

TIMING OF ADL EDUCATION WITH HAND SURGERY PATIENTS

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I am submitting herewith a thesis written by Mary Ann Appleby entitled "Timing of ADL Education With Hand Surgery Patients." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of M.A., with a major in Occupational Therapy.

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### Dedication

I am grateful to my Creator for providing the necessary direction and encouragement from many family members and friends. I am humbled and blessed to be the recipient of this love and support.

I am now grateful for the hand injury that required surgery. At the time what seemed like a needless disruption proved later to be the inspiration for this research.

### Acknowledgement

The depth and detail of this paper is not a reflection of the author's natural ability. Rather, the final product is due to the refining guidance and diligent commitment of my committee. I thank Dr. Grace Gilkeson for her undaunted belief that this paper could become a reality. A heartfelt thanks to Dr. Janette Schkade for her attention to research design and writing style. I appreciated Mrs. Reggie Campbell's creative ideas for implementing and reporting this research project. Thanks also to Bonnie Strauss for her involvement in collecting and preparing the data.

### Abstract

The purpose of this study was to determine the most effective time to offer Activities of Daily Living (ADL) education to hand surgery patients. Forty adults requiring hand surgery for tendinitis, tenosynovitis and/or neurapraxia were equally and randomly divided into two groups. Under supervision from the occupational therapy staff, one group practiced self-care tasks listed on an ADL Guide before surgery. The second group engaged in the same ADL activity after surgery. All subjects completed an anxiety inventory to measure but not control for this variable. After the first postoperative week, the participants completed a self reporting form that evaluated how helpful the ADL Guide was in managing self-care following surgery.

The results were initially analyzed using Student's t test. Timing of the ADL activity and anxiety were not found to have a statistically significant effect on the patient rating of the ADL Guide's helpfulness. With the data collapsed across groups, the patient rating scores of the ADL Guide were reclassified into four rank orders ranging from low to high. The indication was that all patients viewed the ADL activity as moderately to highly helpful.

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## Chapter 1

### Introduction

Recent literature has supported education of patients requiring surgery (e.g., Johnston, 1980; Gaskey, 1987; Graham and Conley, 1971; Sime, 1976; Johnson, 1973; Phippen, 1980; and Andrew, 1970). These studies reported that teaching patients about the surgical event and/or subsequent hospitalization reduced anxiety and improved the patient's recovery. Research, however, on the effect of supplying ADL information to surgery patients is limited.

### Statement of the Problem

Will the patients' responses differ on self reports of ADL training effectiveness when one group received training before hand surgery and one group received training after hand surgery?

### Purpose of the Study

This study was conducted to determine the most effective time to offer education to hand surgery patients. The intention was to gain information to which would assist patients in maintaining Activities of Daily Living (ADL) independence after surgery.

### Hypothesis

ADL Guide evaluation scores completed by the group receiving preoperative ADL training will be significantly more positive than the scores from the group receiving postoperative training.

### Definitions

For the purpose of this study, the following terms were defined:

1. Activities of daily living-- a process by which those tasks which are essential and/or desired in life are accomplished.
2. Anxiety-- a state of uneasiness and distress about future uncertainties; apprehension; worry.
3. Learning-- a process whereby behavior is modified as a result of experience.
4. Self-care-- the ability to dress, feed, toilet, bathe and groom oneself, as well as miscellaneous common skills, such as using the telephone, communication by writing, handling mail, money and reading material.
5. State anxiety-- the anxiety one feels at a particular moment.
6. Trait anxiety-- the anxiety one generally feels.

### Assumptions

The assumptions for this study are as follows:

1. Education programs can change consequent ADL performance.
2. Anxiety is a subjective experience and can be measured through a standardized test.
3. Patients have no diagnosed psychiatric disorders.

### Limitations

The limitations of this study were:

1. Patients were seen in one clinical environment.
2. Patient information was given in written form and reviewed with the patient by one of the four occupational therapy personnel.
3. Patients were from one diagnostic group: tendinitis/tenosynovitis and/or neurapraxia.
4. All procedures were performed by one surgeon.
5. Research instruments with an ordinal scale were used.
6. No attempt was made to control co-existing physical conditions, (i.e., rheumatoid arthritis, or previously sustained orthopedic injuries).
7. Patients were literate in either English or Spanish.

## Chapter 2

### Review of Literature

Paul Brand, a renowned hand surgeon, underwent surgery several years ago and recalled feeling like an "incompetent cog in a remorseless machine" (p. 5), for the technicians were gathering data on him but not sharing information. To members of a hand rehabilitation team he gave the charge to maximize the patient's sense of personal competence and ability to combat fear and anxiety (1984).

### The Influence of Patient Education on Recovery

Results of research support the statements made by Dr. Brand concerning his experiences as a patient. According to Rogers and Kreutzer (1984), patients and their families found that lack of knowledge and control were the most difficult aspects of coping with an injury. This difficulty was most pronounced during the early phases of recovery. Hjelm-Karlsson (1989) suggested that patients have a high motivation to be educated, for surgery is a threat that is of specific importance to them.

Research has found that preoperative instruction resulted in physical benefits. Studies by Egbert, Battit, Welch and Bartlett (1964) and Luna, cited in Boore (1977), found one of the physical benefits of preoperative

instruction was that patients needed fewer analgesics. In addition, Dumas and Leonard (1963) found that patients had fewer postoperative complications. Lindeman and VanAernam (1970) reported that patients receiving a planned program of instruction had a shortened time of recovery. Finally, Schmitt and Wooldridge (1973) and Hayward (1975) found that patients receiving preoperative instruction had earlier hospital discharges.

Psychological benefits of preoperative education were also noted. Patients were found to have less apprehension, (Johnson, 1973; and Felton, Huss, Payne and Srsic 1976), to have managed their anxiety more constructively by coping and adapting (Phippen, 1980; and Andrew, 1970), and experienced less stress and anxiety in general (Janis, 1958; and Bird, 1955). Nolde, Wong and Wong (1989) and Wiggins (1988) stated that patients had less anxiety and more confidence in their ADL.

Few references were found that related specifically to educating hand surgery patients. Skotak and Stockdell (1988) and Baxter and Fried (1984) indicated information i.e., ADL should be included.

#### Components of Effective Patient Education

Much has been written about the importance of a well-developed patient education program. The necessary

components to be considered for effective teaching included readability, assistive devices to support learning, timing, environment, language, appearance and anxiety.

Readability. Leichter, Nieman, Moore, Collins and Rhodes (1981), Diehl (1989) and Berg (1980) concluded that health professionals engaging in ADL education need to be concerned about the quality of instruction and appropriate use of instructional material. Berg (1980) specifically mentioned guidelines that included varying the length of sentences but keeping them short, keeping concepts simple, using words patients can picture, relating material to patients' experience, using active verbs, avoiding unnecessary words, writing as one would talk and writing to express, not to impress.

Leichter et al. (1981) found that reading materials requiring more than fifth to tenth grade reading levels were less likely to provide an adequate instruction. Several studies on patient educational materials found a mismatch between the reading level of the written and oral instruction and the patient's reading and comprehension levels (Vivian and Robertson, 1980; Leichter et al. 1981; and McNeal, Salisbury, Baumgardner and Wheeler, 1984). The materials were on a seventh to eleventh grade reading level, while twenty percent of the adult population read on a fifth

grade level or lower.

Baker, Newton and Bergstresser (1988) found that the amount of information forgotten by a patient was not related to intelligence but to anxiety and lack of medical knowledge. One way the health professional could increase the patient's medical knowledge is through use of readable educational materials. Flesch (1948) developed readability tests for patient education which Baker et al. (1988) and others used in evaluating reading material.

