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Influence of public image of nurses on nursing practice

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Influence of Public Image of Nurses on Nursing Practice

by

M. Takase BNurs

A Thesis Submitted in Partial Fulfillment of the Requirements of the Award of Master of Nursing

At the Faculty of Communications, Health & Science, Edith Cowan University, Churchlands

Date of Submission: January, 2000.
ABSTRACT

Many researchers believe that nurses live in a dual structure, encompassing both the social and nursing worlds. They contend that these two worlds have contrasting views toward nurses. That is, while nurses are guided to establish professional status, society still expects them to remain in a dependent role. This conflict is assumed to have a negative impact on nurses’ psychological and functional states (Kalisch & Kalisch, 1983 & 1987). However, this assumption has not yet been explored sufficiently. The aim of this descriptive correlational study was therefore to investigate the relationships among the public image of nurses, nurses’ self-concept, personal and collective self-esteem, job satisfaction, and performance. A total of eighty registered nursing students were invited to participate in this study by completing seven types of questionnaires (see Appendix C). The data were analysed by Pearson correlation and One-Way Analysis of Variance. The results of this study supported contention of the contemporary nursing scholars that the stereotypical public image of nurses could negatively affect nurses’ self-concept, self-esteem, job satisfaction and performance. The results, however, also demonstrated that the professional socialisation and cultivation of nurses’ personal self-esteem would help to buffer the negative effects of the public stereotypes on nursing practice. Based on these findings, this study suggests countermeasures to deal with the negative impacts of the public stereotypes. These strategies include public education, monitoring the media, changing nurses’ attitudes, encouraging professional socialisation, empowering nurses, and boosting nurses’ self-esteem. This study is expected to help nurses overcome the potential effects of the public stereotypes. The results of the study are also dedicated to nurses who have endeavored to facilitate the process of professionalisation in nursing.
DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

(i) incorporate without acknowledgement any material previously submitted for a degree or diploma in any institution of higher education;

(ii) contain any material previously published or written by another person except where due reference is made in the text; or

(iii) contain any defamatory material.

Signature

Date 22.3.2000
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CHAPTER ONE

Introduction

Nurses appear to live in a dual structure of social and nursing worlds. According to Styles (1982), these two worlds interact and/or influence one another to maintain nursing practice. However, conflict has arisen within the nursing profession since nursing departed on the journey toward professionalisation. Nursing has made significant progress toward the establishment of professional status over the past fifty years (Champion, Austin & Tzeng, 1987; Speedy, 1987). In fact, nurses have made a tremendous endeavour to establish a strong educational base by preparing academic courses at a university level in order to guide their professional practice and research. Despite these changes, the public still holds traditional views of nurses associated with deep-rooted stereotypes, and expects them to remain dependent on physicians.

Numerous scholars have pointed out that such a stereotypical public image of nurses, has a negative effect on the nursing profession, since public opinions are extremely powerful in determining social norms and values (Stevens, 1989; Sampselle, 1990). Distorted beliefs about nursing have historically created an oppressive environment in the nursing profession. As a consequence, nurses have long suffered from being confined to a subordinate status.

Not only do the public stereotypes hinder nursing’s drive to professionalisation due to external/environmental constraints, but also by affecting nurses’ internal states. Various researchers imply an impact on nurses’ psychological and functional states. Nonetheless, little study has been done in this area. The aim of this study was therefore to investigate the impacts of the public image of nursing on nurses’ self-concept, self-esteem, job satisfaction and performance.
Background of the Study

Nursing has strived to achieve professional status by increasing the body of nursing knowledge and by enhancing nursing practice. The establishment of academic programs at university level has enabled nurses to conduct nursing research as well as to establish an emerging theoretical base. Since the 1960s, nursing has welcomed the development of various nursing theories, which have progressively shifted nursing practice from task orientation to patient orientation. On top of that, the International Council of Nursing has established codes of ethics to strengthen nursing practice. Despite these advances, nursing is still regarded as a "semi profession", "marginal profession", and "emerging profession" (Speedy, 1987; Moloney, 1992; Nelson, 1994).

Pavalko (1971) advocates that all work activities can be identified on the "occupation-profession continuum". Profession, at the extreme end of the continuum, possesses eight distinctive characteristics that differentiate it from an occupation, the other end of the continuum. These characteristics include theory and intellectual technique, relevance to social values, training period, motivation, autonomy, commitment, sense of community and code of ethics (Pavalko, 1971). Nursing is regarded as falling somewhere between an occupation and a profession, as it satisfies some of these characteristics, including codes of ethics and training periods, but others have not yet been fully met. Several nursing researchers argue that the following characteristics prevent nursing from being recognised as a profession: underdevelopment of a theoretical knowledge base, a lack of authority/autonomy over practice, and a lack of a life-long commitment to work (Speedy, 1987; Moloney, 1992). These weaknesses may be related to the stereotypical public image of nurses, which has a strong influence on the nursing profession.

There are a number of factors that form the traditional image of nurses. One of
these is sex role stereotyping. Although many men have entered the nursing profession, the majority of nurses are women. Thus, female stereotypes of powerlessness and subservience are often associated with the nonprofessional image of nursing (Eistein, 1982; Gunning, 1983; Savage, 1987; Kalisch & Kalisch, 1987; Kaler, Levey & Schall, 1989; Buscherhof & Seymour, 1990).

One other factor contributing to the negative images of nurses stems from nursing history and its role. Early nurses evolved from religious orders which placed nurses in a subservient position in Western countries. Moreover, many of them came from the lower socio-economic classes (Eistein, 1982; Giampietro & Schlton-Elwell, 1990; Porter, 1991). These facts resulted in constraining nurses to physicians' handmaidens. In Australia, nurses were recruited from domestic staff and former patients, who were from a “dissolute class” during the colonisation (Russell, 1990). At the beginning, there were no training bodies which made it difficult for nurses to provide quality care. In response to physicians’ requests, the Nightingale system of training was introduced in New South Wales in 1868 (Russell, 1990). This new system enabled the establishment of nursing education, thus upgrading nursing standards. Nightingalism put emphasis on femininity and defined nurses as physicians’ handmaidens (Muff, 1982; Giampietro & Schloton-Elwell, 1990). This historical background is still deeply rooted in many societies, and influences the public image of nurses. As a result, society tends to attach little significance to the nurses’ role of care, as opposed to the physician’s role of cure (Passau-Buck, 1982; Gunning, 1983; Giampietro & Sheloton-Elwell, 1990).

Moreover, media plays an influential role in reinforcing negative image of nurses. Images of nurses being subservient, powerless, unaffectionate, and unintelligent are often projected by the media (Kalisch & Kalisch, 1986; Kalisch & Kalisch, 1987;

In addition, the difference in educational background between physicians and nurses impacts on the nurses' image. Unlike physicians who undertake six years of education, most nurses receive a three-year education. This difference results in a hierarchical structure wherein nurses are placed under the supervision of physicians. Furthermore, in those schools where faculty members received a traditional nursing education, some nursing students are trained to be submissive (Stein, 1967/1990; Kalisch & Kalisch, 1982; Gunning, 1983; Sheer, 1994).

Finally, the appearance of nurses and how they behave reinforce the stereotypical image of nurses. Uniform, language, and behaviour all serve as symbols to communicate one’s social status in the society. Campbell-Heider and Hart (1993) claim that nurses’ subordinate social status is manifested in the way in which nurses address themselves with first names while they respond to physicians with title (Dr. MD) and to patients with correct societal address. Moreover, Savage (1987) asserts that nursing uniforms make nurses less individualistic, and turn them into sexual objects. For instance, physically attractive nurses are often illustrated in such media as greeting cards and motion pictures, which make them appear less professional.

As mentioned earlier, public opinions have a strong influence on the nursing environment. Many researchers claim that the absence of social sanction deprives nurses of the legitimate authority to practice autonomously (Speedy, 1987), and causes an unequal power relationship with physicians (Gunning, 1983). Additionally, the negative image of nurses affects nursing recruitment (Muff, 1982; Kalisch, Kalisch & Clinton, 1982; Kalisch & Kalisch, 1983; Kalisch & Kalisch, 1987; Campbell-Heider & Hart, 1993), and the decisions of policymakers pertaining to the allocations of scarce
resources for nursing (Kalisch, Kalisch & Clinton, 1982; Kalisch & Kalisch, 1983; Kalisch & Kalisch, 1987).

These external influences on the nursing environment appear to have multifarious effects on nurses themselves. Feminists and sociological nursing researchers have long alerted to the adverse impacts of these influences on nurses' self-concept, self-esteem, and job satisfaction, performance, and commitment to work (Kalisch & Kalisch, 1983, 1986, & 1987; Gunning, 1983; Choon & Skevington, 1984; Clark, 1986; Champion, Austing & Tzeng, 1987; Street, 1991; Dahl, 1992; Sheer, 1994).

However, little study has been conducted to investigate the above relationships. Most of the studies investigating the public image of nurses did not extend their research questions to the impact of the public’s perception of nurses, which limited the scope of their studies.

**Purpose of the Study**

The purpose of this study was therefore to examine how the stereotypical public image of nurses is associated with nurses' psychological and functional states.

**Research Problem**

The subsequent research question was investigated;

- What were the relationships among the perceived public image of nurses, and the nurses' self-concept, self-esteem, job satisfaction and performance?

**Significance of the Study**

Although several researchers imply the effects of the public image on nurses
themselves, these assumptions have rarely been challenged. Without the clarification of
the above relationships, nurses may not be sure of either how to respond to the public
stereotypes or how to protect themselves from the negative influences.

If nurses are not aware of the negative impacts of the stereotypical public
image of nurses, they will continually be the victims of the public stereotypes.
Typically, this results in the exclusion of nursing from the process of
professionalisation. Burnout and rapid turnover resulting from low self-esteem and job
satisfaction (Dahl, 1992; Lucas, Atwood, & Hagaman, 1993) induce a loss of potential
contributors to nursing education, practice and research. Further, low self-concept and
performance and high turnover rates hinder nursing’s progress in the process of
professionalisation, and reinforce the stereotypical public image of nurses. Hence, a
vicious cycle occurs, and future contributors will be trapped in this cycle (Appendix A).

To counteract the above cycle, nurses must firstly endeavour to examine the
impact of the public stereotypes on themselves, and then develop strategies to minimize
these impacts. Results obtained from this study may, therefore, be helpful to nurses and
professional nursing organisations endeavouring to counteract the negative effects of the
stereotypical image of nurses.

Definition of Terms

Before the study proceeds to develop the hypothetical effects of the public image of
nurses by reviewing available literature, this section presents the definitions of the
major terms used in this study.

- **Profession**: This is defined as a type of job that requires special knowledge,
  competencies and values to perform tasks by which the members gain high social
and economic rewards (Styles, 1982; Essential English Dictionary, 1989; Moloney, 1992).

- **Professionalisation**: This is defined as the process by which occupations and the members modify their characteristics to achieve professional status (Styles, 1982).

- **Professional socialisation**: This is referred to as the socialisation into a profession whereby its members acquire specific skills, knowledge and values inherent in the profession, and through which the members develop a professional identity and a sense of community (Krebs et al., 1996).

- **Stereotypical image of nurses**: This is defined as an image or set of characteristics associated with traditional views and/or unexamined fixed ideas of nurses (Essential English Dictionary, 1988).

- **Perceived public image of nurses**: This is the nurses’ perception and beliefs of how they are viewed by society in their role, career, intelligence, and attitudes.

- **Nurses’ self-concept**: Self-concept is generally defined as self-relevant beliefs and thoughts that are not inherently positive or negative (Brockner, 1989). More specifically, according to Carl Rogers, self-concept is personal information and beliefs that people hold about their own nature, quality and behaviour (cited in Hoffman, Vernoy & Vernoy, 1994). Hence, nurses’ self-concept is information and beliefs that nurses have about their roles, values and behaviours.

- **Nurses’ personal self-esteem**: Self-esteem refers to a personal judgment of individual worthiness characterized as either good or bad (Coopersmith, 1981), or affective association with individual’s self-relevant concepts (Gergen, 1977). Nurses’ personal self-esteem is therefore the evaluation of personal worthiness of themselves as individuals, rather than nurses.

- **Nurses’ collective self-esteem**: Collective self-esteem refers to people’s evaluation
of the value placed on their social groups (Luhtanen & Crocker, 1992; Crocker &
Major, 1989). Thus, nurses’ collective self-esteem is nurses’ evaluation of how
their group (nursing) is socially valued, that is either positive or negative.

- Job satisfaction: This is defined as affective orientation toward the work role or
position at work which the subject is currently occupying (Vroom, 1984).

- Nurses’ job performance: This consists of nurses’ behaviours and activities in the
areas of leadership function, communication skills, patient care and education, and
planning and evaluation of nursing care (Schwirian, 1978).

- Objective social environment: This is defined as the environment surrounding a
person such as organisations and family. The information from the environment is
assumed to affect the psychological behaviour of the person only when the person
recognises the information (French & Kahn, 1962).

- Psychological environment: This is referred to as the mental environment of a
person where the information from the objective social environment is processed
(French & Kahn, 1962).

- Selectivity (psychological selectivity/selective credulity): This is a person’s
tendency to consciously or unconsciously manipulate selection, perception and
interpretation of information which enters his/her psychological environment or to
arrange objective social environment so as to preserve a positive self (Rosenberg,

Organisation of the Thesis

Chapter one has already described the purpose of the study, the research
problem, and its background and significance. Chapter two will proceed to the
introduction of the major theories and studies related to the study area, and will be
devoted to the development of study hypotheses. Chapter three is intended to present the person-environment fit model proposed by French and Kahn to develop the study framework. Chapter four will proceed to the methods of investigation. Chapter five will report the study findings, and these findings will be discussed in chapter six along with the strategies to counteract the impacts of the public stereotypes, the limitations of the study, and areas for further investigation. Finally, chapter seven will present the conclusions of this study.
CHAPTER TWO

Literature Review

The theories and past research pertaining to the public image of nurses and its potential effects on nurses’ psychological and functional states will be reviewed in this section. The aim of the literature review is to identify gaps and weaknesses in past research as well as to provide bases for the study framework. It should be noted that some of the literature presented here are dated because either they are still considered seminal or little work has been done in that area recently. The section begins with the exploration of the public image of nurses, followed by the consequences of the image, and its impact on nurses’ self-concept, self-esteem, job satisfaction, and performance.

Public Image of Nurses

Numerous studies have been conducted on the public image of nurses. These studies employed various approaches including surveying public opinion toward nurses, and content analyses on the media and publications. This section first outlines the results of the public opinion surveys and then introduces the content analysis studies.

The Studies on the Public Survey

Kaler, Levy and Schall (1989) conducted a comparative study to investigate the public images of nurses with those of other occupations in Southern California. The results were organised on two-dimensional schemata with feminine-masculine and high-low educational level continuums. The findings showed the continuously and firmly held stereotypical image of nurses which emphasized feminine and nurturing features. For example, although nursing was ranked highest in regard to concern for others, nurses were also perceived as warm and much like homemakers; and as feminine as
secretaries (Kaler, Levy & Schall, 1989).

As to the educational dimension, nurses were ranked well above secretaries, homemakers, athletes and actors, yet below the rest of the occupations in the study including librarians, clergies and repairpersons.

Whereas the above study investigated the image of nurses using a sample from the general public, Kohler and Edward (1990) examined American high school students’ perceptions of nursing as a career choice. The findings indicated that the majority of the respondents did not consider nursing for their profession. Those respondents categorised nursing/nurses as a low status occupation (30%), the same as secretaries (approximately 50%), and a technical (70%) and underpaid (50%) occupation. Moreover, the findings imply that the imbalance between the investment in nursing education and potential return in terms of the extrinsic incentives deters prospective students from entering the nursing profession (Kohler & Edward, 1990).

These stereotypical public images of nurses appear to be prevalent in many countries, despite the common view that cultural differences influence people’s perceptions in different ways. Champion, Austin and Tzeng (1987) conducted a cross-cultural comparison of the image of nurses with a sample of 1200 high school students from each of 30 cultures/countries. The analysis of the results revealed that cross-culturally, nurses were associated with being powerless, dependent and unintelligent. In a more recent study, Reiskin and Haussler (1994) produced the same results with a sample of American high school students with multicultural backgrounds.

The above studies are mainly based in the United States. However, the same results regarding the public perception of nursing profession were obtained in Australian studies. For instance, an interview with Australians in a video titled “The emotive image of nursing” revealed that the public did not see nursing/nurses as a
career choice, but viewed nurses as doctors’ assistants and non-professionals. In particular, one interviewee compared nurses’ job to washing a toilet bowl (Bird & Waterkeyn, 1997). In the study conducted by Tang et al. (1999), which surveyed Year 11 and 12 students with Arabic, Serbo-Croatian, Spanish, Turkish or Vietnamese backgrounds in Australia in regard to their perception of the nursing profession, the respondents regarded nurses as powerless, dependent and underpaid. The respondents also reported that nursing profession is far less desirable for their career choice. In fact, ANF Federal Secretary Judy Uren claimed problems associated with the public image of nurses were a contributor to the nursing shortage (as cited in Serghis, 1998).

The Studies on Content Analyses

Whereas the above studies directly asked the public about their image of nurses, subsequent studies investigated how the public image of nurses was reflected in the media, and in turn, how the media reinforced the image. Kalisch, Kalisch and Clinton (1982), Kalisch, Kalisch and Scobey (1983) and Kalisch and Kalisch (1986) conducted content analyses on the nurses’ image as portrayed in entertainment media. The results showed that nurses had been constantly portrayed with such stereotypes as being feminine and motherly, doctors’ assistants, “Angels of Mercy”, sex symbols and self-sacrificing. The striking finding of the latest study is that the image of nurses illustrated in the media varied in response to the needs of physicians. That is, the portrayal of physicians has been improving since the 1960s with medicine and technology advancing rapidly, whereas the image of nurses in the media has deteriorated over this period (Kalisch & Kalisch, 1986). This reflects the nurses’ weak position in society. Although these studies investigated the portrayal of nurses from 1950 to 1980, the situation seems to have persisted in recent depictions of nurses in the
media. Professor Margaret Bennet at Royal Melbourne Institute of Technology maintained that the media still portrays nursing in a negative, non-professional and stereotypical manner, and that this kind of portrayal affected the public image of nurses (Bird & Waterkeyn, 1997). Bobby Carroll at Mitcham Private Hospital, in contrast, pointed out an improvement in the way nurses are portrayed in the media (Bird & Waterkeyn, 1997). However, Gordon Poulton at Peter MacCallam Cancer Institution stated that it was a "slow painful change" for nurses (Bird & Waterkeyn, 1997).

Apart from the entertainment media, other researchers have conducted content analysis on academic resources. Firstly, Smith and Smith (1989) examined the descriptions of a nurse/nursing in high school texts for grade 7-12 students. The results showed that the textbooks provide a fairly adequate picture of the nursing profession with the exception of nurses being frequently described as assistants of physicians. Since textbooks are produced to supply accurate knowledge to students, the belief that nurses are dependent on physicians is apparently accepted as true in society. The influence of textbooks is profound because they are believed to be reliable sources upon which students can base their learning. This study was an example of the reciprocal influences between the image of nurses in the media and that of public.

Secondly, the study of Aber and Hawkins (1992) analysed the portrayal of nurses in advertisements in American medical and nursing journals since 1990. Surprisingly, even nursing journals, which have voiced the importance of professionalisation, inserted pictures portraying the stereotypical image of nurses.

The Consequences of the Public Image on Nursing Practice

The General Impacts on Nursing Practice

The stereotypical public image of nurses appears to have a negative impact on
the nursing environment, since social beliefs and images toward nurses are manifested by actions (Conway, 1988; Street, 1991; Strasen, 1992), which influence the present and future courses of nursing. For example, the difficulty in recruiting new staff owing to low social recognition toward nursing results in labour shortages. In addition, the allocation of limited resources does not permit nurses to obtain better working conditions. Worst of all, the nurses have long been deprived of autonomy (Collins & Henderson, 1991) because of society's tendency to sanction the authority of medicine, but not that of nursing. In fact, the study by Collins and Henderson (1991) indicated that the perceived level of autonomy had not changed since Pankratz and Pankratz carried out the original study in 1974. Moreover, the nurses in the study carried out by Buscherhof and Seymour (1990) described how they confronted obstacles, not from within the profession, but from their stereotypical occupational image. As professionals, nurses are expected to be accountable and preserve patients' rights. However, how can they practice accordingly without possessing autonomy? A lack of autonomy not only constrains nursing practice, but also influences doctor-nurse relationships.

The Impact on Doctor-Nurse Relationship

The lack of autonomy over their practice further damages the unequal relationship nurses have with physicians, often characterized as the Doctor-Nurse Game (Stein, 1967/1990; Heyman & Shaw, 1984). This game has been played widely with the support of stereotypical myths toward doctors and nurses. The underlying principle of the game is that nurses who show respect and preserve doctors' authority gain rewards and are labeled good nurses.

This game is similar to what Freire (1968/1972) identified as dominance-
oppressed relationship. According to Freire, the background to this relationship emanates from historically distorted views toward the groups. The view that one group is superior to another allows the dominant group to prescribe norms and beliefs so as to exploit and oppress others. The oppressed, having internalised powerful and dominant images of the oppressor, adopt his guidelines in order to avoid punishments, and act accordingly. In the past, doctors had much influence on nursing education, and determined what skills and knowledge nurses needed to be furnished with and what kinds of characters nurses had to possess (Keddy, Gillis, Jacobs, Burton & Rogers, 1986). In addition, doctors have developed the patriarchal environment in the health care setting (Roberts, 1983), and imposed the doctor-nurse game on nurses.

The doctor-nurse relationship has long been of interest to nursing research. Consequently, much research has been conducted to examine this relationship. As a result, mixed pictures of the relationship have emerged. For instance, Stein’s latest work on the topic maintained that the relationship had been improving due to a number of social changes including the advancement of professionalisation in nursing and the collapse of the myth surrounding doctors (Stein, Watts & Howell, 1990). Some other researchers echoed his viewpoint by pointing out that more nurses were refusing to accept a subordinate position (Porter, 1995) and were engaging in the decision-making process and open communication with doctors (Porter, 1991; Sweet & Norman, 1995).

On the other hand, many nurses are still dissatisfied with the relationship with doctors. In a survey in the Nursing Times, 64% of the United Kingdom nurses reported dissatisfaction with the relationship (Heean, 1991). In the study by Krebs et al. (1996), the nurses felt that society and physicians were still caught up with negative stereotypic images of nurses, which could influence nursing practice and their relationships with physicians. In addition, Moran (1991) and Ryan and McKenne (1994) reported that
while nurses suffered from the subordinate relationship with doctors, doctors did not see this relationship as being problematic. These doctors’ attitudes appear to hinder improvements in the relationship. In fact, some scholars have criticized physicians’ attitudes toward maintaining the status quo of the doctor-independent and nurse-subordinate relationship (Moloney, 1992; Turner, 1995; Oughtibridge, 1998). From these studies, it could be deduced that the unequal relationship remains more or less intact in the current health care setting, although it is in the process of improvement.

