
CHAPTER 3

METHODOLOGY

This study is an attempt to describe body image among postoperative patients with hand injuries in Huashan Hospital of Shanghai Medical University located in Shanghai, China. In this chapter, the research design, setting, subjects, data collection procedure and data analysis method are presented. The instruments are used for data collection described.

Design of the study

A descriptive design was used to describe body image among postoperative patients with hand injuries.

Population and sample

The study population was postoperative patients with hand injuries who were attending outpatient department or admission to hand surgical ward of Huashan Hospital of Shanghai Medical University, China during November 1997 to February 1998. Sixty-one subjects were recruited using

purposive sampling method with the following inclusion criteria:

1. age 18 and over;
2. received at least one operation for hand injury;
3. the severity of injury was either moderate or severe according to the medical record;
4. able to communication well in Chinese; and
5. willing to participate in the study.

Instrumentation

The following instruments were used for data collection. All instruments were developed in English and translated into Chinese by researcher. Chinese version was translated back by the bilingual experts in English and Chinese. Development of instruments was described as follows.

I. Demographic data form was developed to obtain personal information: age, marital status, role in family, religious, educational level, occupation, average monthly income, and way of hospital payment.

II. Medical record of subjects was collected to obtain data of hand injury, cause of hand injury, kind of material cause injury, subjects resource, hand dominance,

injured part, injured hand (fingers), diagnosis, involved nerve, duration of hand injury, times of hospitalization since this injured, numbers of operation from this injury, other major health problems.

III. Body image scale (BIS)

The body image scale is a 34 item 5-point rating scale developed by investigator based on Schilder's (1989) definition and reviewing literatures. It includes three domains: perception of hand appearance (6 items), perception of hand function (18 items), and perception of other's reaction (10 items). In order to be understandable for subjects, each item of the instrument was stated in positive way. The range of possible score is 1 to 5 for each item. Since the items in each domain were not equal, the weighing score of each domain was considered equally important. After weighing, the final score of each domain was obtained by dividing total score by number of items. So the range of possible score was 3 to 15.

In this study, mean score of the group was proposed to use as the lowest score cutting off high body image since the instrument used in the study was developed by researcher, no criteria refers as standard. Thus, score of samples was considered as the norm to represent the

subjects' level of body image. For classification, persons who had score equal or higher than the sample mean were put in high body image group and those who had score lower than the mean were put in the low body image (body image alteration) group.

Testing for validity and reliability of instruments

The body image scale was developed by researcher. A test of content validity in English version and reliability in Chinese version of the instruments were conducted before data collection.

The content validity of the instruments in English version was evaluated by five experts including four experts in surgical nursing department of Chiang Mai University, and one expert in orthopedic nursing of Maharaj Nakorn Chiang Mai Hospital of Chiang Mai University, Thailand (Appendix D). Their suggestions were incorporated. The instrument was translated into Chinese by the researcher of this study. Faced validity of the Chinese version was assessed by a Chinese nursing instructor (Appendix D) of Faculty of Nursing, Shanghai Medical University, a nurse expert, and a hand surgeon in Huashan Hospital of Shanghai Medical University, who were bilingual experts.

Before the instrument was used in this study, the reliability of the instruments was tested among 15 patients who met the subjects' inclusion criteria and attended the hand clinic of Huashan Hospital of Shanghai Medical University. Cronbach's alpha coefficient of the instrument was .84 which indicated an acceptable level (more than .70) (Polit & Hunger, 1991).

Data collection procedure

Data collection was done by the researcher step by step as follows:

1. Prior to conducting the study, the study plan was assured by the hospital administrators. Permission for data collection from the administrator of hospital and head nurse of hand surgical clinic was obtained.

2. Explained the research purpose and procedure to the hand surgeon and staff nurse in hand surgical clinic and asked for cooperation in for helping the researcher identify the potential subjects.

3. Medical records of those patients were reviewed to identify those who met the criteria of admission to the study.

4. Permission for collecting the data from the

subjects in the ward and outpatient department was obtained. after the researcher's self-introduction, and followed by explanation the purpose of the study and procedure to subjects.

5. Subjects were explained that there is no harm of participation and their withdrawal at any time from the study will be respected. Verbal informed consent was obtained from every subject.

6. In order to prevent bias, only the researcher instructed all subjects how to fill the questionnaire. For the subjects who can not use their hand to write, the questionnaire was read and marked by researcher according to their decision without explaining the content of each item. It took about 15-30 minutes for the each subject to complete the questionnaire. After completing the questionnaire, the subject was thanked for their cooperation in the study.

Protection of human right

Permission from the hospital administrative committee and the subjects was assured. Code numbers to ensure their privacy identified the subjects. The study was presented to each subject. Data was secured in a safe place. The confidentiality assurance was informed to the subjects.

Subjects were free if intend to withdraw from the study at any time.

Analysis of data

All data were analyzed by SPSS for microsoft windows

1. Descriptive data including range, frequency, percentage, mean, and standard deviation of the demographic data and medical record about hand injury were obtained.

2. Range, percentage, mean, and standard deviation were used to analyze the score of body image.