient may be correlated with a concomitant change in the physiological condition of the patient [41–43].

The present study was designed to explore the significance of individual belief and expectancy relative to the spiritual healing encounter and correlate it with mental and physical health outcome measures [22]. A traditional hands on healing approach was utilized in this study by Greg Schelkun, an American-born spiritual healer originally trained in Baguio City, Philippines by the internationally renowned healer Placido Palitayan. Schelkun's initiation into the process of spiritual healing began when he accompanied his mother and aunt to the Philippines. While there, he was cured of a migraine condition which had persisted for 17 years. Upon returning to the Philippines 2½ years later to do a documentary on native healers, he interviewed Placido Palitayan who informed him that he had a rare latent healing ability which could be cultivated and developed. Schelkun immediately began an intensive training program

which included indepth study of numerous forms of spiritual healing including psychic surgery, laying on of hands, magnetic healing and distant healing.

During the arduous 2-year-long training process, Placido imparted the philosophy, techniques and principles of the Espiritista system of healing as codified by French Mesmerist and engineer Allan Kardec [28, 33, 44–47]. The members of the Espiritista Healing Union actively cultivate divine healing by entering a trance-like state and opening themselves to the healing power of the Holy Spirit [31]. After completion of the Espiritista training process, Schelkun expanded upon the basic foundation of healing and developed his own personalized theories and principles of healing. He later organized these principles into a formalized system of health and illness wherein physical disease is considered to be the result of a spiritual or energy imbalance within the patient with the disease process simply being an opportunity afforded the patient to change and correct this imbalance. Within this framework, the body is perceived from a bioenergetic perspective wherein healing is facilitated by the directed intent and compassion of the healer as well as by a telepathic and energetic transfer or interaction between healer and patient.

The principle healing technique utilized within this system consists of a magnetic laying on of hands approach in which universal healing energy is transferred through the hands of the healer to the patient producing a beneficial change in the patient's vital energy flow. Patients are referred by word of mouth and are normally treated while resting on their back on a large padded oak table in a room filled with spiritual icons and religious statues of Christ, Buddha, Mother Meera and an American Indian God of Healing. During a treatment session, the healer does not express his religious beliefs to the patient and does not directly emphasize the Christian foundation of his healing practice. Having treated people from virtually every known religious background, he has come to believe that everyone has their own perception of God and that God in any form is the source of all healing. Schelkun asserts, as do many traditional spiritual healers, that he acts only as a channel for the universal energies of God and that any healing or 'miraculous cures' that occur are due solely to the Grace of God [1, 22, 49]. He firmly believes that if the patient is touched by the healing essence of God during a healing session, the spiritual energetic connection which results can serve to reverse any known malady [49, 50].

The current study utilized a pre-post experimental design in order to examine three hypotheses based on healer and patient expectancies: (1) post-scores would significantly improve in comparison to pre-scores on all 14 dependent variables dealing with physical and mental health for all patients; (2) patients with a high level of expectancy would demonstrate a greater improvement in their condition as compared to

patients with a low level of expectancy; and (3) high healer expectancy would correspond with improvement in the patient's condition to a greater degree than low healer expectancy.

METHODOLOGY

A pre-test, post-test methodological design was utilized to measure the level of improvement of forty-eight individuals who received spiritual healing treatment in Marin County, California during the spring of 1986. Participants were separated utilizing a three-item response questionnaire into two groups: (1) the high expectancy group and (2) the low expectancy group. The high expectancy group consisted of those individuals who expected or believed that the condition for which they sought treatment would be cured completely or would greatly improve within a 3-week time frame due to their initial spiritual healing treatment. The low expectancy group consisted of those individuals who expected or believed that the condition for which they sought treatment would not improve, or would improve at a very slow rate taking more than 3 weeks after the initial spiritual healing treatment. Additionally, the same individuals were also grouped into two categories of high and low healer expectancy. If the healer felt that the patient's condition would be cured completely or improve at a rapid rate and take less than 3 weeks from the initial treatment, the patient was categorized in the high healer expectancy group. If the healer felt that the patient would improve at a slow rate taking longer than 3 weeks after the initial treatment, the patient was categorized in the low healer expectancy group.

Survey instruments and measures

A pre-post questionnaire was utilized to gather data about the participants. Demographic information such as age, race, sex, religion, etc., was collected from the participants in order to obtain a patient profile. Two individual measures—one for mental health, the other for physical health—were utilized to evaluate the level of improvement for each participant. Independent medical diagnoses conducted before and after the spiritual healing treatment were also utilized when available to correlate treatment intervention with level of improvement.

The mental health battery and the physical health battery were adopted from the National Health Insurance Study conducted by the Rand Corporation [51–53]. These standardized tests were specifically developed for a pre-test, post-test design, and their reliability and validity established against other standardized health tests and objective measures of a person's physical and mental health [51–54].

The Mental Health Battery consisted of a questionnaire on General Well Being (GWB) developed to define six constructs: Anxiety (A), Depression (D), General Health (GH), Positive Well Being (WB), Self Control (SC) and Vitality (V) [54]. In addition to

these six scales, two overall scales were incorporated: (1) the Mental Health Index (MH)—a measure of overall mental health combining the Anxiety (A), Depression (D), Positive Well Being (WB) and Self Control (SC) scales in a Summated Rating Scale; and (2) the GWB Total—a measure of General Well Being representing the combination of all six subscales in a Summated Rating Scale [54].

The physical health battery consisted of a general Health Perceptions Questionnaire (HPQ) designed to measure the following six dimensions of general health perceptions: Prior Health (PH), Current Health (CH), Health Outlook (HO), Resistance/Susceptibility to Illness (RI), Health Worry/Concern (WC) and Sickness Orientation (SO) [51]. In addition, a General Health Rating Index (GR) was developed as a measure of overall health which combined all the above dimensions except for Sickness Orientation (SO) and two items from the Resistance/Susceptibility to Illness (RI) subscale [51]. For the purposes of this study, the construct of Prior Health (PH) was eliminated, leaving a total of five subscales [55].