The external constraints on nursing practice induced by the public stereotypes have been outlined in this section. The following sections will proceed to the examination of the effects of the public image of nurses on their psychological and functional states.

The Impact of the Public Image on Nurses’ Self-concept

This section reviews the theories of self-concept and examines how nurses’ self-concept is formed and the how public image of nurses influences the process of their self-concept formation. In general, self-concept is referred to as the beliefs and thoughts an individual holds about him/herself. Such terms as self-image, self-conception and ego-identity are sometimes used interchangeably with self-concept. There are various theories, which describe the origins of self-concept, that is where self-relevant information/beliefs come from. This section is intended to briefly overview the genesis of self according to the Argyle’s categorization (Argyle, 1981), and to apply the theories to the nursing context.
An Overview of Self-concept Theories and their Applications to Nurses

The reaction of others.

According to symbolic interactionists, one’s self-concept is shaped by the reactions of others toward him/herself. More precisely, an individual acquires self-relevant information by looking into how others perceive him/herself. This idea is termed “Looking-glass self” (Cooley, 1902/1968). Mead expanded this view by attaching more significance to social interaction and its means (Harter, 1996). Mead (1925/1968) went on to explain that people exchange messages regarding their perceptions of and beliefs toward others by the means of symbols, gestures, and language. Thus, an individual obtains self-relevant concepts through behaviours of others, and responds to them in accordance with how they behave toward to him.

These symbolic interactionists suggest nurses’ self-concept may be influenced negatively by the reactions of society toward nursing. The public image of nurses is manifested in a number of ways including the stereotypical portrayal of nurses in the media and the deprivation of nurses’ autonomy. Thus, these negative public responses toward nurses could serve as a mirror, and negatively influence nurses’ self-concept. As Park (1927) explained, social norms and expectations have a strong influence on our self-concept (as cited by McCall, 1997). It follows that the stereotypical public image of nurses may have negative effects on nurses’ self-concept.

On the other hand, the symbolic interactionists (Cooley, 1902/1968; Mead, 1925/1968) also suggest that nurses’ professional identity may be positively reinforced by the value system in the domain of nursing. The nursing profession values the nurses’ role as carer, advocate and educator of the patient. Therefore the nursing profession supplies nurses with a positive reflection of themselves and tells them that they are doing important work and making significant contributions to health care.
Subsequently, these feelings foster a positive self-concept in nurses. On these grounds, it seems that the public stereotypes and nursing world have a polar effect on nurses' self-concept.

Comparison with others.

In addition to the reactions of others, comparison with others provides the sources for developing self. Social comparison theory maintains that an individual has a tendency to compare his/her opinions and abilities with those of others so as to obtain an accurate picture of him/herself (Festinger, 1954). However, not everyone can be the object of comparison. In general, people who are constantly present and whose opinions and abilities are similar to his/her own are invited for comparison (Festinger, 1954).

From this theory, it is deduced that nurses' self-concept could be negatively affected by the unequal relationship and upward comparison with doctors. As nurses work in a close relationship with doctors, doctors can be the objects of comparison for nurses in order to examine their social position. However, this comparison seems to result in the lowering of nurses' self-concept due to profound gaps between both professionals in terms of power, monetary rewards, and status.

Apart from the comparison with physicians, the nursing profession is also threatened by a rapid development of other allied health professions. Despite their short histories, such domains as social work and physiotherapy have shown an expeditious academic advancement and have established a social position as professions (Moloney, 1992; Gardner & McCoppin, 1995). Compared to their evolution, the nursing profession is still struggling to obtain social sanction from the public to be recognised as a profession. This fact may lead nurses to feel inferior in their vocation.
Role played.

Another source of self-concept emanates from roles played by an individual (Argyle, 1981). For adults, social roles including occupations and roles associated with particular memberships serve as the most important factors for the formation of self-concept (Turner, in press/1968; French & Kahn, 1962; Schein, 1980). Specifically, the social identity theory states that social groups or categories and the membership of them are associated with either positive or negative connotations as a result of social comparison with other groups. Therefore, a positively valued group in society provides its members with positive self-concepts, while a socially devalued group membership impairs self-concepts of its members (Tajfel & Turner, 1986).

As mentioned earlier, there is a tendency for society to devalue the care, which is often associated with motherhood or femininity in contrast to cure, which is usually characterized as masculine and linked to intelligence. Given that a socially devalued group membership impairs the identity of its members, nurses' professional identity could also be in jeopardy.

Identification with models.

While the above three sources supply self-relevant information for an individual, identification with models provides aspiration to be like a desired person/model whose attributes are gradually assimilated into one's self-concept (Argyle, 1981; Brockner, 1988). This suggests that one's identity is formed through socialisation (Habermas, 1976/1984) through which an individual acquires and internalises appropriate norms, values, knowledge and social patterns from desired role models (Hardy & Hardy, 1988).
From this perspective, it could be inferred that professional socialisation could have a positive impact on nurses’ self-concept. Nurses go through various stages of professional socialisation wherein they acquire appropriate norms, values and expertise from models, and shape a common identity within the profession. This socialisation begins when nurses enter nursing schools and continues throughout their professional lives. Thus, the educators and expert nurses serve as the models and peers of a referent group. Through the process of identification with the models and comparison with peers, nurses develop an identity associated with their profession (Moloney, 1992; Lum, 1998). Additionally, the current movement toward professionalisation in nursing appears to facilitate the development of a professional identity in nurses. Hence, professional socialisation helps nurses to acquire and further develop a positive self-concept.

On the other hand, gender socialisation could restrain nurses from developing a professional self-concept. Since the majority of nurses are female, many of them have been taught to be docile, passive and gentle in accordance with social expectations. However, the current movement toward professionalisation in nursing has encouraged nurses to be assertive, independent and strong in character. These contradicting expectations therefore yield a dilemma within nurses and leads some nurses to the denial of a professional identity (Campbell-Heider & Hart, 1993; Speedy, 1987).

Factors Influencing the Development of Self-concept

The examination of nurses’ self-concept revealed that it is affected negatively by the stereotypical image of nurses, and positively by the nursing profession. Hence, it is unclear to what extent each factor affects nurses’ self-concept. This section, therefore, introduces the factors influencing the development of self-concept, and
discusses the effects of the public stereotypes and the nursing world on nurses’ self-concept.

The self-concept theories maintain the importance of the reflection of and comparison with others in shaping self. However, it should be noted that not all external information contributes to shaping the self in the same way. That is, when the self-relevant information comes from significant others or reliable sources, or reinforcement of that information is longer or more frequent, its impact on one’s self-concept becomes greater (Hattie, 1992; Shavelson, Hubner & Stanton as cited by Marsh & Hattie, 1996). In contrast, when the information from others endangers one’s self-concept, an individual arranges or distorts self-relevant information and/or environment so as to preserve positive self (Epstein, 1973; Tajfel & Turner, 1986; Hattie, 1992). This tendency is termed “selectivity” (or “selective credulity”) (Rosenberg, 1967/1968, p. 339; Rosenberg, 1973, p.848). This selectivity appears to operate more on persons with positive personal self-esteem. According to Cohen (1959/1968), persons high in personal self-esteem have an inclination to attach more importance to positive reflections of themselves and attach less importance to or otherwise distort negative environmental cues in order to preserve a more positive self. On the other hand, persons with low personal self-esteem are more susceptible to negative feedback of themselves. In this way, personal characteristics could alter perception of themselves, and thus affect the process of self-formation.

From the above information, one could speculate that nurses’ self-concept is less affected by the stereotypical public image of nurses for the following reasons;

- On the condition that nurses strive for a positive self-concept, nurses prefer to attach more importance to the nursing world that provides positive self-concept and values the role of nurses.
• Nurses are aware that the public image of nurses is distorted due to stereotypes toward nursing and women. Therefore, they may disregard self-relevant information supplied by society as unreliable.

• One’s self-concept is influenced more greatly when the information comes from significant others. For nurses, significant others in their profession could be peers or immediate supervisors (rather than physicians and the public). Hence, the influence by the nursing profession would be greater than that of the public, and

• Attending to the public image of nurses is so painful that nurses may ignore or distort it in the way that makes them feel secure.

Although the degree of nurses’ personal self-esteem may interfere in the development of their self-concept, this assumption is quite compatible with some studies, which identified nurses’ as having a positive self-concept. One distinctive study was conducted by Krebs et al. (1996), who interviewed 180 oncology nurses regarding their perceptions of themselves in conjunction with their perceptions of how others saw them. The findings showed that the nurses possessed positive self-concepts such as being intelligent and professional regardless of feeling that they received low recognition from physicians, administrators and the public.

Unfortunately, other studies have not compared nurses’ perceptions of themselves and the perceived image of nurses. However, the studies have tended to produce the result that nurses had positive self-concepts. For instance, the study by Buscherhof and Seymour (1990) revealed that nurses took pride in their professional skills and in the contribution they made to health care, and utilized these as important references for their sense of identity. Another example is the study by Porter and Porter (1991) that demonstrated the positive effect of the degree of professional socialisation (e.g., clinical/working status and educational levels) on nurses’ self-concept.
The study findings by Porter and Porter (1991) seem to imply that nurses attach more importance to the nursing profession as opposed to the public image of nurses. Given that the nurses had paid more attention to the stereotypical public image of nurses, it would be expected that longer work experience would have resulted in lowering their self-image due to the longer period of negative reinforcement by society. However, the results show the opposite direction. Although this study did not investigate the nurses’ perception of how the public saw them, the study findings seem to support the effect of professional socialisation.

Consequently, there is a discrepancy between a nurse’s self-concept and the public image of nurses. The next section will, therefore, discuss the impact of nurse’s self-concept, the public stereotypes, and the discrepancy between them, on nurses’ collective self-esteem.

The impact of the Public Image on Nurses’ Collective Self-esteem

In general, self-esteem refers to the feelings individuals hold about their worthiness. More specifically, Umiker (1993) defines it as the sum of self-efficacy, acceptance by others and self-respect. Based on his definitions, this section will outline the overview of self-esteem theories, then explore the effects of nurses’ self-concept, the public image of nurses, and the discrepancy between them on nurses’ collective self-esteem.

An Overview of Self-esteem Theories and their Applications to Nurses

Self-efficacy.

Self-efficacy refers to a sense of control/confidence in one’s ability to cope with the environment developed by past success (Umiker, 1993). The relationship
between self-esteem and past success/experience is well studied. In the classical paper of James (1910/1968), self-esteem is characterized as the ratio of one's actualities to his/her supposed potentialities. This denotes that achievement above expectation results in high self-esteem. Similarly, Carl Rogers articulated that psychological stability (e.g., positive self-esteem) is associated with the increased congruence between self and ideal-self and between self-concept and experience (Kirschenbaum & Henderson, 1989; Hoffman, Vernoy & Vernoy, 1994). Therefore, the degree of congruence between one's self-concept and the reinforcement of that concept determines his/her self-esteem.

However, not all the self-beliefs an individual has are measured up against the reinforcements. One's self-esteem is mostly influenced by the confirmation of self-relevant beliefs which s/he regards as important (Hattie, 1992). Thus, the determinants of one's self-esteem are further clarified as the congruence of certain aspects of self which are important to the individual and the empirical reinforcement of these aspects.

As discussed in the previous section, nurses are assumed to have a professional self-concept as the consequence of professional socialisation. Such attributes as being autonomous, independent and intelligent are therefore important as well as ideal aspects of themselves. Yet, attribution of professional status to nurses has been constantly rejected by society due to the stereotypical image of nurses. For example, nurses are still constrained to practise in a dependent capacity. Moreover, they are seldom invited into the important decision-making process because the public devalues their knowledge. This incongruity between nurses' self-concept and the negative reinforcement of these attributions resulting from the public stereotypes appears to provoke low self-esteem within nurses. In other words, the discrepancy between nurses' self-concept and the public image of nurses could cause a negative impact on nurses' collective self-esteem.
Interestingly, the above assumption seems to be true even when the situation is reversed. That means the society has a more positive image of nurses than nurses have about themselves. Freidman and Farber (1992) investigated the relationship between burnout and the discrepancy between teachers’ self-concept and their views of how others saw themselves. The results showed that teachers thought the students’ parents and the principals had exaggerated ideal views of them, and this discrepancy was assumed to induce self-disregard within the teacher, which led to burnout. That is, the discrepancy itself elicited low self-esteem because of feeling of a lack of understanding from others.

Acceptance by others.

In addition to the relationship between one’s self-concept and past experience, the way others treat or approve of individuals determines their self-esteem. The group value model contends that fair treatment by an authority toward a group affects the members’ self-esteem. The model elucidates that unjust treatment by authorities characterized as the absence of respect and consideration, and the presence of bias and prejudice toward a group violates the group values which have been internalised into the group members’ personal values. Hence, such treatment impairs the pride and respect of members, and induces negative group-oriented behaviour and low self-esteem (Tyler, 1989; Lind & Tyler, 1988; Tyler & Lind, 1992; Tyler, Degoe & Smith, 1996, Smith & Tyler, 1997). This model is supported by substantial empirical tests. For example, Tyler, Degoe and Smith (1996) tested the model on university students from various social groups. The results revealed that the perception of fair treatment from authorities was significantly and positively related to the students’ collective self-esteem.
On these grounds, it is clear that the image discrepancy is not the sole cause of nurses' low self-esteem, but the way society treats or approves of nursing also negatively affects nurses' self-esteem. Based on the group value model, one can deduce that nurses' collective self-esteem is in danger because of unequal treatment by hospital administrators, policymakers, and society owing to the stereotypical image of nurses. There is evidence that nurses receive a much lower monetary reward, degree of authority over their work, and social approval than physicians do. This unequal treatment indicates the low value attached to the nurses' role, thus lowering nurses' value in society.

Another example of how social acceptance/approval has an impact on one's self-esteem is seen in the process of group comparison. This is because group comparison provides the evaluation of group status and worthiness in society, and group value is often assimilated into the members' self-esteem (French & Kahn, 1962; Freire, 1968/1972). Therefore, people exposed to a constant comparison with advantaged groups (upward comparison) tend to develop low self-esteem while a downward comparison is likely to promote one's self-esteem (Major, Sciacchitano & Crocker, 1993).

In the health care setting, nurses have been the victims of constant upward comparison with physicians. The differences in social status, monetary rewards, and the degree of authority permitted between doctors and nurses leads to nurses having an inferiority complex, frustration toward the unequal social evaluation of their professional values, or even antagonism toward themselves. Hence, the comparison with doctors may result in lowering nurses' collective self-esteem. In fact, the study of Lawrence, Wearing and Dodds (1996), who investigated the positive and negative features of nurses' "work space", supported this relationship. The results showed that
the nurses believed social recognition could enhance the equality with other health care professionals, which in turn provided them with the sense of self worth. Hence, social approval is considered to promote nurses’ collective self-esteem.

**Self-respect**

Another factor contributing to the development of self-esteem is self-respect. Umiker (1993) maintains that an individual must like and respect him/herself in order to achieve self-respect. However, there are many factors which suppress the potency of nurses due to public stereotypes. These negative factors may make it difficult for some nurses to respect their profession, in turn leading to the development of low collective self-esteem.

**Factor Influencing the Development of Self-esteem**

There is an additional factor, which influences the process of self-esteem development. That is selectivity. With the use of selectivity, individuals can dismiss or distort negative reinforcement and unequal treatment by others, and attach more importance to favorable factors (Rosenberg, 1973). In the example of upward comparison, they can disregard it as irrelevant, or distort it by valuing the attributes in which they are superior to others and devaluing those in which they are inferior (Crocker & Major, 1989; Major, Sciacchitano & Crocker, 1993). However, it is questionable whether nurses are really capable of ignoring the feedback from society or comparisons with doctors. Rosenberg (1967/1968) maintains that selectivity is “particularly free to operate under two conditions: 1) where the situation is unstructured or ambiguous, 2) where the range of options is wide” (p. 339). Therefore, this selectivity is less likely to be employed in a situation where such objective factors as
organisational goals, structures, and the determinants of a profession are rigidly fixed (Rosenberg, 1967/1968).

For nurses, their roles, goals and position in an organisation are clearly defined. Since nurses are obliged to make contributions to health care in close relationships with other health professionals, nurses have to interact with doctors and so they realize the differences in social status, working conditions, monetary reward, and so forth. Unlike the nurses' image which is subjective, these differences are objectively observed. Hence, it might be difficult for nurses to distort them. On top of this, such factors as the degree of autonomy permitted and the amount of remuneration offered indicate the degree of social approval, which is a crucial determinant of a profession. Thus, nurses can not ignore the differences. As a matter of fact, nurses could invite other occupational groups for comparison in order to promote their collective self-esteem. Nonetheless, the effect of the comparison with physicians seems to have a stronger impact on their self-esteem, since they work in a closer relationship with doctors.

It seems that the selectivity factor is less effective in maintaining nurses' collective self-esteem. Consequently, it could be postulated that nurses suffer from low collective self-esteem due to the negative external feedback toward their profession.

The Impact of the Public Image on Nurses' Job Satisfaction

Research into nurses' job satisfaction has been of great concern in nursing due to the fact that affective feelings toward one's job increase commitment to work as well as promote one's psychological state. The following section introduces the theories of job satisfaction first, then examines how nurses' self-concept, public image of nurses, the discrepancy between them and nurses' collective self-esteem affect their job
An Overview of Job Satisfaction Theories

The motivation-hygiene theory.

This theory has been developed by Herzberg and his colleagues. The theory comprises of two components: hygiene and motivation factors. According to the theory, the hygiene factors are considered to create a hazard-free environment, thus preventing job dissatisfaction, while the motivation factors provide the additional resources to promote an employee's job satisfaction. The hygiene factors include supervision, interpersonal relations, physical working conditions, salary, company policies and administrative practices, benefits and job security. The motivation factors encompass self-actualizing factors such as recognition, achievement, advancement, possibility of growth, and responsibility (Herzberg, Mausner & Snyderman, 1959).

The job enrichment theory.

Another popular theory is the theory of job enrichment proposed by Hackman and Oldham. It consists of five core job characteristics, which are skill variety, task identity, task significance, autonomy and feedback, and one psychological factor, namely, strength is required for employee growth. The theory postulates that skill variety, task identity and significance promote the employees' feelings of doing meaningful work. Further, autonomous practice allows employees to have a sense of responsibility, and feedback supplies them with the knowledge of whether or not their work performance meets that required by organisations. In addition, the employees' growth needs are believed to foster motivation to enhance their performance in order to obtain more satisfaction (Hackman & Oldham, 1975; Hackman, Oldham, Janson &
Purdy, 1975). This theory has attracted much empirical validity (Hackman & Oldham as cited by Hackman, Oldham, Janson & Purdy, 1975; Umstot, Bell & Mitchell, 1976).

The person-environment fit models.

While the above two theories look at the elements of job satisfaction, the contemporary theories seem to put more emphasis on the relationship between a person and his/her environment and are known as “person-environment fit”. These theorists claim that job satisfaction occurs only when a person’s values and needs are fulfilled by his/her work environment. More precisely, a person comes to work with a set of work values, needs and expectations. At the same time, the person perceives what kinds of reinforcement the environment supplies him/herself with. When the environment positively reinforces the expectations of the person, the person is satisfied with his/her job (French & Kahn, 1962; Dawis & Lofquist, 1978; Mottaz, 1985; Holland, 1985; Kulik & Oldham, 1987; Daugherty, 1992).

The self-esteem – job satisfaction relationship.

As mentioned above, positive self-esteem functions as a buffer against negative external cues. Thus, persons with high self-esteem are less vulnerable to the negative factors in their work environment, and tend to express more job satisfaction (Brockner, 1988).

The Applications to Nurses’ Job Satisfaction

The theories of job satisfaction imply that nurses’ job satisfaction increases when they acquire autonomy, recognition toward their work, meaningful relationships with co-workers, clear definitions of their tasks and so forth. The theories also maintain
that nurses’ values, needs and expectations must be met by the environmental reality for nurses to obtain job satisfaction. The determinants of nurses’ job satisfaction are quite congruent with those identified in the above theories. For instance, meta-analyses conducted by Blegen (1993) and Irvine and Evans (1995) revealed that work context factors such as stress, commitment, interpersonal relations at work, autonomy, recognition, fairness and professionalism were the important determinants of nurses’ job satisfaction.

Among them, autonomy seems to occupy the pivotal position for their job satisfaction. Acorn, Ratner and Crawford (1997) investigated the relationships among decentralization, perceived autonomy, job satisfaction and organisational commitment with first line managers. The results revealed a significant correlation among the variables at 0.001 level. This study demonstrated a strong positive relationship between autonomy and job satisfaction. Additionally, the study by McLoskey (1990), which explored the effects of autonomy and group cohesiveness on job satisfaction, demonstrated a significant correlation between autonomy and job satisfaction.

Another factor of nurses’ job satisfaction often investigated is recognition from others. There are studies which have identified the positive impact of recognition from managers (McNeece-Smith, 1997) and public (Kramer & Hafner, 1989) on a nurse’s job satisfaction. In addition, recognition from peers and other health professionals, including doctors, appears to influence their job satisfaction as well. Taylor (1996) maintains that recognizing and respecting each other’s unique expertise in health care delivery actualises collaborative practice that leads to increased job satisfaction. In fact, a recent study has demonstrated the significant positive relationship between the amount of collaboration and the level of nurses’ job satisfaction (Baggs et al., 1997).
In contrast to these factors, there is a factor which obstructs the nurses' job satisfaction. That is role incongruity. The above findings indicate that nurses' job satisfaction is increased when they acquire autonomy, recognition toward their work, meaningful relationships with co-workers, and a clear definition of their tasks. However, these conditions are rarely supplied to nurses. As discussed previously, nurses have confronted various external barriers in the process of professionalisation. The stereotypical public image of nurses results in nurses being deprived of their autonomy, the social devaluation of nurses' roles, and an unequal relationship with doctors. Therefore, nurses' values and expectations have never been fully met with the environmental reinforcements. This discrepancy between the nurses' values (professional identity) and the role expected of them by society leads nurses to a state of role ambiguity and incongruity, which subsequently leads to job dissatisfaction (Hardy & Hardy, 1988). Hardy and Hardy (1988) contend that role conflict and ambiguity induce role strain, which is characterized as anxiety, tension and depression, therefore, causing job dissatisfaction. This view is supported by substantial empirical evidence, an example of which is seen in the study of Pilkington and Wood (1986).

Consequently, research has been conducted to investigate whether there is a nurse-environment congruity. In the study of Slavitt, Stamps, Piedmont and Haase (1978), the findings showed that the participants were working in a congruent environment wherein they were satisfied with their job status, interaction and the degree of autonomy. On the other hand, studies by Juhl, Dunkin, Stratton, Geller and Ludtke (1993) and Fung-Kam (1998) revealed that there was an incongruity between the nurses' expectations and the work realities. That is, the participants were dissatisfied with the job components (i.e., autonomy, interaction and pay) to which they attached importance. In particular, nurses in the Fung-Kam's study reported strong
dissatisfaction with their job, resulting from the discrepancy in the levels of autonomy and pay they sought and received.