Another way to increase a patient's medical knowledge is to limit the average number of new items on patient education materials. Miller, cited in Page (1981) found that chunks of information should be between five and nine ( $7 \pm 2$ ). All studies concluded that patient instructional materials should be analyzed by a systematic readability analysis.

Assistive devices to support learning. Diehl (1989) and Nolde et al. (1989) mentioned assistive devices to reinforce patient education as another key point to consider in developing a teaching program. Practice sessions with these teaching aids provided feedback to the patient which helped in learning what needed to be modified in self care efforts during the rehabilitation process. Trombly and Quintana (1989) stated that patients with average



intelligence can be taught by discussion, demonstration or description of methods that others have found helpful. Practice improved speed and ease of performance. Young and Brooks (1986) found patients who received written instructions showed a significant increase in retained knowledge.

Timing. In evaluating the effectiveness of educational activities, Diehl (1989) and Nolde et al. (1989) mentioned timing of the learning event. Trombly (1989) stated that self-care activities should be initiated early. Lederer (1988) indicated that the benefits of participating in therapy activities, i.e. ADL, prior to surgery have been formerly charged as being vague and unscientific but are increasingly being quantified. Sime (1976) noted that while presurgery patient education was being studied, the need remained to analyze evidence supporting such practices as supplying ADL information to patients before rather than after surgery.

Environment. Nolde et al. (1989) suggested that the physical environment of the medical setting affected patient education. Boss (1988) found that two types of memory are involved in patient education: declarative and procedural. Declarative memory is described as memory for facts or information. Procedural memory is manifested in performance

of a habit or skill. Procedural memory is stable against distraction, but declarative memory is distractible. Therefore, as Diehl (1989) explained, distracting sensory input such as lighting, noise level, accessory sounds and activities should be considered and modified as needed.

Language. Another consideration in the development of patient education materials was the significant number of Spanish-speaking patients seen routinely in this practice. Cuellar and Arnold (1988) explained that education in a patient's primary language should result in better client care than when a client has to struggle to communicate in a secondary language or through an interpreter.

Appearance. Diehl (1989) mentioned appearance as a consideration in developing education material. The Publication Manual of the American Psychological Association (1983) stated that a manuscript's physical appearance affected its impact. The type must be dark, clear and readable. Double spacing between all lines and leaving margins of at least 1--1.5 inches at the top, bottom, right and left of the page contributed to the document's professional look. Proper use of headings, paragraph indentations, spacing and punctuations also were to be incorporated into a manuscript.

Anxiety. After reviewing 35 published theories and research studies, Boore (1977) concluded that some degree of anxiety is almost inevitable in surgery patients and this may reduce learning ability. Bird (1955) and Trombly et al. (1989) felt anxiety contributed to a drop in a patient's intellectual functioning and was one reason communication failed between patient and health professional. Studies by Lazarus and Averill (1972) and Cassell (1976) have supported this assertion.

#### Patient Education in Hand Rehabilitation

Besides the general components identified as critical to patient education design, Skotak et al. (1988) and Baxter et al. (1984) outlined several necessary components of patient education that are specifically relevant in hand therapy. The education components were as follows: the program should include education regarding involved anatomical structures and their function, the sequence of events to be expected during rehabilitation, the treatment goals and ways the patients can be involved in achieving them in therapy and at home, expected outcomes, edema control techniques, appropriate activity level, awareness of environmental temperature, skin care, range of motion exercises and activities of daily living.

### Summary

In reviewing the literature, several studies have substantiated the fact that educating the preoperative patient on the surgery event and subsequent hospitalization and physical and psychological benefits. Many articles described necessary considerations when developing patient education materials. Anxiety and lack of medical knowledge were identified as interferences to postoperative recovery and patient learning. The health professional's responsibility was to minimize the stumbling blocks to patient learning by utilizing readable materials in the patient's primary language.

Patient education components for hand rehabilitation were discussed. Limited information was found, however, on the possible benefit of providing ADL information in advance of the unavoidable disruption created by surgery.

## Chapter 3

### Methodology

This study was conducted in order to determine whether the time of presentation of ADL information to hand surgery patients affected the patients' ratings of the usefulness of the information. An experimental research design was used.

#### Subjects

Forty-two adults, eighteen years and older, living in the North Texas area, served as voluntary participants. Two subjects were not reported in the study because one of the two instruments in each case was misplaced. Participants used either English or Spanish as a primary language and required surgery for the tendinitis, tenosynovitis and/or neurapraxia conditions of the upper extremity (see Table 2 for listing of specific diagnoses). Patients had no known psychiatric disorders and were literate.

#### Apparatus and Materials

Four instruments were used in this study: the State-Trait Anxiety Inventory (STAI), the ADL Guide, the diary and the ADL Guide evaluation. Due to the significant number of Spanish-speaking patients in this practice, all the instruments were available in both English and Spanish.

STAI. The STAI, a standardized forty-item self-report measure of emotional status of individuals, was used for

obtaining information on anxiety (see Appendix A and Appendix B ). Spielberger (1983) explained that the Spanish version was developed in 1975 by utilizing four steps in adapting the STAI: (1) preparation of a preliminary translation in the second language; (2) evaluation of the translation by experts on both subject matter and language; (3) establishment of the cross-language equivalence of the original and translated scales; and (4) empirical demonstration of the reliability and validity of the new scale.

Unlike the Spanish version, the original English version of the STAI, known as Form X, underwent a revision in 1980. More than 5000 subjects were tested in the construction and standardization of the revised form, now known as Form Y. During this study the Form X Spanish version and the Form Y English version were used.

ADL Guide. The ADL Guide, devised by the investigator, was given to the subjects both in a written handout and in a supervised patient practicum (see Appendix C and Appendix D). The function of this instrument was to educate the patient in ways to remain as ADL independent as possible postoperatively. The instrument's readability was objectively measured by taking two samples for each formula. "Reading ease" was determined by inserting the number of

syllables per 100 words (word length=wl) and the average sentence length (sl) per sample in the following formula:

"reading ease" =  $206.835 - .846 \text{ wl} - 1.015 \text{ sl}$ . "Human interest" was scored by inserting the percentage of "personal words" (pw) and the percentage of "personal sentences" (ps) per sample into the following formula:

"human interest" =  $3.635 \text{ pw} + .314 \text{ ps}$ . (Flesch, 1948). The reading level was also calculated by using the Flesch-Kincaid formula: Grade level =  $0.39 (\text{sk}) + 11.8 (\text{wk}) - 15.59$ , where sk was the average number of words per sentence and wk was the average number of syllables per word in each sample (Baker et. al. 1988). Having done the analyses on the ADL Guide, the instrument was found to have a standard "reading ease" score, a highly interesting "human interest" score and a 5.82 grade level score.

The tasks on the ADL Guide were practiced by the patient by using items which were kept in the "ADL luggage" (see Appendix E). These items helped standardize the ADL training.

Diary. A seven day diary was the third instrument used (see Appendix F and Appendix G). For each day the diary was divided into three-hour segments from 7:00 a.m. to 10:00 p.m. The diary was intended to aid the subject in evaluating time used in activity, rest and therapy and how this may

have influenced pain episodes, fatigue, etc.

ADL Guide Evaluation. The fourth instrument, the ADL Guide Evaluation, was given to the participants on or after the second postsurgery week (see Appendix H and Appendix I). Using a Likert scale format, as described by Cox and West (1986), patients rated how helpful the ADL guide was in doing self-care tasks after surgery.

