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**ACQUISITION OF THE PROFESSIONAL NURSING ROLE:**

**AN APPLICATION OF A THEORETICAL MODEL**

by:

Anastasia M. Tureck

B.A., University of Montana, 1984

Presented in partial fulfillment of the requirements for the  
degree of

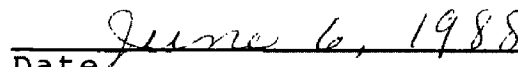
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Anastasia M. Tureck, M.A., May 1988

Sociology

Acquisition of The Professional Nursing Role:  
Application of a Theoretical Model (67 pp.)

Director: William H. McBroom *WHM*

This research offers a preliminary examination of a developmental model of role acquisition proposed by Thornton and Nardi (1975). Their model proposes four stages (anticipatory, formal, informal, and personal) through which individuals pass during the process of role acquisition and identifies five important dimensions of role expectations (source, content, consensus, form, and incumbent's reaction) which are predicted to vary according to stage of acquisition. The present research examines source and content and how they vary according to four stages of nursing education. Pre-nursing students, first-year nursing students, second-year nursing students, and practicing registered nurses who have a B.S. degree in nursing are considered to represent the anticipatory, formal, informal, and personal stages of role acquisition, respectively. Mixed evidence for the theoretical model was found. Data indicated that variation in source and content was at least partially influenced by whether the respondent had prior experience in a nursing-related role.

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## **CHAPTER I**

### **BACKGROUND AND THE RESEARCH PROBLEM**

#### **INTRODUCTION**

Although a large body of literature on role theory exists (Biddle and Thomas, 1966; Gross et al., 1958; Sarbin and Allen, 1968; Turner, 1962), relatively few efforts have been made to study empirically role acquisition in adults. For example, while Thornton and Nardi (1975) offer a model of adult role acquisition, it has received virtually no empirical testing. Their model proposes a developmental approach entailing four stages through which individuals pass during the socialization process. Furthermore, they propose their model can be applied to the acquisition of any role.

In the present research, their model is used as a framework to examine acquisition of the nursing role. In an effort to ascertain how nursing training describes the four stages proposed by Thornton and Nardi, the content and source of expectations at selected stages of professional nursing education will be examined.

#### **BACKGROUND**

While general consensus exists over the nature of a

role, consensus concerning role acquisition is less evident (Becker, 1964; Brief et al., 1979; Feldman, 1976; Simpson 1967; Thornton and Nardi, 1975; Turner, 1962; Turner, 1978). Most role theorists agree that roles consist of a set of expected behaviors and obligations attached to a particular status or position. However, explanations about how a role is acquired vary widely.

One explanation treats role acquisition as a one-step process whereby individuals simply learn, and thereupon perform, expected behaviors attached to a particular role. For example, Becker (1964) proposed that medical students learn and then adjust to the situational demands and expectations placed upon them during medical training. What appears to be a loss of idealism and an increase in cynicism among the medical students is only a temporary adjustment and, as graduation approaches, the student's original idealism returns. Further, Becker and Geer (1958) accounted for long term change as resulting from the number of "side bets" (personal investment) an individual makes with respect to a particular role. Again, such apparent change does not necessarily reflect a change in attitude or identification with the role. Rather, one continues to play the role as a result of his or her commitment to the role as defined by the making of side bets.

This notion of role-taking as simple conformity to role expectations was challenged by Turner (1962) who

suggested that role incumbents modify their behaviors based upon their interaction with others. The underlying notion is that individuals act according to situational expectations and such actions are possibly only temporary.

More recently, role acquisition has been explained as a process whereby individuals pass through several stages during occupational socialization (Brief et al., 1979; Feldman, 1976; Lurie, 1981; Simpson, 1967). In addition to learning the "cultural content" of a role (i.e., skills, knowledge, and ways of behaving toward significant others in the role set), incumbents also internalize those values and goals connected to that role during the socialization process. However, even these explanations are incomplete. For example, Simpson (1967) proposed three stages through which nursing students pass during professional training but failed to acknowledge any socialization occurring prior to entrance into nursing training.

In contrast, Brief et al. (1979) and Feldman (1976) used a model which outlines three stages of role acquisition, but all training prior to formal entrance into the role is categorized as "anticipatory" socialization. In the case of nursing, for example, such a categorization fails to differentiate between experiences and knowledge gained about the role by individuals in pre-professional, professional, and clinical training programs.

## THORNTON AND NARDI'S MODEL

To overcome already existing problems, as well as anticipate those apparent in later explanations, Thornton and Nardi devised a model to explain the process by which virtually any role is acquired. Their model consists of four logically distinct stages through which an individual passes during role acquisition. These are termed the "anticipatory", "formal", "informal", and "personal" stages. Thornton and Nardi suggest these stages are distinguished in terms of major dimensions of role expectations. These are "source" (supplier of information), "content" (behaviors, attitudes, and cognition), and "form" (explicit, or implicit within the social structure) of expectations, "consensus" (perceived and actual agreement between and within sources) over expectations, and "reactions" (how incumbent adjusts or responds) to expectations.

Thornton and Nardi's exposition is summarized schematically in Table 1 where the characteristics of each of these five dimensions of role expectations is shown for the four stages of acquisition. The anticipatory stage (left-most column) is identified as a period when individuals aspiring to membership in a group or role begin to adopt values, attitudes, and behaviors perceived to be appropriate to that role.

According to the model, the primary sources of such conceptions are highly generalized (that is, originating

Table 1—Stages of Role Acquisition and Dimensions of Role Expectations  
According to Thornton and Hardi's Model

Dimension of Expectation	Stage of Acquisition			
	Anticipatory	Formal	Informal	Personal
<u>SOURCE:</u>	<u>Generalized:</u> idealistic and stereotypic role conceptions. Emphasis on idealistic features of the role.	<u>Reciprocal-role others:</u> formal role expectations transmitted via interaction with persons in different roles.	<u>Similar-role others:</u> in the form of informal interaction.	<u>Incumbent becomes</u> primary source of expectations. Own personality/conceptions about role are important.
<u>CONTENT:</u>	<u>Behavioral, attitudinal, Cognitive</u> aspects emphasize what enactment of the role should be (rather than actually is).	<u>Behavioral, Cognitive, features</u> formally stated or codified, emphasizing required behaviors and skills.	<u>Behavioral, Cognitive, features</u> of role emphasized. Alternatives to formal expectations transmitted.	<u>Behavioral, Cognitive, Attitudinal</u> features modified to fit incumbent's own expectations.
<u>FORM:</u>	<u>Both explicit and implicit</u> (as part of the social structure).	<u>Explicitly stated in</u> formal, written documents or as standardized expectations.	<u>Implicit in the social</u> structure. Informal transmission of expectations.	<u>Implicit expectations</u> arise from role incumbent.
<u>CONSENSUS:</u>	<u>High degree of perceived</u> consensus between and within sources.	<u>High degree of actual</u> and perceived consensus both within and between sources.	<u>Low degree of perceived</u> consensus both within and between sources.	<u>High degree of consensus</u> as incumbent influences and achieves some consensus between others' expectations and his/her own
<u>REACTION:</u>	<u>Social and Psychological</u> adjustment begins. Idealized conceptions tend to be congruent with incumbent's needs.	<u>Social adjustment:</u> conformity to expected behaviors and skills. Psychological adjustment postponed.	<u>Social adjustment in</u> final state. Psychological adjustment emphasized. Some identification/development of private meanings.	<u>Adaptation occurs.</u> Internationalization (merging) of role with the person.

form society at large). These sources of role conception, such as the mass media, often provide a stereotypic and idealistic version of the role.

Behavioral, attitudinal, and cognitive features of role expectations also tend to be idealistic, emphasizing what role enactment should involve rather than what enactment actually does involve. Aspirants perceive a high degree of consensus within and between sources about role expectations, reflecting the widespread and idealized conceptions described above.

During the anticipatory stage, aspirants begin adjusting socially and psychologically to the role by adequately meeting what they perceive to be expectations of the role and by believing their psychological needs and desires are congruent with those offered by the role.

The formal stage (second column, Table 1) begins with actual entrance into the role. Expectations are often explicitly stated in the form of formal written rules and obligations or through orientation sessions which emphasize those behaviors and skills required for adequate role performance. As Thornton and Nardi note, role expectations at the formal stage are..."directed typically toward everyone occupying a particular social position" and are often represented to incumbents as a set of required behaviors (1975, p. 876).

During the formal stage, role expectations arise

largely from the role set (individuals occupying same-role and reciprocal-role positions), but primarily through reciprocal-role others who are often in positions of authority. Since expectations are explicitly stated as formal rules and regulations, leaving little room for individual variation, there exists a high degree of consensus about role expectations. Therefore, incumbents during the formal stage of role acquisition are expected to react by conforming to role expectations rather than by attempting to modify them.