The above research showed mixed pictures regarding nurse-environment fit. Nevertheless, it appears that more recent studies tended to report more misfits in nursing practice. This might be because the current movement toward professionalisation has produced more idealistic views about their profession within nurses so that they are no longer satisfied with the past environment.

The last factor influencing nurses' job satisfaction is nurses' collective self-esteem. In general, studies tended to demonstrate a positive correlation between the two variables. The study by Mossholder, Bedeian & Armenakis (1981) indicated that high self-esteem attenuated the negative impact of role ambiguity on job satisfaction. Moreover, the studies by Westaway, Wessie, Viljoen, Booysen & Wolmarans (1996), Moore, Lindquist & Katz (1997) and Carson, Fagin, Brown, Leary and Bartlett (1999) revealed that nurses high in self-esteem tended to express more job satisfaction. These studies suggest that nurses may be dissatisfied with their job due to low collective self-esteem caused by the public stereotypes.

For these reasons, it could be deduced that the stereotypical public image of nurses causes a nurse-environment misfit and low collective self-esteem among nurses, which lead to job dissatisfaction.

The Impact of the Public Image on Nurses' Performance

Vroom (1984) maintains that one's ability and motivation determine his/her performance. Since the nurses' ability to conduct nursing tasks are standardized by the educational guidelines, motivation seems to play an influential role in determining their performance. Therefore, discussion in this section will focus on the presentation of an
overview of motivational theories, the application to nursing and an introduction to past research.

An Overview of Motivational Theories and their Applications to Nurses

There are various theories, which describe the origin of motivation. Since an introduction to all the motivational theories would be exhaustive, brief summaries of major theories, which can be applied to the nursing context, are presented in Appendix B.

These theories provide many implications regarding the effects of public stereotypes on nurses' performance. It appears that there are diverse factors, which influence their performance, both positively and negatively. Negative factors including the unequal working conditions between doctors and nurses, the oppressive work environment, low collective self-esteem and job dissatisfaction lead to decreases in nurses' performance. As mentioned previously, these mainly result from stereotypical public images of nurses. Thus, the difficulty in changing public stereotypes also diminishes their motivation due to low expectations toward the social changes.

On the other hand, there are some factors, which enhance nurses' performance. These are nurses' professional identity and the discrepancy between ideal and actual working conditions. As discussed earlier, nurses are assumed to embrace positive self-concepts due to professional socialisation and the use of selectivity to buffer negative self-relevant information. The self-concept theories contend that this professional identity could guide nurses' professional conduct. In addition, the goal setting theory and motivational control theory state that when nurses' performance is hindered by the external constraints resulting from the stereotypes, nurses are motivated to alter the environment so as to eliminate job dissatisfaction engendered by the discrepancy.
The motivational theories raise contrasting factors influencing nurses' performance. It is difficult to conclude which factors are the most influential on nurses' performance at this stage. Nevertheless, it could be postulated that nurses' performance is sustained at a certain level due to their professional self-concept.

This assumption is compatible with current trends in nursing. In the process of professionalisation, nurses have attempted to improve their performance by preparing academic courses, developing nursing theories, and conducting research. In addition, nurses have endeavoured to change the public image of nurses in order to enhance the utilization of their knowledge and expertise. These movements would never be actualised if nurses had low motivation for their work. Hence, it is logical to assume that nurses’ performance is more influenced by their self-concept and the desire to reduce the discrepancy between ideal and actual working conditions. However, it should be mentioned that if society provides constant negative feedback to nurses, their job dissatisfaction may override their motivation. As a result, nurses will experience learned helplessness, the extreme results of which will be burnout and turnover.

There are few studies which have explored the impact of the stereotypical public image of nurses on their job performance. However, there are some studies which have investigated the individual effects of workers' self-esteem, job satisfaction, self-concept and ideal-actual work context discrepancy on performance. To begin with, the studies on self-esteem – performance relationship are presented. Bedeian and Touliatos (1978) conducted a quantitative study to investigate this relationship. The results showed that women with a favorable self-esteem had significantly higher motivation in achievement and power than their counterparts with low self-esteem. Additionally, Fulton (1997) conducted qualitative research to investigate British nurses' views on the concepts of empowerment. The results revealed that the nurses felt the
need for positive self-esteem to feel empowered (Fulton, 1997).

While the above studies demonstrated the direct relationship between self-esteem and performance, the following studies supported Brockner's argument of self-esteem ~ stress ~ performance relationship. The study by Linder-Pelz, Pierce and Minslow (1986) demonstrated that nurses with poor self-esteem were more than twice as vulnerable to stress than those with high self-esteem. The study by Carson, Fagin, Brown, Leary and Bartlett (1999) also reported that high self-esteem was correlated to less stress and better coping skills in mental health nurses. Since a positive linear relationship between stress and performance was identified by the studies of Westman and Eden (1996) and Abramis (1994), self-esteem also has an indirect impact on performance.

With respect to the studies on job satisfaction and performance, various studies indicated the effects of job dissatisfaction on low organisational commitment (Acom, Ratner & Crawford, 1997), low performance (McCloskey & McCain, 1988) and behavioural intention to leave the job (Lucas, Atwood & Hagaman, 1993; Irvine & Evans, 1995).

Regarding the self-concept ~ performance relationship, Marsh (1990) conducted a longitudinal study on academic self-concept and academic achievement. The results showed that students' academic achievement was significantly influenced by their academic self-concept measured the previous year, while there was no significant effects of their academic achievement on their academic self-concept.

Lastly, examples of improved performance resulting from the ideal-actual discrepancy are presented. Goodell and Coeling (1994) explored the outcomes of nurses' job satisfaction between nurses delivering quality nursing care and those delivering low quality care. The study did not present a comparison between ideal and
actual work contexts perceived by both nurse groups. However, it implied that nurses who manifested a wider discrepancy between ideal-actual work context in terms of professional status were more likely to deliver better patient care so as to improve their social recognition. In another example, the study by Hirt, Levine, McDonald and Melton (1997) demonstrated that negative feelings engendered by the work context made people put more energy into their work so as to improve their performance as well as their work-related feelings. Lastly, the study by Stull (1986) demonstrated the effect of goal setting on nurses' performance. In that study, those nurses who were consulted by their supervisors regarding weakness in their performance and who were set specific performance goals for their performance showed significant achievement of their goals. This performance improvement may originate in motivation to reduce the discrepancy between ideal and actual selves.

These studies demonstrated the individual effect of self-esteem, job satisfaction, self-concept and ideal-actual discrepancy on performance very clearly. Yet, the studies do not provide empirical evidence for the assumption made in this section, since none of them tested the combined effects on performance. Thus, these studies are limited in scope.

Summary of the Literature Review

This chapter reviews the theories and research relating to the public image of nurses and the potential effects on nurses' self-concept, self-esteem, job satisfaction, and performance.

As for the research on the public image of nurses, past research raises two points. The first point is that the public holds a stereotypical image of nurses. The second is that there has been a little improvement in the image of nurses irrespective of
nurses' tremendous efforts to improve it (Kalisch, Kalisch & Clinton, 1982; Kalisch, Kalisch & Scobey, 1983; Kalisch & Kalisch, 1986; Bird & Waterkeyn, 1997). These studies suggest that the stereotypical image of nurses constrains the potency of nursing practice by depriving nurses of their autonomy, and by inducing an unequal relationship with doctors, potential loss of manpower and the allocation of limited resources on nursing practice. Furthermore, the literature postulates that these external constraints impair nurses' psychological and functional states, therefore hindering nursing in the process of professionalisation. However, not a single study investigated the effect of the stereotypical public image on nurses, which limited the scope of these studies.

Consequently, literature in the other fields including psychology and sociology was reviewed in an effort to derive the hypothetical effects of the public stereotypes on nurses. With reference to nurses' self-concept, the stereotypical public image of nurses appears to have a negative impact on their self-concept formation. This is because their self-beliefs are shaped from the reflection of the public views toward them and past experience including the doctor-nurse game. Nonetheless, nurses' self-concept seems to be protected from such negative influences owing to the effects of professional socialisation, which provides nurses with a positive reflection of themselves, and the psychological selectivity to maintain their self-concept.

In contrast to individual self-concept, nurses' collective self-esteem may be the victim of the public's stereotypes. This is because nurses' collective self-esteem could be impaired by the stereotypical public image of nurses and the discrepancy between the image of nurses held by the society and that held by themselves. Moreover, the difficulty in employing the selectivity makes it difficult for nurses to protect their self-esteem from this negative influence.

With regards to nurses' job satisfaction, the stereotypical public image of
nurses appears to have created a nurse-environment misfit, which causes their job dissatisfaction. Furthermore, nurses' collective self-esteem impaired by the public stereotypes, makes nurses more vulnerable to this misfit.

Finally, nurses' performance is influenced by various factors such as their professional identity, the discrepancy between the image of nurses held by the public and that held by nurses themselves, and the low collective self-esteem and job dissatisfaction of nurses. While the first two factors positively affect their performance, the latter two have a negative impact on it. It is uncertain which factor has more influence on their performance, since there is little empirical support. Nevertheless, one could speculate from current developments in nursing that their professional identity and the motivation to improve their work context guide nurses' performance. Thus, low collective self-esteem and job dissatisfaction resulting from public stereotypes may be less influential.

Review of the literature provides many indications that the stereotypical public image of nurses does negatively affect nurses' psychological and functional states. However, their professional identity developed through professional socialisation and positive personal self-esteem could buffer the negative influences of the public stereotypes in order to preserve their self-concept and performance. The next section is intended to introduce a study framework and to organise the assumptions drawn from the literature review, into the framework.
CHAPTER THREE

Conceptual Framework

This study adopted the work of French and Kahn (1962), who introduced the notion of person-environment fit, as a study framework. Their contention that an employee's mental health and performance depend on his/her adjustment to the work environment, has been accepted by the contemporary leaders in the field of occupational health and safety. Many vocational theories and studies reflect this concept, for example, theory of work adjustment by Dawis & Lofquist (1978), theory of vocational personalities and work environments by Holland (1985) and study by Mottaz (1985). This model was selected for this study because it best describes how environment and an employee's personal characteristics affect one another to maintain work adjustment. Other theories put less emphasis on their reciprocal interaction in their discussion on work adjustment. Despite the fact that this model has not been used in recent studies, it does have merit for this research. This section proceeds to the development of the conceptual framework for this study.

French and Kahn (1962) identified four major panels of concepts and variables (paradigms) that illustrate a person-environment relationship. The first paradigm is the objective social environment. The major focus of this paradigm is placed on the industrial organisation, which includes such structures as authority, communication, role structures, and the organisational norms and culture. These variables are assumed to have a considerable impact on a person's mental health, but other social organisations and groups, such as the family, also interact with the industrial organisation in influencing his/her mental health and behaviour (French & Kahn, 1962).

The second paradigm is the psychological environment of the person wherein the information from the objective social environment is processed. The processed
information here is assumed to affect the person’s mental health as well as the behaviour of the person. Therefore, the person is motivated to control the types of information which enter into his/her psychological environment or to distort the interpretation of the information in line with his/her personal needs/values. For instance, role conflict is often a major issue arising within an organisation. However, the way in which each individual perceives and interprets this conflict may depend on his/her personal needs/values. The person with high self-esteem may be motivated to attach more importance to a favourable role and unconsciously ignore an unfavourable one so as to preserve a positive identity. Alternatively, the person with low self-esteem may encourage him/herself to interpret the role assigned by a more powerful figure favourably in an attempt to gain more significant approval which will enhance his/her affective state. Organisational information affecting the person is termed “life space organisation” (French & Kahn 1962). Because of these types of information manipulation by the person, French and Kahn (1962) attribute this life space organisation as ‘a small fragment of the objective organisation” (p. 4). Like objective social environment, other structures including the family also influence the information processing.

The third paradigm is the person him/herself. It consists of such personal characteristics as self-identity, affective states, psychological states, health-illness, and motivational factors such as personal needs and values. The person is not in direct contact with the objective social environment, but s/he communicates with the information in his/her psychological environment. In other words, only the information in the psychological environment influences the personal characteristics of the person, and the person responds to only the information in his/her psychological environment. Consequently, the person is motivated to manipulate the perception and interpretation
of the external environment so as to maintain a positive self. The person is also motivated to select appropriate behaviour for him/herself to achieve this environmental adjustment. Since both the second and third paradigms are concerned with the person’s subsequent behaviour in relation to the objective environment, these in particular are termed as the life space.

The fourth paradigm is the behaviour of the person. The person’s behaviour is directed to improve his/her adjustment to the environment. Therefore, the concepts grouped in this paradigm are coping, defence mechanisms and locomotion. The person may cope successfully with the environment by using a defence mechanism to protect him/herself from the notorious influences of the objective social environment. To achieve the state of adjustment, the person may have to alter either him/herself or the environment. The approach which the person adopts is dependent on his/her personal characteristics. For example, the person with low personal needs/values may choose to conform to the legitimate power of the organisational authority in order to avoid punishment. The person with high personal needs/values may be motivated to alter his/her organisational environment. This behaviour, in turn, influences the objective social environment.
These paradigms are linked with hypothetical relations as illustrated below.


The objective social environment affects the psychological behaviour of the person if it subsequently enters the psychological environment of the person. The external information there (e.g., life space organisation) serves as the source for shaping personal characteristics. Hence, the person socializing in an industrial organisation will internalise certain aspects of the organisational norms and values into his/her personal qualities.
While the life space organisation affects the person's mental health, the person's need to preserve a positive self interferes with the process of dealing with the external information. That is, the person consciously or unconsciously selects or distorts the external information so it confirms his/her positive self (This is represented by the arrow from box 3 to the arrow from box 1 to 2 in Figure 1).

The information regarding the person is processed in the psychological environment of the person in relation to his/her personal need to maintain a self. Since the person communicates with only his/her psychological environment, the behaviour of the person is also directed toward only his/her psychological environment in a way that the person achieves a state of adjustment. This motivates the person to change him/herself or the environment so as to cope successfully with the environment. Alternatively, the person may use defense mechanisms to withdraw from the environmental events. The choice of behaviour and the degree of motivation depend on the person's internal characteristics (This is represented by the arrow from box 3 to the arrow from box 2 to 4 in Figure 1).

The core characteristic of this programme is the person-environment fit. According to French and Kahn (1962):

Adjustment always depends upon properties of the person in relation to properties of the objective environment; it refers to the goodness of fit between the requirements of the person and the supplies which are available to him in the environment. A state of maladjustment therefore implies directly a lack of satisfaction, a persisting experience of frustration and deprivation, and inability to achieve valued goals in a specific set of environmental conditions. (p. 45)
Applying this to the nurses’ context, one could state that the properties of nurses must fit the reality of the objective social environment in order to promote their job satisfaction and performance. As mentioned earlier, nurses live in dual structures wherein the nursing profession and society have polar views toward nursing. Therefore, both are considered to be the objective social environment for nurses. Nurses perceive how both worlds see them through socialisation, and process the information in the psychological environment. The processed information affects their professional identity, collective self-esteem and job satisfaction on the one hand. On the other hand, their personal self-esteem /psychological selectivity control the information to be entered into and interpreted in the psychological environment. When the information regarding self is available in the psychological environment, they may be aware of the discrepancy between their self-concept and the public image of nurses, the low value placed on nursing, and the constrained work situation (person-environment misfit).

To reduce this misfit, nurses are assumed to employ defence mechanisms to protect themselves from the environment by withdrawing from nursing. Alternatively, they may be motivated to change the public image of nurses by the exhibition of professional performance. The study by French and Kahn (1962) indicates that the method nurses adopt depends on their personal characteristics and value systems. Hence, it could be deduced that nurses have chosen the latter means due to their professional identity and their intention to establish nursing as a profession, although the negative effects on their performance cannot be overlooked.
The summary figure is presented below.

Figure 2. The application of the nurses' context to the model presented by French and Kahn.

French and Kahn (1962) illustrated that the relationship with such an informal structure as family and the person's health state could affect the person's behaviour as well. However, these variables are not included in this study because this study is mainly interested in the relationship between social and nursing worlds and its relation to a nurse's psychological and functional states.

The literature review and the work by French and Kahn have provided a study framework necessary for this study. From these works, the following hypotheses were drawn.
1. The lower the perceived public image of nurses, the lower nurses' self-concept will be.

- Theoretical rationale: Through interaction with society, nurses process how the public views them from the reaction of others. This hypothesis was drawn from the claim by symbolic interactionists (Cooley, 1902/1968; Mead, 1925/1968) and French and Kahn (1962) that this perceived public image of nurses is assumed to affect nurses' self-concept (identity). Arrow C in Figure 2 represents this hypothesis.

2. The greater the degree of professional socialisation as measured by demographic parameters (e.g., age, gender, working status, the length of experience, educational background, and ward assignment), the greater nurses' self-concept will be.

- Theoretical rationale: This is because nurses internalise appropriate norms, expertise, culture, and professional identity by identifying with a model and reflection from peers through the professional socialisation (French & Kahn, 1962; Argyle, 1981). Arrow C in Figure 2 represents this hypothesis.

3. There will be a stronger relationship between nurses' self-concept and the degree of professional socialisation than between nurses' self-concept and the perceived public image of nurses.

- Theoretical rationale: This hypothesis was derived from an assumption that a person has an innate drive to preserve a positive self (Tajfel & Turner, 1986). According to French and Kahn (1962) and other psychologists (Rosenberg, 1967/1968 & 1973; Epstein, 1973; Hattie, 1992), the person's need to preserve a positive self interferes with perception, selection as well as interpretation of the information in the psychological environment (indicated by Arrow B in figure 2). Hence, it could be deduced that nurses are likely to attach more importance to
favourable information from the nursing world and less importance to unfavourable information from society so as to protect their self-concept. The relationships among arrows A, B and C in Figure 2 represent this hypothesis.

4. Nurses’ self-concept will be higher than the perceived public image of nurses due to psychological selectivity. Therefore, nurses with higher personal self-esteem will report a more positive self-concept.

- Theoretical rationale: This hypothesis is based on the findings of Cohen (1959/1968) that a person with higher personal self-esteem is more predisposed to use information manipulation to reinforce a positive self (indicated by Arrow B in Figure 2). Thus, it was hypothesized that nurses with higher personal self-esteem are more inclined to use psychological selectivity and preserve a positive self. The relationships among arrows A, B and C in Figure 2 represent this hypothesis.

5. There will be a stronger correlation between nurses’ personal self-esteem and nurses’ self-concept than between nurses’ personal self-esteem and nurses’ collective self-esteem.

- Theoretical rationale: This hypothesis was derived because nurses with higher personal self-esteem (stronger need to preserve a positive self) are inclined to utilize psychological selectivity to protect their self-concept and collective self-esteem from the public stereotypes (Cohen, 1959/1968). According to Rogers (1967/1968), however, the use of the selectivity seems to be less effective in the maintenance of their collective self-esteem under the circumstance where an organisational structure and determinants of a profession are fixed. The relationships among arrows A, B, and C in Figure 2 represent this hypothesis.

6. The greater the discrepancy between the perceived public image of nurses and nurses’ self-concept, the lower nurses’ collective self-esteem will be.
• Theoretical rationale: Social opinions are powerful enough to influence the course of nursing. Therefore, the stereotypical public image of nurses could create an oppressive environment wherein nurses suffer from the discrepancy between ideal and actual selves (Freire, 1968/1972). This hypothesis was formulated because incongruity between ideal and actual selves perceived in the psychological environment could impair their collective self-esteem (French & Kahn, 1962; Rogers cited in Hoffman, Vernoy & Vernoy, 1994). This hypothesis is represented by arrow C in Figure 2.

7. The more positively nurses perceive the public image of nurses to be, the greater collective self-esteem they will develop.

• Theoretical rationale: Nurses' perception of the public image of them could affect their psychological state. Hence, social recognition toward the nursing profession (acceptance by others) could contribute to the enhancement of nurses' collective self-esteem (self-respect) (Umiker, 1993). Arrow C in Figure 2 represents this hypothesis.

8. The greater the discrepancy between the perceived public image of nurses and nurses' self-concept, the lower nurses' job satisfaction will be.

• Theoretical rationale: This hypothesis is rooted in an assumption that the image discrepancy processed in the psychological environment could reduce nurses' affective feeling toward work (job satisfaction). This is because a distorted public image of nurses could deprive them of many important features of their work, including autonomous practice, and creates the nurse-environment misfit. Arrow C in Figure 2 represents this hypothesis.

9. Nurses who report higher levels of collective self-esteem will report higher levels of job satisfaction.
• Theoretical rationale: This hypothesis was derived from the study by Brockner (1988), who maintains a positive self-esteem could function as a buffer against negative environmental cues. Thus, it was deduced that nurses with higher collective self-esteem are less vulnerable to the negative work related cues including lack of autonomy, and are more likely to express job satisfaction.

10. Nurses' performance is more positively associated with their self-concept and the discrepancy between the perceived public image of nurses and nurses' self-concept, but less related to nurses' collective self-esteem and job satisfaction.

• Theoretical rationale: The information in the psychological environment and psychological states of nurses could direct their behaviour. Based on the current movement to establish a nursing profession, it is assumed the nurses' professional identity and motivation to reduce the image discrepancy could enhance nurses' performance regardless of the negative effects of job dissatisfaction and low collective self-esteem induced by the public stereotypes. The relationships among arrows D, E and F in Figure 2 represent this hypothesis.

11. The greater nurses' performance, the better the socialisation with other health team members and society. Thus nurses will perceive the public image of their profession more positively.

• Theoretical rationale: According to French and Kahn (1962), nurses' behaviour would, in turn, affect the objective social environment. Therefore, nurses' performance (motivation) could have an impact on the public perception of nurses/nursing profession and the degree of subsequent professional socialisation. Arrow G in figure 2 represents this hypothesis.
The study framework is presented below.

Figure 3. Conceptual framework illustrating the hypothetical relationships of the variables.

Note. 1. The relationships indicated by solid arrows are hypothesised to bear stronger correlation than those indicated with dotted arrows. 2. Numbers beside the arrows are correspondent to those of the hypotheses.
CHAPTER FOUR

Methods of Investigation

The aim of this research was to identify the relationships among the public image of nurses, the nurses' self-concept and esteem, job satisfaction and performance. Therefore, a descriptive correlational design was employed in this study. The advantages of utilizing this design are that it allows the researcher to investigate the strength as well as direction (positive or negative) of relationships among variables (LoBiondo-Wood, Haber & Kovner, 1986; Harris, 1995). Since the conceptual framework included both strength and directions of the relationships, it was considered that the adoption of this design was adequate.

Sample

The criterion for inclusion of participants in this study was that all participants be registered nurses in Australia. Enrolled nurses were excluded from this study due to different characteristics in their role that might make it difficult for them to rate their performance using the same scale as registered nurses.