#### Procedure

Over a one-year period, from March 1988 to March 1989, this study was conducted in a private practice therapy clinic staffed with two registered and licensed occupational therapists and two office assistants, one of whom was bilingual.

Protection of human subjects. All subjects received the same information, with time as the only variable. The identification of the patients was kept confidential in that a number was assigned to each participant, and names were excluded when reporting the results. Patients signed a consent form before being included in the study (see Appendix J and Appendix K).

Random assignment. A random sampling chart was devised as a method of assigning patients to groups. This was accomplished by individually drawing 40 slips of paper out of a box. Half of the slips were marked with #1 designating



the preoperative group and the other half with #2 for the postoperative group. The numbers were recorded sequentially on a list numbered from 1 to 40.

Referrals. Referrals came from one hand surgeon. Initially the referring physician's nurse was given a list of the diagnoses permissible in the study. Based on the random assignment procedure, the referring physician's nurse was told whether a preoperative or postoperative patient was needed. The surgery list was also consulted by the investigator periodically to anticipate admissible subjects that may have been overlooked by the nurse.

Study protocol. In order to insure consistency of information given, a study protocol was written (see Appendix L). A training session was given to personnel involved in the study. The study protocol was used as a reference by the occupational therapy personnel to determine if the diagnosis of a potential subject was included in the study. If eligible, the patient's age was verified to ensure that no minors were included. The occupational therapy personnel followed a prepared statement in the study protocol when asking a patient to participate. When in doubt, the patient was asked which language was preferred for reading. The patient was then asked to read the consent form to determine if he or she was literate. After

consulting the random sampling chart, the patient was assigned to either Group 1 or Group 2. The individual was assured that all responses were confidential and were to be used mainly to identify the ADL needs of those requiring surgery.

After signing the consent form, the patient was given an STAI. The instructions were read by the occupational therapy personnel to emphasize the difference between questions on state anxiety and those on trait anxiety.

The subject was then given the written ADL Guide to review either before or after surgery, depending on the random group assignment. One of the occupational therapy personnel supervised the patient in doing the tasks on the ADL Guide using materials in the ADL luggage. After engaging in the demonstration of the ADL Guide tasks, the patient was asked to begin filling out the diary after surgery and to return it to the clinic upon completion.

Upon return to the clinic during or after the second postoperative week, the subject was given an ADL Guide Evaluation and asked to rate how helpful the information was in managing his or her self-care. The patient was thanked for being involved in the study.

Except for the ADL Guide Evaluation, preoperative participants completed all the activities on the study

protocol during the preoperative visit. The postoperative participants received the same treatment, only after the postoperative visit. For assistance in interpreting data, the following information was obtained: age, sex, culture, religious affiliation, hand dominance, and number of previous surgeries.

## Chapter 4

### Results

An experimental study was conducted to determine whether the time of presentation of ADL training had an effect on patient reports of the training's helpfulness. Statistical analysis was completed on the data collected from the convenience sample of 40 subjects.

#### Description of Sample

The convenience sample of 42 participants was randomly assigned to 2 groups. In analyzing the demographic data, approximately equal males (40%) and females (60%) were involved in the study. Almost all subjects spoke English (87.5%). A majority of the participants fell within the combined age ranges of 30-59 (62.5%). Most subjects were Caucasian and married (67.5% for each). The demographic data reported on the ADL Guide Evaluation are presented in Table 1. For additional demographic data, consult Appendix M.

Table 1

Demographic Data for Subjects

Variable	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>Gender:</u>						
Male	11	27.5	5	12.5	16	40.0
Female	9	22.5	15	37.5	24	60.0
<u>Language:</u>						
English	19	47.5	16	40.0	35	87.5
Spanish	1	2.5	4	10.0	5	12.5
<u>Age:</u>						
18-29	2	5.0	5	12.5	7	17.5
30-39	8	20.0	4	10.0	12	30.0
40-49	6	15.0	7	17.5	13	32.5
50-59	3	7.5	4	10.0	7	17.5
60-69	1	2.5	0	0.0	1	2.5
<u>Culture:</u>						
Caucasian	16	40.0	11	27.5	27	67.5
Black	3	7.5	4	10.0	7	17.5
Hispanic	1	2.5	4	10.0	5	12.5
Others	0	0.0	1	2.5	1	2.5
<u>Marital:</u>						
Married	12	30.0	15	37.5	27	67.5
Divorced	4	10.0	5	12.5	9	22.5
Single	4	10	0	0.0	4	10.0

Information on the medical demographics of the study was also collected. Approximately three quarters of all subjects had surgery on their dominant hands (77%) and a few subjects (15%) were having surgery for the first time. Of the eight diagnoses represented in the study, over half (58.1%) required surgery for carpal tunnel. Consult Table 2 for the specific data.

Table 2

Medically Related Demographic Data

Variables	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>Dominant</u>						
<u>Hand Affected:</u>						
Yes	18	45.0	13	32.5	31	77.5
No	2	5.0	7	17.5	9	22.5
<u>No. of Prior</u>						
<u>Surgeries:</u>						
0	2	5.0	4	10.0	6	15.0
1-3	12	30.0	7	17.5	19	47.5
4-6	3	7.5	5	12.5	8	20.0
7+	0	0.0	3	7.5	3	7.5
Invalid	3	7.5	1	2.5	4	10.0

(table continues)

Variable	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>Diagnoses:</u>						
flex.teno.	1a	2.3	4	9.3	5	11.6
carpal tunl	13	30.2	12a	27.9	25	58.1
deQuervains	1	2.3	1a	2.3	2	4.6
EDC teno.	1	2.3	0	0.0	1	2.3
lat. epicon.	3	6.9	1	2.3	4	9.3
trigger fin.	1a	2.3	2a	4.6	3	6.9
ECU tendin.	1	2.3	0	0.0	1	2.3
cubital tunl	2	4.6	0	0.0	2	4.6

Note. 43 surgical procedures were performed.

**a** One patient in the group had surgery for tenosynovitis and trigger finger.

**b** One patient in the group had surgery for carpal tunnel, trigger finger and deQuervains.

### STAI Results

In analyzing the measurements for anxiety, it was noted that half of the patients had normal state (50%) anxiety scores and 72.5% reported normal trait anxiety. See Table 3 for detailed data of anxiety scores. In order to assess if the two groups differed on the dimension of anxiety, a two tailed t test was performed. Scores from patient responses on the STAI were analyzed. No significant difference in trait anxiety was found between groups ( $t=.39$ ,  $df=38$ ,  $p < .696$ ). Likewise, no difference was found between groups



for state anxiety ( $t = -.54$ ,  $df=38$ ,  $p < .593$ ). Since no significant difference was found between trait or state anxiety scores based on group assignment, the data was collapsed and a t test for related measures was used. Again, no significant difference was found between state and trait anxiety scores ( $t = -1.15$ ,  $df=39$ ,  $p < .256$ ).

Table 3

Anxiety Inventory Scores

Variable	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>Trait</u>						
<u>Anxiety:</u>						
lo (<25)	2	5.0	2	5.0	4	10.0
norm (26-45)	16	40.0	13	32.5	29	72.5
hi (46+)	2	5.0	5	12.5	7	17.5
<u>State</u>						
<u>Anxiety:</u>						
lo (<25)	3	7.5	3	7.5	6	15.0
norm (26-45)	11	27.5	9	22.5	20	50.0
hi (46+)	6	15.0	8	20.0	14	35.0

Note. Possible scores ranged from 0 to 160.

