CHAPTER 3

METHODOLOGY

The purpose of this study was to describe quality of life among traumatic amputees.

Design of the study

A descriptive research design was used in this study to describe overall and each dimension of the quality of life among traumatic amputees.

Population and sample

The target population of this study was traumatic amputees at the Out-Patient Departments of three teaching hospitals of China Medical University and at home in Shenyang, People's Republic of China during November, 1999 to January 2000.

According to Treece and Treece (1973), if the total population is over one thousand, the sample size will be 10% of the total population. If the total population is less than one thousand, the sample size will be 20% of the total population. In this study, the total population of amputees in Shenyang City in the last three years was 398. So the subjects in this study were 83. The purposive sampling method was used by the following criteria:

1. be above 15 years old;
2. be able to understand Chinese;

3. willing to participate in the study;

4. have no serious health problems and;

5. aputated because of traumatic accident.

Instrumentation

The instrument used for data collection was a self-report questionnaire composed of two parts.

Part 1. Demographic Data Form.

Part 2. Modified Amputee Quality Of Life Questionnaire.

Part I Demographic Data Form

The Demographic Data Form developed by the researcher included sex, age, marital status, educational level, average income, adequate income, occupation, family status, level of amputation, number of amputated limbs, duration after amputation, underlying disease, and prosthesis devices.

Part II Modified Amputee Quality of Life Questionnaire

The Modified Amputee Quality of Life Questionnaire (MAQLQ) was developed by Zhang in 1998 based on Zhan's concept (1992). It was used to measure quality of life of hemodialysis patients in China. MAQLQ was a 52-item five-point rating scale which included four domains: life satisfaction, self-concept, health and functioning and socio-economic factors consisting of 10, 16, 16, and 10 items respectively. Items are rated from 5 to 1. The scoring of the positive items was 5 as very much, 4 as much, 3 as

moderate, 2 as little, 1 as very little. The scoring of the negative items was 1 as very much, 2 as much, 3 as moderate, 4 as little, 5 as very little. Fifteen negative items were 2, 3, 12, 13, 14, 19, 23, 24, 38, 39, 45, 46, 48, 49 and 50.

The score of overall and each dimension of MAQLQ was classified into three levels. The perceived range of score for different levels of overall and each dimension of quality of life was presented in Table 1.

Table 1

Range of score for levels of overall and each dimension of quality of life

Category/ Subcategory	Range of score	Low	Moderate	High
Total MAQLQ	52-260	52-121.33	121.34-190.67	190.68-260
Life satisfaction	10-50	10-23.33	23.34-36.67	36.68-50
Self-concept	16-80	16-37.33	37.34-58.67	58.68-80
Health and functioning	16-80	16-37.33	37.34-58.67	58.68-80
Socio-economic factors	10-50	10-23.33	23.34-36.67	36.68-50

Content validity and reliability

The content validity was validated by a panel of 5 Thai experts at the Faculty of Nursing, Chiang Mai University. Then the questionnaire was translated into Chinese by the researcher, in order to keep the accuracy and clarity of the translation. Then it was assessed by a Chinese linguistic expert at China Medical University and back translated into English by an English expert at China Medical University. The Content Validity Index (CVI) was 0.97 which was acceptable (Davis, 1992).

The reliability of the MAQLQ was tested by using test and retest for its stability among 10 amputees on 2 occasions 2 weeks apart, who were similar to the sampling criteria and regularly visited the Out-Patient Departments of the First Teaching Hospital of China Medical University and were visited by the researcher at their homes. The overall reliability was achieved at 0.84. For each dimension, life satisfaction, self-concept, health and functioning, and socio-economic were 0.82, 0.83, 0.86, and 0.87 respectively which was considered as acceptable (Polit and Hungler, 1999).

Protection of human rights

1. Subjects were identified only by code number;
2. Ensured confidentially and privacy;
3. Subjects were free to withdraw at any time.
4. A Written Consent Form was used.

Data collection procedure

The subjects' personal data and their quality of life data were collected by using the methods of self-administered questionnaires.The procedures for data collection were as follows:

1. Approval sought from the Graduate Committee of Faculty of Nursing at Chiang Mai University, Thailand.

2. Asked for permission for data collection from the hospital administrators,head of department of nursing service,physicians and nurses in charge in the Out-Patient Departments of three teaching hospitals of China Medical University at Shenyang,People's Republic of China .

3. Obtained the names of the amputees who follow-up and met the sampling criteria from Amputees'Medical Records, from nurses or doctors at the Out Patient Departments of the three teaching hospitals.The Demographic data were collected from the Medical Records and Demographic Data Form.

4. Asked for permission from the subjects.All who agreed to participate in this study were asked to sign the Written Consent Form.

5. Explained the purpose and procedure of the study to the subjects and they were asked to complete the questionnaires independently.

6. Distributed questionnaires to the subject at the Out-Patient Departments and at their homes.

7. Read the questionnaires for the subjects who could not read Chinese.

8. Stayed with the subjects without giving any suggestions in order to ensure that they completed the

questionnaire independently.

9. Processed the data ready for data analysis when it was finished.

Analysis of data

Statistical Package for Social Science (SPSS) software package was used to analyze the data. The analysis was divided into two parts.

1. Demographic data was described by descriptive statistics, including frequency, percentage, mean, standard deviation, and range.

2. The overall and each dimension scores of quality of life were described by using mean, standard deviation frequency, and percentage.