The accessible population was composed of registered nursing students undertaking either the post-registration conversion course or postgraduate courses in the School of Nursing at Edith Cowan University, Western Australia. Three hundred registered nursing students were randomly selected and accessed by the researcher. A total of eighty students participated in this study.

Data Collection and Instruments

Data collection involved the administration of seven types of questionnaires (Appendix C). The following instruments were administered.
Demographic Questionnaire

This was to identify the subject’s background such as age, gender, working status, the length of experience, educational background and ward assignment, which can be potential indicators of the degree of professional socialisation. These questions were asked because the working status, length of experience and educational background might differentiate the degree and length of professionalisation. Further, different clinical areas might differentiate how they socialise due to different expertise, roles and expectations. In addition, gender difference could have an impact on the way they socialise owing to different methods of personal socialisation.

Porter Nursing Image Scale

This scale was developed by Porter and Porter (1991) to measure nurses’ self-image/self-concept. The scale consists of 30 matched-pair, bipolar adjectives, which are sub grouped into three factors: interpersonal power, interpersonal relations, and intrapersonal ability. Interpersonal power items assess the professional aspect of nurses such as being a leader, independent and scientific. Interpersonal relations items measure caring attitudes and interactive aspects of nurses. Finally, the items in intrapersonal ability are concerned with rationality of nurses. The scale was rated using a Likert scale ranging from 1 to 7. The scores of items describing negative images of nurses in the left hand side columns were reversed when entered into a computer. Therefore, low scores indicate a positive self-image and high scores are associated with a negative self-image. Evidence of reliability for the scale has been reported from 0.57 to 0.88 (Porter & Porter, 1991). Support for the validity of the scale has also been established by a panel of experts in nursing practice and education (Porter & Porter, 1991). The same scale
was used to measure the perceived public image of nurses. In this case, participants were instructed to rate the items in terms of how they think the public sees nurses.

Self-Esteem Scale

The scale was designed by Rosenberg (1965) to measure the self-acceptance aspect of self-esteem. The scale consists of ten items which are rated using a Likert scale ranging from 1=strongly agree to 4= strongly disagree. The scores on item 3, 5, 8, 9, 10 were reversed in accordance with the instruction of the scale. Therefore, low scores indicate high self-esteem, while high scores indicate low self-esteem. A reliability for the scale of 0.85 has been reported, and evidence of validity has been reported by acceptable correlations with other similar measures (Silber & Tippett, as cited by Robinson & Shaver, 1973).

Collective Self-Esteem Scale

This scale was developed by Luhtanen and Crocker (1992) to measure the degree of collective self-esteem. The scale consists of four subscales: membership, private and public collective self-esteem, and importance to identity. Membership collective self-esteem items measure how good or worthy a person thinks s/he is as a member of their social groups. Private collective self-esteem items assess one’s personal judgements of how good one’s social groups are, while public collective self-esteem items measure one’s judgements of how other people evaluate one’s social groups. Importance to identity items assess the importance of one’s social group memberships to one’s self-concept (Luhtanen & Crocker, 1992). Responses were made on a 7-point Likert scale (1= strongly disagree to 7= strongly agree). Certain items were reversed for scoring. Thus, higher scores indicate a positive collective self-esteem. A
reliability of 0.88 for this scale has been reported, and evidence of validity has been reported by factor analysis and correlation with other similar scales that measure self-esteem (Luhtanen & Crocker, 1992).

**Index of Work Satisfaction**

This index was developed and revised by Stamps (1997) to assess nurses' job satisfaction. The scale consists of two parts, designed to compare the ranking of factors nurses think are important to their job satisfaction (measured in Part A) with that of current satisfaction levels (measured in Part B) on six dimensions: professional status, task requirements, pay, interaction, organisational policies, and autonomy. Part A was rated using paired comparisons, which enabled the researcher to establish the ranking of the important factors by calculating the frequency distribution of each component chosen over the other paired component (component weighting coefficient). Part B was rated using a Likert scale ranging from 1= strongly agree to 7= strongly disagree. The scores on the positive statements in Part B of this scale were reversed when analysed. Hence, higher scores indicate higher job satisfaction in Part B. Finally, the Index of Work Satisfaction value which is a summary value representing both scores in Part A and B, was produced. This value was obtained from the sum of component adjusted scores (computed by multiplying the component weighting coefficient in Part A with the correspondent component mean score in Part B) divided by six (the number of the components in the scale) (Stamps & Market Street Research, Inc., 1997). Evidence of reliability for the scale has been reported as 0.82 (Stamps, 1997). Support for validity of the scale has also been evidenced by factor analysis (Stamps, 1997).
Six-Dimension Scale of Nursing Performance

The scale, developed by Schwirian (1978), is intended to measure nurses' performance in six dimensions including leadership, critical care, teaching/collaboration, planning/evaluation of nursing care, interpersonal relations/communications with other health team members, and professional development. This scale was rated by the participants using a Likert scale ranging from 1=not very well to 4=very well, which results in higher scores indicating higher levels of performance. The participants were also asked to leave questions pertaining to types of tasks not associated with their job unanswered. In this way, a fair assessment of their performance can be made. Obtaining the score in each subscale was, thus, made by calculating the mean scores of each subscale using the following formula: \( \Sigma X_1 \ldots X_n / n-m \). \( X_1 \ldots X_n \) refers to the numerical ratings given to the participants on each behaviour in the subscale, \( n \) equates to the total number of the items in the subscale, and \( m \) indicates the number of the items in the subscale left unanswered by the participants (Schwirian, 1978). Evidence of reliability for the subscales has been reported as 0.84 to 0.98, and support for validity of the scale has been evidenced by factor analysis. This scale has also reported the high congruence of the factor structures of items between nurses' self-appraisal responses and the objective appraisal of their performance by their employers (Schwirian, 1978).

Procedure

Approval from the Edith Cowan University Ethics Review Committee was granted. The questionnaires and the letter of consent (Appendix C) were then distributed to two hundred nursing students by mail. This was done through the preparation of the questionnaires and envelopes by the researcher. Assistance was also provided by the
secretary at the School of Nursing, who selected the study sample from the list of the students, adhered the students' address labels on the envelopes, and posted them to the participants. The participants were asked to complete the questionnaires and place them in the reply-paid envelope provided upon completion. Two weeks after the distribution of the questionnaires, a reminder letter was sent to the sample group to enhance the response rate. A total of three weeks was allocated for the participants to return the questionnaires by mail to the School of Nursing at Edith Cowan University. These questionnaires were kept in a locked box in the reception office at the School of Nursing by receptionists, and collected by the student researcher.

Due to low response rate in the first attempt (54 surveys returned, which accounted for a response rate of 27%), an additional one hundred questionnaires were distributed to different nursing students using the same procedures. These responses were combined with those in the first attempt (27.3% in total response rate). Then data were entered into a computer for analysis.

Analysis

Data obtained for this study were analysed using SPSS, software for social scientists and related professionals for statistical analysis (Coakes & Steed, 1999). To begin with, descriptive statistics were used to summarize the characteristics of participants. Second, reliability of the questionnaires was assessed using Cronbach's alpha coefficient. Third, normality of the response distribution and the central tendency of each scale were examined. The discrepancy between the perceived public image of nurses and nurses' self-concept was calculated by subtracting the scores of nurses' self-concept from the correspondent scores of the perceived public image of nurses. The absolute numbers of the differences were entered into a computer.
After data were confirmed to satisfy the assumptions for further statistical analyses, One-Way Analysis of Variance was performed to examine the effects of nurses’ background characteristics on their self-concept. The significance level of ANOVA was set at ≤ 0.05.

Finally, the relationships of the variables illustrated in the framework were tested using Pearson’s Correlation coefficient with significance level set at 0.05. In this analysis, each variable was tested against the rest of the variables in a cross-match fashion so as to investigate more accurately the relationships of the variables.

Ethical Considerations

The following ethical issues were considered in conducting this research.

Firstly, the decision to participate in this study was left to the self-determination of the participants. A letter including a description of the purpose of the study, and the procedure for the data collection was given to the participants prior to the data collection. Consent to participate was assumed by the survey return. In addition, participants were assured that they might withdraw from this study without penalty.

Secondly, the participants cooperating in this study remained anonymous. Therefore, they were instructed not to put names on the questionnaires.

Thirdly, confidentiality of the data was maintained. The security of the data was ensured by placing it in a locked cabinet in the student researcher’s house, and by prohibiting access by others. The data will be destroyed by shredding on the completion of this study. However, data will be saved on a diskette for five years.

Next, the purpose and description of the study were submitted to the ethics committee in the university and the committee’s approval obtained.

Lastly, there was no manipulation of the participants or the data collected. The
participants were not coerced to respond to all the questions, or to provide desirable data.
CHAPTER FIVE

Results

Two hundred questionnaires were sent to potential participants. Of these, 27% were returned. Further, one hundred questionnaires were sent out with the response rate of 28%. Therefore, a total of eighty-two questionnaires, which accounted for 27.3% of response rate in total, was returned to the researcher. Of these, two respondents were excluded from the data analysis due to questionnaires not being completed. A total of eighty questionnaires was entered into a computer for statistical analyses. The first section of this chapter will focus on the descriptive statistics which will be followed by a report on the statistical analysis for the hypotheses testing.

1. Descriptive Statistics of the Data

Demographic Data of the Respondents

The demographic data of the respondents show that the majority of the sample are female, accounting for 95% of the total sample (Figure 4).

![Figure 4](image)

Figure 4. Gender of respondents.
The data also show that the most of the respondents are employed in nursing, the majority of whom are on a part-time basis (45%), followed by a full-time basis (43.8%) (Figure 5).

**Figure 5**: Working status of respondents.

Figure 6 shows the descriptive statistics of the age of the respondents.

**Figure 6**: Age of respondents.
The majority of respondents come from 30-39 year age group (40%), followed by the 40-49 year old group (30%). Regarding the length of their work experience, most of the respondents appear to have an abundance of experience in nursing. Figure 7 indicates that approximately 70% of the respondents have more than 10 years of experience, while only 3.8% of them have less than five years of experience.

![Figure 7. Length of work experience.](image)

With reference to the educational background of the sample, Figure 8 shows that the majority of the respondents received a tertiary education.

![Figure 8. Educational background of respondents.](image)
Lastly, the clinical specialty of the respondents in their current work setting is presented in Figure 9. As shown, the majority of the respondents come from medical/surgical wards, but others are from diverse clinical backgrounds.

![Clinical specialty of respondents](image)

**Figure 9.** Clinical specialty of respondents.

**Descriptive Statistics of the Responses on the Scales**

Table 1 shows the descriptive statistics of the perceived public image of nurses by the participants measured by the Porter Nursing Image Scale.

**Table 1**

<table>
<thead>
<tr>
<th>Scale component</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>3.56</td>
<td>.94</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>2.43</td>
<td>.75</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.90</td>
<td>.67</td>
</tr>
<tr>
<td>Total</td>
<td>3.03</td>
<td>.70</td>
</tr>
</tbody>
</table>

**Note.** The scores range from 1 to 7 with the lower scores indicating more positive perceived public image of nurses.
The scores in each component indicate the nurses’ perception of how well the public recognise the professional aspects of nursing (interpersonal power), a nurse’s interactive skills with patients and peers (interpersonal relations), and the nurse’s rationality (intrapersonal ability) (Porter & Porter, 1991).

The mean score of the scale indicates that the nurses perceive the public image of themselves in a slightly positive way. The most negative response in the interpersonal power component can explain that the nurses tend to perceive that the public sees them as being powerless, submissive and dependent on one hand. On the other hand, the most positive response in the interpersonal relations component seems to indicate that nurses appreciate the public understanding of their emotional and mental support to patients. Lastly, the response to the intrapersonal ability component demonstrates that the nurses see the public viewing nurses as relatively well-organised and rational thinkers.

Compared with the perceived public image of nurses, the responses on nurses’ self-concept, obtained by the same scale, show more positive characteristics (Table 2). In all the components, the nurses’ self-concepts are more positive than the perceived public images of nurses. In particular, the score in the interpersonal relations’ component shows the nurses feel they have a caring attitude.

Table 2

Descriptive statistics of the nurses’ self-concept

<table>
<thead>
<tr>
<th>Scale component</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>2.54</td>
<td>.71</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>1.94</td>
<td>.53</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.51</td>
<td>.58</td>
</tr>
<tr>
<td>Total</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>

Note. The scores range from 1 to 7 with the lower scores indicating more positive self-concept.
Inevitably, there is a discrepancy between the perceived public image of nurses and nurses’ self-concept. Table 3 demonstrates that there is the largest discrepancy in the interpersonal power component. This indicates that a great discrepancy in the view of the nursing profession exists between the realm of nursing and society. Table 3 also demonstrates that the least discrepancy is in the interpersonal relations’ component, explaining both the nurses and public acknowledgement of nurses’ caring attitudes.

Table 3

Descriptive statistics of the discrepancy between the perceived public image of nurses and nurses’ self-concept

<table>
<thead>
<tr>
<th>Scale component</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>1.33</td>
<td>.68</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>.91</td>
<td>.63</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>1.04</td>
<td>.50</td>
</tr>
<tr>
<td>Total</td>
<td>1.12</td>
<td>.52</td>
</tr>
</tbody>
</table>

Note. The scores range from 0 to 6 with the higher scores indicating more image discrepancy.

With regard to the nurses’ self-esteem, the results of both personal and collective self-esteem show relatively high attributes (Table 4 & 5).

Table 4

Descriptive statistics of the nurses’ personal self-esteem

<table>
<thead>
<tr>
<th>Nurses' personal self-esteem</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.57</td>
<td>.42</td>
</tr>
</tbody>
</table>

Note. The scores range from 1 to 4 with the lower scores indicating more positive personal self-esteem.
Table 5

Descriptive statistics of the nurses’ collective self-esteem

<table>
<thead>
<tr>
<th>Scale component</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership esteem</td>
<td>5.98</td>
<td>.78</td>
</tr>
<tr>
<td>Private esteem</td>
<td>5.65</td>
<td>1.07</td>
</tr>
<tr>
<td>Public esteem</td>
<td>5.46</td>
<td>1.08</td>
</tr>
<tr>
<td>Identity esteem</td>
<td>4.83</td>
<td>1.39</td>
</tr>
<tr>
<td>Total</td>
<td>5.48</td>
<td>.82</td>
</tr>
</tbody>
</table>

Note. The scores range from 1 to 7 with the higher scores indicating more positive
collective self-esteem.

However, when considering the component scores of the collective self-esteem, one can note that the nurses rated relatively high in membership esteem, which assesses how good or worthy they perceive themselves as members of the nursing profession. In contrast, they rated relatively low in public esteem, evaluating nurses’ judgement of how others evaluate nurses/nursing, and identity esteem, assessing the degree of importance of nursing profession to their self-concept.

Looking at the Index of Work Satisfaction scale measuring the nurses’ job satisfaction, the component weight coefficient was calculated from Part A of the scale to examine the frequency distribution of how often one member of a pair was selected over the other (Stamps, 1997). In this instance, a higher component weight coefficient indicates the ranking of factors which nurses perceive to increase their job satisfaction. The component scale scores (the means of the total scores in each component in Part B) and the component mean scores (component scale score divided by the number of the items in each component) were calculated. In this case, the component mean scores indicate the actual levels of satisfaction in each component (higher scores indicate higher job satisfaction). Comparison of the component weight coefficient (Part A) with the component mean score (Part B) is meaningful, because it makes it possible to determine the degree of congruence between ideal and actual work contexts. Next, the
component adjusted scores were calculated by multiplying the component weight coefficient with the corresponding component mean score. Finally, the mean score of the component adjusted scores was calculated to produce the Index of Work Satisfaction, which measures a nurse's job satisfaction in relation to the congruity between his/her expectation and current level of satisfaction (Stamps & Market Street Research, Inc., 1997). The summary figures are presented in Table 6.

Table 6

Descriptive statistics of the nurses’ job satisfaction

<table>
<thead>
<tr>
<th>Component</th>
<th>1. Component Weight Coefficient (Part A)</th>
<th>2. Component Scale Score</th>
<th>3. Component Mean Score (Part B)</th>
<th>4. Component Adjusted Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay</td>
<td>3.21</td>
<td>17.15</td>
<td>2.86</td>
<td>9.18</td>
</tr>
<tr>
<td>Autonomy</td>
<td>3.82</td>
<td>39.46</td>
<td>4.93</td>
<td>18.83</td>
</tr>
<tr>
<td>Task Requirements</td>
<td>2.75</td>
<td>24.26</td>
<td>4.04</td>
<td>11.11</td>
</tr>
<tr>
<td>Organizational Policies</td>
<td>2.38</td>
<td>25.43</td>
<td>3.63</td>
<td>8.64</td>
</tr>
<tr>
<td>Professional Status</td>
<td>3.18</td>
<td>32.06</td>
<td>4.58</td>
<td>14.56</td>
</tr>
<tr>
<td>Interaction</td>
<td>3.27</td>
<td>45.35</td>
<td>4.54</td>
<td>14.85</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Mean Score</th>
<th>Index of Work Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>183.7</td>
<td>4.18</td>
<td>12.9</td>
</tr>
<tr>
<td>(Range: 44-308)</td>
<td>(Range: 1-7)</td>
<td>(Range: 0.9-37.1)</td>
</tr>
</tbody>
</table>

The component weight coefficients indicate that the nurses see autonomy as the most important factor in increasing their job satisfaction, and organisational policies as the least important factor affecting it. The total mean score of Part B shows that the nurses are neither satisfied nor dissatisfied with their job (Table 6). Whilst the component mean scores of the autonomy and professional status components are slightly above the mid-point of the scale, the mean score of the pay component shows
the nurses’ strong dissatisfaction with their pay. The Index of Work Satisfaction in this study indicates 12.9, which is compatible with the results of a meta-analysis conducted by Stamps (1997). In the meta-analysis of thirty studies in 1996, Stamps (1997) reported the mean score of Index of Work Satisfaction as 12.5, and its mode as around 13.

Table 7

Comparison of Part A and Part B of the Index of Work Satisfaction

<table>
<thead>
<tr>
<th>Ranking of important factors &amp; current satisfaction level</th>
<th>Part A (important factor)</th>
<th>Part B (satisfaction level)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- most important &amp; satisfied component</td>
<td>Autonomy</td>
<td>Autonomy</td>
</tr>
<tr>
<td>2</td>
<td>Interaction</td>
<td>Professional Status</td>
</tr>
<tr>
<td>3</td>
<td>Pay</td>
<td>Interaction</td>
</tr>
<tr>
<td>4</td>
<td>Professional Status</td>
<td>Task Requirements</td>
</tr>
<tr>
<td>5</td>
<td>Task Requirements</td>
<td>Organizational Policies</td>
</tr>
<tr>
<td>6- least important &amp; satisfied component</td>
<td>Organizational Policies</td>
<td>Pay</td>
</tr>
</tbody>
</table>

With respect to the comparison between Part A and B of the Index of Work Satisfaction (Table 7), the greatest discrepancy can be observed in the pay component. This is because the nurses show the least satisfaction with their pay in Part B, whilst they rank pay as the third most important factor for their job satisfaction in the Part A. Another discrepancy between Part A and B is the professional status. The nurses rank the importance of having professional status fourth in Part A of the questionnaire, and the actual level of satisfaction second in Part B.

Concerning job performance, the mean score of the Six-Dimension Scale of Nursing Performance demonstrates that the respondents evaluate their performance very positively. There is not much difference among the component mean scores, which also
characterise high self-evaluation of their performance across all the job components (Table 8).

Table 8

Descriptive statistics of the nurses’ job performance

<table>
<thead>
<tr>
<th>Scale component</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leadership</td>
<td>3.46</td>
<td>.39</td>
</tr>
<tr>
<td>Critical care</td>
<td>3.41</td>
<td>.51</td>
</tr>
<tr>
<td>Teaching &amp; collaboration</td>
<td>3.29</td>
<td>.53</td>
</tr>
<tr>
<td>Planning &amp; evaluation</td>
<td>3.47</td>
<td>.48</td>
</tr>
<tr>
<td>Interpersonal relations &amp; communications</td>
<td>3.51</td>
<td>.42</td>
</tr>
<tr>
<td>Professional development</td>
<td>3.58</td>
<td>.33</td>
</tr>
<tr>
<td>Total</td>
<td>3.45</td>
<td>.35</td>
</tr>
</tbody>
</table>

Note. The scores range from 1 to 4 with the higher scores indicating the nurses’ perception of more positive job performance of them.


Analysis of the Scales

Prior to the hypotheses testing, the reliability of the scales and the normality of the response distribution in each scale have been tested. Table 9 presents the Cronbach’s alpha coefficients of the scales.

Table 9

Reliability of the scales (Cronbach’s alpha coefficients)

<table>
<thead>
<tr>
<th>Cronbach coefficient</th>
<th>Public image of nurses</th>
<th>Self-concept</th>
<th>Discrepancy</th>
<th>Personal self-esteem</th>
<th>Collective self-esteem</th>
<th>Job satisfaction</th>
<th>Job performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha</td>
<td>0.92</td>
<td>0.88</td>
<td>0.87</td>
<td>0.77</td>
<td>0.86</td>
<td>0.92</td>
<td>0.87</td>
</tr>
</tbody>
</table>

All the scales show reasonable levels of reliability ranging from 0.77 to 0.92.

Regarding the normality of the response distribution, each scale shows the normal
distribution of the responses at an acceptable level for further statistical analyses.

The Results of ANOVA

ANOVA was conducted to test Hypothesis Two. Hypothesis Two assumed a positive impact of the degree of professional socialisation measured by the demographic parameters on the nurses' self-concept development. As mentioned, the responses on the nurses' self-concept range from 1 to 7 with the lower scores indicating more positive self-concept.

The impact of the gender difference on the nurses' self-concept.

The descriptive statistics of the nurses' self-concept based on the gender difference is presented in Table 10.

Table 10

Nurses' self-concept based on gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>76</td>
<td>2.32</td>
<td>.49</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>2.61</td>
<td>.60</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>

As shown in the Table, female nurses have a slightly more positive self-concept than their male counterparts. However, the difference is minimal. ANOVA was avoided for testing the difference between these two groups in this instance due to the fact that the imbalance in the sample size could decrease the validity of the ANOVA.
The impact of the difference in working status on the nurses’ self-concept.

As one can see in Table 11, the mean scores of the nurses’ self-concept show little difference despite the nurses’ working status. ANOVA was conducted only between the full-time and part-time groups because the number of respondents in the “not working in nursing” group was small.

Table 11

Nurses’ self-concept based on working status

<table>
<thead>
<tr>
<th>Working status</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>35</td>
<td>2.31</td>
<td>.47</td>
</tr>
<tr>
<td>Part-time</td>
<td>36</td>
<td>2.38</td>
<td>.55</td>
</tr>
<tr>
<td>Not working in nursing</td>
<td>9</td>
<td>2.27</td>
<td>.41</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>

The ANOVA indicates that there is no statistically significant difference between these two groups, \( F(1, 69)=0.30, p=0.59 \). The analysis by component (interpersonal power, interpersonal relations, and intrapersonal ability) also reveals no significant differences among the means (Appendix D).