Procedure

Individuals entering the office of the healer during a 2-month period in the spring of 1986 were identified as first time patients and were given 'Patient Questionnaire Packet I' by the healer with instructions to read and complete the material contained therein. The packet included the following items: (1) Cover Letter, (2) Invitation to Participate, (3) Consent Form, (4) Patient Questionnaire I, (5) Health Perceptions Questionnaire and (6) General Well Being Questionnaire. Each participant completed the questionnaire packet before receiving a healing treatment. First-time patients were chosen for two reasons: (1) they would have fewer biases as to expectancy of improvement than previously treated patients and (2) a better random sampling of the healer's clientele would be obtained.

When the patient completed the questionnaire, the packet was deposited in a locked box in the waiting room. The patient then entered the healing room and received a 15–30 min spiritual healing laying on of hands treatment. After the session was finished, the healer completed the 'Healer's Questionnaire' which contained questions pertaining to duration of treatment, healer expectancy and the patient's condition.

The patient and healer questionnaire packets were collected once a week by the researcher. The date of treatment for each participant was noted and a packet marked 'Patient Questionnaire II' was mailed out exactly 18 days after the patient's initial treatment. Therefore, each participant received the second packet within three weeks of their initial treatment. The patients were instructed to complete the Patient Questionnaire II packet within 2 days of receipt and return it in the postage paid envelope to the researcher. The Patient Questionnaire II packet con-

tained: (1) Cover Letter, (2) Patient Questionnaire II, (3) Health Perceptions Questionnaire and (4) General Well Being Questionnaire. If, at the end of 1 week, the researcher had not received the questionnaire packet from the participant, that person was eliminated from the study.

STATISTICAL ANALYSIS

High or low patient expectancy and high or low healer expectancy were designated as independent variables. The summary score measure and five subscales of HPQ along with the two summary measures and six subscales of the GWB were designated as the dependent variables. These included: HPQ summary score of General Health Rating Index (GR) and five subscales of Current Health (CH), Health Outlook (HO), Resistance/Susceptibility to Illness (RI), Health Worry/Concern (WC) and Sickness Orientation (SO); and GWB summary scores of General Well Being (GWB) and Mental Health (MH), with the six subscales of Anxiety (A), Depression (D), General Health (GH), Positive Well Being (WB), Self Control (SC) and Vitality (V).

A series of repeated measures *t*-tests and univariate ANOVAs were conducted. For each of the 14 dependent variables a single mean *t*-test was used to test hypothesis 1. For hypotheses 2 and 3, a one-way (between groups) ANOVA was performed for each of the fourteen dependent variables.

RESULTS

The results indicated that there was a statistically significant difference between the pre-treatment and post-treatment scores for all fourteen dependent variables at the $P < 0.05$ level representing a confirmation of hypothesis 1 (Table 6). The data also demonstrated a significant difference between the high versus low expectancy groups for both patient and healer expectancy at the $P < 0.05$ level indicating a confirmation of hypotheses 2 and 3, respectively (Tables 7 and 8).

The conditions studied included: six cancer cases, five chronic physical pain cases, two AIDS cases and a host of other biological disorders (Table 9). The general profile data gathered indicated that the representative patient was a single (46%), white (65%), educated (56% with collegiate experience), professional (44% in white collar occupations), female (67%), with a moderate income (50% in the \$18,000 to \$40,000 bracket) (Table 1). The questionnaire information also demonstrated that, while the majority of patients believed in spiritual healing (90%) and would repeat (88%) and recommend (92%) the experience to others (Table 2), most (88%) believed that the condition for which they sought treatment persisted after the spiritual healing session (Table 3). Of the 90% of patients who reported that their condition had improved, all attributed the improvement to the spiritual healing treatment (Table 3). The

majority of patients (75%) obtained an independent medical diagnosis both before and after the spiritual healing treatment session, with 86% of these patients being told that their condition had improved (Table 4). Of the 36 patients who received an independent medical diagnosis, 20 of 21 high expectancy patients (95%) and 11 of 15 low expectancy patients

Table 1. Demographic characteristics of survey respondents (n = 48)

Characteristic	Respondent (#)	Respondent (%)
Sex		
Male	16	33.33
Female	32	66.67
Age (years)		
21-25	6	12.50
26-35	12	25.00
36-45	15	31.25
46-55	10	20.83
56-65	3	6.25
66-70	2	4.17
Marital status		
Single	22	45.83
Married/shared quarters	14	29.16
Separated	1	2.08
Divorced	6	12.50
Widowed	5	10.43
Racial background		
Amerindian	1	2.08
Asian	4	8.33
Black	2	4.17
Caucasian	31	64.58
Filipino	2	4.17
Hispanic	8	16.67
Religious preference		
Agnostic	2	4.17
Atheist	7	14.58
Buddhist	4	8.33
Christian	18	37.51
Hindu	2	4.17
Jewish	7	14.58
Sufi	1	2.08
Other	7	14.58
Education		
Some high school	4	8.33
High school graduate	7	14.59
Trade/business school	14	29.16
Some college	13	27.09
College graduate	6	12.50
Post-college graduate	4	8.33
Primary occupation		
Homemaker	8	16.67
Student	2	4.17
Blue collar	8	16.67
Professional	11	22.92
Clerical	10	20.83
Own business	4	8.33
Other	4	8.33
Did not respond	1	2.08
Yearly income		
Under \$10,000	7	14.58
\$10,000-\$18,000	14	29.16
\$18,001-\$28,000	17	35.43
\$28,001-\$40,000	7	14.58
\$40,001-\$60,000	2	4.17
Did not respond	1	2.08
Daily meditation practice		
Yes	26	54.17
No	21	43.75
Did not respond	1	2.08