Results of ADL Guide Evaluation

Given that the groups were equal in level of anxiety, the next area of investigation was the timing of the ADL Guide presentation. The research question for this study was: Does the time of presentation of the ADL Guide to hand

surgery patients affect the helpfulness of the information? In order to evaluate if the time of presentation made a difference in how helpful the patients rated the information, a t test for 2 independent means was used. In comparing the two groups, there was not a significant difference in patient ratings of the ADL Guide ( $t=.35$ ,  $df=38$ ,  $p < .731$ ).

Table 4

ADL Guide Evaluation Scores

Variable	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>ADL Guide</u>						
<u>Eval scores:</u>						
lo (<14)	0	0.0	0	0.0	0	0.0
md.lo(14-26)	1	2.5	3	7.5	4	10.0
md.hi(27-39)	14	35.0	9	22.5	23	57.5
hi (40+)	5	12.5	8	20.0	13	32.5

Note. Possible scores ranged from 0 to 52.

A comment section was provided on the ADL Guide evaluation. Use of the section by subjects ranged from compliments to comments. Of the 16 responses to this

section, eight (50%) stated the information was helpful, two stating it would have been more helpful if offered before surgery. Four responses (25%) suggested additional ideas. One commented that the therapist was sometimes too busy. Three made neutral comments (18.5%).

#### Diary Results

Attention was next given to the results from the diary. Only 5 participants (12.5%) returned the diary. Approximately equal numbers of returns were from group 1 and 2 (40% and 60% respectively). Due to the poor return ratio, any conclusions regarding the diary would be suspect. Therefore, no attempt was made to analyse the data.

#### Correlation Studies

Neither timing of presentation nor level of anxiety was found to have a significant effect on patient ratings the the ADL training. Therefore, the preoperative and postoperative groups were collapsed into one group. Correlation analyses were then used to determine if there was a relationship between the timing variable and anxiety. ADL Guide Scores were compared with both state and trait anxiety. As Table 5 indicates, no systematic relationship was found between ADL Guide Scores and state anxiety or trait anxiety.

Table 5

Pearson Product Moment Correlations Between  
ADL Guide Ratings and Anxiety Scores

---

Variables Correlated		
with ADL Guide Ratings	r	p
State anxiety	.071	<.6654
Trait anxiety	-.021	<.8978

---

Chi-Square Goodness of fit test

Upon visual inspection of the collapsed data, a disproportionate number of the ADL ratings in the moderately high to high cells were noted. In order to evaluate this observation, the ADL Guide scores were divided into four rank orders ranging from low to high: 0-13= lo, 14-25= moderately lo, 26-39= moderately hi and 40-52= hi. To test for significance, a one-sample chi-square goodness-of-fit test was used (see Table 6). The frequency of scores differed significantly among the four quarters. Ninety percent of the responses indicated that the ADL training was moderately to highly helpful in maintaining ADL independence after surgery. The obtained  $\chi^2 = 31.4$ ,  $df=3$ ,  $p=000$ .

Table 6

Single Sample Chi-Square Test of ADL Guide Ratings


---

Frequency	Lo	Mod. lo	Mod. hi	Hi
<hr/>				
Expected	10	10	10	10
Observed	0	4	23	13

---

Summary of findings

In summary, two determinations were made from the data. First, neither anxiety nor the time of presentation of the ADL information were found to have any impact on the patient's rating of the ADL training's helpfulness. Because no significant difference between the two groups for either variable was found, the data was inspected with the groups collapsed. In doing so, the second determination was very apparent. The patients in general overwhelmingly rated the ADL training as moderately to highly helpful. Thus it would appear that the ADL Guide was of help to those requiring hand surgery.

## Chapter 5

### Discussion

This study was conducted to determine if timing had an influence on the helpfulness of ADL training given to surgery patients. The results did not support the hypothesis that ratings from patients receiving ADL training before surgery would be significantly higher than ratings from patients receiving the same information after surgery. It was interesting to note that a significant number in both groups found the information moderately to highly helpful.

One possible explanation for positive patient responses to the ADL training was the Hawthorne effect (Huck, Cormier and Bounds, 1974). Subjects were aware of being involved in a research project which had the potential of improving patient education. This may have been a confounding variable. Another possible explanation may have been that education is a service valued by the patient. The opportunity to receive ADL training not only educated the individual but also helped to eliminate fear, aided in informing and motivating, and assisted in increasing confidence, compliance and self esteem. In addition, the act of educating could have indicated to the patient that he/she was valued enough by the health care provider to take the time to inform. Finally, patient responses may have

been positive because the components of effective patient education such as readability, assistive devices to support learning, timing, environment, language, and appearance were incorporated into the information provided.

Another possible threat to validity is the novelty or disruption effect (Huck et al. 1974). ADL training, though, has been a common practice in hand rehabilitation. Therefore, this practice may not be as novel to the patient population but rather more of an expectation.

#### Recommendations for further study

Based on the findings of this study, the most logical progression for further study seems to be to replicate this study's procedure using a quasi-experimental design on a sample of the same size but omit the ADL training. This method would produce a control group and the findings could be compared with the results of this study. Based on those findings, more determinations could then be made on the efficacy of patient education suggested by the results of this study. Another recommendation is to replicate the study using a larger sample size to strengthen this study and to assist in establishing the reliability and validity of the ADL Guide. Then the effectiveness and accuracy at which the ADL Guide evaluation measures helpfulness can be established. A systematic approach to investigate the

effects of ADL training on patient fear, motivation, confidence, self esteem, compliance and need to be informed would help lend additional credibility to the conclusion regarding the efficacy of patient education.

This study seems to suggest the need for patient education. Occupational therapists have the training and skill to meet this need. Occupational therapists also have a responsibility to the profession to further study the benefits of patient education.



## References

- American Psychological Association. (1983). Publication manual (3rd ed.). Washington, DC: Author.
- Andrew, J.M. (1970). Recovery from surgery with and without preparatory instruction, for three coping styles. Journal of Personality and Social Psychology, 15, 223-226.
- Baker, G.C., Newton, D.E., and Bergstresser, P.R. (1988). Increased readability improves the comprehension of written information for patients with skin disease. Journal of the American Academy of Dermatology, 19, 1135-1140.
- Baxter, P.L. and Fried, S.L. (1984). Hand Rehabilitation--management by objectives. In J.M. Hunter, L.H. Schneider, E.J. Mackin, et. al. (Eds.), Rehabilitation of the hand (2nd ed.) (pp. 889-899). St. Louis: Mosby.
- Berg, A. and Hammitt, K.B. (1980). Assessing the Psychiatric patient's ability to meet the literacy demands of hospitalization. Hospital & Community Psychiatry, 31, 266-268.
- Bird, B. (1955). Psychological aspects of preoperative and postoperative care. The American Journal of Nursing, 55, 685-687.

- Boore, J. (1977). Pre-operative care of patients. Nursing Times, 73, 409-413.
- Boss, B.J. (1986). The neuroanatomical and neurophysiological basis of learning. Journal of Neuroscience Nursing, 18, 256-264.
- Brand, P.W. (1984). Hand Rehabilitation-- management by objectives. In J.M. Hunter, L.H. Schneider, E.J. Mackin, et. al. (Eds.), Rehabilitation of the hand (2nd ed.) (p.5). St. Louis: Mosby.
- Cassell, E.J. (1976). The healer's art. Philadelphia: Lippincott.
- Cox, R.C., & West, W.L. (1986). Fundamentals of research for health professionals (2nd ed.). Laurel, MD.: RAMSCO.
- Cuellar, I., Arnold, B.R. (1988). Cultural considerations and rehabilitation of disabled mexican americans. Journal of Rehabilitation, 35-40.
- Diehl, L.N. (1989). Client and family learning in the rehabilitation setting. Nursing Clinics of North America, 24, 257-264.
- Dumas R., Leonard, R.C. (1963). The effect of nursing on the incidence of postoperative vomiting. Nursing Research, 12, 12-15.