The third stage in Thornton and Nardi's role acquisition model, the informal stage (third column, Table 1), is characterized by unofficial role expectations. These expectations are typically transmitted through informal interaction with individuals participating as members of peer groups, work groups, and the like. Thus, during the informal stage, same-role interactions are the incumbent's primary source of expectations about the role.

Informal expectations tend to be implicit (available as unofficial expectations during informal interaction) and refer to attitudinal and cognitive, rather than behavioral, aspects of role performance. During this stage, role expectations are interpreted to refer to the permissive aspects of role performance, for now the opportunity is available for individuals to modify and adjust to the formal expectations of the role. As a result, some dissensus over

role expectations appears during this stage. Adjustment to the role is mainly psychological, as development of private meanings by incumbents and some role modifications become possible.

Thornton and Nardi's final, but least clearly defined, stage is the personal stage (right-most column of Table 1). Here, the incumbent himself becomes the primary source of expectations. Based on information learned during the first three stages, incumbents during the personal stage adjust and modify the role to fit their own personalities and role conceptions. As Thornton and Nardi state, "Role acquisition thus comes to involve individuals imposing their own expectations and conceptions on roles and modifying role expectations according to their own unique personalities" (1975, p.880).

Perceived consensus over role expectations reappears during this stage as incumbents shape, modify, and interpret the role to fit their own personal needs. Psychological and social adjustment to the role are completed during the personal stage, and adaptation or internalization of the role occurs.

#### **APPLICATION OF THE MODEL**

This research uses Thornton and Nardi's model as a framework to examine the acquisition of the professional nursing role, defined here as incumbency in, or graduation



from, a baccalaureate nursing program. Pre-nursing students (freshmen and sophomores) will be considered to represent the anticipatory stage, first-year nursing students (juniors) will represent the formal stage, second-year nursing students (seniors) will represent the informal stage, and practicing registered nurses will represent the personal stage. Assumptions about the order of the stages and the variables as they apply to nursing education are considered in the discussion which follows.

The period prior to actual incumbency in a social position during which individuals begin to adopt the values and behaviors they perceive to be appropriate to the aspired role characterize Thornton and Nardi's anticipatory stage. In anticipation of someday becoming a nurse, pre-nursing students likely perceive congruity between their needs, desires, and values and their conceptions of the role. Also, pre-nursing students probably adopt some of the skills and attitudes appropriate to the role through required courses taken as prerequisites to acceptance into the professional training program. Thus, pre-nursing students offer a good fit to the model's anticipatory stage.

During the formal stage of role acquisition the individual ... "experiences the role as an incumbent and shifts from viewing it from the outside" to viewing it from the inside (Thornton and Nardi 1975, p. 876). Clearly, since they are still undergoing nursing education, juniors

in nursing school are not insiders. However, the nature of the nursing education program allows for juniors numerous opportunities to begin viewing the nursing role from the "inside" as described by Thornton and Nardi. For instance, in situations such as internships, clinicals, and residencies, learning occurs where the occupational task is performed and the relevance of what is being taught about the future role should be clear (Mortimer and Simmons, 1978). Similarly, Simpson (1967) notes that one of the principal tasks of professional schools is to transform the person's lay conceptions about the occupation into the technical orientations of the insider.

This shift to the more technical and skill-oriented aspects of the role corresponds nicely to Thornton and Nardi's formal stage (which is represented by juniors). It is during this formal stage that incumbents adjust to expectations by meeting the requirements rather than by modifying them. According to Thornton and Nardi, this is partly because formal requirements are open to little modification and partly because individuals at this stage are merely getting a feel for the role. The argument presented here is, although not fully members of the nursing role, juniors offer a reasonable fit to the formal stage: they are subject to the more formalized aspects of the nursing role and are expected to perform many of the same tasks as nurses do as part of their professional education.

During the informal stage of role acquisition, which is represented by seniors, unofficial or informal expectations and ways of doing things are encountered. Through informal interaction and observation incumbents begin to realize they can modify the role while still adequately meeting requirements placed upon them. Like juniors, seniors are still undergoing socialization into the professional role, but because they have been in a clinical setting for some time, it is reasonable to assume they have been able to learn some of the alternatives to the required behaviors of role enactment. This stage is similar to Simpson's second phase of nursing socialization, which she characterizes as consisting of a shift away from technical skills toward seeking acceptance in the professional milieu.

Finally, the personal stage of role acquisition is represented here by practicing nurses with a B.S. degree in nursing. It is during this last stage that individuals are able to modify the role to fit their own expectations and to influence expectations others hold for them. This stage is consistent with Merton's (1959) merger of self with the role and with Simpson's (1967) third stage of nursing socialization. In both of these schemes, incumbents internalize the occupation's values and adopt the behaviors it prescribes. However, Thornton and Nardi take a more active perspective by contending that, while incumbents of this stage carry out some of the formal and informal

expectations which define the role, they also seek to impose personal conceptions and needs onto the role and to reconcile these with the demands of the situation.

### **THE RESEARCH PROBLEM**

The purpose of this research is to undertake a preliminary test of Thornton and Nardi's role acquisition model. This will be done by identifying differences in selected dimensions of role expectations across the stages of nursing education as they apply to the theoretical model. The proposed study limits attention to two dimensions: content and source of expectations. Content involves specific behavioral, attitudinal, and cognitive components of role expectations while source refers to how and from whom incumbents learn about these expectations.

Focusing on content and source is based on the following reasoning. Although many role theorists differ on the exact definition of a role, most would agree that a role is partially identified by the set of expectations applied to incumbents of a particular social position. These expectations are usually defined in terms of their content. For example, for Thornton and Nardi, the content of expectations consists of the behaviors, attitudes, and skills associated with a particular status. For Simpson (1967) these behaviors, attitudes, and skills are referred to as the role's "cultural content". And for Biddle (1986),

expectations provide the "scripts" necessary for incumbents to carry out the role. Closely associated with the concept of content is where individuals learn about the behaviors, skills, and attitudes which comprise the role. Thus, this research also investigates the source of role expectations.

Finally, as already discussed above (and as shown in Table 1), Thornton and Nardi's acquisition stages vary most clearly along the dimensions of source and content. For example, the anticipatory stage is characterized by the transmission of idealistic and stereotypic role conceptions through generalized sources, such as television programs, while the formal stage involves explicitly stated expectations transmitted through interaction with reciprocal-role others and written rules and regulations.

Consequently, for reasons of clarity and design simplicity, this study only partially investigates Thornton and Nardi's model. Such an initial effort is nonetheless important as it holds the potential for increasing our understanding of the role acquisition process. In addition, it offers an opportunity to examine the content of expectations and sources which are endorsed by individuals at different stages of professional nurse training.

## CHAPTER II

### METHODS AND DATA ANALYSIS

#### METHODS

Thornton and Nardi's role acquisition model is examined by investigating source and content of role expectations for individuals in different stages of professional nurse education. Pre-nursing students, first-year (juniors) and second-year (seniors) nursing students, and practicing registered nurses correspond reasonably well to the anticipatory, formal, informal, and personal stages, respectively. That is, it is expected that persons at these different levels of professional socialization will differ with respect to source and content of role expectations as predicted by Thornton and Nardi.

Pre-nursing students are those students officially registered as pre-nursing majors. They aspire to, but have not yet entered, formal education for the nursing role (i.e., here, acceptance into the MSU School of Nursing). Treating these persons as incumbents of the anticipatory stage, their conceptions about nursing should be highly idealistic and stereotyped and the source of their understanding about the role is expected to be diffuse and general.

In contrast, the juniors are nursing majors in their first year of professional education. According to the model, the primary source of expectations for these persons should be reciprocal-role others, such as instructors, while the content of such expectations is assumed to be a set of required behaviors and skills.

Seniors are further along in their professional training. It is reasonable to assume that, as predicted by the model, the major source of role expectations is through informal interaction with friends associated with nursing and fellow students while the content of such expectations should consist of unofficial and more individualized attitudes and cognition.

The final group consists of practicing registered nurses who have a bachelor of science degree in nursing. As persons who have completed their formal training, both source and content are predicted to arise primarily from the incumbent himself rather than from the role set. Conceptions of the nursing role are likely to be more realistic and personalized as a result of the nurse's training, personality, and experience working in the field.

### Samples

Since the purpose of this research is to provide an initial assessment of Thornton and Nardi's role acquisition model, sample sizes for each stage are based more on having

sufficient absolute numbers for statistical analyses than upon considerations of estimating population characteristics. Samples of each of the four nursing socialization stages were drawn from master lists of pre-nursing students, nursing students, and practicing registered nurses.

The University of Montana registrar's office provided a list of all students enrolled as pre-nursing majors fall quarter, 1986. All individuals on the list were selected for the sample. Of the 81 students who were listed as pre-nursing majors, two were excluded because they were no longer working toward acceptance into nursing school. This produced a final sample size of 79 pre-nursing students: 73 women and six men.