Table 2. Spiritual healing beliefs/practices

Characteristic	Respondent (#)	Respondent (%)
Spiritual healing believer		
Yes	43	89.59
No	4	8.33
Did not respond	1	2.08
First visit to a spiritual healer other than Schelkun		
Less than 1 month ago	20	41.67
Less than 6 months ago	9	18.75
Less than 1 year ago	4	8.33
1-2 years ago	5	10.42
2-4 years ago	2	4.17
4-7 years ago	1	2.08
7-10 years ago	4	8.33
More than 10 years ago	3	6.25
Repeat spiritual healing treatment with Schelkun		
Would repeat	42	87.50
Would not repeat	6	12.50
Recommend spiritual healing treatment to others		
Yes	44	91.67
No	4	8.33

(73%) received confirmation of improvement (Table 5).

DISCUSSION

The results of this study suggest that spiritual healing can significantly affect a wide range of psychological and physiological variables as assessed by comprehensive mental and physical health measures. The data obtained indicated that high expectancy of healing for both patient and healer were positively correlated with subsequent improvement in the patients' physical as well as psychological condition.

The mean average change for all 14 health subscales was significant at the $P < 0.05$ level confirming hypothesis 1 (Table 6). The negative value of the four subscales: Health and Worry/Concern (WC);

Table 3. Improvement levels and number of visits

Item	Respondent (#)	Respondent (%)
Number of visits to Schelkun during 3 week survey time		
1	10	20.83
2	28	58.34
3	10	20.83
Specific condition retained		
Yes	42	87.50
No	6	12.50
State of condition		
Completely cured	6	12.50
Significantly improved	25	52.08
Slightly improved	12	25.00
No change	5	10.42
Improvement due to healer		
Yes	43	89.58
No	5	10.42

Table 4. Non-spiritual healing treatments and medical diagnosis

Item	Respondent (#)	Respondent (%)
<u>Non-spiritual healing treatment during 3 week survey time</u>		
Yes	15	31.25
No	33	68.75
<u>Improvement due to non-spiritual healing treatment</u>		
Yes	1	6.67
No	12	80.00
Don't know	2	13.33
<u>Medical diagnosis before and after spiritual healing treatment</u>		
Yes	36	75.00
No	12	25.00
<u>Medical diagnosis of condition</u>		
Improved	31	86.11
Remained the same	5	13.89

Sickness Orientation (SO); Anxiety (A); and Depression (D); indicates that there was a decrease in these constructs and therefore an improvement for the patient. This was an important observation due to the fact that previous studies have shown that anxiety, stress and depression can affect the immune system, neuroendocrine production (including catecholamines and corticosteroids), lymphocyte function, as well as the onset and progression of cancer, diabetes, and other illnesses [56-61]. Since anxiety and depression are also commonly known to be the product of a stressful or negative life change such as the onset of illness—which is rated as the sixth most severe life change on the widely used Holmes and Rahe Social Adjustment Rating Scale [62]—the improvement in these constructs for the patients in this study may indicate that spiritual healing can positively affect the psychological sequelae of illness. The improvement in anxiety and depression levels was significantly greater for the high expectancy patients than for the low expectancy patients (Table 7). This finding appears to support previous anthropological studies which indicated that spiritual healing was most effective for those patients who exhibited a sincere belief or expectation in a positive treatment outcome [4, 7, 29].

Table 5. Patients' high expectancy vs low expectancy comparisons

	High expectancy	Low expectancy
Completely cured	5	1
Significantly improved	19	6
Slightly improved	2	10
No change	0	5
	26	22
	High expectancy	Low expectancy
Medical diagnosis after spiritual healing treatment	21	15
Medical diagnosis of improvement	20	11

Table 6. Means and standard deviations for change scores on all scales ($n = 48$)

Hypothesis 1: results			
Variable	Mean	SD	<i>t</i> -Statistic
<i>General Well Being Questionnaire</i>			
General Well Being Total	39.92	45.37	6.10
Mental Health Index	26.38	30.58	5.97
Anxiety	-9.27	10.64	-6.04
Depression	-5.38	6.29	-5.92
General Health	5.15	6.06	5.90
Positive Well Being	7.81	9.35	5.79
Self Control	5.54	7.01	5.47
Vitality	8.40	9.12	6.38
<i>Health Perceptions Questionnaire</i>			
General Health Rating Index	25.06	30.74	5.65
Current Health	13.19	15.29	5.98
Health Outlook	5.38	7.15	5.21
Resistance/Susceptibility to illness	4.10	5.47	5.20
Health Worry/Concern	-5.21	7.52	-4.80
Sickness Orientation	-3.13	3.54	-6.11

All *t*s significant beyond $P < 0.05$ (d.f. = 47; two-tailed).

In analyzing the data of the study, a statistically significant difference was noted in the General Health Rating Index (GR) summary score for the high versus low expectancy group for both patients and healer (Tables 7 and 8). In addition to confirming hypotheses 2 and 3, these data are important because the GR summary score is a combination of four subscales: Current Health (CH), Health Outlook (HO), Resistance to Illness (RI) and Health Worry/Concern (WC). Of the four categories, three deal with the future health of the patient and one with the Current Health (CH). The results of the study therefore suggest that spiritual healing may positively affect the patients' perception of both their current and their future health status. This finding is significant because previous research has established that patients normally relinquish the traditional sick role on the basis of their self-perceived health state rather than on the basis of objective quantifiable medical criteria [30].