- Egbert, L.D, Battit, G.E., Welch, C.E., and Bartlett, M.K. (1964). Reduction of postoperative pain by encouragement and instruction of patients. New England Journal of Medicine, 270, 825-827.
- Felton, G., Huss, K., Payne, E., and Srsic, K. (1976). Preoperative nursing intervention with the patient for surgery; outcomes of three alternative approaches. International Journal of Nursing Studies, 13, 83-93.
- Flesch, R. (1948). A new readability yardstick. Journal of Applied Psychology, 32, 221-233.
- Gaskey, N.J. (1987). Evaluation of a preoperative anesthesia videotape. American Association of Nurse Anesthetists Journal, 55, 341-345.
- Graham, L.E., Conley, E.M. (1971). Evaluation of anxiety and fear in adult surgical patients. Nursing Research, 20, 113-122.
- Hjelm-Karlsson, K. (1989). Comparison of oral, written and audio-visually based information as preparation for intravenous pyelography. International Journal Nursing Studies, 26, 53-66.
- Huck, S.W., Cormier, W.H. and Bounds, W.G. (1974). Reading Statistics and Research. Harper and Row, New York.
- Janis, I.L. (1968). Psychological Stress and behavioral studies. John Wiley, New York.

- Johnson, J.E. (1973). Effects of accurate expectations about sensations on the sensory and distress components of pain. Journal of Personality and Social Psychology, 27, 261-275.
- Johnston, M. (1980). Anxiety in surgical patients. Psychological Medicine, 10, 145-152.
- Lazarus, R.S., Averill, J.R. Emotion and cognition: with special reference to anxiety. In C.D. Spielberger (Ed.), Anxiety: Current Trends in Theory and Research, II. New York: Academic Press.
- Lederer, J. (1988). Surgery: A Mind-Body Event. Mind Body Health Digest, 4, 1-2.
- Leichter, S.B., Nieman, J.A., Moore, R.W., Collins, P and Rhodes, A. (1981). Readability of self-care instructional pamphlets for diabetic patients. Diabetes Care, 4, 627-629.
- Lindeman, C., and VanAernam, B. (1971). Nursing Intervention with the presurgical patient--the effects of structured and unstructured preoperative teaching. Nursing Research, 20, 319-332.
- Nolde, T., Wong, S. & Wong, J. (1989). Teaching patients to use a new hip. Geriatric Nursing, 10, 69-70.
- Phippen, M.L. (1980). Nursing assessment of preoperative anxiety. Association of Operating Room Nurses Journal,

31, 1019-1026.

- Rogers, P.M. and Kreutzer, J.S. (1984). Family crisis following head injury: A network intervention strategy. Journal of Neurosurgery Nursing, 16, 343-346.
- Schmidt, F.E. and Wooldridge, J. (1973). Psychological preparation of surgical patients. Nursing Research, 22, 108-116.
- Sime, M. (1976). Relationship of preoperative fear, type of coping, and information received about surgery to recovery from surgery. Journal of Personality and Social Psychology, 34, 716-724.
- Skotak, C.H., & Stockdell, S.M. (1987). Wound management in hand therapy. Occupational Therapy in Health Care, 4, (3/4) 32-24.
- Spielberger, C.D. (1983). State-Trait Anxiety Inventory. Palo Alto, CA: Consulting Psychologists Press.
- Trombly, C.A. (1989). Evaluation of occupational performance tasks. In C.A. Trombly (Ed.), Occupational therapy for physical dysfunction (3rd ed.) (pp. 377-385).
- Trombly, C.A., & Quintana, L.A. (1989). Activities of daily living. In C.A. Trombly (Ed.), Occupational therapy for physical dysfunction (3rd ed.) (pp. 386-409). Baltimore: Williams and Wilkins.

- Vivian, A.S. and Robertson, E.J. (1980). Readability of patient education materials. Clinical Therapeutics, 3, 129-136.
- Wiggins, N.C. (1988). Education and support for the newly diagnosed cardiac family: a vital link in rehabilitation. Journal of Advanced Nursing, 14, 63-67.
- Young, F.K. & Brooks, B.R. (1986). Patient teaching manuals improve retention of treatment information--A controlled clinical trial in multiple sclerosis. Journal of Neuroscience Nursing, 18, 26-28.

# Appendix A

## SELF-EVALUATION QUESTIONNAIRE

Developed by Charles D. Spielberger

In collaboration with  
R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs

STAI Form Y-1

Name \_\_\_\_\_ Date \_\_\_\_\_ S \_\_\_\_\_  
Age \_\_\_\_\_ Sex: M \_\_\_\_\_ F \_\_\_\_\_ T \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you feel *right now*, that is, *at this moment*. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe your present feelings best.

- |  |                       |                       |                       |                       |
|--|-----------------------|-----------------------|-----------------------|-----------------------|
| 1. I feel calm .....                                       | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 2. I feel secure .....                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 3. I am tense .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 4. I feel strained .....                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 5. I feel at ease .....                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 6. I feel upset .....                                      | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 7. I am presently worrying over possible misfortunes ..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 8. I feel satisfied .....                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 9. I feel frightened .....                                 | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 10. I feel comfortable .....                               | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 11. I feel self-confident .....                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 12. I feel nervous .....                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 13. I am jittery .....                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 14. I feel indecisive .....                                | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 15. I am relaxed .....                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 16. I feel content .....                                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 17. I am worried .....                                     | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 18. I feel confused .....                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 19. I feel steady .....                                    | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 20. I feel pleasant .....                                  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



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## SELF-EVALUATION QUESTIONNAIRE

STAI Form Y-2

Name \_\_\_\_\_ Date \_\_\_\_\_

DIRECTIONS: A number of statements which people have used to describe themselves are given below. Read each statement and then blacken in the appropriate circle to the right of the statement to indicate how you *generally* feel. There are no right or wrong answers. Do not spend too much time on any one statement but give the answer which seems to describe how you generally feel.

- |   |                       |                       |                       |                       |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| 21. I feel pleasant .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 22. I feel nervous and restless .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 23. I feel satisfied with myself .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 24. I wish I could be as happy as others seem to be .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 25. I feel like a failure .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 26. I feel tested .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 27. I am "calm, cool, and collected" .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 28. I feel that difficulties are piling up so that I cannot overcome them .....                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 29. I worry too much over something that really doesn't matter .....                              | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 30. I am happy .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 31. I have disturbing thoughts .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 32. I lack self-confidence .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 33. I feel secure .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 34. I make decisions easily .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 35. I feel inadequate .....   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 36. I am content .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 37. Some unimportant thought runs through my mind and bothers me .....                            | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 38. I take disappointments so keenly that I can't put them out of my mind .....                   | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 39. I am a steady person .....  | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| 40. I get in a state of tension or turmoil as I think over my recent concerns and interests ..... | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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# IDARE

SXE

Inventario de Autoevaluación

por

C. D. Spielberger, A. Martínez-Urrutia, F. González-Reigosa, L. Natalicio y R. Díaz-Guerrero

Nombre: \_\_\_\_\_ Fecha: \_\_\_\_\_

Instrucciones: Algunas expresiones que la gente usa para describirse aparecen abajo. Lea cada frase y llene el círculo del número que indique cómo se *siente ahora mismo*, o sea, en *este momento*. No hay contestaciones buenas o malas. No emplee mucho tiempo en cada frase, pero trate de dar la respuesta que mejor describa sus sentimientos ahora.