The Montana State University School of Nursing provided a list of all first- and second-year nursing students attending the four extended Montana campuses fall quarter, 1986. Of 163 juniors, two were excluded because they were no longer working toward degrees in nursing, yielding a final sample size of 161: 141 women and 20 men.

Among the list of seniors, three individuals lacked current addresses and were excluded from a possible 160, producing a final sample size of 157 seniors: 141 women and 17 men. As was done with pre-nursing students, all juniors and seniors were selected for the final sample.

Finally, a sample of nurses who have at least a



bachelor of science degree in nursing was selected from a list of all nurses registered with the State Board of Nursing in Helena, Montana as of November, 1986. Of these, 298 were registered in Missoula County, providing the sample population of registered nurses. In an attempt to generate a sufficient number of men so they could be compared to women, all men (17) were selected and sent questionnaires. A simple random sample of 100 women nurses was drawn, yielding a final combined sample size of 117.

Self-administered questionnaires were mailed to individuals in each of the four samples in February of 1987. A total of 262 usable cases were obtained: 29 pre-nursing students, 58 juniors, 95 seniors , and 80 nurses returned the questionnaires. These represent response rates of 37, 36, 61, and 68 percent for pre-nursing students, juniors, seniors, and nurses, respectively, with an overall response rate of 51 percent.

### Instrument

Respondents were asked to complete a self-administered questionnaire (contained in Appendix 2). The researcher developed the questionnaire based on a review of the literature and from results of pre-test interviews with individuals representing each of the stages of nursing education.

The first section of the questionnaire elicits

responses to several background questions. The next section contains questions designed to investigate the dimensions of content and source of expectations about the nursing role and are the primary focus of the research presented here. The remainder of the questionnaire consists of additional background questions associated with other aspects of nursing. For the purpose of this study, only those variables needed to evaluate source and content are used in the analysis.

Content of expectations was operationalized by offering for endorsement ("checked" versus "not checked" on the questionnaire) sixteen expectation statements. Each statement was predicted to represent an expectation which would occur during a particular stage in the nursing education process.

The expectations that nurses "are able to move about easily from ward to ward (i.e., have adequate training for all settings)" and that they "work with physicians" (i.e., collaborate on diagnoses and plan appropriate patient care)" are predicted to be endorsed most often by pre-nursing students.

Those expectations predicted to be endorsed most often by juniors (first-year nursing students) are that nurses "follow physician's orders", "maintain patient's charts and records", "avoid becoming emotionally involved with patients or their families", and "meet each patient's nursing needs

regardless of ethnic, economic, and social backgrounds".

The expectations that nurses "be supportive and helpful of fellow nurses" and "specialize one's knowledge base" are predicted to be endorsed most often by seniors (who are in their last year of nursing school).

Nurses are predicted to endorse the expectations that nurses "strike a balance between nursing career and personal life", "individualize one's nursing approach", and "participate in setting and maintaining standards for nursing" more often than pre-nursing students, juniors, and seniors.

Five expectation statements were included in the survey because they were often suggested to be relevant to the nursing role by pre-test interviewees. However, stage during which highest endorsement should occur was unclear. For this reason, the expectations that nurses "work closely with other hospital staff", "be involved in professional nursing organizations", "continue one's education to keep abreast of the field", "serve as patient's advocate", and "set priorities in the delivery of nursing care" are also included in the analysis.

How and from whom (i.e., source) incumbents learn the expectations they have about the nursing role is the second dimension examined in this study. As with content, a list of different sources ranging from those expected to occur during the anticipatory stage to those expected to occur

during the personal stage were offered for identification on the questionnaire.

It was reasoned that pre-nursing students should identify other "pre-nursing students" and "general knowledge (i.e., what everyone might know from films, T.V. shows, common knowledge, etc)" as sources at higher rates than individuals at other stages of nursing socialization. Similarly, juniors are predicted to identify "textbooks and handbooks on nursing" and "instructors in a nursing program", seniors are predicted to identify "nursing students", and practicing nurses are predicted to identify "employee manual/hospital regulations", "based on my own experiences and observations", and "professional nursing organizations" most often.

"Professional journals", "practicing nurses", "physicians", "head nurse", and "health professionals other than nurses or physicians" are sources which were not easily categorized but, based on pre-test interviews, are expected to vary according to stage of acquisition. For this reason, they have also been included in the analysis.

## **ANALYSIS**

In order to assess whether significant differences exist between role acquisition stages, source and content are crosstabulated by stage of role acquisition. The Chi-square test of independence between samples is calculated

for each expectation statement and for each source.

To ease presentation and to facilitate comparisons and interpretations, data from these analyses will be reported in compound tables: one for content and another for source. Only the proportion of respondents who check each expectation or source appears in each compound table, the 1.00 complement of those not checking each response being implied. The Chi-square values were computed from the cell frequencies for each individual bivariate analysis.

Since one's conceptions about the role and the sources of these conceptions may result from variables other than stage of education, respondent's prior role-related experience is applied as a control. Although parent's occupation and respondent's sex also may affect the relationship between stage of education and the dimensions of source and content, lack of sufficient variation among respondents on these variables prevent them from being applied as controls in this research. Nearly all respondents were women and had parents whose occupations were not closely related to nursing.

## **CHAPTER III**

### **FINDINGS**

#### **CONTENT OF ROLE EXPECTATIONS**

Since this research seeks evidence for endorsement of expectations among persons in various stages of nursing education that conforms to Thornton and Nardi's model, the findings presented below are offered according to the following logic. As discussed in the previous section, pre-nursing students, juniors and seniors in nursing school, and practicing registered nurses with a B.S. degree in nursing were assumed to represent Thornton and Nardi's anticipatory, formal, informal, and personal stages, respectively. According to the theoretical model, the content of role expectations should vary with stage of role acquisition, a given type of expectation predominating at each of the stages of role acquisition and hence, for each stage of nursing education. To illustrate, the first stage of Thornton and Nardi's model, the anticipatory stage, is characterized by idealized, stereotyped and generalized notions about a role. Based on pre-test interviews, two expectations about the nursing role were identified which are predicted to represent those held by pre-nursing students: that nurses have adequate training for all

settings and that they collaborate with physicians on diagnoses and patient's care. Pre-nursing students, if representative of persons in the anticipatory stage, should endorse these expectations at greater rates than juniors, seniors, or practicing nurses. Throughout the analysis, a strategy of examining rates of endorsement across stages of role acquisition (as exemplified by stage of professional training) is employed.

Each of the expectations which respondents were invited to endorse ("checked" or "not checked" on the questionnaire) were crosstabulated by the stage of nursing education. The Chi-square test of independence established statistical significance at the conventional level ( $p \leq .05$ ). Because the Chi-square test is insensitive to direction, visual inspection was necessary to determine whether endorsement rates followed the predicted pattern (i.e., being high at a particular stage of nursing education as predicted by the model).

Table 2, a compound table, was constructed to display the results of crosstabulating each expectation by stage of education. Only the proportion endorsement is shown, the 1.00 complement of the proportion not endorsing each expectation being implied. Chi-square, of course, is calculated on the frequencies of each zero-order table. The stub is divided into four panels which groups the expectations used in the questionnaire according to Thornton

Table 2--Proportion of Respondents Endorsing Nursing Role  
Expectations at Stage of Nursing Education

Theoretical Stage of Acquisition and Associated Nursing Role Expectations	Stage of Nursing Education			
	Pre-nrsng (n=29)	Juniors (n=58)	Seniors (n=95)	Nurses (n=78)
<u>ANTICIPATORY:</u>				
training for all settings	.86	.76	.53	.46**
collaborate with physicians	.79	.93	.96	.92*
<u>FORMAL:</u>				
follow physician's orders	.97	.90	.93	.92
maintain records	.97	.98	.99	.92
avoid emotional involvement	.48	.36	.25	.27
meet patients' needs	1.00	.98	.96	.95
<u>INFORMAL:</u>				
support fellow nurses	.93	.97	1.00	.96
specialize knowledge base	.69	.62	.75	.65
<u>PERSONAL:</u>				
strike balance	.93	.90	.95	.95
individualize approach	.62	.79	.90	.90**
set priorities	.76	.93	.99	.95**
<u>NOT PREDICTED:</u>				
work with staff	.86	.97	1.00	.97**
involved in organizations	.55	.59	.78	.67*
continue education	.97	.95	.98	.92
patient's advocate	.76	.97	.99	.97**
set nursing standards	.90	.79	.88	.86

Note: \* $p < .05$ , \*\* $p < .01$ , based on Chi-square test of independence.