While many traditional forms of spiritual healing utilize complex rituals and ceremonies specifically designed to create a culturally significant context which allows the patient to relinquish the sick role [5, 9], the laying on of hands approach utilized in this study was less ceremonial and better suited to the culture and belief systems of the population examined. As previous anthropological studies have indicated, spiritual healers are most effective when they work within the culturally determined belief structure of the patients being treated [7, 29, 39]. A laying on of hands approach was therefore used by the healer in this study rather than a Filipino psychic surgery technique because it was determined that such an approach would be better suited to the religious, philosophical and spiritual traditions of the North American client population. The fact that the laying on of hands method has a Christian foundation and has been scientifically documented [13, 15, 16, 19], appealed to the Western analytical mindset of the patients treated.

Table 7. Means and standard deviations for all scales by patients' expectancy ($n = 48$)
Hypothesis 2: results

Variable	High ($n = 26$)	Low ($n = 22$)	$F(1,46)$
<i>General Well Being Questionnaire</i>			
General Well Being Total	57.65 (37.6)	18.95 (45.4)	10.48
Mental Health Index	37.73 (25.6)	12.95 (31.0)	9.18
Anxiety	-13.38 (9.0)	-4.40 (10.4)	10.13
Depression	-7.92 (5.0)	-2.36 (6.3)	11.38
General Health	7.69 (5.2)	2.13 (5.5)	12.53
Positive Well Being	11.34 (7.6)	3.63 (9.5)	9.58
Self Control	7.96 (6.1)	2.86 (7.0)	7.72
Vitality	12.23 (7.0)	3.86 (9.3)	12.50
<i>Health Perceptions Questionnaire</i>			
General Health Rating Index	37.11 (27.4)	10.81 (28.7)	10.48
Current Health	19.46 (12.8)	5.77 (14.8)	11.73
Health Outlook	8.07 (6.3)	2.18 (6.8)	9.57
Resistance/Susceptibility to illness	6.07 (5.6)	1.77 (4.3)	8.58
Health Worry/Concern	-7.61 (7.2)	-2.36 (6.8)	6.50
Sickness Orientation	-4.50 (2.7)	-1.50 (3.7)	10.24

All t s significant beyond $P < 0.05$ (d.f. = 47; two-tailed).

Upon analysis of the patients' questionnaires, it was noted that while approximately 90% believed in spiritual healing, over 8% did not believe in the efficacy of the method (Table 2). The question naturally arises as to why someone would voluntarily seek out a treatment technique in which they did not have confidence or at least an inclination towards its possible beneficial effects. Unfortunately, no other question in the study addressed this point. It was also noted in Table 2 that approximately 90% of the respondents would repeat the experience and would recommend it to others. This apparent belief, repeat and recommendation consensus was independent of religious background since the respondents were so diverse in this respect and was not linked to a practice of regular meditation since the respondents were split almost 50/50 on the issue (Table 1).

In a related analysis of Table 3, it was noted that while approximately 88% of the patients reported that the condition for which they sought treatment persisted, approximately 90% reported an improve-

ment in their condition. Of the 43 patients who listed their condition as improved, all believed that the improvement was due to the spiritual healing treatment session. These results are particularly noteworthy in view of the fact that approximately one-third of the patients were receiving concurrent non-spiritual healing treatment during the 3 week period of the study (Table 4). Of the 15 patients who did utilize a non-spiritual treatment modality, only one patient thought that this treatment had contributed to an improvement in her condition (Table 4). Since no attempt was made to define more specifically the other treatment modalities sought by the patients, it cannot be assumed that an orthodox medical treatment was utilized in these 15 cases. What can be ascertained, however, is that the treatment sought was something other than spiritual healing and may have included allopathic and/or alternative healing methods. The data of Table 3 also indicated that approximately 79% of the patients had two or more spiritual healing treatments with Greg Schelkun

Table 8. Means and standard deviations for all scores by healer's expectancy ($n = 48$)
Hypothesis 3: results

Variable	High ($n = 32$)	Low ($n = 16$)	$F(1,46)$
<i>General Well Being Questionnaire</i>			
General Well Being Total	57.84 (35.0)	4.06 (43.1)	21.54
Mental Health Index	38.21 (23.8)	2.68 (29.2)	20.31
Anxiety	-13.5 (8.0)	-0.81 (10.3)	21.91
Depression	-7.78 (4.8)	-0.56 (6.1)	19.65
General Health	7.62 (4.6)	0.18 (5.5)	24.06
Positive Well Being	11.50 (7.3)	0.43 (8.6)	21.42
Self Control	8.25 (5.5)	0.12 (6.5)	20.15
Vitality	12.00 (6.9)	1.18 (8.8)	21.58
<i>Health Perceptions Questionnaire</i>			
General Health Rating Index	37.31 (26.1)	0.56 (24.3)	22.07
Current Health	19.71 (12.6)	0.12 (11.4)	27.33
Health Outlook	8.15 (6.2)	-0.18 (5.6)	20.55
Resistance/Susceptibility to illness	5.71 (4.8)	0.87 (5.2)	9.97
Health Worry/Concern	-8.28 (6.5)	-0.93 (5.3)	23.84
Sickness Orientation	-4.43 (2.8)	-0.50 (3.3)	17.95

All t s significant beyond $P < 0.05$ (d.f. = 47; two-tailed).

within the 3 week time frame of the study. Since all the patients were first time visitors, this may indicate that the patients believed that the initial treatment showed promise or, alternatively, that they felt comfortable enough after the first treatment to attend at least one more healing session. In this regard, the majority of patients reported feeling a sense of inner spiritual peace and physical well-being after a healing session.

An important feature of the current study was that it included both the patients' assessment of their health status as well as independent pre-post medical diagnoses. The data demonstrated that 75% of patients [36] obtained an independent medical diagnosis both before and after the spiritual healing treatment session, with 86% of these patients being told by their physician that their condition had improved (Table 4). Of these 36 patients, 21 were in the high patient expectancy group and 15 were in the low patient expectancy group (Table 5). Twenty of the 21 high expectancy patients (95%) were said to have improved, as compared to only 11 of the 15 low expectancy patients (73%) (Table 5). Although the 73% improvement rate for the low expectancy group is significant, the marked figure of 95% diagnosis of improvement for the high expectancy patients lends credence to the idea that patient belief, expectancy and hope may be powerful factors in determining an individual's mental and physical well being.