	NO EN LO ABSOLUTO	UN POCO	BASTANTE	MUCHO
1. Me siento calmado . . . . .	①	②	③	④
2. Me siento seguro . . . . .	①	②	③	④
3. Estoy tenso . . . . .	①	②	③	④
4. Estoy contrariado . . . . .	①	②	③	④
5. Estoy a gusto . . . . .	①	②	③	④
6. Me siento alterado . . . . .	①	②	③	④
7. Estoy preocupado actualmente por algún posible contratiempo . . . . .	①	②	③	④
8. Me siento descansado . . . . .	①	②	③	④
9. Me siento ansioso . . . . .	①	②	③	④
10. Me siento cómodo . . . . .	①	②	③	④
11. Me siento con confianza en mí mismo . . . . .	①	②	③	④
12. Me siento nervioso . . . . .	①	②	③	④
13. Me siento agitado . . . . .	①	②	③	④
14. Me siento "a punto de explotar" . . . . .	①	②	③	④
15. Me siento reposado . . . . .	①	②	③	④
16. Me siento satisfecho . . . . .	①	②	③	④
17. Estoy preocupado . . . . .	①	②	③	④
18. Me siento muy excitado y aturdido . . . . .	①	②	③	④
19. Me siento alegre . . . . .	①	②	③	④
20. Me siento bien . . . . .	①	②	③	④

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(appendix continues)



**IDARE**

## Inventario de Autoevaluación

SXR

Instrucciones: Algunas expresiones que la gente usa para describirse aparecen abajo. Lea cada frase y llene el círculo del número que indique cómo se siente *generalmente*. No hay contestaciones buenas o malas. No emplee mucho tiempo en cada frase, pero trate de dar la respuesta que mejor describa cómo se siente *generalmente*.

	CASI NUNCA	ALGUNAS VECES	FRECUENTEMENTE	CASI SIEMPRE
21. Me siento bien . . . . .	①	②	③	④
22. Me canso rápidamente . . . . .	①	②	③	④
23. Siento ganas de llorar . . . . .	①	②	③	④
24. Quisiera ser tan feliz como otros parecen serlo . . . . .	①	②	③	④
25. Pierdo oportunidades por no poder decidirme rápidamente . . . . .	①	②	③	④
26. Me siento descansado . . . . .	①	②	③	④
27. Soy una persona "tranquila, serena y sosegada" . . . . .	①	②	③	④
28. Siento que las dificultades se me amontonan al punto de no poder superarlas . . . . .	①	②	③	④
29. Me preocupo demasiado por cosas sin importancia . . . . .	①	②	③	④
30. Soy feliz . . . . .	①	②	③	④
31. Tomo las cosas muy a pecho . . . . .	①	②	③	④
32. Me falta confianza en mí mismo . . . . .	①	②	③	④
33. Me siento seguro . . . . .	①	②	③	④
34. Trato de sacarle el cuerpo a las crisis y dificultades . . . . .	①	②	③	④
35. Me siento melancólico . . . . .	①	②	③	④
36. Me siento satisfecho . . . . .	①	②	③	④
37. Algunas ideas poco importantes pasan por mi mente y me molestan . . . . .	①	②	③	④
38. Me afectan tanto los desengaños que no me los puedo quitar de la cabeza . . . . .	①	②	③	④
39. Soy una persona estable . . . . .	①	②	③	④
40. Cuando pienso en los asuntos que tengo entre manos me pongo tenso y alterado . . . . .	①	②	③	④



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## Appendix C

### Activities of Daily Living Guide

After your surgery, you may have some discomfort from your operation and some frustration when managing your everyday activities. To help you, we suggest doing the following BEFORE SURGERY:

#### PRACTICE

Try doing the following activities with the materials provided in this kit ONLY WITH THE HAND NOT HAVING SURGERY:

1. Eating--Rock the knife back and forth on the putty to simulate cutting food.
2. Dressing--Put shirt #1 on and button. Now put shirt #2 on and snap. Decide which is easier. Pick out clothes at home that will be less trouble to put on the first week after surgery.
3. Bathing--Try both the terrycloth glove and the wash cloth when pretending to lather the soap. Decide which is easier.
4. Dental Hygiene--Open both the flip top and the screw top lids of toothpaste. See which one takes less time and effort to open.
5. Opening/Closing Containers--Use the jar opener then try to open the glass jar by hand. Before surgery, ask a friend to loosen hygiene articles, food item lids and medicine bottles.
6. Appliances, Switches--Try each latch, key and plug on the board.
7. Correspondence--Use the phone and open the sealed envelop.
8. Prepare a simple meal--Pour water into the glass. Make the sandwich.

At home, try the following with one hand before surgery:

1. Applying make-up
2. Shaving--Decide whether razor or electric is easier.
3. Toileting
4. Comb/Style hair--consider using a dry shampoo.

#### PREPARE

Think about how to manage your daily responsibilities with one hand.

#### PLAN

Plan to avoid extreme temperatures because heat causes skin problems from perspiration in the cast and cold causes pain due to restricted blood flow to the hand.

List three people you will call before surgery to help the week after the operation with work and/or home responsibilities:

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

#### PAGE

In order to balance necessary work and rest after surgery, keep the diary provided EVERY DAY so you can avoid getting tired and painful.

## Appendix D

### Guia de Actividades Diarias

Despues de su cirugia puede que usted tenga algunas incomodidades a causa de su operacion, y algunas frustraciones cuando este adminstrando sus actividades diarias. Para ayudarle, le sugerimos hacer lo siguiente ANTES DE SU CIRUJIA:

#### Practique

Trate de hacer las siguientes actividades con los materiales que le proveeremos en este conjunto de actividades, SOLO CON LA MANO QUE NO VA HA TENER CIRUJIA.

1. Comiendo--Con el cuchillo firme hacia atras y adelante en la plastilina para simular que esta cortando comida.
2. Vistiendose--Ponga las camisa #1 y botonela. Ahora ponga las camisa #2 y abrochela. Decida cual es mas facil. Escoja ropa en su casa que usted piense que tendra menos problema en ponersela en su primera semana despues de su cirujia.
4. Bañandose--Trate los dos elguante de toalla y el paño para lavarse cuando pretenda enjabonarse decida cual es mas facil.
4. Higiene dental--Abra los dos al que solo tiene que apretar o al que tiene que abrir dando vuelta a la tapa de la pasta, vea cual toma menos tiempo y esfuerzo a abrirla.
5. Abriendo /Cerrando envases-- Use el abridor de hojalatas, despues trate de abrir el bote de vidrio con su mano. Antes de su cirujia, pida a un amigo que afloje los articulos de higiene, las tapas de comida y botes de medicinas.
6. Accesorios, switches--Trate cada cerrojo, llave y cada coneccion.
7. Correspondencia--Use el telefono y abra el sobre cerrado.
8. Prepare una comida simple--ponga agua en un vaso. Haga un sandwich.

En su casa, trate lo siguiente con una mano antes de su cirujia

1. Aplique maquillaje
2. Rasurandose--Decida si la navaja de afeitar o el electrico es mas facil.
3. Use el bano
4. Peine y arregle su cabello cosidere a usar un shampoo en seco.

#### PREPARE

Piense como admistrara sus responsabilidades diarias con una mano.

#### PLANEE

Planee como evitar temperaturas calientes porque causan problemas a la piel de el sudor que esta en el lleso y el frio causa dolor hace que se limite fluido de la sangre a su mano.