Due to missing values, some proportions for Nurses are based on 77 cases.



and Nardi's theoretical stages of acquisition (anticipatory, formal, etc.). The head is divided into the four stages of nursing education (pre-nursing students, juniors, etc.). Since Table 2 is a compound table, the total number of individuals responding to each expectation statement may vary. The maximum number of individuals responding to these expectations appears in parentheses next to each nursing education category while the minimum values due to missing cases are indicated in the note at the bottom of the table.

It should be noted that overall high rates of endorsement occur for most of the expectations listed in table 2. In fact, all but five expectations (training for all settings, avoid emotional involvement, specialize knowledge base, individualize approach, and involved in organizations) are endorsed by at least three fourths of the respondents in each stage of nursing education. Thus, it is clear that the expectations used in this research are salient to those being socialized as nurses as well as salient to established nurses. However, since this research is a preliminary examination of Thornton and Nardi's role acquisition model, endorsement of each expectation in the predicted direction is accepted as evidence supporting Thornton and Nardi's role acquisition model, despite overall high rates of endorsement.

The first panel of Table 2 contains the nursing role expectations considered to be associated with Thornton and

Nardi's anticipatory stage: training for all settings and collaborate with physicians. Since these expectations are predicted to predominate during the anticipatory stage of role acquisition, rates of endorsement should be greatest among pre-nursing students. This is true only for the expectation that nurses have training for all settings and the differences between stages are statistically significant. That is, endorsement is highest among pre-nursing students (86 percent) and rates fall off at subsequent stages of nursing education (76, 53, and 46 percent for juniors, seniors, and practicing nurses, respectively). While significant differences exist for the other expectation (collaborate with physicians), endorsement is lowest among pre-nursing students. Thus, this expectation appears to be firmly in place by the time one is a junior.

The next panel of Table 2 contains those expectations considered to correspond to the formal stage of role acquisition: follow physician's orders, maintain records, avoid emotional involvement, and meet patients' needs. Given the arguments made earlier, the rates of endorsement for these expectations should be highest among juniors. However, none were endorsed in the direction predicted. In fact, all but the expectation that nurses avoid emotional involvement were virtually unanimously endorsed across all stages of nursing training. This suggests that these

expectations are learned before entry into formal training and, perhaps, are part of the generalized body of knowledge concerning nursing.

The third panel of Table 2 shows those expectations argued to be associated with Thornton and Nardi's informal stage: support fellow nurses and specialize one's knowledge base. These expectations, which are predicted to be endorsed most often by seniors, do not vary significantly by stage of socialization. However, it is of interest that the highest rates of endorsement for these two expectations are in the predicted direction (i.e., highest among seniors).

The fourth panel of Table 2 shows those expectations thought to correspond to Thornton and Nardi's personal stage and greatest endorsement is expected to occur among practicing nurses. These are strike a balance, individualize approach, and set priorities. Rates of endorsement were highest among seniors, as well as among practicing nurses for the first two of these expectations; the latter expectation yielded significant differences in rates of endorsement across stages of nursing education according to Chi-square. While seniors are closest to practicing nurses in the education process and endorsement rates for these expectations are at least as great among nurses as they are among seniors, the endorsement pattern is not in the direction predicted. In other words, learning concerning these expectations likely occurs during the

senior year of nursing school and persists into the final stage of nurse socialization.

Although endorsement varied significantly across stages for the expectation that nurses set priorities in delivering nursing care, stage of greatest endorsement was not in the direction predicted (i.e., highest among nurses). Instead, pre-nursing students endorsed this expectation least while individuals in all other stages of nursing socialization endorsed it at almost unanimous rates.

Pre-test results identified a number of expectations which, while receiving substantial endorsement among pre-test respondents, could not readily be classified in terms of Thornton and Nardi's model. These are grouped together to form the fifth panel of table 2: work with staff, involved in professional nursing organizations, continue one's education, serve as patients' advocate, and participate in setting nursing standards.

Rates of endorsement for three of these expectations (work with staff, involved in organizations, and patient's advocate) differed significantly by stage of education. Of these, endorsement of the expectations that nurses work closely with hospital staff and that they serve as patients' advocates differed most clearly between pre-nursing students and all others, being substantially lower for the former. Thus, it appears likely that once individuals enter nursing school, these expectations are endorsed as part of the

nursing role and high endorsement continues throughout the remaining stages of nursing education.

The third expectation where rates of endorsement differed significantly (involved in organizations) was clearly endorsed most often by seniors, suggesting this expectation is associated with Thornton and Nardi's informal stage.

In summary, the results of the above analysis offer mixed support for the theoretical model. In only three instances (training for all settings, support fellow nurses, and specialize knowledge base) did greatest endorsement occur at the stage predicted by the author. Furthermore, only the first of these achieved statistical significance. Of the expectations which vary significantly in rates of endorsement across stages but for which stage of greatest endorsement was not predicted (work with staff, involved in organizations, and patients' advocate), the expectation that nurses are involved in organizations was endorsed clearly most often by respondents in one stage of nursing education (seniors). The other two (work with staff and patients' advocate) were endorsed least by pre-nursing students and virtually unanimously by juniors, seniors, and nurses. Finally, though not in the direction predicted, the expectations collaborate with physicians, individualize approach, and set priorities varied significantly across stages of nursing education.

To this point the relationship between stage of acquisition and endorsement rates for each expectation has been examined without considering the effects other variables might have on this relationship. Since it is possible that individuals who have had prior experience in an occupation closely related to a particular role may conceive of the role differently than those who have not had this experience, these individuals may not be well described by Thornton and Nardi's role acquisition model.

In order to determine whether experience in a position closely related to nursing makes a difference in the way persons undergoing socialization endorse expectations, respondent's role-related experience was introduced as a control in the analysis considered above. This was operationalized by asking individuals about their prior experience in role-related positions ranging from secretary in a doctor's office to registered nurse with a diploma degree.

Role-related experience was dichotomized by grouping occupations closely related to nursing (nurse's aide, orderly, LPN, or nurse with an associate or diploma degree) into one category and occupations less related to nursing (candy striper, technicians, EMT, secretary in hospital or doctor office, midwife, or ward clerk) into the other category. These categories are referred to as "nurse or aide" and "not nurse or aide", respectively. It should be noted that all respondents had experience in at least one

role-related position.

Variation in the control variable is maximized when past experience is dichotomized into "nurse or aide" and "not nurse or aide" categories. This dichotomy yields a breakdown of 64 percent of respondents who have had previous experience as an aide or non-B.S. degree nurse, 36 percent who have not.

While it is true that practicing nurses have reached the final stage of Thornton and Nardi's role acquisition model and theoretically should endorse the expectations offered them at equal rates regardless of past experience, the author argues that individuals who have experience as nurses or aides may have self-selected themselves into nursing by virtue of this experience and, therefore, may differ from nurses without such experience. Thus, practicing nurses are also included in the following analysis.

Table 3 is constructed like Table 2 except that the relationship between stage of nursing education and proportion endorsing each expectation is examined twice: once for those individuals who have no prior experience as an aide or nurse and once for those who have. That is, Table 3 is a compound table summarizing the partial tables which result from introducing a dichotomous control for prior experience into the original zero-order table. Since the purpose of controlling for respondent's role-related

Table 3—Proportion of Respondents Endorsing Nursing Role Expectations at Stage of Nursing Education Controlling for Prior Role-Related Experience

Theoretical Stage of Acquisition and Associated Nursing Role Expectations	Not Nurse or Aide				Nurse or Aide			
	Pre-nrsng (n=15)	Jr. (n=20)	Sr. (n=39)	R.N. (n=19)	Pre-nrsng (n=14)	Jr. (n=38)	Sr. (n=56)	R.N. (n=59)
<u>ANTICIPATORY:</u>								
training for all settings	.93	.75	.56	.42**	.79	.76	.50	.48**
collaborate with physicians	.80	1.00	.97	.90	.79	.90	.95	.93
<u>FORMAL:</u>								
follow physician's orders	.93	1.00	.90	1.00	1.00	.84	.95	.90
maintain records	1.00	1.00	1.00	1.00	.93	.97	.98	.90
avoid emotional involvement	.47	.50	.23	.37	.50	.30	.27	.24
meet patients' needs	1.00	1.00	.97	.95	1.00	.97	.95	.95
<u>INFORMAL:</u>								
support fellow nurses	.93	1.00	1.00	1.00	.93	.95	1.00	.95
specialize knowledge base	.80	.60	.72	.74	.57	.63	.77	.63
<u>PERSONAL:</u>								
strike balance	.93	.90	.95	1.00	.93	.90	.95	.93
individualize approach	.73	.95	.90	.95	.50	.71	.89	.88**
set priorities	.80	.90	1.00	1.00*	.71	.95	.98	.93**
<u>NOT PREDICTED:</u>								
work with staff	.93	.95	1.00	1.00	.79	.97	1.00	.97**
involved in organizations	.60	.55	.69	.58	.50	.60	.84	.70*
continue education	1.00	.90	.97	1.00	.93	.97	.98	.90
patient's advocate	.87	1.00	1.00	1.00*	.64	.95	.98	.97**
set nursing standards	.93	.75	.85	.90	.86	.82	.91	.85

Note: \* $p < .05$ , \*\* $p < .01$ , based on Chi-square test of independence.