Recent spiritual healing research and anecdotal reports have indicated that high patient expectancy is generally indicative of a trust or faith in and acceptance of the spiritual healer and the healing process—both of which favorably influence the chances of improvement [22]. It is widely held that in order for spiritual healing to be most effective, the patient must include the possibility of such healing in their world view, as well as consciously allow a healing to occur for them [4, 63]. It has also been suggested that spiritual healing is most effective when the healer involves the patient in a 'union of consciousness' [64]. The complementary healing literature in fact contains a common theme on this point: it is that an energetic or telepathic bond or communication between the healer and patient is crucial for success. In this regard, it may be argued that the high expectancy patients in this study had a predisposition towards and/or a psychological constitution (trust or faith) which facilitated a higher degree of union with the healer resulting in a greater degree of physiological improvement than was possible for the low expectancy patients.

In evaluating the efficacy of any treatment protocol, whether allopathic or alternative, it is important to recognize that the treatment outcome measures obtained may be influenced by the self-limiting nature of the diseases studied or the fact that the body tends to heal itself with or without medical intervention [65]. These observations are especially relevant when examining the efficacy of spiritual healing treatments

Table 9. Conditions—type and number of cases ($n = 48$)

Condition	Number
AIDS	2
Anorexia	1
Arthritis	2
Breathing disorders (asthma, allergies, bronchitis)	3
Cancer	6
Carpal tunnel syndrome	1
Cataracts	1
Chronic kidney infection	1
Chronic physical pain	5
Disc injury	2
Flu	1
Gallbladder	1
Gastro-intestinal disorder/colitis	2
Heart disease	4
Hip injury	1
Immune deficiency (mononucleosis, candida)	2
Mental disorders (depression, manic-depressive)	5
Migraine	1
Ovarian cyst	1
Physical pain (depression, concussion, whiplash)	3
Stomach ulcer	1
Thyroid condition	1
Unknown	1

because previous anthropological studies have shown that spiritual healing thrives in third world countries where there is a lack of traditional allopathic medical care and a largely parasitic burdened, poorly nourished, patient population [29, 66]. The spiritual healers are therefore sought out by patients who, in large part, exhibit self-limiting illnesses which are the result of the generally poor socio-economic health conditions. This was certainly not the case for the population examined in this study, however, because for the most part the subjects were generally well nourished and parasite free, with the majority (75%) presenting with organic conditions which would normally require, in allopathic medicine, a treatment program that would extend well beyond the 3 week time frame of the study.

Due to the fact that high and low expectancy groups for both the patients and healer contained an equal distribution of serious organic disorders, healer and patient expectancy levels did not seem dependent upon the type of condition reported. The conditions studied included: six cancer cases, five chronic physical pain cases, two AIDS cases and a host of other biological disorders such as stomach ulcer, cataracts, heart disease, rheumatoid arthritis, etc. (Table 9). The majority of conditions for which patients sought the aid of a spiritual healer were therefore of a severe, long-term nature. This fact implies that subjects turn to spiritual healing when they are seriously concerned about their health and have found conventional treatments to be insufficient in ameliorating their condition.

An interesting finding in this respect was that of the six cures reported by patients following the spiritual healing treatment (with five in the high expectancy and one in the low expectancy group), none were of

the miraculous nature (i.e. effecting a serious organic disorder). The reported cures related to functional disorders and included the following: allergies/asthma ($n = 1$), physical pain—concussion/depression/whiplash ($n = 3$), migraine ($n = 1$) and chronic kidney infection ($n = 1$). Previous research has indicated that alternative healing methods may be effective in the relief of pain and alleviating counter-productive psychological states associated with disease [14, 21, 25, 67–69]. In view of the results obtained in this study, it may be suggested that even if spiritual healing is considered to be ineffective in the amelioration of the patient's physical condition, it may nevertheless be successfully employed in the relief of such concomitant symptoms as pain and illness-related depression.

It is impossible, however, to draw definitive conclusions in regard to the cures reported or the improvements noted by the medical diagnoses without additional information from both the respondents and the physicians consulted. Many factors could potentially mitigate the conclusion that the medical determination of a healthier state was due solely to the spiritual healing sessions. The in-person healing sessions and the health battery format utilized in this study, for example, introduced confounds which may have resulted in biased self-reports of hopeful patients. While the independent medical diagnoses serve as objective verification of the patients' self-reports, it is possible that the improvement noted by patients in both high and low expectancy groups may have been due solely to the placebo effect [70]. A significant observation in this regard was that all of the patients who reported an improvement in their condition—with one exception—believed that their improvement was due solely to the spiritual healing treatment (Table 3).

POST HOC ANALYSIS

A comparison of the data of Table 7 with the data of Table 8 indicated that there was a significant difference between the improvement levels of high and low expectancy patients versus the improvement levels of high and low healer expectancy subjects (hypotheses 2 and 3, respectively). Upon examination, the average change scores of the General Well Being (GWB), Mental Health Index (MH) and General Health Rating Index (GR) suggested that the healer's expectations were more crucial than the patients' in determining the outcome of the treatment sessions.

A chi-square test was utilized to ascertain the relationship between the patients' expectancy (high or low) and the healer's expectancy (high or low). The score obtained indicated a strong relationship between what healer and patients expected ($\chi^2(1) = 12.13$; $P < 0.05$). That is, if both healer and patient had a high level of expectation, improvement

could be predicted to a greater degree than if either disagreed with the other.

