

CHAPTER 1

OVERVIEW OF THE STUDY

Introduction

Empowerment is an important concept in many disciplines, such as nursing, psychology, sociology, politics, business and management. The World Health Organization and many other organizations, including the Thai Public Health Ministry, accept that this concept can be useful to promote public health. All nurses need to emphasize health promotion, wellness, and illness prevention as important forms of health care because these assist people in maintaining and improving health. After an extensive review of the literature, results show that female factory workers are confronted with several risk factors that may lead to the development of certain diseases. These factors include a lack of routine exercise, inadequate recreation, lack of protection from carcinogens and sexually transmitted diseases, and lack of protection against occupational hazards and accidents. These problems, while essential for promoting and maintaining health care, are currently not considered seriously among health care providers or female workers. An existing instrument to measure the extent of empowerment regarding health, particularly for the Thai female factory workers, is not available. Therefore, to improve women's health in factories, it is necessary to have a measurement to examine the extent of empowerment related to their health.

In addition to the reviewed literature, development of an empowerment scale is rarely found in a Thai context. However, there exists a few empowerment scales in

western cultures, for example; the studies of Bolton and Brookings (1998) and Faulkner (2001). These studies focus on disabled people and older people. They are therefore not appropriate to be modified for use with women who work in factories and in Thailand because of several different issues such as language, culture, beliefs, and values. Pender, Murdaugh and Parsons (2002) mentioned that culture is a powerful influence on health behaviors. To measure empowerment at the individual level, Zimmerman (1995) proposed three difficult aspects: (1) empowerment manifests itself in different perceptions, skills, and behaviors across people, (2) different beliefs, competencies, and actions may be required to master various settings, and (3) empowerment may fluctuate over time. This study focuses on the development of an empowerment scale solely relating to health for Thai female workers. Thus, an empowerment scale developed for one culture is neither sufficient nor appropriate for cross-cultural study. Different societies necessitate culturally appropriate constructs and instruments (Lee, Jones, Mineyama & Zhang, 2002; Saito, Nomura, Noguchi & Tezuka, 1996). In short, these issues must be considered together to develop a sound empowerment instrument harmonious to Thai female workers. An appropriate empowerment scale for modifying at this time is nonexistent. Therefore, development of a new empowerment scale related to women's health for Thai female factory workers based on a certain purpose, conceptual framework, population and sample, and setting and context are required.

Background

Compared to men, women generally report lower perceived health status, more acute conditions, more chronic diseases, more disabilities, and more time lost at

home and at work and a higher lack of power in their personal, working, economic, social and political relationships (Stewart, Rondon, Damiani & Honikman, 2001; Weisman, 2000). Throughout the world, male and female health care remains unequal. Furthermore, there is a huge difference in the leading causes of morbidity and mortality between developing and developed countries (McElmurry, Norr & Parker, 1993). Developed nations devote substantial resources right across the lifespan, particularly in preventing and treating chronic diseases of older women. In comparison, developing nations focus on younger women regarding issues of infectious diseases and reproductive health. The poorer the country, the fewer resources there are to be devoted to women's health (McElmurry et al., 1993). At present, women are half of the world's population (Kablisingh, 1997). Therefore, to not consider women would be a defeat from the start. Similarly in Thailand, women represent more than 50 percent of the population and more than half of them (54.66 percent) have an educational level below primary school. The majority of women in Thailand are ethnic Thais of Buddhist religion (Sa-idi, 1993). The percentage of women in Thailand who are employed, are aged 15 and above and have an educational level below primary school leavers level, is as follows: central 39.83, northeast 46.01, north 46.63, south 39.86. Furthermore, female factory workers have similar weekly working hours of between 40-49 hours per week (National Statistical Office, 2002). Economic pressures have forced many Thai women to work in factories; in fact fifty five percent of all employed Thai women work in the manufacturing industry. These women encounter various health problems often caused by a lack of health promotion, health maintenance and health awareness. These problems consist of four dimensions; physical, psychological, spiritual, and

social aspects. Examples would include reproductive health problems, headaches, work-related stress, and work-related accidents (Metadilogkul, 1995; Ogena & Kittisuksathit, 1997; Theobald, 2002; Upayokin, 1997; Utjayopas, 1995).