Due to missing values, some proportions for Nurses who have prior experience as a nurse or aide are based on 58 cases.



experience is to examine its effect on the original rates of endorsement, only those expectations for which the control makes a clear difference in the pattern of endorsement are considered in the following discussion.

With the exception of minor alterations of patterns, holding respondents' prior role-related experience constant had no effect on the relationship between stage of education and endorsement of the expectations listed in the first two panels of Table 3 (i.e, for the first two stages of role acquisition). However, it is of interest that while the endorsement pattern is the same as was found in the zero-order table for the expectation that nurses have adequate training for all settings (anticipatory stage, first panel of Table 3), substantially more pre-nursing students who do not have prior experience as a nurse or an aide endorse this expectation than those pre-nursing students who do have this experience. One possible reason for this is that pre-nursing students who have experience in positions closely related to the nursing role are more realistic about nursing training and, therefore, less likely to endorse the expectation that nurses have adequate training for all settings.

The third panel of Table 3 shows those expectations predicted to be associated with Thornton and Nardi's informal stage. In the original analysis, these expectations were endorsed most often by seniors in nursing

school, as predicted, yet the differences in endorsement were not statistically significant. When respondent's role-related experience is held constant, the original pattern of endorsement occurs only among respondents who have experience as nurses or aides. Again, in none of the partial tables are the differences in proportions significant.

The fourth panel of Table 3 shows those expectations predicted to be associated with Thornton and Nardi's personal stage. Respondents' prior role-related experience made a difference in rates of endorsement for the expectations that nurses individualize their approaches to nursing and that they set priorities in delivering nursing care. The original pattern of endorsement for individualize approach (i.e., highest endorsement shared between seniors and nurses), occurred only among respondents who have prior experience as nurses or aides. As with the zero-order relationship, individuals who are in their final year of nursing education and have experience as aides or nurses share highest rates of endorsement with practicing nurses (.89 and .88, respectively), while only half of the pre-nursing students and seven out of ten juniors endorse this expectation.

Although rates of endorsement varied significantly across stages for the expectation that nurses set priorities, the patterns of endorsement differed. Among

respondents who have no experience as nurses or aides, endorsement increased steadily across stages and leveled off after reaching highest endorsement for seniors. Among respondents who have experience as nurses or aides, endorsement was relatively low for pre-nursing students (71 percent) while virtually all juniors, seniors, and practicing nurses endorsed this expectation.

The last panel of Table 3 shows those expectations for which associated stage of acquisition was not previously predicted. Two of these expectations (work with staff and involved in organizations) were specified by the control variable, and differences between stages are significant only among individuals who have prior experience as aides or nurses. Finally, it is interesting that while the pattern of endorsement for the expectation that nurses serve as patients' advocates is the same in both subtables as in the original bivariate relationship (i.e., significantly lower among pre-nursing students than all other respondents), substantially fewer pre-nursing students who have experience as nurses or aides endorsed this expectation than pre-nursing students who have not worked as nurses or aides.

The concern here is how the addition of a third variable changes the relationship between the endorsement of expectations and stage of nursing education. If the original relationship remains unchanged in the bivariate analysis, then it is assumed addition of the control had no

effect. Except for the expectations that nurses have training for all settings and that they serve as patients' advocates, the original relationship between stage and endorsement of expectations may be a result of respondents' past experience in an occupation closely related to nursing, not level of nursing education alone.

### **SOURCE OF ROLE EXPECTATIONS**

The second dimension of the model investigated in this research is the source of expectations about the role, i.e., from whom or where individuals derive their conceptions of the role. According to the theoretical model, sources of role expectations should vary with stage of role acquisition, a given source being dominant for each of the stages of role acquisition and, hence, in the present case, for each stage of nursing education.

As an illustration, those sources posited to occur during the first stage of Thornton and Nardi's model are predicted by them to be generalized, deriving from the society at large. Pre-test interviews identified two sources of expectations about the nursing role which are predicted to represent those available to pre-nursing students: general knowledge (i.e., what everyone might know from films, T.V. shows, common knowledge, etc.) and other pre-nursing students. Pre-nursing students, if representatives of persons in the anticipatory stage, should

identify these sources at greater rates than juniors, seniors, or practicing nurses. Rates of identifying each source across stages of role acquisition (as exemplified by stage of professional training) is employed throughout the analysis which follows.

The sources of expectations are analyzed using the same format as was used in the immediately preceding analysis of content. As was done with content of expectations, each of the sources which respondents were invited to identify (checked or not checked on the questionnaire) was crosstabulated by the stage of nursing education and the Chi-square test of independence was used to establish statistical significance at the conventional level ( $p \leq .05$ ).

Table 4, also a compound table, was constructed to display the results of crosstabulating each source by stage of education. As with the preceding tables, only the proportion identifying a given source is shown, the 1.00 complement of the proportion not identifying a given source being implied. Since Table 4 is a compound table, the total number of individuals responding to each source varies, but the number of missing values is small.

The first panel of Table 4 contains the sources considered in this research to be associated with Thornton and Nardi's anticipatory stage: general knowledge and pre-nursing students. Since these sources are predicted to

Table 4--Proportion of Respondents Identifying Source of Nursing Role Expectations at Stage of Nursing Education

Theoretical Stage of Acquisition and Associated Source of Nursing Role Expectations	Stage of Nursing Education			
	Pre-nrsng (n=28)	Juniors (n=57)	Seniors (n=93)	Nurses (n=75)
<u>ANTICIPATORY:</u>				
General Knowledge	.54	.46	.39	.52
Pre-nursing Student(s)	.46	.33	.18	.21**
<u>FORMAL:</u>				
Textbooks and Handbooks	.71	.79	.75	.65
Nursing Instructor(s)	.64	.88	.85	.64**
<u>INFORMAL:</u>				
Nursing Students(s)	.64	.74	.74	.44**
<u>PERSONAL:</u>				
Employee Manual/Regulations	.50	.47	.54	.55
Own Experiences/Observations	.82	.80	.82	.83
Nursing Organizations	.39	.68	.77	.72**
<u>NOT PREDICTED:</u>				
Nursing Journals	.46	.77	.76	.79**
Practicing Nurse(s)	.89	.98	.96	.93
Physician(s)	.54	.32	.36	.53*
Head Nurse	.68	.60	.63	.45
Health Professional(s)	.43	.35	.43	.51

Note: \* $p < .05$ , \*\* $p < .01$ , based on Chi-square test of independence.

Due to missing values, some proportions for Juniors are based on 56 cases.

predominate during the anticipatory stage of role acquisition, rates of identification should be highest among pre-nursing students. Only pre-nursing students were identified in the predicted pattern and yielded statistical significance. While nearly half the pre-nursing students identify other pre-nursing students as a source of role expectations, only three out of ten juniors and about two out of ten seniors and nurses identify this source.

The next panel of Table 4 shows those sources considered to correspond to the formal stage of role acquisition: textbooks and handbooks and nursing instructors. Given the arguments made earlier, juniors should identify these sources most frequently. Despite relatively high rates of identification across all stages of education for both sources (64 percent or more), the pattern of identification is in the predicted direction (i.e., highest among juniors). However, the differences in rates of identification across stages of nursing education are significant only for nursing instructors as a source of expectations.

The third panel of Table 4 shows the source ("nursing students") thought to correspond to Thornton and Nardi's formal stage and is predicted to be identified most often by seniors. Although differences in rates of identification are statistically significant, "nursing students" are not identified in the direction predicted, but share highest

rates of identification with juniors (74 percent), differing most clearly between nurses (low) and all others (high). Thus, it appears pre-nursing students, juniors, and seniors generally consider nursing students to be a source of information about the nursing role, but, upon actual entrance into professional nursing, they take on less importance.

The fourth panel of Table 4 shows those sources argued to be associated with Thornton and Nardi's personal stage: employee manual/regulations, own experiences/observations, and nursing organizations. Practicing nurses are predicted to identify these sources most often. However, none were identified in the direction predicted. Yet identification of nursing organizations did differ significantly across stages, most clearly between pre-nursing students (low) and all others (high). While only four out of ten pre-nursing students endorse professional nursing organizations, over two thirds of the juniors, seniors, and nurses consider nursing organizations to be a source of expectations about the role. Apparently, once individuals enter nursing school, professional nursing organizations become an important source of information about nursing and continues to be throughout the socialization process.