FIVE-YEAR FOLLOW-UP SURVEY

A 5-year informational follow-up survey was attempted for the original 48 subjects. Telephone contact was achieved for 23 (48%) of the participants with 16 females and 7 males responding. Participants were queried utilizing a 20-item questionnaire as to their general state of health and their views on spiritual healing and traditional medical treatments.

Of the 23 subjects, 15 responded that they were in good health, five in excellent health and three in fair condition. Twenty-one of these still believed in the efficacy of spiritual healing with 20 periodically attending spiritual healing sessions. Of those who still consulted with a spiritual healer, 16 (80%) had visited one within the last 6 months. When questioned as to whether they still had the condition for which they originally sought treatment from the healer, Greg Schelkun, 10 responded affirmatively, eight negatively, with five unknowns. Twelve of the subjects believed that their original condition had improved, two thought it had stayed the same, four believed it had worsened and five did not know (Table 10). Of the 12 respondents who felt that their condition had improved, 10 (83%) regularly attended spiritual healing sessions in conjunction with traditional allopathic medical treatment. All respondents who reported an improvement in their condition had also made major lifestyles changes which included diet, exercise and meditation. In fact, out of the 23 subjects surveyed, 20 (87%) regularly practiced meditation—an increase

Table 10. Five year follow-up survey data ($n = 23$)

Condition	Status	Improvement attributed to
Allergy/asthma	A D	spiritual healing/breathwork/meditation
Anorexia	B D	spiritual healing/counseling
Arthritis	B E	
Bronchitis	B D	medication
Carpal tunnel syndrome	B C	
Cataracts	A D	surgery
Chronic kidney infection	A D	spiritual healing/acupuncture/diet
Chronic physical pain	B D	spiritual healing/medication/meditation
Colitis	B E	
Heart disease	B C	
Manic-depression	B D	medication
Migraines	A D	spiritual healing/meditation
Mononucleosis/candida	A D	spiritual healing/exercise/diet
Ovarian cyst	A D	spiritual healing/surgery
Rheumatoid arthritis	B C	
Skin cancer	A D	surgery
Stomach ulcer	B C	
Whiplash	A D	spiritual healing/chiropractic
Unknown (5 patients)		

Status

A, condition no longer exists ($n = 8$).

B, condition still persists ($n = 10$).

C, condition worsened ($n = 4$).

D, condition improved ($n = 12$).

E, condition stayed the same ($n = 2$).

*Category D includes the 8 patients from category A.

from the 50% regular meditation figure cited in the original study.

An interesting correlation was noted in that of the 16 subjects who had visited a spiritual healer within the last 6 months, 15 had also visited an allopathic medical practitioner within the same time frame. Twelve of the subjects responded that they were currently under the care of a traditional allopathic physician and 10 stated that they were taking medication for their condition. This data appears to support the subjects' reported belief that spiritual healing can work effectively in combination with traditional allopathic medical care.

In this regard, it was noted that if the subject felt ill, 15 (65%) would visit a physician before seeking spiritual healing treatment and eight (35%) would visit a spiritual healer before seeking orthodox medical care. Of the 15 who would consult with a physician first, 12 stated that they felt that a doctor would be better able to diagnose and treat their ailment, and three said they did not know why they would visit a medical doctor first. Of the eight who would seek out a spiritual healer first, all responded that it was due to the fact that spiritual healing was more effective and, in general, offered a more personalized and compassionate form of health care. Patients were also questioned as to whether they would have first sought out a spiritual healer or a medical doctor for a serious condition at the time of the original study 5 years ago. Twenty of 23 subjects (87%) responded that they would have sought out a physician first with only three (13%) preferring the counsel of a spiritual healer. This is in marked contrast to the 15 (65%) who would go to a physician today and the eight (35%) who would prefer the assistance of a spiritual healer. The patients responded that they had shifted their allegiance to spiritual healers for a variety of reasons including the high cost and impersonal nature of allopathic medical care, as well as the demonstrated effectiveness of spiritual healing treatments.

CONCLUSION

This study was designed to explore the possible impact of healer and patient expectations on mental and physical health parameters following a spiritual healing session. Information was gathered utilizing a pre-post methodological design which incorporated extensive mental and physical health measures along with independent medical diagnoses of improvement for a majority of patients. The tabulated results confirmed hypotheses 1, 2 and 3, and thereby supported the contention that those patients who had a high level of expectancy or belief in the efficacy of spiritual healing or were in the high healer expectancy group responded to the treatment sessions to a greater degree than those patients who possessed a low level of belief or expectancy or were in the low healer expectancy group. The results of the study

therefore suggest that high healer and patient expectancy may be important elements which can serve as both predictors as well as facilitators of the healing process.

The data indicated that there was a relationship between high expectancy in patients and healer and the effectiveness of the spiritual healing encounter. The degree of bonding or communication between the healer and patient was postulated as an important factor in this regard. Due to the fact that a majority of the conditions reported (75%) were organic disorders that would not commonly disappear with the 3 week time frame of the study, the significant results suggested that spiritual healing may have the potential to be an effective treatment protocol for severe or long-term disorders.

An important contributing feature of this study was that an independent means of assessing the patients' self-reports, i.e. an allopathic medical examination, was included in the experiment. There was a significant correlation between the patient's expectation level and their assessment of improvement, as well as a significant relationship between the patient's assessment of their condition and the objective evaluations provided by independent medical examinations. Whether the significant improvements noted were due solely to the spiritual healing session or the placebo effect is unknown. The greater correlation between healer expectancy and degree of improvement as compared to patient expectancy and degree of improvement, however, suggests that the placebo effect may have been less of a factor in determining the outcome of the healing sessions. In allopathic medicine, it is a clinical truism that the expectancy of the physician and the patient play significant roles in the healing process—sometimes to the point of determining whether or not the patient will recover from the illness. On the basis of the results obtained in this study, it may now be suggested that the same clinical truism can be applied to the spiritual healing encounter as well.