In order to improve health for all females, women need to become active and align themselves to become a powerful force for change. Responsibility, independence, cooperative interactions and mutual respect for one another's individuality, and an involvement in their own health care is vital. If women feel inactive, irresponsible and dependent, and have no involvement or power over their health behaviors, it is very difficult for them to gain control over their health. Therefore, empowerment is a significant concept that can be applied to a wide variety of women's health issues including health promotion, wellness, and illness prevention. From a survey conducted in Thailand, Sarakarn (2000) found that health responsibility, physical activity and the nutrition of female workers in factories was inappropriate. For instance, some married female workers tried to hide their marital status in order to keep their job. This led to an increase in the abortion rate amongst female factory workers, as pregnancy would obstruct their work status (Richter, 1992). These aspects require female factory workers to become critical thinkers and get involved in improving their present and future levels of wellness while decreasing the risk of diseases and health problems. Pregnant female factory workers would be able to take a position, respectively cooperate, and work toward a mutually satisfactory solution if they had negotiation powers and were supported. Furthermore, Finfgeld (2004) proposed that before negotiations are successful, participating, choosing and supporting are important factors to be considered.

Empowerment is a concept used to increase the levels of power and influence for oppressed groups such as less educated women working in factories. Pender et al. (2002: 106) remarked about the correlation between education and decision making, economics, and health: "A higher educational level correlates with greater decision making, a better economic situation, and a higher awareness about the benefits and risks to health." Empowerment can be viewed as an individual developmental process that occurs in stages during a period of time (Sheer, 1996). In addition, on an individual level, empowerment can result in a sense of control, a sense of personal efficacy, improving knowledge and skills for critical awareness and critical analysis of one's situation, formulating action, and taking action to attain collective goals (Cox & Parsons, 1994; Zimmerman, 1995; Zimmerman & Warschausky, 1998). Using an empowerment concept for female workers in factories, health improvement and maintenance can occur and health problems can be reduced in the future. This hypothesis focuses on two assumptions related to empowerment: (1) all human beings are potentially competent, even in extremely challenging situations, and (2) all human beings are subject to various degrees of powerlessness (Cox & Parsons, 1994). Programs have been developed to empower individuals such as people with AIDS, rheumatoid arthritis sufferers, mothers of chronically ill children, and employees in companies. Empowerment is used to explain the occurrence of health promoting behaviors, to help subjects increase their sense of self-power, to maintain a balance of mind and action, and to enable them to develop and maintain their health over a period of time (Gibson, 1995; Janejob, 1999; Somruck, 2002; Ugboro & Obeng, 2000).

The field of nursing has placed increasing emphasis on the construction of empowerment as a potential conceptual cornerstone of identity. For nurses to adequately assess levels of empowerment, a tool is needed to provide an effective and efficient approach. The main purpose of this study was to develop a reliable and valid instrument that can assess the extent of empowerment for Thai female factory workers as related to maintenance, enhancement, and reducing the risk of developing diseases. Assessing the extent of empowerment enables greater identification of women's health problems and can lead to strategies for improving and maintaining an optimal level of women's health in factories.

Objective

To develop the Women Health Empowerment Scale (WHES) for Thai female factory workers and determine its psychometric properties.

Research Questions

1. What are the components of an empowerment scale related to the health of female factory workers in Thailand?
2. How valid and reliable is this newly developed empowerment scale related to the health of female factory workers in Thailand?

Significance of the Research

A review of the literature demonstrated that there is a need for a Thai empowerment scale, especially for female factory workers. This scale assesses the

extent of empowerment, which in turn will provide objective data that impacts on women's health. The information can enable health care providers, particularly nurses, to assess the levels of empowerment in order to promote women's health. The empowerment instrument can be a valuable tool, which may be applied in the other related fields, such as nursing education, nursing practice, nursing administration, nursing research, and theory development. For instance, instructors of nursing are able to provide precise demonstrations to student nurses to help assess the empowerment level regarding the health of women in factories. Similarly in nursing practice, nursing administration, and nursing research, the Women Health Empowerment Scale can provide information that enables nurses, nurse administrators, and nursing researchers to plan for the health promotion and maintenance of women in factories. On the other hand, theory development can be developed by testing the results of this study with other methods such as using confirmatory exploratory analysis (CFA), known group validity, convergent and divergent validity. Results of these methods are able to lend support to the attributions or components of empowerment theory.