Liste tres personas que usted llamara antes de la operacion para que le ayude la semana despues de su operacion con el trabajo y (0) con las responsabilidades del hogar.

1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_

#### PACE

En orden para balancear el trabajo nesesario y descansardespues de su cirujia, mantenga el diario proveido CADA DIA asi que usted puede evitar el cansansio y el dolor.

## Appendix E

### Items in the ADL Luggage

1. knife
2. theraputty as simulated food to cut
3. button/long sleeve shirt
4. snap/short sleeve shirt
5. medicine bottle
6. imitation hamburger with condiments that required assembling
7. cup
8. jar opener
9. flossing tool
10. flip-top toothpaste tube
11. screw-top toothpaste tube
12. toothbrush
13. sealed envelope

Use of light switches, locks and telephone in the clinic completed the ADL training.

## Appendix F

### DIARY

Write the amount of time you spent doing the following during each three hour block of time:

ACTIVITY--for example eating, dressing, bathing, home or job duties.

REST--sleeping, elevating hand, reading, watching TV etc.

THERAPY--massage, exercise.

If you had pain that your medicine did not help put YES. If you had discomfort but not pain, put NO.

EXAMPLE (time is in hours)

Day X	act	rest	ther	pain	Day 1	act	rest	ther	pain
7-10	2	1	no	yes	7-10				
10-1	.5	2	.5	no	10-1				
1-4	1	1	1	no	1-4				
4-7	1	1	1	no	4-7				
7-10	1	1	1	no	7-10				
Day 2	act	rest	ther	pain	Day 3	act	rest	ther	pain
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				
Day 4	act	rest	ther	pain	Day 5	act	rest	ther	pain
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				
Day 6	act	rest	ther	pain	Day 7	act	rest	ther	pain
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				

# Appendix G

## Diario

Escriba la cantidad de tiempo que usted pasa haciendo lo siguiente durante un tiempo de cada tres horas:

ACTIVIDAD-- por ejemplo comer, vestirse bañarse, encargos de su casa o del trabajo.

DESCANSO--dormir, elevar su mano, leer, ver T.V. etc.

TERAPIA--massage, ejercicio.

Si usted tuvo dolor que su medicina no le ayudo ponga Si. Si usted estuvo incomforable pero no tuvo dolor ponga No.

Ejemplo (el tiempo esta en horas

Dia X	act	desc.	tera.	dolor	Dia 1	act	desc.	tera.	dolor
7-10	2	1	no	si	7-10				
10-1	.5	2	.5	no	10-1				
1-4	1	1	1	no	1-4				
4-7	1	1	1	no	4-7				
7-10	1	1	1	no	7-10				
Dia 2	act	desc.	tera.	dolor	Dia 3	act	desc.	tera.	dolor
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				
Dia 4	act	desc.	tera.	dolor	Dia 5	act	desc.	tera.	dolor
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				
Dia 6	act	desc.	tera.	dolor	Dia 7	act	desc.	tera.	dolor
7-10					7-10				
10-1					10-1				
1-4					1-4				
4-7					4-7				
7-10					7-10				

## Appendix H

### ACTIVITIES OF DAILY LIVING GUIDE EVALUATION

Please read each statement. Blacken in the appropriate circle to the right of the statement that indicates how helpful was the information you received in doing the following:

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. Using knife	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Putting on shirt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Bathing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Tooth brushing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Opening jars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Using household fixtures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Using key	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Opening mail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Using phone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Apply make-up or shave	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Comb/style hair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Avoid heat/cold extremes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Call person(s) for help	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please answer the following questions in the same manner:

Age: 18-29	<input type="radio"/>	Culture: Caucasian	<input type="radio"/>	Religion: Christian	<input type="radio"/>
30-39	<input type="radio"/>	Hispanic	<input type="radio"/>	Jewish	<input type="radio"/>
40-49	<input type="radio"/>	Black	<input type="radio"/>	Other	<input type="radio"/>
50-59	<input type="radio"/>	Oriental	<input type="radio"/>		
60-69	<input type="radio"/>	Other	<input type="radio"/>		
70	<input type="radio"/>				

Married ☐    Sex: Female ☐    Number of previous surgeries: \_\_\_\_\_  
 Single ☐        Male ☐        Number of dependants: \_\_\_\_\_  
 Divorced ☐        Was your dominant hand injured? \_\_\_\_\_

Comments on how to improve the information you received: \_\_\_\_\_

## Appendix I

### Guía de Evaluación de las Actividades Diarias

Por favor lea cada ítem en forma. Marque en el círculo apropiado, a la derecha del ítem, esto indica que tanto le ha ayudado la información que usted recibió haciendo lo siguiente:

	Fuertemente de acuerdo	de acuerdo	neutral	en desacuerdo	Fuertemente en desacuerdo
1. Usando un cuchillo	0	0	0	0	0
2. Poniéndose la camisa	0	0	0	0	0
3. Bañarse	0	0	0	0	0
4. Cepillándose los dientes	0	0	0	0	0
5. Abriendo botes	0	0	0	0	0
6. Usando los apagadores eléctricos en su casa	0	0	0	0	0
7. Usando la llave	0	0	0	0	0
8. Abriendo el buzón	0	0	0	0	0
9. Usando el teléfono	0	0	0	0	0
10. Aplicando maquillaje o rasurándose	0	0	0	0	0
11. Peinar o arreglar el pelo	0	0	0	0	0
12. Evitar calor o frío	0	0	0	0	0
13. Llamar a persona(s) para ayudarlo	0	0	0	0	0

Por favor conteste el siguiente cuestionario en la misma manera:

Edad: 18-29 0    Cultura: Hispana 0    Religion: Cristiana 0  
 30-39 0    Negro 0    Judío 0  
 40-49 0    Oriental 0    Otro 0  
 50-59 0    Otra 0  
 60-60 0  
 70+

Casado: 0    Sexo: Male 0    Cirugía(s) anteriores: Sí 0  
 Soltero: 0    Female 0    No 0  
 Divorciado: 0

Numero de dependientes \_\_\_\_\_ Mano lastimada \_\_\_\_\_ Mano dominante \_\_\_\_\_



Appendix J

TEXAS WOMAN'S UNIVERSITY  
HUMAN SUBJECTS REVIEW COMMITTEE

CONSENT FORM B

Title of Project: Effect of Preoperative ADL Information

Consent to Act as a Subject for Research and Investigation:

I have received an oral description of this study, including a fair explanation of the procedures and their purpose, any associated discomforts or risks, and a description of the possible benefits. An offer has been made to me to answer all questions about the study. I understand that my name will not be used in any release of the data and that I am free to withdraw at any time. I further understand that no medical service or compensation is provided to subjects by the university as a result of injury from participation in research.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Date

Certification by Person Explaining the Study:

This is to certify that I have fully informed and explained to the above named person a description of the listed elements of informed consent.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Position

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Date

One copy of this form, signed and witnessed, must be given to each subject. A second copy must be retained by the investigator for filing with the Chairman of the Human Subjects Review Committee. A third copy may be made for the investigator's files.

Appendix K

Consent Form B

Titulo del Proyecto: Beneficio de Suplir Informacion Antes de la Cirugia

Consentir a actuar como un sujeto para buscar e investigar:

Yo he recibido una descripcion oral de este estudio, indluyendo una poca explicacion para proceder en este proposito, cualquier incomodidad o riesgo asosiado, y una descripcion de los beneficios posibles. Se me ha hecha una oferta para contestar todas las preguntas acerca de este estudio. Yo entiendo que mi nombre no va a ser usado en dar ninguna informacion de este antecedente y estoy libre de dejarlo en cualquier momento. Yo ademas entiendo que ningun servicio medico o compensacion es proveido a sujetos por la universidad como un resultado de la herida de parte de la participacion en la busqueda.