Although the data obtained from the *post hoc* analysis cannot be formulated into definitive conclusions, it can, nonetheless, serve as a source of innovative ideas for future complementary healing research. The results of the *post hoc* analysis indicated that the healer's expectancy level may be more important than the patient's in determining or predicting the outcome of the healing encounter. Future complementary healing research would therefore benefit by examining both patient and healer expectancy measures in conjunction with objective quantifiable physiological determinants of health and illness [71].

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REFERENCES

- Wirth D. P. Implementing spiritual healing in modern medical practice. *Adv. J. Mind/Body Hlth* **9**, 69–81, 1993.
- Krieger D. The imprimatur of nursing. *Am. J. Nursing* **5**, 784–787, 1975.
- Bresler D. E. *Free Yourself From Pain*. Simon & Schuster, New York, 1979.
- Krippner S. and Villoldo A. *The Realms of Healing*. Celestial Arts, Millbrae, CA, 1976.
- Achterberg J. *Imagery in Healing: Shamanism and Modern Medicine*. New Science Library, Boston, MA, 1985.
- Pelletier K. *Mind as Healer, Mind as Slayer*. Dell, New York, 1977.
- Kleinman A. *Patients and Healers in the Context of Culture: an Exploration of the Borderland Between Anthropology, Medicine, and Psychiatry*. Berkeley University of California Press, CA, 1980.
- Kleinman A., Eisenberg L. and Good B. Culture, illness, and care: clinical lessons from anthropologic and cross-cultural research. *Ann. Int. Med.* **88**, 251–258, 1978.
- Krippner S. Personal communication, 1986.
- Myers S. S. and Benson H. Psychological factors in healing: a new perspective on an old debate. *Behav. Med.* **18**, 5–11, 1991.
- Ader R., Felten D. L. and Cohen N. *Psychoneuroimmunology*. 2nd Edn. Academic Press, New York, 1991.
- Houldin A. D., Lev E., Prystowsky M. B., Redei E. and Lowery B. J. Psychoneuroimmunology: a review of literature. *Holist. Nursing Pract.* **5**, 10–21, 1991.
- Benor D. J. Survey of spiritual healing research. *Complement. Med. Res.* **4**, 9–33, 1990.
- Keller E. and Bzdek V. M. Effects of therapeutic touch on tension headache pain. *Nursing Res.* **35**, 101–105, 1986.
- Wirth D. P. The effect of noncontact therapeutic touch on the healing rate of full thickness dermal wounds. *Subtle Energ.* **1**, 1–20, 1990.
- Wirth D. P., Richardson J. T., Eidelman W. S. and O'Malley A. C. Full thickness dermal wounds treated with noncontact therapeutic touch—a replication and extension. *Complement. Ther. Med.* **1**, 127–132, 1993.
- Wirth D. P., Johnson C. A., Horvath J. S. and MacGregor J. A. D. The effect of alternative healing therapy on the regeneration rate of salamander forelimbs. *J. scient. Explor.* **6**, 375–391, 1992.
- Byrd R. C. Positive therapeutic effects of intercessory prayer in a coronary care unit population. *S. Med. J.* **81**, 826–829, 1988.
- Wirth D. P. and Cram J. R. Multi-site electromyographic analysis of noncontact therapeutic touch. *Int. J. Psychosom.* **40**, 47–55, 1993.
- Wirth D. P. and Mitchell B. J. Complementary healing therapy for patients with type I diabetes mellitus. *J. scient. Explor.* **8**, 350–361, 1994.
- Wirth D. P., Brenlan D. R., Levine R. J. and Rodriguez C. M. The effect of complementary healing therapy on postoperative pain after surgical removal of impacted third molar teeth. *Complement. Ther. Med.* **1**, 133–138, 1993.
- Wirth D. P. Healing expectations: a study of the significance of expectation within the healing encounter. Unpublished Master's thesis, John F. Kennedy University, Orinda, CA, 1987.
- Solfvin J. Mental healing. In *Advances in Parapsychological Research* (Edited by Krippner S.). McFarland, Jefferson, NC, 1984.
- Wirth D. P. and Barrett M. J. Complementary healing therapies. *Int. J. Psychosom.* **41**, 61–67, 1994.
- Wirth D. P. and Cram J. R. Psychophysiology of non-traditional prayer. *Int. J. Psychosom.* **41**, 68–75, 1994.
- Benor D. J. *Volume One: Research in Healing*. Helix Books, England, 1993.
- Jilek W. G. and Norman T. Witchdoctors succeed where doctors fail: psychotherapy among Coast Salish Indians. *Can. Psychiat. Ass. J.* **19**, 351–356, 1974.
- Garrison V. Doctor, espiritista or psychiatrist? Health-seeking behavior in a Puerto Rican neighborhood of New York City. *Med. Anthropol.* **1**, 65–180, 1977.
- Kleinman A. and Sung L. H. Why do indigenous practitioners successfully heal? *Soc. Sci. Med.* **13**, 7–26, 1979.
- Finkler K. Non-medical treatments and their outcomes. I. *Cult. Med. Psychiat.* **4**, 271–310, 1980.
- Dien S. The management of illness by a Filipino psychic surgeon: a western physician's impression. *Soc. Sci. Med.* **34**, 461–466, 1992.
- Csordas T. J. and Kleinman A. The therapeutic process. In *Medical Anthropology: a Handbook of Theory and Method* (Edited by Johnson T. and Sargent C.). Greenwood, New York, 1990.
- Greenfield S. M. Spirits and spiritist therapy in Southern Brazil: a case study of an innovative, syncretic healing group. *Cult. Med. Psychiat.* **16**, 23–51, 1992.
- Lieban R. W. Urban Philippine healers and their contrasting clientele. *Cult. Med. Psychiat.* **5**, 217–231, 1982.
- Strauch I. Medical aspects of mental healing. *Int. J. Parapsychol.* **5**, 135–165, 1963.
- Attevelt J. T. M. *Paranormale Geneeswijze: een Statistische Verkenning in Nederland*, deel 1. Nederlands Federatie Voor Paranormale en Natuurgeneeswijze, Amsterdam, 1981.
- Attevelt J. T. M. *Paranormale Geneeswijze: een Statistische Verkenning in Nederland: De Patient een Half Jaar Later*, deel 2a. Nederlands Federatie Voor Paranormale en Natuurgeneeswijze, Amsterdam, 1982.
- Haraldsson E. and Olafsson O. A survey of psychic healing in Iceland. *Christian Parapsychol.* **3**, 276–279, 1980.
- Finkler K. Non-medical treatments and their outcomes, II. *Cult. Med. Psychiat.* **5**, 65–103, 1981.
- Locke S. E. and Hornig-Rohan M. *Mind and Immunity: Behavioral Immunology*. Institute for the Advancement of Health, New York, 1983.
- Elliot G. R. and Eisdorfer C. *Stress and Human Health: Analysis and Implications of Research*. Springer, New York, 1982.
- Locke S. E., Kraus L., Leserman J., Hurst M. W., Heise L. S. and Williams R. M. Life change stress, psychiatric symptoms, and natural killer activity. *Psychosom. Med.* **46**, 441–453, 1989.
- Pennebaker J. W., Kiecolt-Glaser J. K. and Glaser R. Disclosure of traumas and immune function: health implications for psychotherapy. *J. Consult. Clin. Psychol.* **456**, 239–245, 1988.
- Kardec A. (1944) *O Evangelho Segundo O Espiritismo* (Translated by Ribeiro G.). Federacao Espirita Brasileira, Rio de Janeiro, 1963.
- Kardec A. *The Spirits' Book* (Translated by Blackwell A.). Livraria Allan Kardec Editora, Sao Paulo, n.d.
- Kardec A. *The Mediums' Book* (Translated by Blackwell A.). Livraria Allan Kardec Editora, Sao Paulo, 1975.