Conceptual Framework

The conceptual framework of the project consisted of four main aspects: a concept of empowerment, women's health, a norm-referenced framework, and a framework for hypothesis testing.

1. A concept of empowerment

A concept of empowerment in a Thai context has not been reviewed and conducted for research as comprehensively as in western cultures. Therefore, the concept of empowerment started with a review of the literature that was then used as a

guide to develop key questions for conducting the interviews of the study. Then, findings from both in-depth interviews and literature reviews were used to develop the WHES.

First, concepts of empowerment were reviewed from the literature. The definitions referred to thoughts, feelings, attitudes, confidence, and the ability to make decisions, act on ones own authority, and have control over his or her personal life (Aburdene & Naisbitt, 1992; Clifford, 1992; Cox & Parsons, 1994; Israel, Checkoway, Schulz & Zimmerman, 1994). This ideology is rooted in social action, which can be used both for a process in which people become engaged and an outcome of such engagement (Clarke & Mass, 1998; Cox & Parsons, 1994; Zimmerman, 1995; Zimmerman & Warschausky, 1998). As a process, empowerment is most often area-specific. That is, engagement in the process in one's life may or may not transfer to another area (Cox & Parsons, 1994). It is a series of thinking, feelings, and actions directed toward a particular aim of enabling people to have control over their own lives. As an outcome, empowerment is the consequence of the empowerment process (Zimmerman & Warschausky, 1998) that can refer to various aspects such as a sense of control, critical awareness, and participatory behaviors (Chamberlin, 1997; Cox & Parsons, 1994; Israel et al., 1994; Potter & Perry, 2003; Zimmerman & Warschausky, 1998).

Empowerment is a multileveled concept that includes individualism, organization, and community. In this study, empowerment concentrated mainly on the individual level. At an individual level, the construct of empowerment integrates perceptions of personal control, a proactive approach to life, and a critical understanding of the sociopolitical environment (Zimmerman, 1995; Zimmerman &

Warschausky, 1998). There are three main popular components of empowerment at the individual level (Zimmerman, 1995; Zimmerman & Warschausky, 1998). Firstly, the intrapersonal component refers to how people think about themselves, and includes domain-specific perceived control and self-efficacy, motivation to control, and perceived competence. Burkhardt and Nathaniel (2002) stated that empowerment involves taking ownership of inner life and recognizing that people have full control over thoughts, feelings, and actions. Secondly, the interaction component refers to how people think about and relate to their social environment. Finally, the behavioral component refers to the specific actions the individual takes to exercise influence on the social and political environment through participation in community organizations and activities (Zimmerman, 1995; Zimmerman & Warschausky, 1998).

Second, interview data was compiled to determine the themes for the empowerment scale in this study. At an individual level, empowerment is thinking, feelings, and actions of people who gain control over their lives. Moreover, a concept of empowerment from the interview data consists of the following four components including process and outcome: (1) awareness of health; refers to the realization of one's own rights to gain control over one's health, (2) support in solving health problems; refers to providing some assistance to influence one's own health, (3) a will-power to be healthy; refers to the ability of one's own right to make oneself healthy, and (4) a sense of being healthy; refers to a feeling of one's own right to gain control over one's health.

Third, the interview data and a review of the literature were integrated to develop themes for the empowerment scale. At this stage, the following four new components were developed: (1) awareness of health; refers to coming to a greater

realization of one's own right to gain control over one's health, (2) reciprocal community support in solving health problems; refers to providing some mutual assistance to influence one's own health and to solve health problems, (3) a will-power to achieve visions and goals of health; refers to the ability of one's own right to successfully reach a set image and aim of health, and (4) a sense of achievement to well-being; refers to a feeling of success of one's own right to gain control over one's health.