\_\_\_\_\_  
Firma

\_\_\_\_\_  
Fecha

\_\_\_\_\_  
Testigo

\_\_\_\_\_  
Fecha

Certificacion Por la Persona Explicando el Estudio:

Esto es para certificar que yo he sido ampliamente informado y explicado que la persona arriba mencionada una descripcion de los elementos enlistados consintiendo el informe.

\_\_\_\_\_  
Firma

\_\_\_\_\_  
Fecha

\_\_\_\_\_  
Posision

\_\_\_\_\_  
Testigos

\_\_\_\_\_  
Fecha

## Appendix L

### Research Study Protocol

A patient with one of the following diagnoses will be included in the study:

1. deQuervains tenosynovitis
2. flexor carpi radialis tendinitis
3. flexor carpi radialis tunnel syndrome
4. flexor carpi ulnaris tendinitis
5. lateral epicondylitis
6. medial epicondylitis
7. trigger finger
8. flexor tenosynovitis (carpal tunnel)

Patient must be over 18 years of age and read either english or spanish.

Each eligible individual will be sent to therapy during their preoperative visit.

The therapy personnel will say the following:

"Our therapy department is conducting a study to improve the type and method of information given to patients undergoing surgery. You would be given some information on how to do your activities of daily living after surgery. You would be asked to keep a diary of you activity, rest and therapy for one week. You would also need to fill out an evaluation the week after surgery. Will you participate in this study?"

If they agree, find out which number they are in the study by referring to the randomization chart. Put the number on the consent form and the STAI. Put a -1 after number if the patient is in the pre-surgery group and a -2 if in the post surgery group. If the patient is in the pre-surgery group, proceed. If in the post-surgery, tell them you will give the information later. Do the following:

1. When in doubt, ask the patient whether english or spanish is their first language.
2. Ask the patient to read and sign the consent form. If the patient cannot read, they are disqualified.
3. Give the patient an STAI and read over the instructions where it explains the difference between the questions in 1-20 and 21-40.
4. After the STAI is completed, give the ADL information and supply the patient with the supplies out of the suitcase. Make exchanges of information brief.
5. Tell the patient to fill out the diary and bring it back in about a week when they will come to see the doctor and fill out the evaluation.

Thank them for their input.

Put their information in the back of the accordian file.

## Appendix M

### Additional Demographic Data

Variable	Groups					
	Preoperative		Postoperative		Total	
	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%
<u>No. of Dependents:</u>						
0	6	15.0	5	12.5	11	27.5
1-3	9	22.5	13	32.5	22	55.0
4-6	1	2.5	2	5.0	3	7.5
7+	1	2.5	0	0.0	1	2.5
No response	3	7.5	0	0.0	3	7.5
<u>Religion:</u>						
Christian	17	42.5	15	37.5	32	80.0
Jewish	0	0.0	0	0.0	0	0.0
Other	2	5	3	7.5	5	12.5
No reponse	1	2.5	2	5	3	7.5

# Appendix N

## Comprehensive Listing of Basic Data

### Preoperative Group

	Marit State	Cultr	No.in Study	Eval Score	Dx	State STAI	Trait STAI	Lang.	Relig	Prev. Surg	Dom. Hand	Sex	Age	# of Dep.
52	D	C	2	39	CTS	53	41	E	C	2	Y	F	30-39	--
	D	C	4	36	CTS	20	30	E	C	1	Y	F	30-39	1
	M	C	5	38	CTS	38	35	E	C	0	Y	M	30-39	5
	M	C	7	39	deQ	29	27	E	C	4	Y	F	40-49	3
	S	C	8	26	CTS	25	31	E	--	3	N	M	60-69	--
	M	C	10	37	CTS	30	38	E	C	1	Y	F	40-49	1
	S	C	11	37	CTS	44	42	E	O	Y	Y	F	30-39	0
	M	C	13	38	CTS	50	29	E	C	many	Y	F	50-59	--
	D	B	16	52	CTS	66	50	E	C	4	Y	F	50-59	0
	D	B	20	52	CTS	40	34	E	O	3	Y	F	50-59	0
	M	B	24	31	EDC	28	24	E	--	1	N	M	40-49	3

(table continues)

Marit		No.in	Eval.		State	Trait			Prev.	Dom.			#.of
State	Cultr	Study	Score	Dx	STAI	STAI	Lang.	Relig	Surg	Hand	Sex	Age	Dep.
M	C	28	41	lat.	48	93	E	O	2	Y	F	30-39	2
S	C	30	36	lat.	40	45	E	C	3	Y	F	18-29	0
M	C	32	41	trig	44	45	E	C	3	Y	F	18-29	1
S	C	33	31	CTS	43	34	E	C	1	Y	F	40-49	0
M	H	34	33	CTS	28	35	S	--	Yes	Y	F	30-39	8
M	C	38	34	CTS	37	32	E	C	2	Y	M	30-39	2
M	C	39	42	lat.	23	25	E	C	2	Y	F	40	0
M	C	40	32	CTS	48	40	E	C	4	Y	M	30	2
M	C	42	39	ECU	46	35	E	C	0	Y	F	40	2

Appendix O  
Comprehensive Listing of Basic Data  
Postoperative Group

	Marit		No.in	Eval.		State Trait				Prev.	Dom.		# of	
	State	Cultr	Study	Score	Dx	STAI	STAI	Lang	Relig	Surg	Hand	Sex	Age	Dep.
54	D	B	1	14	CTS	52	54	E	O	2	Y	F	50-59	0
	M	O	3	23	CTS	45	46	E	C	2	Y	M	30	3
	M	H	6	45	CTS	39	34	S	C	0	Y	M	18-29	1
	M	H	9	40	CTS/ FCR	57	56	S	C	Yes	Y	F	30-39	3
	M	C	12	46	CTS	21	30	E	C	0	Y	F	18-29	1
	D	B	14	36	CTS	55	22	E	C	2	Y	F	40	2
	M	C	15	34	trig.	20	33	E	C	1	N	M	18	2
	M	B	19	23	Flex.	41	37	E	C	4	Y	M	40	2
	M	H	21	37	med.	53	35	S	C	0	N	M	18-29	4
M	B	22	37	Flex.	44	48	E	C	4	N	M	50-59	1	

(table continues)

Marit		No.in	Eval.		State	Trait			Prev.	Dom.		# of	
State	Cultr	Study	Score	Dx	STAI	STAI	Lang	Relig	Surg	Hand	Sex	Age	Dep.
D	C	23	34	lat.	48	32	E	C	15	N	M	40	0
D	H	25	32	CTS	39	42	S	C	1	Y	F	30	2
M	C	26	49	med.	56	52	E	C	2	Y	M	40-49	3
M	C	27	36	CTS	31	28	E	C	5	Y	M	50-59	3
M	C	29	35	Flex.	27	30	E	C	0	Y	F	40-49	0
M	C	31	37	CTS	51	33	E	C	2	Y	F	18-29	1
D	C	35	41	CTS/ trig/ deQ	34	35	E	--	15	Y	F	40-49	0
M	C	36	45	Flex.	36	35	E	C	7	N	M	50-59	2
M	C	37	46	CTS	47	27	E	C	6	N	F	40-49	0
M	C	41	47	CTS	24	25	E	O	5	N	M	30-39	6