The impact of age difference on the nurses’ self-concept.

Table 12 presents the mean scores of the nurses’ self-concept based on the differences in their age. Whereas the nurses in their thirties respond most positively, those in their fifties give the most negative response.

ANOVA was conducted to test the differences among the means excluding the sample group of 50-59 years old. The result shows that this difference is not statistically significant, \( F(2, 70)=0.59, p=0.56 \). The component analysis also shows no significant differences among the means (Appendix D).
Table 12

Nurses’ self-concept based on age

<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29 years old</td>
<td>17</td>
<td>2.32</td>
<td>.36</td>
</tr>
<tr>
<td>30-39 years old</td>
<td>32</td>
<td>2.25</td>
<td>.45</td>
</tr>
<tr>
<td>40-49 years old</td>
<td>24</td>
<td>2.39</td>
<td>.57</td>
</tr>
<tr>
<td>50-59 years old</td>
<td>7</td>
<td>2.57</td>
<td>.70</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>

The impact of the difference in clinical experience on the nurses’ self-concept.

The categories of the length of clinical experience were collapsed into three levels shown in Table 13, as there were only three nurses with less than five years of experience. Table 13 reports that the mean scores of the nurses’ self-concept in each component do not differ from one another. Thus, the result of the ANOVA shows no significant differences among the means, \( F(2, 77) = 0.12, p = 0.88 \). The same results are obtained in the component analysis (Appendix D).

Table 13

Nurses’ self-concept based on length of clinical experience

<table>
<thead>
<tr>
<th>Length of experience</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 10 years</td>
<td>25</td>
<td>2.30</td>
<td>.34</td>
</tr>
<tr>
<td>10-20 years</td>
<td>30</td>
<td>2.34</td>
<td>.51</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>25</td>
<td>2.37</td>
<td>.61</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>
The impact of the educational background on the nurses’ self-concept.

Prior to the analysis, the categories for the postgraduate diploma and the master’s degree were integrated into one category because there was only one participant studying for the master’s degree. The descriptive statistics (Table 14) reveal that the nurses with bachelor’s degrees report the most positive self, whereas the nurses with hospital based diplomas and postgraduate awards report nearly the same level of low self-concept.

Table 14

Nurses’ self-concept based on educational background

<table>
<thead>
<tr>
<th>Educational background</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital based diploma</td>
<td>21</td>
<td>2.45</td>
<td>.56</td>
</tr>
<tr>
<td>Bachelor’s degree</td>
<td>44</td>
<td>2.24</td>
<td>.44</td>
</tr>
<tr>
<td>Postgraduate awards</td>
<td>15</td>
<td>2.46</td>
<td>.52</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>

ANOVA was not used with the respondents with bachelor’s degree due to the imbalance in the sample size. The statistics show neither statistically significant difference between the means of the total scores, $F(1, 34) = 0.00, p = 0.97$ nor the means of the component scores (Appendix D).

The impact of the difference in clinical specialty on the nurses’ self-concept.

Since the respondents have various clinical backgrounds, the number of respondents in each category would have been low, so the areas of specialty were collapsed in the following manner; community, other than clinical, medical/surgical, other specialized areas, critical care, and mental health. The nurses working in the “other than clinical” area include those not working in a clinical stream but in
management, research and staff development streams. The nurses in "other specialized areas" encompass those working in such specialized areas as paediatrics, obstetrics, orthopaedics, and so forth. The "critical care" category was formed from the previous categories of critical care, emergency room/outpatient, and operating room. Finally, "mental health" was rephrased from a former category of psychiatric nursing. The mean scores of the nurses' self-concept in all the categories are listed in Table 15, which reveals that the nurses working in the "other than clinical" area report the most positive self-concept. In contrast, the nurses working in mental health nursing are revealed to have the most negative self-concept. ANOVA was conducted among the medical/surgical, other specialized areas and critical care groups to adjust the sample size in each category. The result shows no statistical significant difference among the means, $F(2, 54)= 2.71, p= 0.08$. The component analysis also indicates no statistically significant differences among the means (Appendix D).

Table 15

Nurses' self-concept based on clinical specialty

<table>
<thead>
<tr>
<th>Clinical specialty</th>
<th>Number</th>
<th>Mean score</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>11</td>
<td>2.36</td>
<td>.67</td>
</tr>
<tr>
<td>Other than clinical</td>
<td>4</td>
<td>1.97</td>
<td>.33</td>
</tr>
<tr>
<td>Medical/surgical</td>
<td>18</td>
<td>2.47</td>
<td>.50</td>
</tr>
<tr>
<td>Other specialized areas</td>
<td>24</td>
<td>2.18</td>
<td>.37</td>
</tr>
<tr>
<td>Critical care</td>
<td>15</td>
<td>2.43</td>
<td>.49</td>
</tr>
<tr>
<td>Mental health</td>
<td>8</td>
<td>2.50</td>
<td>.55</td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>2.34</td>
<td>.50</td>
</tr>
</tbody>
</table>
The Results of Pearson Correlation

The Pearson correlation was used to test the relationships among the perceived public image of nurses, nurses’ self-concept, personal and collective self-esteem, job satisfaction and performance, as illustrated in the study framework. In addition to the above variables, a new measure for the professional socialisation was added for this analysis. This is because the ANOVA failed to support Hypothesis Two, assuming the impact of professional socialisation on the nurses’ self-concept. This may be because such factors as the age, gender, working status, length of experience, educational background and ward assignment are not appropriate indicators of the degree of professional socialisation.

To re-test the above relationship with a correlational design, the professional socialisation scale was created from the Six-Dimension Scale of Nursing Performance to measure the degree of professional socialisation (Appendix E). The items selected were concerned with nurses’ interaction with other health team members and the utilization of learning opportunities for their professional growth. The validity of the scale was established by a review of nursing experts. Then, the scores on the professional socialisation scale were computed. The responses on the scale show a normal distribution. The descriptive statistics reports that the mean score ($M= 3.41, SD= 0.41$) is well above the mid-point of the scale, explaining the nurses’ engagement in a great depth of professional socialisation.
Finally, a cross-match test of the variables was conducted using the Pearson correlation. The results are presented in Table 16.

Table 16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived public image of nurses (P.P.I.N.)</td>
<td>.54**</td>
<td>.74**</td>
<td>.26*</td>
<td>- .50**</td>
<td>- .51**</td>
<td>- .41**</td>
<td>- .46**</td>
<td></td>
</tr>
<tr>
<td>Nurses’ self-concept (N.S.C.)</td>
<td>.03</td>
<td>.43**</td>
<td>- .45**</td>
<td>- .33**</td>
<td>- .64**</td>
<td>- .62**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrepancy between P.P.I.N. &amp; N.S.C. (Disc.)</td>
<td>.16</td>
<td>- .38**</td>
<td>- .35**</td>
<td>- .10</td>
<td>- .20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses’ personal self-esteem (N.P.E.)</td>
<td></td>
<td></td>
<td>- .28*</td>
<td>- .21</td>
<td>- .32**</td>
<td>- .37**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses’ collective self-esteem (N.C.E.)</td>
<td>.41**</td>
<td>.34**</td>
<td>.34**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses’ job satisfaction (N.J.S.)</td>
<td></td>
<td></td>
<td></td>
<td>.28*</td>
<td>.30**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses’ job performance (N.J.P.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.90**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional socialisation (P.S.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N (Number of the respondents)= 80. * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed).

All the pairs of variables that are statistically significant show linear relationships.

When interpreting the data, it should be remembered that each scale adopts a different scoring system, which might lead to a misinterpretation of the findings. For instance, lower scores on the perceived public image of nurses, nurses’ self-concept and personal self-esteem scales indicate positive attributes. In contrast, higher scores on the nurses’ collective self-esteem, job satisfaction, job performance, and professional socialisation indicate positive attributes. Regarding the measurement of the discrepancy
between the perceived public image of nurses and the nurses' self-concept, the higher scores indicate more discrepancy. Thus, the direction of the relationships (either positive or negative) indicated by the Pearson $r$ could be different from that of the hypothetical relationships in the framework, even though the findings support the hypotheses.

The relationships among professional socialisation, perceived public image of nurses and nurses' self-concept.

Table 16 shows that the degree of the nurses' self-concept has statistically significant relationships with the degree of professional socialisation and the perceived public image of nurses. These results show that the nurses who perceive the public image of nurses more negatively tend to report a more negative self-concept. Moreover, the nurses who have been socialising more with other health team members are more likely to formulate a more positive self-concept. Although both variables are related to the development of the nurses' self-concept to some extent, it should be noted that the degree of professional socialisation shows a stronger relationship with the nurses' self-concept (38.7% common variance) than the perceived public image of nurses (28.8% common variance). Therefore, the nurses preserve a positive self-concept.

The above findings are consistent with other findings showing the nurses developing a positive professional identity. In fact, the descriptive statistics show that the mean score of the nurses' self-concept ($M=2.34$) is lower, indicating that it is actually more positive than the perceived public image of nurses ($M=3.03$). Further support of the above explanation can be found in the relationship between the perceived public image of nurses and the discrepancy between that and the nurses' self-concept. Table 16 shows a strong relationship between the variables, which indicates that if the perceived public image of nurses is more negative, the image discrepancy will be
greater. This seems to show that the way they perceive the public image of themselves could be a significant indicator of the degree of image discrepancy, as the nurses' self-concept is well preserved irrespective of their background differences.

The relationships among nurses' personal self-esteem, nurses' self-concept and collective self-esteem.

These relationships were tested to investigate the effect of the nurses' personal self-esteem, the degree of which is assumed to determine the extent to which psychological selectivity is employed, on the nurses' self-concept and collective self-esteem. Table 16 reports that the nurses' personal self-esteem bears a statistically significant correlation to both the nurses' self-concept and collective self-esteem. That is, nurses with more positive personal self-esteem are more likely to develop more positive self-concept and collective self-esteem. However, the strength of the relationships indicates that the nurses' personal self-esteem is more bound to the maintenance of their self-concept than that of collective self-esteem. The correlation coefficients show that the nurses' personal self-esteem accounted for 18.5% of variance in the scores on the nurses' self-concept whilst it accounted for only 7.8% of variance in the scores on the nurses' collective self-esteem.

The relationships among perceived public image of nurses, the image discrepancy and nurses' collective self-esteem.

Table 16 shows that there is a mild negative correlation between the image discrepancy and the nurses' collective self-esteem, and a moderate negative correlation between the perceived public image of nurses and nurses' collective self-esteem. These suggest that nurses who perceive the public image of them more negatively tend to
complain of more image discrepancy, resulting in the development of lower collective self-esteem. The results also indicate that the more negatively nurses perceive the public image of them, the greater its negative impact on their collective self-esteem. On these grounds, it could be maintained that the perceived public image of nurses has both direct and indirect relationships with nurses' collective self-esteem.

The relationships among the image discrepancy, nurses' collective self-esteem and job satisfaction.

The results supported the hypotheses that the degree of nurses' job satisfaction is associated with the degree of the image discrepancy and nurses' collective self-esteem. As presented in Table 16, the nurses' job satisfaction bears a weak negative correlation to the discrepancy, yet is statistically significant at the $p$ level of 0.01. Furthermore, it has a mild positive relationship with the nurses' collective self-esteem. Hence, it can be inferred from the above findings that nurses who report more discrepancy, consequently tend to possess lower collective self-esteem, are more likely to report stronger job dissatisfaction.

The relationships among nurses' self-concept, the image discrepancy, collective self-esteem, job satisfaction, and job performance.

The results of the Pearson correlation show the various strengths of the relationships among the variables. In relation to job performance, the Pearson $r$ shows statistically significant relationships with job satisfaction, collective self-esteem and self-concept. These show that the higher the nurses' job satisfaction, collective self-esteem, or self-concept is, the greater their performance will be. With reference to the image discrepancy, however, a very weak relationship was found with job performance,
which does not reach a statistical significance.

In addition to the Pearson $r$, the correlation coefficients were calculated to determine the strengths of the above significant relationships in an effort to investigate Hypothesis Ten. The results revealed that the nurses’ self-concept accounted for 41.2% of the variance in the scores on the nurses’ job performance, whereas the nurses’ job satisfaction and collective self-esteem explained only 7.6% and 11.4% of the variances respectively. These findings demonstrate that nurses’ performance is more strongly associated with their self-concept than the other variables. Therefore, to the extent that nurses embrace a positive self-concept, their job performance is more likely to be preserved despite low collective self-esteem and job satisfaction.

The relationships among nurses’ job performance, professional socialisation and perceived public image of nurses.

As shown in Table 16, the nurses’ performance is moderately related to the perceived public image of nurses, and strongly related to the degree of involvement in professional socialisation. The interpretation of these findings indicates that nurses who manifest better professional performance are more likely to engage in better interaction with society and other health team members.

The Pearson correlation products have clarified the relationships illustrated in the study framework. The summary of the correlation is depicted in Figure 10.
Figure 10. Correlation among the variables illustrated in the study framework.

Note. **. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).
The relationships not illustrated in the study framework.

Apart from the above relationships, the results of the cross-match correlation have revealed that there are some other statistically significant relationships which are not presented in the study framework. This section is intended to introduce these relationships.

As shown in Table 16, there is a statistically significant relationship between professional socialisation and the nurses' personal self-esteem. This suggests that nurses with more positive self-esteem have a willingness to engage in a greater depth of the professional socialisation with other nurses. On the other hand, professional socialisation could foster nurses' personal self-esteem.

Another statistically significant correlation can be observed between the nurses' self-concept and collective self-esteem. The Pearson correlation indicates a mild negative relationship between them. This denotes that nurses with a positive self-concept are inclined to have a positive collective self-esteem.

Still another statistically significant relationship is found between the perceived public image of nurses and the nurses' personal self-esteem. The statistics show that there is a weak positive correlation between them. This means nurses with higher personal self-esteem are more likely to perceive the public image of nurses more favorably.

Table 16 shows some other statistically significant correlation whose strengths vary from one relationship to another. For instance, there are moderate relationships between the perceived public image of nurses and the nurses' job satisfaction, and between the perceived public image of nurses and the degree of professional socialisation. There are weak relationships between professional socialisation and the nurses' collective self-esteem, between professional socialisation and the nurses' job
satisfaction, and between the job satisfaction and the nurses’ self-concept. All these relationships are summarised in Figure 11, and will be discussed in the next chapter.
**Figure 11.** Correlation among the variables not illustrated in the study framework.

*Note.* **. Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).
CHAPTER SIX
Discussion

This section discusses the study findings and suggests preventive measures to attenuate the negative influence of the stereotypical public image of nurses. Firstly, the results of the data analyses are discussed. Secondly, strategies to enhance nurses’ psychological and functional states are suggested. Next, the discussion will move on to the limitations of the study. Finally, areas for further investigation will be explored.

Discussion of the Results

Prior to discussion of the results, the response rate of the questionnaires should be analysed. The response rate of the questionnaires in this study was low, as it accounted for only 27.3% in total. This low response rate might result from the nature of the respondents who adopt strenuous dual roles as nurses and university students. In addition, the length of the questionnaires, which was also exhaustive, might have contributed to a justifiable excuse for the potential participants to withdraw from this study. The low response rate could reduce the validity of the study findings. However, it is considered that duplicating the data collection procedure allowed the researcher to obtain the minimum valid number of completed questionnaires for the analysis.

Discussion of the Results of the Descriptive Statistics

Discussion of the demographic data of the respondents.

The demographic data showed that the most of the respondents are female. This seems to illustrate that nursing is predominantly a female profession. The data also indicate that the majority adopt a part-time practice. There are some reasons that could explain this phenomenon. The first reason could be concerned with the age bracket of
the respondents. As shown in Figure 6, approximately 70% of the respondents fall in the age bracket of 30-49 years. Perhaps, the population in this age bracket may devote a significant amount of their time to domestic tasks, therefore, many take a part-time position. Another reason for taking part-time positions might emanate from the nature of the respondents, who adopt dual roles as nursing students and nurses. The final reason could be related to the hospital policy to employ part-time nurses due to financial constraints. As to the length of the experience in nursing, the data show that the majority of respondents have abundant clinical experience. Once again, this is also predictable, as most of the respondents are mature candidates. In regard to the educational background of the sample, the data indicate a high educational background for the respondents. This is due to the radical shift in the educational system in Australia, which converted nursing education from a hospital basis to a tertiary basis in the early 1980s. This is also achieved by the establishment of a post-registration conversion course, which encourages nurses with the conventional educational background to pursue a nursing degree. Lastly, the diverse clinical specialties of the respondents appear to characterize the current trend to specialize their knowledge and expertise in specific areas of nursing.

**Discussion of the descriptive statistics of the responses on the scales.**

Prior to the discussion of the responses on the scales, it may be effective to remind the purpose of the each scale. The Porter Nursing Image scale was used to assess how the nurses see themselves, how the nurses perceive the public viewing them, and the image discrepancy between the nurses and the public. The Self-Esteem Scale was adopted to measure the nurses' personal self-esteem (personal judgement of individual worthiness), while the Collective Self-Esteem Scale was utilised to assess the nurses'
collective self-esteem (perceived social evaluation of the nursing profession). The Index of Work Satisfaction was used to evaluate how satisfied the nurses are with the current work environment as well as to assess the degree of the nurse-environment fit. The Six-Dimension Scale of Nursing Performance was to measure the nurses’ perceptions of how well they perform nursing care. Finally, the professional socialisation scale was created to evaluate the degree of the nurses’ involvement in professional socialisation.

The results on the Porter Nursing Image Scale suggest that the nurses view themselves very positively. The component mean scores of the scale (see Table 2) are almost identical to those found by the study by Porter and Porter (1991). The nurses in this study rated the interpersonal relations component, which is assessing the interaction skills of nurses, more positively than that of Porter and Porter’s study (1991). In contrast, the results (see Table 1) suggest that the nurses perceive the public image of them more negatively than they view themselves. These results appear to reinforce the findings by Krebs et al (1996) that nurses have a professional identity although they perceive the public as still holding the stereotypical image of them. These conflicting views lead to the existence of image discrepancy of the nursing profession between nurses and the public. Table 3 shows that there is a larger discrepancy in the interpersonal power which may indicate the nurses’ perception of the public’s strong tendency to regard nurses as dependents of doctors. There is a lesser discrepancy in the interpersonal relations which may demonstrate the nurses’ views of the public inclination to see nursing playing motherly and nurturing roles. Consequently, this public tendency results in more positive responses being obtained on this dimension, thereby attenuating the discrepancy.

Regarding the results of the Self-Esteem and Collective Self-Esteem Scales (see Table 4 & 5), the data indicate that the nurses’ self-esteem is indicated positively.
These results are compatible with those reported by Baldwin, Welches, Walker and Eliastam (1987), Westaway, Wessie, Viljoen, Booysen and Wolmarans (1996), Carson, Fagin, Brown, Leary, and Bartlett (1997), and Thomsen, Arnelz, Nolan, Soares and Dallender (1999). However, close examination of the results of the Collective Self-Esteem Scale reveals that the nurses embrace high membership esteem, whilst their public and identity esteems are relatively low. These findings might indicate that nurses’ perception of their competency contributes to higher collective self-esteem. Alternatively, their perception of the stereotypical public image of nurses appears to hinder them from holding high public esteem and attaching the importance of being in the nursing profession to their self-concept (identity esteem).

As for the results of the Index of Work Satisfaction (see Table 6), the data in Part B demonstrate that the nurses are not satisfied with their work context. These results are consistent with the findings of Juhl, Dunkin, Stratton, Geller and Ludtke (1993) and of Goodell and Coeling (1994), but are well above the findings reported by Fung-Kam (1998). This low response may indicate that the nurses are satisfied with neither the current level of incentives they receive in each work dimension (e.g., the level of autonomy and remuneration), or the degree of congruence between ideal and actual work contexts. For example, autonomy and professional status occupy high positions in Part B. However, it does not necessarily follow that the nurses are very satisfied with those job components. In fact, the mean scores of both components show only moderate satisfaction ($M=4.93$ in autonomy, $M=4.58$ in professional status). Hence, it is considered that low scores on the other components forced autonomy and professional status to the higher positions in Part B.

The comparison of the results in Part A and B of the index of Work Satisfaction (see Table 7) reveals discrepancies between what the nurses think is important to their
job satisfaction and what they receive in the actual work context. A great discrepancy is observed in the pay component of the scale, which calls to mind the nursing strike in Western Australia in 1998. The result is also compatible with other studies, which reported nurses' strong dissatisfaction with pay, a factor to which they attach importance (Juhl, Dunkin, Stratton, Geller & Ludtke, 1993; Goodell & Coeling, 1994; Fung-Kam, 1998). There is one other major discrepancy indicated by the results, which is found in the professional status component. Unexpected finding was that the professional status ranked fourth in Part A, considering the prominence of professional status in the last fifty years (Champion, Austin & Tzeng, 1987). Perhaps, the nurses do not expect high professional status. This would explain why they ranked it fourth in Part A (importance) and yet second in Part B (satisfaction). In other interpretations, relative satisfaction with their professional status might make the nurses prioritize other important factors such as pay in Part B. To clarify the above question, a qualitative approach may be necessary.

Apart from these discrepancies, Table 7 seems to show a moderate congruence between ideal and actual work environments. Once again, this may not mean that the nurses work in an ideal environment. If they receive less autonomy than they seek, for instance, it could be considered that there is an incongruity in ideal-actual work environment.

With reference to the results on the Six-Dimension Scale of Nursing Performance (see Table 8), it is apparent that the nurses evaluated their performance very positively in all the task requirements. This might underpin the assumption that nurses' professional identity and motivation to improve their work situation guide their performance at a professional level. The comparison of this result with others was not made due to the lack of descriptive statistics on the Six-Dimension Scale of Nursing
Performance in other studies (Stull, 1986; McCloskey & McCain, 1988).

Finally, the descriptive statistics of the professional socialisation scale seem to explain that the nurses are involved in a great depth of professional socialisation. As the literature suggests that nurses acquire their professional identity through socialisation (Moloney, 1992; Lum, 1998), this could be the reason for the nurses developing a high self-concept.

Discussion of the Results of the ANOVA

The results of the ANOVA were unable to sustain Hypothesis Two, which claims the effect of the professional socialisation on the development of the nurses' self-concept. These study findings are not consistent with those found by Porter and Porter (1991), who reported the effects of the differences in working status, educational background and role and clinical experience on nurses' self-concept. There are some factors, which may indicate why the results in this study does not reconcile with the Porter and Porter study.