To conclude, empowerment is a complex, multidimensional and multifaceted concept, which describes thoughts and feelings, attitudes, and the self-confidence to act on one's own authority. This study focused on attributes of empowerment from both literature reviews and in-depth interviews. Findings from the literature review and in-depth interviews revealed that awareness of health, reciprocal community support in solving health problems, a will-power to achieve visions and goals of health, and a sense of achievement to well-being were the four components of the concept of empowerment in this study.

2. Women's health

In the past, priorities for women's health focused on the treatment of problems, and shifted so the emphasis focused on health promotion (McElmurry et al., 1993). This is due to the fact that health promotion is generally accepted as far more beneficial and less costly than focusing solely on the treatment of problems. This study was concerned with health promotion, health maintenance, wellness, and illness prevention of female factory workers. These are important forms of women's health that assist women in living and improving their health. Using the same dimensions as the World Health Organization, this study focused on four women's

health issues. First, physical health refers to activities involved in improvement of the body such as the ability to regulate fertility safely, having sexual relationships without danger of contracting disease, exercise and rest, and good nutrition. Moreover, health on the physical level is freedom from physical pain or any sense of negative awareness in the body (Bright, Andrus & Lunt, 2002). Second, psychological health refers to activities for reducing mental health problems such as anxiety, stress, strain, and depression. Most of these mental health problems are caused by a combination of physical, environmental, and social factors (Stewart & Robinson, 1998). For women who work outside the home, the combination of domestic duties and job demands leave less time for recreation and relaxation; this can lead to serious psychological health problems. Health on the psychological level is related to mental happiness. Third, spiritual health refers to activities for spiritual well being such as religious practice or dogma. Spiritual health reflects the basic human need to experience a connection to life and the life force; it is a vital process of discovering meaning, purpose, fulfillment, and value in life (Bright et al., 2002). Health on the spiritual level applies to culture, belief, and life goals. Finally, social health refers to interpersonal trust and norms of reciprocity and mutual assistance. It reflects the quantity and quality of interactions with family, friends, coworkers, supervisors, and others in the community. Activities for reducing social problems include cooperating with coworkers or supervisors in the workplace and sharing household work when women work outside the home. Health on the social level is concerned with participation and communication with others.

In conclusion, women's health is an increasingly important global issue, particularly for health promotion and maintenance, wellness, and illness prevention.

At present, women's health is extended to far more than health care during childbirth and connotes more than the absence of gynecological problems (Crane, Letvak, Lewallen, Hu & Jones, 2004; Phyllis, 2002; Rebecca, 2000). Women's health encompasses the complete well being of each individual woman including physical, psychological, spiritual, and social aspects that were applied to this study.

3. A norm-referenced framework

Since the early 1960s there have been substantial developments in the fields of measurement in education, psychology, and the social sciences (Keeves & Masters, 1999). For nursing research, the 1980s was an era of increased attention to the importance of measurement (Waltz, Strickland & Lenz, 1991). Measurement is a critical element of research (Ferketich, Phillips & Verran, 1993). To construct an empowerment scale, it is very important to identify and employ a measurement framework to guide the design and interpretation of the scale. A norm-referenced framework was used in this study. Norms are not standards or goals. The general purpose of a norm-referenced measure is to compare a person's score with the scores of other people. In constructing norm-referenced measures, steps are usually taken to maximize variability in the scores. These are in order to discriminate among individuals as much as possible (Goodwin, 1996). Basically, the two main principles related to this measurement framework are variance and a norm group. With regards to variance, empowerment is a broad domain and is the conceptual basis of the scale that measures a specific characteristic among subjects possessing differing amounts of that characteristic. Concerning a norm group, it is used to interpret the score of an individual by comparing it with scores of other individuals. In addition, the

implications of the norm-referenced framework have benefits for the identification of groups who may be in need of intervention to increase their empowerment level.