Pre-test results identified a number of sources which, while receiving substantial endorsement among pre-test respondents, could not readily be classified in terms of



Thornton and Nardi's model. These are grouped together in the fifth panel of Table 4: nursing journals, practicing nurses, physicians, head nurse, and health professionals. Rates of endorsement for two of these, nursing journals and physicians, vary significantly across stages of nursing education.

Identification of the first these unattributed sources (nursing journals) differs most clearly between pre-nursing students and all others, being substantially lower for the former (46 percent versus 76 percent or more). Thus, as with nursing organizations, nursing journals become an important source of information about the nursing role only once individuals enter nursing school and continues to be throughout the remaining stages of nursing socialization.

The second of these unattributed sources, physicians, is identified most often at the two extremes, where over half of the pre-nursing students and nurses identify physicians compared with only about one third of the juniors and seniors. Such a pattern of identification is consistent with the loss of idealism theme proposed by Becker and Geer (1958) where , upon entrance into professional training, certain values are temporarily dropped until graduation nears.

In brief, the results of crosstabulating source by stage of nursing training are mixed. Among the sources for which stage of highest identification was predicted by the

author, only half of them were identified most often as anticipated. These are the sources appearing in the first two panels of table 4: general knowledge, pre-nursing students, textbooks and handbooks, and nursing instructors. And of these, only two differed significantly according to stage (pre-nursing students and instructors).

Of the sources of expectations for which stage of greatest identification was not predicted, two (nursing journals and physicians) varied significantly across stages. However, contrary to what we might expect according to the model, highest identification was shared among individuals representing two or more stages. Though not in the predicted direction, nursing students and nursing organizations varied significantly across stages of nursing education.

In order to determine whether experience in a position closely related to nursing makes a difference in the way persons undergoing socialization identify sources of expectations, respondents' role-related experience was introduced as a control. As was done above, respondent's role-related experience was dichotomized by grouping occupations closely related to nursing into one category ("nurse or aide") and occupations less related to nursing into the other category ("not nurse or aide").

Table 5 is constructed like Table 4 except that the relationship between stage of nursing education and

Table 5—Proportion of Respondents Identifying Source of Nursing Role Expectations at Stage of Nursing Education Controlling for Respondent's Prior Role-Related Experience

Theoretical Stage of Acquisition and Associated Source of Nursing Role Expectations	Not Nurse or Aide				Nurse or Aide			
	Pre-nrsng (n=15)	Jr. (n=20)	Sr. (n=38)	R.N. (n=18)	Pre-nrsng (n=13)	Jr. (n=37)	Sr. (n=55)	R.N. (n=57)
<u>ANTICIPATORY:</u>								
General Knowledge	.47	.45	.42	.56	.62	.46	.36	.51
Pre-nursing Student(s)	.53	.20	.18	.11*	.38	.40	.18	.25
<u>FORMAL:</u>								
Textbooks and Handbooks	.73	.79	.68	.56	.69	.78	.80	.68
Nursing Instructor(s)	.67	.95	.87	.67	.62	.84	.84	.63*
<u>INFORMAL:</u>								
Nursing Student(s)	.67	.79	.82	.56	.62	.76	.69	.40**
<u>PERSONAL:</u>								
Employee Manual/Regulations	.67	.45	.58	.50	.31	.49	.51	.56
Own Experiences/Observations	.73	.90	.90	.72	.92	.75	.76	.86
Nursing Organizations	.47	.50	.71	.50	.31	.78	.82	.79**
<u>NOT PREDICTED:</u>								
Nursing Journals	.40	.65	.76	.83*	.54	.84	.76	.77
Practicing Nurse(s)	.93	1.00	.95	.94	.85	.97	.96	.93
Physician(s)	.67	.35	.45	.56	.38	.30	.29	.53*
Head Nurse	.73	.55	.66	.39	.62	.62	.62	.47
Health Professional(s)	.53	.35	.53	.44	.31	.35	.36	.53

Note: \* $p < .05$ , \*\* $p < .01$ , based on Chi-square test of independence.

Due to missing values, some proportions for Juniors who have no prior experience as a nurse or aide are based on 19 cases.

proportion identifying each source is examined twice: once for those individuals who do not have prior experience as an aide or nurse and once for those who do. In other words, Table 5 is a compound table summarizing the partial tables resulting from introducing a dichotomous control for prior experience. Since the purpose of controlling for respondent's role-related experience is to examine its effect on the original rates of identification, only those sources for which the control makes a clear difference in the pattern of endorsement are considered in the following discussion.

The first panel of Table 5 shows those sources predicted to be associated with Thornton and Nardi's anticipatory stage. In the original analysis, pre-nursing students identified other pre-nursing students as a source of expectations about the role most often, as predicted. When respondent's role-related experience is held constant, this pattern occurs only among respondents who have no prior experience as nurses or aides, and the differences in rates of identification between stages of this subgroup are statistically significant. Among individuals who have no experience as aides or nurses, 53 percent of pre-nursing students identify other pre-nursing students as a source of information about the role, while only 20 percent or less juniors, seniors, and nurses identify this source.

One explanation is that while individuals who have no

prior experience as aides or nurses identify other pre-nursing students as sources of expectations, respondents who do have prior experience have expanded their available sources of information about the role and, therefore, do not differ significantly from each other.

The second panel of Table 5 shows those sources predicted to be associated with Thornton and Nardi's formal stage. In the original analysis these sources (textbooks and handbooks and nursing instructors) were identified most often by juniors, as predicted. While this same relationship occurs in both subgroups for the source nursing instructors, the differences across stages are significant only among individuals who have prior experience as aides or nurses.

The third panel of table 5 shows the only source, nursing students, predicted to be associated with Thornton and Nardi's informal stage. Though juniors and seniors identified nursing students as a source of role expectations most often (and at equal rates) in the original table, the clearest difference in identification occurred between nurses (low) and all others (high). When holding respondent's prior experience constant, this same pattern of identification occurs among both subgroups of the control but differences in rates of identification are significant only among individuals who have previously been nurses or aides.

The fourth panel of Table 5 shows those sources predicted to be associated with Thornton and Nardi's personal stage. Although none of these sources were identified in the predicted direction in the original analysis (i.e., highest among nurses), identification of nursing organizations differed significantly across stages and was identified by substantially fewer pre-nursing students than all others. Like the previous two sources, when respondent's past experience is held constant, this pattern occurs only among individuals who have experience as aides or nurses, and the proportion identifying this source differed significantly across stages. Thus, while only about three out of ten pre-nursing students with experience as aides or nurses identify "nursing organizations", about eight out of ten juniors, seniors, and nurses identify this source.

The last panel of Table 5 shows those sources for which associated stage of acquisition was not previously predicted by the author. The sources found to differ significantly across stages in the original analysis, "nursing journals" and "physicians", were specified by the control variable.

In the original table, rates of identification for nursing journals differed most clearly between pre-nursing students and juniors, being substantially lower among the latter. However, when holding respondent's prior experience

constant, significant differences exist only among individuals who do not have experience as nurse or aides, and the proportion of respondents identifying this source increases across stages of nursing education (from 40 percent for pre-nursing students to 83 percent for nurses) as one might expect. Despite non-significant differences among respondents who have experience as nurses or aides, the proportion identifying nursing journals as a source of role expectations was substantially less than among juniors, seniors, and nurses, as was found in the original table.

Physicians were identified as a source most often by pre-nursing students and nurses and least by juniors and seniors in the original analysis. When holding respondent's prior experience constant, this pattern occurs in both partials, but the differences are not as substantial. However, identification differs significantly only among individuals who have experience as nurses or aides and, while it is true pre-nursing students and nurses identify physicians as source of expectations more than juniors and seniors, identification is clearly highest among nurses. Hence, while fewer than four out of ten pre-nursing students, juniors, and seniors who have worked as nurses or aides identify physicians as a source of expectations, over half of the nurses endorse this source.

As with content of expectations, addition of a third variable affected the original relationship between source

of expectations and stage of nursing education. Without exception, all sources which varied significantly in rates of identification across stages of training in the bivariate analysis were specified by the control variable. Thus, respondent's prior experience appears to have a strong influence on the relationship between source and stage.



## CHAPTER IV

### SUMMARY, DISCUSSION, CONCLUSIONS

#### SUMMARY

This research represents a preliminary examination of two dimensions of the theoretical model proposed by Thornton and Nardi (1975). According to the model, the content of role expectations and how or from whom these expectations are learned (source) are predicted to vary according to stage of role acquisition. Stereotypic and idealistic conceptions of the role transmitted by generalized sources occur during the anticipatory stage, required behaviors and skills transmitted by reciprocal-role others occur during the formal stage, more informal expectations and alternatives to required behaviors and skills transmitted by informal interaction with same-role others occur during the informal stage, and personalized expectations held by the incumbent himself occur during the personal stage of role acquisition.