47. Greenfield S. M. The return of Dr Fritz: spiritist healing and patronage networks in urban, industrial Brazil. *Soc. Sci. Med.* **24**, 1095-1108, 1987.
48. Schelkun G. Personal communication, 1994.
49. Feltman J. (Ed.) *Hands On Healing*. Rodeo Press, Pennsylvania, PA, 1991.
50. Schelkun G. Personal communication, 1990.
51. Ware J. E. Jr, Davies-Avery A. and Donald C. A. Conceptualization and measurement of health for adults in the health insurance study: Volume V. *General Health Perceptions*, September, 1978.
52. Ware J. E. Scales to measure general health perceptions. *Hlth Serv. Res.* **11**, 396-415, 1976.
53. Ware J. E. Jr, Johnston S. A., Davies-Avery A. and Brook R. H. Conceptualization and measurement of health for adults in the health insurance study: Volume III. *Mental Health*, December, 1979.
54. Dupuy H. J. The psychological section of the current health and nutrition examination survey. In *Proceedings of the Public Health Conference on Records and Statistics*. National Center for Health Statistics, Washington, DC, 1972.
55. Sherbourne C. Personal communication, 1986.
56. Linn B. S., Linn M. W. and Jensen J. Anxiety and immune responsiveness. *Psychol. Rep.* **49**, 696-970, 1981.
57. Linn M. W., Linn B. S., Skyler J. and Jensen J. Stress and immune functioning in diabetes. *Psychosom. Med.* **44**, 126, 1982.
58. Felsl I., Gottsmann M., Eversmann T., Jehle W. and Uhlich E. Influence of various stress situations on vasopressin secretion in man. *Acta Endocr. Suppl* **215**, 122-123, 1978.
59. Bartrop R. W., Luckhurst E., Lazarus L., Kiloh L. G. and Penny R. Depressed lymphocyte function after bereavement. *Lancet* **1**, 834-836, 1977.
60. Schonfield J. Psychological factors related to recovery from breast cancer. *Psychosom. Med.* **39**, 51, 1977.
61. Kronjöl Z., Silva J., Greden J., Dembinski S. and Carrol B. J. Cell-mediated immunity in melancholia. *Psychosom. Med.* **44**, 304, 1982.
62. Jaffe D. T. *Healing from Within*. Knopf, New York, 1980.
63. Frank J. *Persuasion and Healing*. Schocken Books, New York, 1991.
64. LeShan L. *The Medium, the Mystic and the Physicist*. Viking Press, New York, 1974.
65. White L., Tursky B. and Schwartz G. E. *Placebo: Theory, Research, and Mechanisms*. The Guilford Press, New York, 1985.
66. Brown R. E. Medical problems of the developing countries. *Science* **153**, 271-275, 1966.
67. Keller E. The effects of therapeutic touch on tension headache pain. Unpublished Master's thesis, University of Missouri-Columbia, MO, 1983.
68. Quinn J. F. An investigation of the effects of therapeutic touch done without physical contact in state anxiety of hospitalized cardiovascular patients. Doctoral dissertation, New York University, 1982.
69. Quinn J. F. Therapeutic touch as energy exchange: testing the theory. *Adv. Nursing Sci.* **6**, 42-49, 1982.
70. Lynoe N., Mattsson B. and Sandlund M. The attitudes of patients and physicians towards placebo treatment—a comparative study. *Soc. Sci. Med.* **36**, 767-774, 1993.
71. Wirth D. P., Barrett M. J. and Eidelman W. S. Non-contact therapeutic touch and wound reepithelialization: an extension of previous research. *Complement. Ther. Med.* **2**, 187-192, 1994.