One factor might be related to the difference in the sample size. While Porter and Porter (1991) could obtain 363 nurse participants, this study had only 80 participants. Thus, small sample size might have led to the inability to demonstrate the effect of the demographic differences on the development of the nurses' self-concept. For example, the nurses in managerial, staff development, and research positions (those in the “other than clinical” category) report the most positive self ($M = 1.97$), whereas mental health nurses report the most negative self ($M = 2.50$). There might be a statistically significant difference between the means. However, this study could not include these categories for analysis due to low number of respondents in those categories.
Another reason could originate from the differences between the way in which both studies looked at the indicators of professional socialisation. Whilst Porter and Porter looked at the quality of professional socialisation, this study looked at the quantity. Porter and Porter (1991) tested the effect of the level of responsibility in a work setting (level in the clinical ladder) on a nurse’s self-concept. Their results revealed a statistically significant difference ($p=0.001$) in the interpersonal power of self-concept between novice nurses (those in level I and II) and expert nurses (those in level III and IV). This may be because climbing up the clinical ladder involves a significant amount of professional socialisation. Nurses in higher positions are also required to engage in more interaction with other staff nurses. In contrast, this study investigated the relationship between nurses’ self-concept and the length of clinical experience, which does not necessarily to indicate a depth of professional socialisation. This is because a motivational factor (need for professional growth) plays an influential role in how nurses socialise. Hence, such demographic factors as the length of the experience and working status may not actually reflect the degree of professional socialisation.

Similarly, a factor such as ages of the respondents may not be an appropriate indicator of the degree of professional socialisation. That is because age itself does not indicate the way nurses socialise in terms of quality and style.

The final reason could be due to the difference in the background of the samples. This study recruited participants from university rather than from hospitals where Porter and Porter obtained their participants. Since one’s self-concept is formed through the identification with models (Argyle, 1981), it could be reasonable to assume that belonging to a university and interacting with academic scholars might allow the participants in this study to “bask in the glory” of their academic models (Brockner, 1988, p. 137). This might be an underlying reason why the participants report the same
degree of positive self-beliefs irrespective of the difference in their clinical and educational experiences.

On these grounds, it might be concluded that the small sample size and the use of inappropriate measures caused the rejection of Hypothesis Two.

Discussion of the Results of the Pearson Correlation

Impact on nurses' self-concept.

French and Kahn (1962) concluded that the objective social environment together with the person's need to preserve a positive self affect the person's mental state. One of the objective social environment factors for nurses is the social world. The results of the data analyses suggest that nurses perceive the public image of them more negatively than they think of themselves. The results also indicate that the perceived public image of nurses is associated with the way nurses develop their self-concept. This supports Hypothesis One postulating that the lower the perceived public image of nurses is, the lower the nurses' self-concept will be. These findings appear to reinforce the contention of the contemporary nursing scholar that the public still holds stereotypical views of nurses which affect nurses' self-concept (Kaliesh & Kalisch, 1983 & 1986; Choon & Skevington, 1984; Champion, Austin & Tzeng, 1987). In the sociological sense, this may be due to the fact that distorted public beliefs toward nurses have created an oppressive environment wherein nurses are forced to internalise the misconceptions about them (Freire, 1968/1972; Roberts, 1983). In the light of psychological theory, this could be owing to the reflection of others, upward comparison with doctors, and distorted public perception of nurses' role, which may impair their self-concept (Festinger, 1954; Aygyle, 1981).

In contrast, the nursing world, the other factor of the objective social
environment, appears to foster a positive self-concept within nurses. Hypothesis Two holds that the greater the degree of professional socialisation is, the greater nurses’ self-concept. The results of the data analyses seem to provide support for this hypothesis that the degree of the professional socialisation is positively associated with the formation of a positive identity. This is because socializing with other nursing members could provide nurses with opportunities to identify with professional models as well as to obtain positive reflections of themselves (Moloney, 1992; Lum, 1998). Furthermore, socialisation gives nurses an opportunity to examine the accuracy of the public image of nurses, which protects their self-concept from the negative influences of the public stereotypes.

These conflicting effects of the social and nursing worlds on the nurses’ self-concept appear to be reconciled by their judgement to disregard the public perception of their profession and the need to preserve a positive self. The results of the Pearson correlation showed that there is a stronger relationship between the nurses’ self-concept and the degree of professional socialisation than between the nurses’ self-concept and the perceived public image of nurses. This result, supporting Hypothesis Three, is congruent with those identified by Krebs et al. (1996) in their qualitative research that nurses have a positive self-concept despite their perception of the stereotypical public image of nurses. An underlying reason for this result could be the nurses’ judgement to disregard the public image as unreliable and to attach more importance to reliable information coming from significant others (nursing profession) (Hattie, 1992; Shavelson, Hubner & Stanton as cited by Marsh & Hattie, 1996). That is, the source and characteristics of information determine the degree of each factor’s influence on nurses’ self-concept.

Despite the above theoretical support, this result could be open to criticism. As
elucidated in the preceding chapter, the measurement of professional socialisation was created from the Six-Dimension Scale of Nursing Performance, the responses to which showed a statistically significant correlation with those on the nurses’ self-concept scale. Therefore, it could be speculated that the interrelation of the scales between the Six-Dimension Scale of Nursing Performance and professional socialisation might have produced a similar high correlation between the nurses’ self-concept and professional socialisation. To resolve this speculation, the development of a separate scale measuring the degree of nurses’ professional socialisation is necessary.

Although the above result remains unclear, the results of other statistics seem to justify the relationship between professional socialisation and the nurses’ self-concept. For instance, the results of the descriptive statistics showed that the nurses embrace a more positive image of themselves than how they perceive the society as viewing them. This appears to illustrate that nurses tend to take more account of feedback from the domain of nursing than that from society. In addition, there is one more factor, which supports the potent effect of professional socialisation. That is the strong correlation between the perceived public image of nurses and the discrepancy between the perceived public image of nurses and nurses’ self-concept. This result suggests that the way nurses perceive the public image of them could be a powerful indicator for predicting the degree of image discrepancy. In other words, this implies that nurses’ self-concept is rigidly preserved despite the moderate effect of the perceived public image of nurses. Therefore, this results in the degree of the perceived public image of nurses strongly determining the degree of the discrepancy. On these grounds, it could be argued that professional socialisation has a stronger impact on the formation of nurses’ self-concept than the perceived public image of nurses does.

In addition to the characteristics of information, there is one other factor
affecting the formation of one’s self-concept that is, psychological selectivity. It was hypothesized that nurses with higher personal self-esteem were more likely to utilize this function (Hypothesis Four). Hence, they were predisposed to manipulate self-relevant information in a favourable way so as to preserve positive selves. The result of the analysis, in fact, supports this assumption that nurses with more positive personal self-esteem reported more positive selves.

It is apparent that developing a positive personal self-esteem is very important in developing a positive self-concept. The intention to preserve a positive self-esteem interferes with the perception of external environmental information and information processing at a conscious or unconscious level (French & Kahn, 1962; Epstein, 1973). This allows an individual to interpret the information in a more favourable manner so as to preserve a positive self, which further contributes to the development of positive self-esteem.

The findings of Hypotheses Three and Four raised two factors to improve nurses’ self-concept. They were professional socialisation and nurses’ personal self-esteem. Figure 11 also showed the correlation between these two variables, that is, the degree of professional socialisation and the development of the nurses’ personal self-esteem. This result is congruent with the findings of Bedeian and Touliatos (1978), Brockner (1988) and Carson, Fagin, Brown, Leary and Bartlett (1999), who reported a positive correlation between self-esteem and collegial relationship/need affiliation. It is uncertain which variable has an influence over another from the analysis of the Pearson correlation. One possible explanation is that nurses with higher personal self-esteem are inclined to engage in a greater depth of professional socialisation. One other alternative interpretation is that professional socialisation could foster nurses’ personal self-esteem. This relationship illustrates how both nurses’ personal self-esteem and professional
socialisation interact with one another to enhance their self-concept rather than it only being affected by psychological selectivity. Hence, both factors should be given an equal level of consideration when the development of nurses' self-concept is discussed.

Impact on nurses' collective self-esteem.

In addition to nurses' self-concept, the information from the objective social environment could affect nurses' collective self-esteem. It was hypothesized that both the perceived public image of nurses and the image discrepancy between society and the realm of the nursing world would have correlation with nurses' collective self-esteem. The results of the Pearson correlation provide support for the above hypotheses. With reference to the image discrepancy, the result reveals that nurses who perceive more discrepancy are predisposed to develop lower collective self-esteem, that supports Hypothesis Six. The reason for this result could be that an incongruence between an actual and ideal/supposed self leads to the nurses' inability to appreciate their profession (Kirschenbaum & Henderson, 1989; Hoffman, Vernoy & Vernoy, 1994). As noted previously, public opinions are extremely powerful in determining social norms and values (Stevens, 1989; Sampselle, 1990). Thus, the public stereotypes could hinder nurses from their optimal level of practice, which leads to the incongruence between actual and ideal selves.

Apart from a congruence between an ideal and actual self, another factor which improves one's self-esteem is acceptance by others (Umiker, 1993). The result shows that the nurses who perceive the public image of themselves more negatively tend to develop lower collective self-esteem, which sustains Hypothesis Seven. This result is consistent with the findings of Lawrence, Wearing and Dodds (1996), which identified a positive effect of social recognition on nurses' collective self-esteem. As the group
value model maintains that fair treatment by an authority toward a group affects the member’s self-esteem (Lind & Tyler, 1988), treatment by the public of the nursing profession could affect nurses’ collective self-esteem. It is because the public still holds the stereotypical views toward nurses and treats/expects them to behave accordingly (Roberts, 1983; Heyman & Shaw, 1984) that nurses may be unable to assimilate pride in being a nurse into their identity. Perhaps, this might be a cause of the low response on the identity component of the Collective Self-Esteem Scale.

The results for Hypotheses Six and Seven illustrate the negative impact of the social views toward the nursing profession on nurses’ collective self-esteem. There are some factors, however, which could alleviate such negative impact. One of the factors is the nurses’ positive self-concept. The product of the Pearson correlation reveals that nurses with a positive self-concept are more likely to form a positive collective self-esteem. As mentioned earlier, nurses appear to embrace a positive self-concept as a result of professional socialisation (Moloney, 1992; Lum, 1998) and the use of psychological selectivity (Epstein, 1973; Tajfel & Turner, 1986; Hattie, 1992). Thus, its relationship with collective self-esteem could alleviate the negative impact of the public image of nurses and the discrepancy on nurses’ collective self-esteem.

The reason for this relationship may underpin how nurses could develop a positive collective self-esteem through professional socialisation. As discussed in chapter two, one’s self-esteem is formed by comparison with others (Freire, 1972; Seaman & Kenrick, 1994). Whilst an upward comparison with medical professionals leads to the nurses developing low collective self-esteem, recognition and approval by nursing colleagues could result in nurses developing positive self-concept and collective self-esteem. Hence, it could be assumed that a positive self-appraisal gained through socialisation with peers promotes nurses’ collective self-esteem. In fact, membership
self-esteem, supposedly shaped through professional socialisation, earned the highest score in the collective self-esteem scale. This compensates for the lower scores on the identity and public esteem components of the scale. In another example, the result depicted in Figure 11 shows that the nurses involved in a greater depth of professional socialisation tend to manifest more positive collective self-esteem. This seems to illustrate the direct relationship of the effect of professional socialisation on the nurses' self-concept, which in turn contributes to the nurses' collective self-esteem.

There is one more factor, which could alleviate the negative influence of the public stereotypes on nurses’ collective self-esteem, that is psychological selectivity by the nurses utilizing their personal self-esteem. The result shows that the nurses with higher personal self-esteem are more likely to report more positive collective self-esteem. This is because those nurses are predisposed to utilize information manipulation, such as dismissal of unfavourable information, to protect their collective self-esteem. However, the result also illustrates the nurses’ difficulty in ignoring the public perception of the nursing profession. In fact, the impact of personal self-esteem on the maintenance of the nurses’ collective self-esteem is weaker when compared with its effect on the nurses’ self-concept that underpins Hypothesis Five.

Rosenberg (1967/1968) maintains that the selectivity factor is particularly free to operate under a circumstance wherein a situation is unstructured and there is a range of options available. However, being recognised as a profession requires nurses to possess such definite dimensions as social recognition and autonomy over their practice (Pavalko, 1971). These factors could not be dismissed by nurses, who have sought professional status. This could explain the lesser effect of the selectivity factor on the maintenance of the nurses’ collective self-esteem.

The above results provided the support for Hypothesis Five. Moreover, they
also supplied an insight into how personal self-esteem could protect self-concept and collective self-esteem in different ways. As described in chapter three, selectivity may be considered to manipulate external information at two levels. At a perceptual level, a person may distort the perception of information or control kinds of information which enters into his/her psychological environment. At a psychological level, a person may distort the processing/interpretation of the incoming information (French & Kahn, 1962).

The relationship between the perceived public image of nurses and the nurses’ personal self-esteem suggests that nurses with higher personal self-esteem are inclined to distort their perception of the public image in a slightly positive way. This tendency is not only directed toward self-regarding information, but also toward nurses’ perception of others’ roles (e.g., administrators) and their perception of collaboration with doctors (Baldwin, Welches, Walker & Eliatam, 1987). Perhaps, this perceptual level of the distortion of information may have led to relative sustenance of both the self-concept and collective self-esteem of the nurses. Consequently, how the nurses deal with external information at the psychological level using selectivity could alter the formation of their self-concept and collective self-esteem. At the psychological level, the nurses could interpret public opinions as unreliable and stereotypical in order to preserve a positive self. This is because the formation of self-concept is based more on self-beliefs than self-knowledge. Hence, one is relatively free to develop an idealised self-concept (Aygyle, 1981; Hattie, 1992). In developing a positive collective self-esteem, however, such an important factor as the social recognition (public image of nurses) could hardly be discarded by the nurses, as it indicates the social position of the nursing profession, which serves as the basis of their collective self-esteem. Rosenberg (1973, p. 819) maintains that “when opinions of others are too important for one to
ignore, the opinions affect his/her self-esteem". In fact, the component mean score of the public esteem (in the Collective Self-Esteem Scale) shows that the nurses' perception of low social recognition partly contributes to lowering their collective self-esteem. It may be because nurses could employ only one level of information selectivity, which might have led to the small impact of personal self-esteem on their collective self-esteem.

**Impact on nurses' job satisfaction.**

Lastly, the information from the objective social environment could affect the person's affective orientation toward work (French & Kahn, 1962). Therefore, if nurses perceive misfit between their work environment and own personal needs/values, they are more likely to manifest job dissatisfaction. The descriptive statistics show that the nurses perceive the public image of themselves more negatively than they view themselves. As mentioned earlier, one's opinions are exhibited with symbolic actions (Conway, 1988; Street, 1991; Strasen, 1992), hence, public opinions have a significant impact on nursing practice (Stevens, 1989; Sampselle, 1990). Consequently, nursing scholars have claimed that the public stereotypes could deprive nurses of many important features of their practice including autonomy and decision-making over a patient's treatment (Speedy, 1987).

As discussed in the results of the Index of Work Satisfaction, whether the nurses receive sufficient amount of autonomy and social recognition is uncertain. However, one definite fact is that the publicunderestimation of nurses' value appears strongly in the monetary component which caused the significant discrepancy between the actual-ideal work context. This nurse-environment misfit could result in the nurses expressing job dissatisfaction (French & Kahn, 1962; Mottaz, 1985; Daugherty, 1992).
In fact, the result of the Pearson correlation provides support for Hypothesis Eight that the image discrepancy is associated with low job satisfaction.

In addition to the effect of the image discrepancy, nurses’ collective self-esteem could also have an influence on their job satisfaction. Brockner (1988) suggests that nurses with higher collective self-esteem are confident enough to ward off the impact of public stereotypes whereas nurses with low collective self-esteem tend to rely on the feedback from others including public opinions. Subsequently, this tendency leads them to a greater susceptibility toward negative environmental cues, contributing to job dissatisfaction. In fact, the results show a positive relationship between the nurses’ collective self-esteem and job satisfaction, which support Hypothesis Nine. This study finding is also consistent with results of studies by Mossholder, Bedeian and Armenakis, (1981), Westaway, Wessie, Viljoen, Booysen and Wolmarans (1996), and Moorse, Lindquist and Katz (1997).

The results supporting hypotheses Eight and Nine have shown the potential impacts of the image discrepancy and nurses’ collective self-esteem on their job satisfaction. These effects will be more pronounced in nurses low in personal self-esteem. That is because nurses with low personal self-esteem tend to perceive the public image of them more negatively, which leads to the greater discrepancy and lower self-concept. Therefore, this result emphasizes the importance of improving nurses’ personal self-esteem, and self-concept as well as the public image of nurses for nurses to achieve greater job satisfaction.

Apart from the relationships among the image discrepancy, nurses’ collective self-esteem and job satisfaction, Figure 11 depicts some other correlation with the nurses’ job satisfaction. These related variables are the perceived public image of nurses, professional socialisation and nurses’ self-concept. These relationships reflect
direct correlation of the variables illustrated in the study framework (Figure 3) as well as other new relationships discussed above. Therefore, they remain as only supportive relationships. For instance, Figure 11 depicts a moderate positive relationship between the perceived public image of nurses and nurses' job satisfaction. This correlation can be explained by the relationships in the framework in the following manner; how nurses perceive the public image of themselves is associated with how they develop collective self-esteem, which is further related to the degree of job satisfaction. To give another example, the correlation between professional socialisation and job satisfaction can be explained as follows; nurses involved in a greater depth of professional socialisation tend to develop more positive self-concept, which is further related to the development of a more collective self-esteem. Moreover, nurses with positive collective self-esteem are less susceptible to the environmental stressors, which leads to job satisfaction. The correlation between the nurses' self-concept and job satisfaction can also be explained by nurses' self-concept ~ nurses' collective self-esteem ~ job satisfaction sequence.

There are some studies implying support for these relationships. Firstly, Lawrence, Wearing and Dodds (1996) have revealed a positive effect of feeling recognition as nurses on their job satisfaction. Secondly, McCloskey (1990) and Lucus, Atwood and Hagaman (1993) identified a positive correlation between group cohesiveness in nursing and nurses' job satisfaction. Regarding nurses' self-concept and job satisfaction, however, the study by Geiger and Davit (1988) could not establish a relationship between the variables.

Impact on nurses' job performance.

The relationship between the processed information by the individual in the psychological environment and the person's needs/values determine the behaviour of
the person (French & Kahn, 1962). Therefore, nurses’ performance is influenced by relationships among their self-concept, collective self-esteem, job satisfaction and the image discrepancy. The results of the Pearson $r$ supported Hypothesis Ten, assuming negative impacts of a low collective self-esteem and job dissatisfaction and a positive effect of the nurses’ professional identity on their performance. These results support the findings of the past studies introduced in the chapter two (e.g., McCloskey & McCain, 1988; Marsh, 1990; Fulton, 1997). Job dissatisfaction is often an inductor of low motivation to work (McCloskey and McCain, 1988; Acorn, Ratner & Crawford, 1997). In addition, low collective self-esteem is not only directly related to low work motivation (Bedeian & Touliatos, 1978), but it also leads to a susceptibility to work related stress (Linder-Pelz, Pierce & Minslow, 1986), thereby resulting in low performance (Abramis, 1994; Westman & Eden, 1996). In contrast, a positive self-concept could guide one’s performance in an attempt to confirm a positive self (Marsh, 1990). Although the causation of this self-concept and performance relationship is sometimes controversial (Hattie, 1992), the study of Marsh, who conducted a longitudinal inferential study, provided a valid consolidation for the effect of a self-concept on performance.

However, there is one relationship that is not supported by the study findings. That is the relationship between the image discrepancy and the nurses’ performance. It was originally hypothesized that the discrepancy between nurses’ self-concept and the public image of nurses would induce motivation within nurses to improve the situation. Therefore, nurses would exhibit better performance so as to alter the public opinions about them. This hypothesis is grounded on the goal-setting (Hackman & Oldham, 1975) and motivational control (Hyland, 1988) theories, and there are some empirical supports for them (Stull, 1986; Goodell & Coeling, 1994; Hirt, Levine, McDonald &
Melton, 1997). Nevertheless, the results do not sustain this relationship. There are some possible explanations to delineate this relationship. The first explanation is that the image discrepancy does not always mobilize motivation to improve nurses’ performance. The nurses in this study perceived the public image of themselves more negatively, leading to the image discrepancy. This discrepancy is assumed to have caused an incongruity between ideal and actual work context, especially in terms of a monetary reward. However, it could be presumed that not all the kinds of incongruity serve as motivation to improve nurses’ performance. If nurses are aware that a pay component of the work context cannot be improved in an organisation, this discrepancy may contribute to low input into their performance. Also, relatively high satisfaction with the professional status over low expectation could result in diminishing motivation. This could be the reason for the weak negative relationship between the image discrepancy and performance.

The second explanation is that there may be a statistically significant relationship between these variables. However, the limited ranges of scores on the discrepancy and job performance scales (actual ranges of the scores are 0 – 4.08 and 1.44 – 4 respectively) might have reduced the possible value of $r$, leading to an underestimation of the value of $r$ in this population (Harris, 1995).

Finally, it could be postulated that nurses’ motivation was heightened by the image discrepancy, but this motivation might be offset by the conflicting relationship of other factors such as image discrepancy, low job satisfaction and low performance. Given that the image discrepancy was greater, nurses would be dissatisfied with their job. Consequently, their performance would decrease. Then, the Pearson $r$ should have produced a statistically significant negative correlation between the image discrepancy and the nurses’ performance, as it showed a variety of direct relationships among the
variables in Figure 11. For example, Figure 11 shows a direct relationship between the nurses’ personal self-esteem and job performance, which could be explained by the indirect relationships among personal self-esteem — self-concept — job performance in the study framework. Yet, the Pearson $r$ did not yield such an outcome between the image discrepancy and the nurses’ performance. For this reason, it may be assumed that the near-zero Pearson correlation between the discrepancy and the nurses’ job performance is a result of the neutralization of two conflicting relationships.

Although one of the assumptions was not supported, the results of Hypothesis Ten illustrated the multiple relationships with the nurses’ performance. Not only did the results underpin the relationships, but they also supported the strength of the relationships hypothesized. The coefficient of determination showed more variance between the nurses’ self-concept and job performance than the rest of the relationships. In other words, nurses’ performance is guided more by their self-concept, but is less vulnerable to the impacts of job dissatisfaction and low collective self-esteem. Although there is little other empirical support for these results, the results seem to be reinforced by the current movements in which nurses are striving to establish a professional status despite the external barriers (Champion, Austin & Tzeng, 1987; Speedy, 1987). On the other hand, burnout and resignation in the profession resulting from job dissatisfaction appear to be reflecting the current nurse shortage in Australia (Serghis, 1998). Even though the negative impacts of low job satisfaction and collective self-esteem are relatively weak, these factors should not be overlooked.