Individuals at different levels of training for the professional nursing role represented the different stages of Thornton and Nardi's model. Pre-nursing students, first-year nursing students, second-year nursing students, and practicing registered nurses who have a bachelor of science

degree in nursing represented the anticipatory, formal, informal, and personal stages, respectively.

Sixteen expectation statements and thirteen sources predicted to differ according to stage of nursing education were offered for endorsement in a mailed, self-administered questionnaire. Results of crosstabulating each source and each expectation statement (content) according to stage of nursing education are presented in compound tables. Respondent's prior experience was introduced as a control variable for both source and content.

Let us take another look at the relationship between stage of nursing education and the content of role expectations. According to the model, certain behaviors, attitudes, and skills (content) are expected to predominate during each stage of acquisition. If only those expectations for which endorsement is clearly greatest during one stage of education are accepted as evidence supporting the model, then just four of the expectation statements offered on the questionnaire support the model (and only two of these differed significantly across stages of socialization).

Yet, expectations may be learned during one stage in the socialization process and continue to be considered part of the role throughout the remaining stages of socialization. If we interpret Thornton and Nardi's model in this manner, then several more expectation statements can

be considered as evidence supporting the model. Thus, pre-nursing students (anticipatory stage) expect nurses to have adequate training for all settings. In addition, juniors (formal stage) expect nurses to collaborate with physicians on diagnoses and patient care, to set priorities in delivering nursing care, work closely with hospital staff, and serve as patients' advocates. Finally, seniors (informal stage) expect nurses to individualize their nursing approaches and to be involved in professional organizations. None of the expectations offered on the questionnaire were endorsed most often by practicing nurses.

When holding respondent's prior experience constant, the original relationships between stage of nursing education and patterns of endorsement for each expectation either disappear in the partials (as with the expectation that nurses collaborate with physicians), or occur in only one partial table and not in the other (as with the expectations that nurses individualize their nursing approaches, set priorities in delivering care, are involved in nursing organizations, work with other hospital staff, and serve as patients' advocates). In fact, in only one instance -training for all settings- did the original pattern of endorsement occur in both subtables of the control variable. Thus, it appears that holding respondents' prior role-related experience constant accounts for at least some of the variation occurring in the original

bivariate analysis.

The relationship between source of role expectations and stage of nursing training can be interpreted in the same way as was content. That is, if highest rates of identification of sources occur only at one stage or begin at a particular stage and remain relatively constant thereafter, then these sources support Thornton and Nardi's model. From the original analysis, pre-nursing students (anticipatory stage) identify other pre-nursing students as a source of role expectations, juniors (formal stage) identify nursing textbooks and handbooks, nursing instructors, and professional journals as sources, and seniors (informal stage) identify nursing organizations as sources of information about the nursing role. As with content, no source was identified most often by practicing nurses.

When holding respondents' prior experience constant, patterns of identification for all but three of these sources differed according to which subtable one was examining. Even these three sources (pre-nursing students, textbooks and handbooks, and nursing students) appear to be partially affected by the control variable, as differences were significant across stages of socialization only in one subtable. Thus, as with content, source appears to be affected more by the whether or not the respondent had experience as a nurse or aide than simply stage of nursing

education.

## DISCUSSION

The results of this research offer mixed support for Thornton and Nardi's theoretical model. It was expected that persons at different levels of professional training would differ with respect to the content and source of expectations about the nursing role. Indeed, about half of the expectation statements and sources offered respondents on the questionnaire differed clearly according to stage of education, as predicted.

Controlling for respondent's prior role-related experience either partially or completely accounted for variation across stages in the original analysis. Generally, variation between stages was greater among respondents who have experience in positions closely related to nursing for the content of expectations. While rates of identification of sources of role expectations also were influenced by the control variable, no general pattern emerged according to category of control.

This is not to say that Thornton and Nardi's model is not a good one. Their model assumes persons are naive about the content and sources of role expectations until they encounter them at successive stages of the role acquisition process. However, every one of the respondents, regardless of stage of nursing education, had prior experience in at

least one position offered on the questionnaire. As may be recalled, all these positions were related, more or less, to the nursing role.

In an attempt to approximate as closely as possible this condition of "naivete", the control variable was dichotomized into the categories "not nurse or aide" and "nurse or aide" and was based on the reasoning that individuals in positions other than nurses or aides did not directly or regularly observe and interact with nurses carrying out their nursing duties and, therefore, were less likely to accurately conceive of the nursing role. Despite minimizing the effects of prior experience, individuals who had little opportunity to observe or interact with nurses (i.e., who had not previously been nurses or aides) did not vary more or in the direction predicted than those who had extensive opportunity to observe nurses, as might be expected from the model. In fact, for content of role expectations the opposite occurred as those with experience varied more than those without experience.

Perhaps it is the nature of the experience itself that accounts for these differences. In other words, individuals may conceive of the role differently according to type of prior experience. As well, depending on type of prior experience, source of expectations may also vary.

What does all this mean? First, the data offer some support for Thornton and Nardi's model, as source and

content did vary according to stage of nursing education. One reason for the mixed results was already considered above (i.e., lack of the condition of naivete). Another reason is the possibility that the nursing education stages used in this research did not correspond well to Thornton and Nardi's role acquisition stages. Thus, breaking off nursing socialization stages at different points would offer a better fit to the model. Yet another reason for mixed results may be low response rates for pre-nursing students and juniors. In other words, the types of expectations and sources identified by those who did not respond may be substantially different from those who did.

Finally, and more important theoretically, Thornton and Nardi's model may be better applied to socialization occurring over a shorter period of time. An extended socialization process, as was the case with the four-year nursing education program, offers numerous opportunities for "contamination" to occur through early or unrealistic exposure to different aspects of the nursing role.

## **IMPLICATIONS**

In this research I have found some support for two dimensions of Thornton and Nardi's role acquisition model and, in particular, for the argument that different expectations and sources of expectations exist at different stages of socialization. Hence, further research might be

continued in several different areas.

One area is the comparative examination of several different roles which may better conform to Thornton and Nardi's model of role acquisition. Socialization into these roles is likely to be shorter and to consist of more clearly defined expectations than for those of the professional nursing role. Both professional and non-professional roles could be examined. An example of a non-professional role that might be more applicable to the model is that of lifeguard. Training for this role is completed in a relatively short time (usually several weeks) and the expectations one learns during training and on the job are standardized and applied to everyone. The role of policeman provides an example of a professional role that might conform to Thornton and Nardi's role acquisition model. Length of training (socialization) is longer than is lifeguard training, yet shorter than the baccalaureate nursing program. In addition, training is likely more practical than theoretical, as police do not complete a baccalaureate degree, yet it is more extensive than lifeguard training.

Just as there probably are many roles which conform to Thornton and Nardi's role acquisition model, there are others for which the model appears not to apply. These include many life-cycle roles such as marriage, parenting, and retirement, for which at least one stage of acquisition



may be lacking. For instance, though nearly every member of our society eventually becomes an incumbent of the marriage role, individuals do not pass through a stage of formal training during which standardized expectations are transmitted. Although they may anticipate the marriage role and informally learn some role expectations from friends who have been or are presently married, individuals learn what it means to be married primarily by becoming incumbents of the role. Thus, at least for the marital role, Thornton and Nardi's formal stage does not exist and their model would have to be modified in order to account for its acquisition.

In addition to examining different types of roles and how they apply to the theoretical model, two further aspects of the model warrant further investigation. One aspect considers those dimensions offered by Thornton and Nardi which were not examined in this research. Thus, in addition to the dimensions of source and content, the form of expectations, consensus about these expectations, and the incumbents' reactions to role expectations should be explored in order to more thoroughly test the model.

The second approach to research of the theoretical model concerns evaluating role acquisition through the use of different methodologies. In the research done here, respondents were asked simply to indicate whether they felt a particular source or expectation was salient to nursing. However, asking respondents to indicate degree of agreement

to each statement according to a five-point Likert scale would maximize variance and, therefore, increase sensitivity to differences in the dimensions of expectations according to stage of socialization. Furthermore, methods such as participant observation, interviewing, and collaborating with individuals directly involved with the socialization process could provide an "insider view" of the acquisition process and those dimensions important to each stage of socialization.

Clearly, further research in the areas suggested above is necessary to determine 1) if Thornton and Nardi's model is applicable to virtually any role, as they claim; and 2) if not, to determine those types of roles to which their model applies; as well as 3) investigate changes or modifications (if possible) necessary for the model to be useful in describing the acquisition process for those roles for which it presently cannot be readily applied.

## CONCLUSIONS

The results of this research have been mixed. Though content and source did vary across stages for many sources and content statements, respondents' prior experience in a position closely related to nursing either partially or completely influenced the original relationship between stage of socialization and the dimensions of expectations examined in this research.