In the norm-referenced framework, test-retest is an important procedure for testing internal consistency of the developing scale (Nunnally & Buehner, 1994). Waltz et al. (1991) mentioned test-retest as being appropriate to determine the quality of measures to assess characteristics known to be relatively stable over the time period under investigation. However, a period of time between the two tests was recommended by Nunnally and Buehner (1994). Subjects tend to repeat their response to the extent that they remember them. To develop an empowerment scale and test internal consistency of it, the investigators suggested a 2-week interval between tests (Shiu, Wong & Thompson, 2003; Ven et al., 2003).

4. A framework for hypothesis testing

Some authors use the term hypothesis testing and significant testing interchangeably (Pedhazur & Schmelkin, 1991). The hypothesis testing approach refers to using the theory or conceptual framework underlying the measure's design to state hypothesis regarding the behavior of individuals with varying scores on the measure (Munro, 2001; Waltz et al., 1991). Munro (2001) stated that hypothesis testing is the test to see whether the data support the hypothesis. The investigators do not claim to prove that the hypothesis is true, because one study can never prove anything. In this study, hypotheses were tested by examining the relationships between demographic variables (including age, personal income, family income, number of family member, educational level, type of family, and caregivers) with the Women Health Empowerment Scale (WHES). As with previous studies, the results showed that personal background variables, education, income, and social support,

have the potential to affect the empowerment level (Edwards, Green & Lyons, 2002; Rogers, Chamberlin, Ellison & Crean, 1997). Edwards et al. (2002) stated that people with a high level of education are more empowered than people with lower levels of education.

To sum up, given an underlying conceptual framework, a representative sample, and an appropriate research design, the investigator can test hypotheses. The hypothesis testing in this study was to examine the correlation among demographic variables and the Women Health Empowerment Scale.

A concept of empowerment, women's health, a norm-referenced framework, and a framework for hypothesis testing are the four main conceptual frameworks of this study. Empowerment was defined from literature reviews and in-depth interviews. Its construct integrates actions, thoughts, feelings, beliefs, attitudes, confidence, and the ability to act on one's own authority and gain control over personal life. Women's health is emphasized on the promotion and maintenance of health, wellness, and illness prevention encompassing the holistic consideration of human beings. Importantly, research for this study has used a norm-referenced measure as its framework. Test-retest was a procedure followed to confirm internal consistency of the scale in this study. The hypothesis testing approach with regards to correlation among demographic variables and the instrument was one main aspect of conceptual framework in this study.

Definition of Terms

Empowerment is composed of thoughts and feelings, attitudes, the self-confidence to act appropriately, and the ability to act on one's own authority and gain control over one's personal life. Its attributes were developed from a literature review and in-depth interview including four components as following:

The first component was awareness of health. This means a greater realization of one's own right to gain control over one's health.

The second component was reciprocal community support in solving health problems. This means some mutual assistance to influence one's own health and to solve health problems.

The third component was will-power to achieve visions and goals of health. This means the ability of one's own right to successfully reach a set image and aim of health.

The fourth component was a sense of achievement to well being. This means a feeling of success of one's own right to gain control over one's health.

Women's health refers to the perception of a state of optimal well-being and activities to promote and maintain health, wellness, and illness prevention including physical, psychological, spiritual, and the social well-being of female factory workers.

Summary

An empowerment scale related to the health of female factory workers is a useful start for nurses and health care professionals to assess empowerment among women in factories. Furthermore, there is currently no available tool suitable to Thai culture to fully capture the extent of empowerment of female factory workers as related to their health at the individual level. Therefore, the purposes of this study was

to develop an instrument to explore the components of empowerment related to women's health for Thai female factory workers and determine its psychometric properties. Consequently, two research questions were raised (1) What are the components of an empowerment scale related to the health of female factory workers in Thailand? and (2) How valid and reliable is this newly developed empowerment scale related to the health of female factory workers in Thailand? The results from this study provided objective data of women's health by assessing the extent of empowerment related to the health of Thai female factory workers. Particularly for the purpose of an intervention program of empowerment for women in factories, this is a valuable tool. Finally, it can be used in support of empowerment theory development.