**Impact on the perceived public image of nurses and professional socialisation.**

Finally, nurses’ behaviour would, in turn, affect the objective social environment (French & Kahn, 1962). The last hypothesis postulated the positive
relationships of nurses' job performance with the perceived public image of nurses and the degree of professional socialisation. The results show statistically significant correlation among the variables. It is difficult to conclude which variable has an influence over another from the results of the Pearson $r$. However, the theoretical claim established by French and Kahn (1962) seems to be suggesting reciprocal relationships between nurses' job performance and the perceived public image of nurses and between nurses' job performance and the degree of professional socialisation. The latter relationship could be interpreted as meaning that nurses who perform better are more likely to have better interaction with society, resulting in improvement in the public image of nurses. The improved public image of nurses, then, affects nurses' self-concept and collective self-esteem, which leads to greater job performance, in return. In the same fashion, the former relationship may be suggesting a reciprocal relationship between job performance and the degree of professional socialisation. Nevertheless, this may be owing to the interrelation of the Six-Dimension Scale of Nursing Performance and professional socialisation scale, as the latter scale was created from the former scale. As previously stated, to clarify the relationship, a separate measurement to assess the degree of nurses' professionalisation is essential.

Apart from the relationship with the nurses' performance, Figure 11 shows a positive relationship between the perceived public image of nurses and professional socialisation. This could be explained by the relationships discussed previously that professional socialisation is associated with nurses' personal self-esteem, which further has an impact on their perception of the public image of nurses. Therefore, the relationship between the perceived public image of nurses and professional socialisation is considered to reinforce the above indirect relationships.
Discussion Summary: Connecting the Relationships Together

The overall findings of the results suggested that the stereotypical public image of nurses could impair nurses' self-concept as well as cause more discrepancy between the image of nurses held by the public and that of nurses themselves. This impaired self-image and the incongruence between ideal and actual work environment may cause low collective self-esteem, job dissatisfaction and insufficient professional performance. Consequently, the stereotypical image of nurses is reinforced by both the public and nursing profession. As a result, nurses will be caught up in a further negative sequence.

On the other hand, nurses' positive personal self-esteem and the engagement in professional socialisation appear to interact with one another to buffer the negative effect of the public image of nurses. Nurses with higher personal self-esteem are more likely to be absorbed into a greater depth of professional socialisation. Moreover, they are also confident enough in themselves to ward off the negative impact of the public stereotypes. These tendencies may help nurses to foster a more positive professional identity that results in sustenance of their psychological and functional states. This is because not only does the positive self-concept function to counteract the influence of the public stereotypes on nurses' collective self-esteem, leading to a greater job satisfaction, but it also bears a stronger relationship with nurses' job performance, which could support their professional conduct. Subsequently, the excellence in their performance is assumed to reshape the public perception of nurses.

To sum up, the above study findings seem to emphasize the need for change in the public perception of nurses. The results also underscored the importance of professional socialisation and the need to foster a positive personal self-esteem and self-concept within nurses so as to mitigate the influence of the public stereotypes.
The revised framework drawn from the findings is illustrated in Figure 12.

Figure 12. Revised conceptual framework.

Note. 1. The relationships indicated by solid arrows bear stronger correlation than those indicated by dotted arrows. 2. Some relationships in Figure 11, illustrating the direct relationships of the variables, are not included in the revised framework. That is because their indirect pathways are already illustrated in this Figure.
Strategies to Counteract the Stereotypical Public Image of Nurses

The study findings have demonstrated the negative effects of the public stereotypes on nurses' psychological and functional states. The results also suggested the importance of developing a positive identity through professional socialisation and the cultivation of a positive self-esteem in order for nurses to buffer the impacts of the stereotypes. This section is, therefore, intended to explore strategies to counteract the stereotypical public image of nurses with approaches to both the public and nurses.

The Approaches to the Public

Public education.

One strategy to improve the public image of nurses is to educate the public about the genuine nature of the nursing profession (Kaler, Levy & Shall, 1989; Swirsky, 1990). At a macro level, nurses may need to be encouraged to take a part in the political process (Muff, 1982; Krebs et al., 1996; Oughtbridge, 1998). This action benefits nurses in two ways. Firstly, it allows nurses to address the broader issues affecting them including the need for public education on the nature of nursing. Further, there is need for health care reform to optimize nursing practice, a strategy to resolve nursing shortages, and a reallocation of resources on nursing care. Secondly, it could perhaps manifest nurses' capability of dealing with political matters to the public.

While the macro level action is necessary to restructure the health care system for nurses, action at a micro level is essential to educate the public directly about the nurses' role. This action includes going into the community and/or inviting the public to observe nursing practice (Goldwater & Zusy, 1990) and informing the public of nurses' contribution to health care (Morrison, 1982; Searle, 1988). As for the doctor-nurse relationship, both nurses and doctors need to have an opportunity for shared learning in
order to understand each others’ roles and develop mutual respect for each other (Schurr & Turner, 1982). With the combination of the actions at both a macro and micro level, nurses could educate the public effectively and reconstruct their image to keep pace with the revolution in the nursing profession and nurses’ developing identity.

**Monitoring the media.**

Apart from educating the public, another remedy to modify the public image of nurses is to monitor the media. As is pointed out from time to time, the media tends to emphasize distorted images of nurses for entertainment. As a result, the viewers assimilate those images into their image of nurses, which results in developing nursing stereotypes. To counter the influence of the media on the public, interventions to change the portrayal of nurses in the media are necessary. Kalisch and Kalisch (1983) suggested four steps to respond to the media: getting nursing groups/committees organised, the groups/committees monitoring the media, reacting to the media by writing letters to the persons responsible for the creation and financial support for media depiction when the stereotypical depiction is observed, and fostering an improved image in the media and viewers. These steps have been taken in some countries such as America. Yet, this exercise should take place in a wider range of countries and communities.

**The Approaches to Nurses and the Nursing Profession**

**Changes in attitudes.**

Changing the attitudes of nurses and the nursing profession is also an important factor in improving the public stereotypes. That is because not only is the image of nurses shaped by the public, but nurses’ representation of themselves also affects the public image (Savage, 1987; Campbell-Heider & Hart, 1993). Hence, nurses should not
blame the public for the oppressive environment in nursing without firstly examining its cause.

Some scholars believe that emancipatory nursing takes place when nurses confront the reality critically and recognize the factors that make people define the reality (Freire, 1968/1972; Harden, 1996). They go on to state that nurses need to realize that interplay between nurses and the public contributes to the determination of reality in nursing, and to react this realization (Freire, 1968/1972; Harden, 1996). This means that nurses should carefully examine their thoughts, attitudes, roles, the history of nursing and so forth in relation to the public reactions to them. Then, they need to analyse the cause of the public stereotypes, and make decisions/changes to their behaviours by considering the outcomes (Morrison, 1982). Nurses need to be provided with the analytical thinking and the skills for this reflective practice. Therefore, it may be the responsibility of the schools of nursing to provide nurses with knowledge and skills in diverse fields (e.g., feminism, social science, ethics, etc.) that will enable them to conduct the reflective practice (Swirsky, 1990). When nurses understand the structure of reality and are equipped with the skills to reconstruct it, they can modify their image by changing the attitudes of both the public and themselves.

**Involvement in professional socialisation.**

One other technique to ward off the negative impact of the public stereotypes is to develop a positive self-concept. As the study findings show, nurses’ self-concept can be enhanced by professional socialisation. Thus, strengthening professional socialisation is recommended (Gorman & Clarke, 1986). Various researchers suggested means to strengthen collegiality. For instance, creating a programme under which cohesive nursing groups are formed, wherein the members can support and learn about
one another is a good way to start at a hospital level (Berndt & Burgy, 1996). At a broader level, becoming a member of a professional organisation or creating a network among hospitals or other organisations is a great way to learn and appreciate others' contributions to nursing, and internalise professionalism into their self-concept (Sheer, 1994; Krebs et al., 1996). Providing reflective feedback, and modeling and basking in the glory of others through professional socialisation will lead to the establishment of a professional identity.

**Empowering nurses.**

An alternative strategy to enhance the nurses' self-concept is empowering nurses. Nurses should be empowered with opportunities to engage in autonomous practice, decision-making and academic pursuit. They also need to be offered a clearer description of their role and sufficient information and resources to perform excellent nursing practice. More importantly, external incentives for their performance should be provided (Goldwater & Zusy, 1990; Chandler, 1991; Lawrence, Wearing & Dobbs, 1996). On these grounds, the introduction of transformational leadership, which encourages leaders to share information and power with subordinates in decision-making (Rosener, 1990), seems to be an effective way of empowering nurses (Barker, 1991). This leadership style supplies nurses with the feeling that they are important participants in organisations, which contributes to the development of a positive self-concept. Moreover, it provides nurses with the feeling of empowerment and job satisfaction (Morrisom, Jones & Fuller, 1997).

**Boosting nurses' self-esteem.**

The last strategy suggested here is to boost nurses' self-esteem. Nurses'
personal self-esteem appears to influence the development of their self-concept by affecting their perception of the public image of nurses and degree of professional socialisation. In addition, nurses’ collective self-esteem has a direct relationship to their job satisfaction and performance. Therefore, it is vital to promote their self-esteem in order for nurses to achieve an optimum level of psychological and functional well-being. There are multifarious programmes available to boost nurses’ self-esteem. For example, Umiker (1993) developed ten strategies instructing ways of thinking and acting as a positive person enhancing his/her self-esteem. Nurses need to utilize the various programmes available to shape a high self-esteem, which in turn leads to a high level of nursing practice.

This section briefly outlined the strategies to neutralize the negative effects of the public stereotypes and promote nurses’ psychological and functional states based on the study findings. The following sections will discuss the limitations of this study and the areas necessary for further investigation.

**Limitations of this Study**

There are some limitations in this study which need to be mentioned. First of all, major limitations arise due to the representativeness of the population and generalizability. The sample consists of the nurses attending tertiary education at one university in Western Australia. Further, the majority of them are part-time nurses, who usually have less opportunity for professional socialisation at the work place. Thus, the participants in this study may form a specific population, which is heterogeneous with respect to the entire population. In contrast, this sampling procedure allowed the researcher to obtain participants working in diverse work-settings, that resulted in
reflecting the demographic characteristics of the entire nursing professionals in Australia. In fact, the health and welfare statistics and information available on the website of Australian Institute of Health and Welfare (1997) reported that 94% of nurses were more than 25 years old and the majority of employed nurses (33.2%) were working in the areas of medical surgical practice in 1994. Regarding working status of the nurses, a high proportion of female nurses (49.1%) were practising on a part-time basis during that period. In respect to the educational background of the nurses, the report elucidates that “In 1994, 6,588 Australian students completed Bachelor degrees in nursing and a further 3,997 post-basic nursing qualifications” (Australian Institute of Health and Welfare, 1997). Nonetheless, the presence of the limitations may be unavoidable due to the nature of this sample.

Another limitation emanates from the sample size. This study examined the various relationships among the variables with eighty participants. This sample size may be considered sufficient to test the relationships using Pearson correlation coefficient. However, it may not be adequate to conduct ANOVA, as the small sample size with diverse clinical and educational backgrounds reduced the available number of the sample. Thus, this sample size may not have had adequate power to demonstrate statistically significant relationships among some variables.

The next limitation occurs in collecting accurate data for participants’ performance. The accuracy of performance appraisal is often questioned due to unconscious bias from examiners, who are either themselves or superiors. In this study, this may occur due to the self-bias of the participants. Although reasonable validity of the Six-Dimension Scale of Nursing Performance has been reported, the potential presence of the bias may lower the accuracy of the participants’ performance, and thus, reduce the study findings.
The final limitation stems from reduced applicability of two questionnaires, the Index of Work Satisfaction and Six-Dimension Scale of Nursing Performance, to nurses working in certain areas. These questionnaires are specially designed to assess nurses’ job satisfaction and performance. Nevertheless, the items selected in these scales are more concerned with nurses practising in a clinical stream in hospitals and less with such nurses working in a management, research, and staff development area and community. The participants were allowed to leave the questions, which were not associated with types of work appointed to them, unanswered in the Six-Dimension Scale of Nursing Performance. However, this might, in turn, limit the elicitation of responses, which may lead to less reflection of their real work situation.

Areas for Further Investigation

This section addresses factors which may increase the validity of the study findings and the areas required for further investigation. To begin with, the methodological issues to improve the validity of the study findings are discussed.

There are three factors in the study design to be considered. The first factor is the size and the characteristics of the sample. As pointed out in the preceding section, this study recruited the sample from university students, which may reduce the generalizability of these study findings. To improve the study validity and applicability of the findings to the entire nursing profession, therefore, this study must be replicated with a larger sample size with more diverse background characteristics. For example, researchers could invite participants from hospitals in various countries to complete the study. As cultural differences could alter the perception and response of people, it would be useful to implement the study in other cultural backgrounds, which may produce different results. It might also be interesting to invite nurses from nursing homes and
compare the results from them with those of nurses working in hospital settings. Since nurses in nursing homes are presumed to be more dissatisfied with their public image and working situation, the results of the comparative study may differ between the two samples.

The second factor reducing the study validity is inherent in the instrumental problem. There are three problems to be considered. The first problem is associated with interrelation of scales. This study created a professional socialisation scale out of the Six-Dimension Scale of Nursing Performance. Thus, the results explaining the relationships between nurses' job performance and the degree of professional socialisation and between professional socialisation and nurses' self-concept remain unclear. There might be a high correlation between these variables, as the results indicated in Table 16. However, the high correlation might be the result of the interrelation of the two scales. Unless the results are obtained using separate scales measuring each variable, this problem will not be solved. Hence, the modification or development of a new professional socialisation scale is necessary.

The second problem is related to the scoring system for the nurses' job performance and/or the image discrepancy. As discussed previously, non-significant relationship between the image discrepancy and the nurses' job performance may result from the limited range of the scoring system. To clarify this relationship, the adoption of a wider ranging scoring procedure may be necessary.

The third problem is concerned with applicability of the scales discussed above. To obtain accurate responses on nurses' job satisfaction and performance, it may be advisable to limit the criterion of the respondents to nurses working in a clinical stream when using the Index of Work Satisfaction and Six-Dimension Scale of Nursing Performance. Alternatively, it may be better to adopt more flexible scales to measure
nurses’ job satisfaction and performance so that questions will fit to nurses in all the areas.

The last factor to be considered is the statistical procedure. This study employed the Pearson correlation to investigate the relationships among the variables illustrated in the framework. The use of this statistical analysis is beneficial for this study because it clarifies the strength of the relationships as well as their direction of them. Nevertheless, its value is limited when the causation of the relationships is discussed. To examine the effects of the public stereotypes and professional socialisation on nursing practice, therefore, the application of inferential statistics is worth considering. For instance, a researcher could explore the impacts of nurses’ engagement in a professional organisation or a programme to enhance nurses’ personal self-esteem on the perceived public image of nurses, nurses’ self-concept, collective self-esteem, job satisfaction and performance. Alternatively, a researcher could investigate the effects of the public image of their profession on both doctors, a socially valued group, and nurses, a socially devalued group, and compare the differences to determine its effects.

An alternative to the use of inferential statistics could be the utilization of a qualitative approach. This could reveal causal relationships among the variables as well as other various factors interfering with the impact of the public image of nurses. This could also solve the question of why the nurses in this study attach less importance to acquisition of professional status.

With reference to the areas for further investigation, there are some other factors to be considered when investigating the impact of the stereotypical public image of nurses. For instance, the Roy’s adaptation model depicts that one’s responsive behaviours to stimuli can be observed in four adaptive modes: physiological, self-
concept, role function, and interdependence modes (Andrews & Roy, 1986; Roy, 1989). This study limited its scope to only two factors: psychological (self-concept and esteem) and functional states of nurses in response to the public stereotypes. Therefore, its impact on physiological and interdependence modes of nurses should be investigated. It would also be interesting to include such a variable as stress in the physiological mode and conflict with other health care providers in interdependence mode.

Further studies on the stereotypical public image of nurses need to be encouraged. By replicating and expanding the study, the effect of the stereotypical public image of nurses will become more clarified. Then, nurses could develop more sophisticated measures to overcome the negative impacts on nursing practice, which would facilitate the professionalisation of nursing.
CHAPTER SEVEN

Conclusion

This study was originated from concerns expressed by many contemporary nursing scholars that the stereotypical public image of nurses would have negative impacts on nurses’ psychological and functional states. As the present nursing shortage is of great concern in Australia as well as other countries, this issue has attracted the extensive attention of researchers. As a consequence, a considerable amount of research investigating the public perception of nurses/nursing has been conducted. These studies have consistently indicated that the public possessed traditionally distorted views of nurses, and that there has been little improvement in the nurses’ image. These studies became a cornerstone for the formation of various nursing groups/organisations to counteract the public stereotypes. Furthermore, the studies provided nurses with impetus for the drive to professionalisation in nursing.

Despite these facts, it was uncertain whether or not the stereotypical public image of nurses really had such a negative impact on nursing practice. That is because the researchers tended to focus on only the public perception of nurses/nursing, and little study was actually conducted to investigate the effects of the public stereotypes on nursing practice. The aim of this study was, therefore, to investigate the relationships among the perceived public image of nurses, nurses’ self-concept and esteem, job satisfaction, and job performance.

The literature suggests that both the public and nursing domain seem to supply information which impacts on nurses’ psychological and functional states. In fact, the results of the study tend to uphold these relationships. The results show that the nurses who perceive the public image of them negatively tend to shape a negative self-concept, which may result in the development of low collective self-esteem, job dissatisfaction
and low performance. While the unpleasant effects of the public stereotypes are present, the results also indicate that nurses’ professional self-concept, which may be shaped positively as a result of professional socialisation and positive personal self-esteem, could ward off negative influences of the public image.

The study findings resulted in suggestion of the need to improve the public image of nurses to optimize nursing practice. Moreover, the study demonstrated the importance of professional socialisation and the empowerment of nurses to strengthen the nursing profession. To enable these changes to occur, nurses need to continuously work on the establishment of the nursing profession by approaching both the public and themselves. Responding to the public stereotypes is one solution to changing nurses’ position in the society. Reflective practice, professional socialisation, and nurse empowerment are other ways to enhance a positive self-concept and performance, therefore improving the nursing profession. Without the constant efforts of nurses, an oppressive situation in nursing will persist. With nurses’ motivation to improve the environment of nursing practice, however, their future practice will be fruitful.

The significance of this study is that it could provide nurses with an awareness of how the public stereotypes have created a patriarchal environment in the health care setting, and how the traditional form of medical dominance and nursing subservience in practice has suppressed the potency of nursing. The findings of this study could be helpful for nurses in developing the preventive measures necessary to counteract the multifarious effects of the stereotypes on nurses. Moreover, the results of this study could provide nurses with some indications of how to improve the public perception of the nursing profession. On these grounds, this study has sought to facilitate the process of professionalisation in nursing.
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APPENDICES

Appendix A: Author’s Interpretation of the Hypothesized Effects of the Stereotypical Public Image on Nurses

Appendix B: Brief Summaries of the Major Theories of Motivation/Performance

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Appendix F: Copyright Clearance for the Model Presented by French and Kahn (1962)

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Appendix K: Copyright Clearance for Six-Dimension Scale of Nursing Performance
Appendix A

Author’s Interpretation of the Hypothesized Effects of the Stereotypical Public Image on Nurses

- Stereotypical public image of nurses
  - Low self-esteem in nurses
  - Low job satisfaction in nurses
  - Low self-concept in nurses
  - Low performance in nurses
  - Turnover & burnout
  - Hinder nursing from the process of professionalisation
  - Reinforce the stereotypical public image of nurses
  - Losses of potential contributors in nursing education, practice and research
## Appendix B

### Brief Summaries of the Major Theories of Motivation/Performance

<table>
<thead>
<tr>
<th>The factors influencing performance</th>
<th>The origin(s) of motivation/explanation(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expectation for success</td>
<td>• Expectancy theory--- A person is motivated to work owing to the belief that his/her effort results in a high level of performance, which further leads to the acquisition of desirable rewards (Vroom, 1984).</td>
</tr>
<tr>
<td>Reinforcement on performance</td>
<td>• Reinforcement theory--- This theory is based on Skinner’s work of learning, which maintains that one’s performance is conditioned by rewards. That is, positive rewards increase one’s motivation and performance, and vice versa (Muchinsky, 1993; Hamner, Ross &amp; Staw, 1978/1983).</td>
</tr>
<tr>
<td>Work context</td>
<td>• Job enrichment theory--- Work context such as high skill variety, task identity, significance, autonomy, and positive feedback enhances one’s performance (Hackman &amp; Oldham, 1975)</td>
</tr>
</tbody>
</table>
| Self-esteem                        | • Theory of human motivation--- A person needs to be satisfied with fundamental conditions such as physiological, safety, love and self-esteem needs before s/he can actualise their personal and social goals (Maslow, 1970).  
• A person low in self-esteem is susceptible to environmental stressors, and this stress causes low performance (Brockner, 1988). |
| Job satisfaction                   | • The degree of job satisfaction influences the degree of motivation to perform tasks. |
| Comparison with others             | • Equity theory--- A person reduces performance (input), when s/he perceives others gaining more rewards (output) for the same amount of input. The person is motivated to reduce input in order to lower inequity between him/herself and others (Muchinsky, 1993) |
| Self-concept                       | • Self-concept theories--- Self-concept functions as the prescriptions for behaviour, as a person cannot act |
differently to what s/he believes to be true of him/herself. In other words, positive self-concept enhances performance (Markus & Nurius, 1986; Hattie, 1992; Strasen, 1992).

| Discrepancy between ideal and actual states | • Goal setting theory and motivational control theory--- A discrepancy between one’s value system and actual state mobilises energy to alter the current state into his/her desirable situation (Hamner, Ross & Staw, 1978/1983; Hyland, 1988).
• Self-intervention--- When one’s situation deviates from his/her desirable course, self-intervention behaviour occurs so as to modify his/her course (Secord, 1977). |
Appendix C

Letter of Consent and the Questionnaire Distributed to Respondents

Edith Cowan University
Pearson St.
Churchlands W.A. 6018
School of Nursing

Dear Sir/Madam,

You are invited to participate in a study conducted by Miyuki Takase, a Master’s student at Edith Cowan University. This study is a part of the course requirement for the Master of Nursing degree.

The purpose of this study is to investigate how the occupational image which the public holds toward nurses is associated with nurses’ self-image, self-esteem, job satisfaction and performance. This study aims to clarify the above linkages, and to enable strategies to be developed if there is a negative effect from the public image of nurses.

Data will be collected by the administration of questionnaires. You will be asked to complete seven types of questionnaires, which will elicit information of the following: your background characteristics, your perception of the public images toward nurses, your own self-image as a nurse, your feelings about yourself as an individual and as a nurse as well as your job satisfaction and performance. These questionnaires may take a little time to complete.

If you are interested in participating in this study, please complete the questionnaires attached to this letter, place them into the provided reply-paid envelope upon completion, then post it to the School of Nursing at Edith Cowan University by July 16, 1999. Your survey return will be assumed to be your consent for participation.

It should be emphasized that your privacy will be protected. Your responses will be entered into a computer with a code, hence you will not be identifiable. Moreover, your personal data will not be disclosed in any way, and will be destroyed on the completion of this study. Therefore, any possible repercussion to employees will be avoided. In addition, you will be advised not to write your name on either the questionnaires or the envelope. This will help to avoid the identification of the respondent.

Lastly, your participation is voluntary. Therefore, it is your own choice whether or not to participate in this study. You are also allowed to withdraw from the study at any time you wish without penalty.

If you have any questions, please do not hesitate to contact me. I am available on 9273 8435. I look forward to receiving your survey return.

Thank you for your attention.

Yours sincerely,

Miyuki Takase
The questionnaire below was developed by Rosenberg (1965) to identify your self-evaluation of your worthiness as an individual (not as a nurse). Please circle a number which reflects your opinion on each question in accordance with the rating system described below. For example, if you

<table>
<thead>
<tr>
<th>neat</th>
<th>sloppy</th>
<th>follower</th>
<th>leader</th>
<th>rational</th>
<th>unreasonable</th>
<th>independent</th>
<th>dependent</th>
<th>Compromising</th>
<th>rigid</th>
<th>outgoing</th>
<th>reserved</th>
<th>intuitive</th>
<th>logical</th>
<th>submissive</th>
<th>dominant</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
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<td>1 2 3 4 5 6 7</td>
<td></td>
<td>1 2 3 4 5 6 7</td>
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<td>1 2 3 4 5 6 7</td>
<td></td>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>


The questionnaire below was developed by Rosenberg (1965) to identify your self-evaluation of your worthiness as an individual (not as a nurse). Please circle a number which reflects your opinion on each question in accordance with the rating system described below. For example, if you
strongly agree with the first question, you need to circle “1” in the answer box corresponding to the first question.

**Rating system**
1 = Strongly agree 2 = Agree 3 = Disagree 4 = Strongly disagree

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I feel that I’m a person of worth, at least on an equal basis with others.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2</td>
<td>I feel that I have a number of good qualities.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3</td>
<td>All in all, I am inclined to feel that I am a failure.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4</td>
<td>I am able to do things as well as most other people.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5</td>
<td>I feel I do not have much to be proud of.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6</td>
<td>I take a positive attitude toward myself.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7</td>
<td>On the whole, I am satisfied with myself.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8</td>
<td>I wish I could have more respect for myself.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9</td>
<td>I certainly feel useless at times.</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>10</td>
<td>At times I think I am no good at all.</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>


The next questionnaire was designed by Luhtanen and Crocker (1992) to identify your personal judgment of your social groups/group memberships. While the previous questionnaire asked you to rate how you feel about yourself, this questionnaire was developed to identify how you think your groups/group memberships are socially valued and how much value you place on your groups/group memberships. Using this scale, I am interested in identifying how you think your being a member of nursing profession. **Therefore, you are asked to refer social groups in the questionnaire to the nursing group.** Please circle a number which reflects your opinion on each question. The rating system is described below.

**Rating System**
1 = Strongly disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Agree 6 = Agree 7 = Strongly agree

For example, if you strongly agree that you are a worthy member of the nursing group, you would circle “7" in the answer box.

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I am a worthy member of the social groups I belong to.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2</td>
<td>I often regret that I belong to some of the social groups I do.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3</td>
<td>Overall, my social groups are considered good by others.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4</td>
<td>Overall, my group memberships have very little to do with how I feel about myself.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5</td>
<td>I feel I don’t have much to offer to the social groups I belong to.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6</td>
<td>In general, I’m glad to be a member of the social groups I belong to.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7</td>
<td>Most people consider my social groups, on the average, to be more ineffective than other social groups.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8</td>
<td>The social groups I belong to are an important reflection</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
of who I am.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>9</td>
<td>I am a cooperative participant in the social groups I belong to.</td>
</tr>
<tr>
<td>10</td>
<td>Overall, I often feel that the social groups of which I am a member are not worthwhile.</td>
</tr>
<tr>
<td>11</td>
<td>In general, others respect the social groups that I am a member of.</td>
</tr>
<tr>
<td>12</td>
<td>The social groups I belong to are unimportant to my sense of what kind of a person I am.</td>
</tr>
<tr>
<td>13</td>
<td>I often feel I am a useless member of my social groups.</td>
</tr>
<tr>
<td>14</td>
<td>I feel good about the social groups I belong to.</td>
</tr>
<tr>
<td>15</td>
<td>In general, others think that the social groups that I am a member of are unworthy.</td>
</tr>
<tr>
<td>16</td>
<td>In general, belonging to social groups is an important part of my self-image.</td>
</tr>
</tbody>
</table>


The questionnaire below was developed by Stamps and her colleagues (1997) to identify how much you are satisfied with your job. This questionnaire consists of two parts, part A & B. Please follow the instruction in each part, and answer the questions.

Part A (Paired Comparisons)
Listed and briefly defined on this sheet of paper are six terms or factors that are involved in how people feel about their work situation. Each factor has something to do with “work satisfaction”. I am interested in determining which of these is most important to you in relation to the others.

Please carefully read the definitions for each factor as given below:
1. Pay--- dollar remuneration and fringe benefits received for work done
2. Autonomy--- amount of job related-independence, initiative, and freedom, either permitted or required in daily activities
3. Task Requirements--- tasks or activities that must be done as a regular part of the job
4. Organizational Policies--- management policies and procedures put forward by the hospital and nursing administration of this hospital
5. Interaction--- opportunities presented for both formal and informal social and professional contact during working hours
6. Professional Status--- overall importance or significance felt about your job, both in your view and in the view of others

Scoring. These factors are presented in pairs on the questionnaire that you have been given. Only fifteen pairs are presented: this is every set of combinations. No pair is repeated or reversed.

For each pair of terms, decide which is more important for your job satisfaction or morale. Please indicate your choice by a check on the line in front of it. For example: if you felt that Pay (as defined above) is more important than Autonomy (as defined above), check the line before Pay.

I realize it will be difficult to make choices in some cases. However, please do try to select the factor which is more important to you. Please make an effort to answer every item, do not change any of your answers.

1. _____ Professional Status or _____ Pay
2. _____ Organizational Policies or _____ Task Requirement
3. Organizational Policies or Interaction
4. Task Requirements or Organizational Policies
5. Professional Status or Task Requirements
6. Pay or Autonomy
7. Professional Status or Interaction
8. Professional Status or Autonomy
9. Interaction or Task Requirements
10. Interaction or Pay
11. Autonomy or Task Requirements
12. Organizational Policies or Autonomy
13. Pay or Professional Status
14. Interaction or Autonomy
15. Organizational Policies or Pay

Part B (Attitude Questionnaire)
The following items represent statements about how satisfied you are with your current nursing job. Please respond to each item. It may be difficult to fit your responses into the seven categories; in that case, select the category that comes closest to your response to the statement. It is very important that you give your honest opinion. Please do not go back and change any of your answers.

Instructions for Scoring. Please circle the number that most closely indicates how you feel about each statement. The left set of numbers indicates degrees of agreement. If you strongly agree with the first statement, circle 1; if you agree with it, circle 2; if you mildly or somewhat agree, circle 3. The right set of numbers indicates degrees of disagreement. If you strongly disagree with the first statement, circle 7; if you disagree, circle 6; if you mildly or somewhat disagree, circle 5. The center number (4) means “undecided”. Please use it as little as possible.

Remember: The more strongly you feel about the statement, the further from the center you should circle, with agreement to the left and disagreement to the right.

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>My present salary is satisfactory</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>2</td>
<td>Nursing is not widely recognized as being an important profession.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>3</td>
<td>The nursing personnel on my service pitch in and help one another out when things get in a rush.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4</td>
<td>There is too much clerical and “paperwork” required of nursing personnel in this hospital.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>5</td>
<td>The nursing staff has sufficient control over scheduling their own work shifts in my hospital.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>6</td>
<td>Physicians in general cooperate with nursing staff on my unit.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>7</td>
<td>I feel that I am supervised more closely than is necessary.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>8</td>
<td>It is my impression that a lot of nursing personnel at this hospital are dissatisfied with their pay.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>9</td>
<td>Most people appreciate the importance of nursing care to hospital patients.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>10</td>
<td>It is hard for new nurses to feel “at home” in my unit.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>11</td>
<td>There is no doubt whatever in my mind that what I do on my job is really important.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>12</td>
<td>There is a great gap between the administration of this hospital and the daily problems of the nursing service.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>13</td>
<td>I feel I have sufficient input into the program of care for each of my patients.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>14</td>
<td>Considering what is expected of nursing service personnel at this hospital, the pay we get is reasonable.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td></td>
<td>I think I could do a better job if I did not have so much to do all the time.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>15</td>
<td>There is a good deal of teamwork and cooperation between various levels of nursing personnel on my service.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>16</td>
<td>I have too much responsibility and not enough authority.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>17</td>
<td>There are not enough opportunities for advancement of nursing personnel at this hospital.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>18</td>
<td>There is a lot of teamwork between nurses and doctors on my own unit.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>19</td>
<td>On my service, my supervisors make all the decisions. I have little direct control over my own work.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>20</td>
<td>The present rate of increase in pay for nursing service personnel at this hospital is not satisfactory.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>21</td>
<td>I am satisfied with the types of activities that I do on my job.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>22</td>
<td>The nursing personnel on my service are not as friendly and outgoing as I would like.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>23</td>
<td>I have plenty of time and opportunity to discuss patient care problems with other nursing personnel.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>24</td>
<td>There is ample opportunity for nursing staff to participate in the administrative decision-making process.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>25</td>
<td>A great deal of independence is permitted, if not required, of me.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>26</td>
<td>What I do on my job does not add up to anything really significant.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>27</td>
<td>There is a lot of “rank consciousness” on my unit; nurses seldom mingle with those with less experience or different types of educational preparation.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>28</td>
<td>I have sufficient time for direct patient care.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>29</td>
<td>I am sometimes frustrated because all of my activities seem programmed for me.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>30</td>
<td>I am sometimes required to do things on my job that are against my better professional nursing judgment.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>31</td>
<td>From what I hear from and about nursing service personnel at other hospitals, we at this hospital are being fairly paid.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>32</td>
<td>Administrative decisions at this hospital interfere too much with patient care.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>33</td>
<td>It makes me proud to talk to other people about what I do on my job.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>34</td>
<td>I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>35</td>
<td>I could deliver much better care if I had more time with each patient.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>36</td>
<td>Physicians at this hospital generally understand and appreciate what the nursing staff does.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>37</td>
<td>If I had the decision to make all over again, I would still go into nursing.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>38</td>
<td>The physicians at this hospital look down too much on the nursing staff.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>39</td>
<td>I have all the voice in planning policies and procedures for this hospital and my unit that I want.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>40</td>
<td>My particular job really doesn’t require much skill or “know-how”.</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>
The nursing administrators generally consult with the staff on daily problems and procedures.  
1 2 3 4 5 6 7

I have the freedom in my work to make important decisions as I see fit, and can count on my supervisors to back me up.  
1 2 3 4 5 6 7

An upgrading of pay schedules for nursing personnel is needed at this hospital.  
1 2 3 4 5 6 7


The last questionnaire was developed by Schwirian (1978) to evaluate the performance of nurses. Please indicate how you perform the following activities by circling a number in each question. The rating system is as follows;

1 = Not very well    2 = Satisfactory    3 = Well    4 = Very well

For example, if you perform the activity in the first question very well, you would circle “4”.

If a question is not one associated with the type of job you have, please cross the question number and do not indicate any answer.

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer box</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Not very</td>
</tr>
<tr>
<td></td>
<td></td>
<td>well</td>
</tr>
<tr>
<td>1</td>
<td>I teach a patient’s family members about the patient’s needs</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>2</td>
<td>I coordinate the plan of nursing care with the medical plan of care</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>3</td>
<td>I give praise and recognition for achievement to those under my direction</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>4</td>
<td>I teach preventive health measures to patients and their families</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>5</td>
<td>I identify and use community resources in developing a plan of care for a patient and his family</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>6</td>
<td>I identify and include in nursing care plans anticipated changes in a patient’s conditions</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>7</td>
<td>I evaluate results of nursing care</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>8</td>
<td>I promote the inclusion of patient’s decisions and desires concerning his care</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>9</td>
<td>I develop a plan of nursing care for a patient</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>10</td>
<td>I initiate planning and evaluation of nursing care with others</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>11</td>
<td>I perform technical procedures: e.g., oral suctioning, tracheostomy care, intravenous therapy, catheter care, dressing changes</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>12</td>
<td>I adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>13</td>
<td>I identify and include immediate patient needs in the plan of nursing care</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>14</td>
<td>I develop innovative methods and materials for teaching patients</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>15</td>
<td>I communicate a feeling of acceptance of each patient and a concern for the patient’s welfare</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>16</td>
<td>I seek assistance when necessary</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>17</td>
<td>I help a patient communicate with others</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>No.</td>
<td>Questions</td>
<td>Answer Box</td>
</tr>
<tr>
<td>-----</td>
<td>---------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>18</td>
<td>I use mechanical devices: e.g., suction machine, Gumco, cardiac monitor, respirator</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>19</td>
<td>I give emotional support to family of dying patient</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>20</td>
<td>I verbally communicate facts, ideas, and feelings to other health team members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>21</td>
<td>I promote the patients' rights to privacy</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>22</td>
<td>I contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>23</td>
<td>I delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>24</td>
<td>I explain nursing procedures to a patient prior to performing them</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>25</td>
<td>I guide other health team members in planning for nursing care</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>26</td>
<td>I accept responsibility for the level of care provided by those under my direction</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>27</td>
<td>I perform appropriate measures in emergency situations</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>28</td>
<td>I promote the use of interdisciplinary resource persons</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>29</td>
<td>I use teaching aids and resource materials in teaching patients and their families</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>30</td>
<td>I perform nursing care required by critically ill patients</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>31</td>
<td>I encourage the family to participate in the care of the patient</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>32</td>
<td>I identify and use resources within my health care agency in developing a plan of care for a patient and his family</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>33</td>
<td>I use nursing procedures as opportunities for interaction with patients</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>34</td>
<td>I contribute to productive working relationships with other health team members</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>35</td>
<td>I help a patient meet his emotional needs</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>36</td>
<td>I contribute to the plan of nursing care for the patient</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>37</td>
<td>I recognize and meet the emotional needs of a dying patient</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>38</td>
<td>I communicate facts, ideas, and professional opinions in writing to patients and their families</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>39</td>
<td>I plan for the integration of patient needs with family needs</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>40</td>
<td>I function calmly and competently in emergency situations</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>41</td>
<td>I remain open to the suggestions of those under my direction and use them when appropriate</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>42</td>
<td>I use opportunities for patient teaching when they arise</td>
<td>1 2 3 4</td>
</tr>
</tbody>
</table>

Regarding the subsequent questions, please indicate the number that best describes the frequency with which you engage in the following behaviours. The rating system is as follows;

1 = Seldom or never  2 = Occasionally  3 = Frequently  4 = Consistently

<table>
<thead>
<tr>
<th>No.</th>
<th>Questions</th>
<th>Answer Box</th>
</tr>
</thead>
<tbody>
<tr>
<td>43</td>
<td>I use learning opportunities for ongoing personal and professional growth</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td>44</td>
<td>I display self-direction</td>
<td>1 2 3 4</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>---</td>
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</tr>
<tr>
<td>45</td>
<td>I accept responsibility for own actions</td>
<td>1</td>
</tr>
<tr>
<td>46</td>
<td>I assume new responsibilities within the limits of capabilities</td>
<td>1</td>
</tr>
<tr>
<td>47</td>
<td>I maintain high standards of performance</td>
<td>1</td>
</tr>
<tr>
<td>48</td>
<td>I demonstrate self-confidence</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>I display a generally positive attitude</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>I demonstrate knowledge of the legal boundaries of nursing</td>
<td>1</td>
</tr>
<tr>
<td>51</td>
<td>I demonstrate knowledge of the ethics of nursing</td>
<td>1</td>
</tr>
<tr>
<td>52</td>
<td>I accept and use constructive criticism</td>
<td>1</td>
</tr>
</tbody>
</table>


This is the end of this questionnaire.

Important

Please do not write your name on these questionnaires or envelope. In the event that you want to withdraw from the study after the submission of this survey, please remember your code number, which is indicated at the bottom right hand side corner of this page. This code is needed to delete your data from the data file.

Thank you for your cooperation.
Appendix D

Component Analysis of the Nurses’ Self-concept based on the Demographic Parameters

Table D1

Component analysis of the nurses’ self-concept based on working status

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean score Full-time</th>
<th>Mean score Part-time</th>
<th>$F$ (1, 69)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>2.51</td>
<td>2.60</td>
<td>2.48</td>
<td>0.62</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>1.96</td>
<td>1.95</td>
<td>0.00</td>
<td>0.96</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.44</td>
<td>2.58</td>
<td>0.97</td>
<td>0.33</td>
</tr>
</tbody>
</table>

Note. The sample sizes of the full-time and part-time groups are 35 and 36 respectively.

Table D2

Component analysis of the nurses’ self-concept based on age

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean score 20-29 ys</th>
<th>Mean score 30-39 ys</th>
<th>Mean score 40-49 ys</th>
<th>$F$ (2, 70)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>2.65</td>
<td>2.25</td>
<td>2.39</td>
<td>0.66</td>
<td>0.52</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>1.86</td>
<td>1.84</td>
<td>2.05</td>
<td>1.43</td>
<td>0.25</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.36</td>
<td>2.54</td>
<td>2.57</td>
<td>0.71</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Note. The sample sizes of the 20-29, 30-39 and 40-49 years old groups are 17, 32 and 24 respectively.
Table D3

Component analysis of the nurses' self-concept based on the length of clinical experience

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean score &lt; 10 ys</th>
<th>Mean score 10-19 yrs</th>
<th>Mean score &gt; 20 yrs</th>
<th>$F$ (2, 54)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>2.60</td>
<td>2.55</td>
<td>2.60</td>
<td>0.05</td>
<td>0.95</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>1.87</td>
<td>1.94</td>
<td>2.01</td>
<td>0.40</td>
<td>0.67</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.35</td>
<td>2.40</td>
<td>2.61</td>
<td>1.17</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Note. The sample sizes of the less than 10, 10-19, and more than 20 years of clinical experience groups are 25, 30 and 25 respectively.

Table D4

Component analysis of the nurses' self-concept based on educational background

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<thead>
<tr>
<th>Component</th>
<th>Mean score Diploma</th>
<th>Mean score Postgraduate</th>
<th>$F$ (1, 34)</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
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<td>Interpersonal power</td>
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<td>2.78</td>
<td>0.19</td>
<td>0.67</td>
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<tr>
<td>Interpersonal relations</td>
<td>1.94</td>
<td>2.05</td>
<td>0.36</td>
<td>0.55</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
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<td>2.45</td>
<td>3.09</td>
<td>0.09</td>
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</table>

Note. The sample sizes of the diploma and postgraduate award groups are 21 and 15 respectively.
Table D5

Component analysis of the nurses’ self-concept based on clinical specialty

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<tr>
<th>Component</th>
<th>Mean score Med./Surg.</th>
<th>Mean score Specialized</th>
<th>Mean score Critical care</th>
<th>$F(2, 54)$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal power</td>
<td>2.74</td>
<td>2.37</td>
<td>2.75</td>
<td>2.13</td>
<td>0.13</td>
</tr>
<tr>
<td>Interpersonal relations</td>
<td>2.14</td>
<td>1.85</td>
<td>1.82</td>
<td>2.37</td>
<td>0.10</td>
</tr>
<tr>
<td>Intrapersonal ability</td>
<td>2.44</td>
<td>2.29</td>
<td>2.69</td>
<td>2.57</td>
<td>0.09</td>
</tr>
</tbody>
</table>

Note. The sample sizes of the medical/surgical, other specialized areas and critical care groups are 18, 24 and 15 respectively.
Appendix E

Professional Socialisation (PS) Scale Adopted from the Six-Dimension Scale of Nursing Performance

<table>
<thead>
<tr>
<th>Item No. in PS Scale</th>
<th>Item No. in Six-D Scale</th>
<th>Item Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10</td>
<td>Initiate planning and evaluation of nursing care with others</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>Verbally communicate facts, ideas, and feelings to other health team members</td>
</tr>
<tr>
<td>3</td>
<td>22</td>
<td>Contribute to an atmosphere of mutual trust, acceptance, respect among other health team members</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health care personnel</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
<td>Guide other health team members in planning for nursing care</td>
</tr>
<tr>
<td>6</td>
<td>28</td>
<td>Promote the use of interdisciplinary resource persons</td>
</tr>
<tr>
<td>7</td>
<td>34</td>
<td>Contribute to productive working relationships with other health team members</td>
</tr>
<tr>
<td>8</td>
<td>41</td>
<td>Remain open to the suggestions of those under your direction and use them when appropriate</td>
</tr>
<tr>
<td>9</td>
<td>43</td>
<td>Use learning opportunities for ongoing personal and professional growth</td>
</tr>
<tr>
<td>10</td>
<td>52</td>
<td>Accept and use constructive criticism</td>
</tr>
</tbody>
</table>
Appendix F

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Fukuoka-City, Fukuoka 813-0036
Japan

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ARTICLE: A programmatic approach to studying the industrial envir

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Rosemary T. Porter, PhD, RN
Associate Dean of Student Affairs

RP/lb
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Miyuki Takase
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Appendix I

Copyright Clearance for Collective Self-Esteem Scale

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Name_of_proposed_book: 
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pages: 307
publisher: 
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Phone: 
Fax: 
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journal_article: yes
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Journal_volume: 18
journal_issue: 3
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3-24-11 Wakamiya, Hagashi-ku
Fukuoka-City, Fukuoka 813-0036
Japan

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I appreciate receiving your request for permission to use the Index of Work Satisfaction (IWS) in your research project. The 1986 version is now out of print and I am suggesting that all researchers use the 1997 version. This version is described in the second edition of my book *Nurses and Work Satisfaction: An Index for Measurement*. The book provides information about the way in which the IWS was developed, as well as the statistical description of the structure of the scale. Included in this volume are results from over 80 studies which have used the IWS, as well as several investigators writing about their experience with this tool. The IWS questionnaire itself has been slightly modified in the new edition of this book. The book may be ordered from Health Administration Press (US$44.) by mail, telephone or fax:

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- Data entry services and scoring assistance
- Reports comparing local results to national averages for the IWS
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Sincerely,

Paula Stamps, Ph.D.
University of Massachusetts
Phone: (413)545-6880
Fax: (413) 545-6536
Email: pstamps@sover.net
**Market Street Research, Inc.**  
26-30 Market Street  
Northampton, MA 01060  
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**BILL TO**

<table>
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<tr>
<th>Name</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miyuki Takase</td>
<td>Edith Cowan University</td>
</tr>
<tr>
<td></td>
<td>Student Housing Unit 42</td>
</tr>
<tr>
<td></td>
<td>2 Bradford St.</td>
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<td>Mt. Lawley, WA, Australia 6050</td>
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<td>25.00</td>
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</table>

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Patricia M. Schirian, Ph.D., R.N.
Professor
The Ohio State University College of Nursing
1585 Neil Avenue
Columbus, OH 43210

Nov 27, 1995

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