## APPENDIX 1



# University of Montana

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Missoula, Montana 59812

Dear Nurse or Student,

You have been selected for this study because of your association with the nursing profession. Your assistance is requested in completing the enclosed questionnaire, which is being sent to individuals in several Montana cities. The primary purpose of this research is to add to the scientific knowledge and understanding of attitudes and opinions held by adults as they prepare for and work in the nursing role.

Your name was selected using scientific random sampling techniques. It should be stressed that the information you provide will be treated in ways to assure your anonymity. It is requested that you do not put your name anywhere on the questionnaire or return envelope. Data compiled from this study will be reported only as statistical summaries, not as individual responses. A pre-paid return envelope has been enclosed for your convenience, so you need not bother with postage.

Because accurate findings require high response rates, it is important to have as many questionnaires returned as possible. Won't you please take a few minutes and complete the enclosed questionnaire? Your time and cooperation are very much appreciated.

Sincerely,

Anastasia M. Tureck  
Department of Sociology

Equal Opportunity in Education and Employment

## APPENDIX 2

Please provide information which applies to you by marking or writing in your responses to the questions below. DO NOT write your name on this form.

1. Do you have a bachelor of science degree in nursing?  
☐no  
☐yes
2. Are you PRESENTLY working toward a bachelor of science degree in nursing?  
☐no  
☐yes
3. Please check the statement below which describes your PRESENT educational level in a baccalaureate nursing program:  
☐not applicable; I am not a BSN nor am I presently working toward such a degree  
☐pre-nursing student  
☐junior in nursing school  
☐senior in nursing school  
☐B.S. degree in nursing  
☐post-baccalaureate degree in nursing (please specify): \_\_\_\_\_  
☐other (please specify): \_\_\_\_\_
4. Are you presently employed?  
☐no  
☐yes (if "yes", please answer the following):
  - a. What is your present occupation? \_\_\_\_\_
  - b. How many hours per week do you now work? \_\_\_\_\_
  - c. How much do you earn per month (take home pay)? \_\_\_\_\_
  - d. How long have you had this job? \_\_\_\_\_
5. Sex: ☐Female ☐Male
6. Your age at last birthday: \_\_\_\_\_
7. Current marital status (please check one):  
☐single, never married  
☐living with someone  
☐married  
☐separated  
☐divorced  
☐widowed
8. Whether married or not married, have you ever had any children?  
☐no  
☐yes (if "yes", please answer the following):
  - a. Please indicate the number of children in each applicable category:  
☐biological ☐adopted ☐step ☐foster ☐other
  - b. Are any of these children living with you now? Please indicate the number of children in each category living with you now:  
☐biological ☐adopted ☐step ☐foster ☐other
9. Individuals may have many occupations in their lifetimes. FOR THE MOST PART, what are/were your parents' occupations? (please be specific; e.g., "second grade teacher")
  - a. Father: \_\_\_\_\_
  - b. Mother: \_\_\_\_\_

10. What are/were your parents' educations? (please indicate highest level completed):

a. Father:

<input type="checkbox"/> less than eight years of gradeschool	<input type="checkbox"/> some college
<input type="checkbox"/> eighth grade graduate	<input type="checkbox"/> associate degree
<input type="checkbox"/> some high school	<input type="checkbox"/> college graduate
<input type="checkbox"/> high school graduate	<input type="checkbox"/> some post-graduate work
<input type="checkbox"/> vocational degree	<input type="checkbox"/> post-graduate degree (please specify) _____

b. Mother:

<input type="checkbox"/> less than eight years of gradeschool	<input type="checkbox"/> some college
<input type="checkbox"/> eighth grade graduate	<input type="checkbox"/> associate degree
<input type="checkbox"/> some high school	<input type="checkbox"/> college graduate
<input type="checkbox"/> high school graduate	<input type="checkbox"/> some post-graduate work
<input type="checkbox"/> vocational degree	<input type="checkbox"/> post-graduate degree (please specify) _____

FOR THE FOLLOWING QUESTION AND THE NEXT, I AM INTERESTED IN YOUR PRESENT IDEAS ABOUT THE NURSING ROLE. THUS, IT IS REQUESTED THAT YOU ANSWER THESE QUESTIONS BASED ONLY ON YOUR CURRENT OPINIONS AND KNOWLEDGE ABOUT NURSING.

11. a. We all have ideas about what types of behaviors, skills, and attitudes are part of the nursing role. Please check ALL statements below which you PRESENTLY feel are part of the nursing role:

<input type="checkbox"/> work closely with other hospital staff
<input type="checkbox"/> work with physicians (i.e., collaborate on diagnoses and plan appropriate patient care)
<input type="checkbox"/> maintain patient's charts and records
<input type="checkbox"/> follow physician's orders
<input type="checkbox"/> be supportive and helpful of fellow nurses
<input type="checkbox"/> continue one's education to keep abreast of the field
<input type="checkbox"/> avoid becoming emotionally involved with patients or their families
<input type="checkbox"/> set priorities in the delivery of nursing care
<input type="checkbox"/> be involved in professional nursing organizations
<input type="checkbox"/> strike a balance between nursing career and personal life
<input type="checkbox"/> meet each patient's nursing needs regardless of ethnic, economic, and social backgrounds
<input type="checkbox"/> participate in setting and maintaining standards for nursing
<input type="checkbox"/> be able to move about easily from ward to ward (i.e., have adequate training for all settings)
<input type="checkbox"/> individualize one's nursing approach
<input type="checkbox"/> serve as patient's advocate
<input type="checkbox"/> specialize one's knowledge base
<input type="checkbox"/> other (please specify): _____

b. Now return to the list above. Rank the THREE most important statements by placing a "1" next to the statement that you consider to be most important, a "2" next to the second most important, and a "3" next to the third most important statement.

12. a. The ideas persons have about what nurses do come from a variety of sources. 64  
Please check ALL those sources from the following list that you PRESENTLY feel  
are important in defining what a nurse does:

☐ general knowledge (i.e., what everyone might know from films, T.V. shows,  
common knowledge, etc.)  
☐ pre-nursing student(s)  
☐ practicing nurse(s)  
☐ textbooks and handbooks on nursing  
☐ instructor(s) in a nursing program  
☐ nursing student(s)  
☐ employee manual/hospital regulations  
☐ physician(s)  
☐ health professional(s) other than nurses or physicians  
☐ head nurse  
☐ based on my own experiences and observations  
☐ professional nursing organizations  
☐ professional journals  
☐ other (please specify): \_\_\_\_\_

- b. Now please return to the list above. Rank the THREE most important statements  
by placing a "1" next to the statement that you consider to be most important,  
a "2" next to the second most important, and a "3" next to the third most important  
statement.

13. Have you ever worked as any of the following? (please check ALL applicable statements):

☐ candy striper or other hospital volunteer  
☐ nurse's aid or physical therapy aid  
☐ orderly  
☐ x-ray technician or laboratory technician  
☐ EMT  
☐ secretary or receptionist in a doctor's office  
☐ secretary or receptionist in a hospital  
☐ licensed practical nurse  
☐ nurse: associate degree  
☐ registered nurse: diploma  
☐ midwife  
☐ ward clerk  
☐ nurse practitioner  
☐ other (please specify): \_\_\_\_\_

14. PRESENTLY, to whom or to what source(s) do you go to find answers to specific questions  
concerning nursing? (please check ALL applicable statements):

☐ pre-nursing student(s)  
☐ nursing student(s)  
☐ university student(s) other than pre-nursing and nursing student(s)  
☐ friend(s) other than university student(s)  
☐ friend(s) other than medical professional(s)  
☐ instructor(s)/professor(s)  
☐ practicing nurse(s)  
☐ co-worker(s)  
☐ physician(s)  
☐ professional journals  
☐ textbooks  
☐ health professional(s) other than doctors and nurses  
☐ other (please specify): \_\_\_\_\_



15. In this question, please imagine that you have made a relatively minor mistake in the care of a patient, which would likely remain undetected by other hospital staff. Would you tell anyone about your mistake?

☐ no  
☐ yes. If "yes", please indicate who you would tell by checking ALL applicable statements:  
☐ nursing student(s)  
☐ university student(s) other than nursing student(s)  
☐ friend(s) other than university student(s)  
☐ friend(s) other than medical professional(s)  
☐ spouse  
☐ relative(s) other than spouse  
☐ instructor(s)/professor(s)  
☐ practicing nurse(s)  
☐ co-worker(s)  
☐ physician(s)  
☐ health professional(s) other than doctors and nurses  
☐ other (please specify): \_\_\_\_\_

16. We all have friends with whom we interact fairly often. These friends may be our study partners, co-workers, roommates, or simply people we enjoy being around. For the most part, with whom do you PRESENTLY spend most of your time? (please check ALL applicable statements):

☐ pre-nursing student(s)  
☐ nursing student(s)  
☐ university student(s) other than pre-nursing and nursing student(s)  
☐ friend(s) other than university student(s)  
☐ friend(s) other than medical professional(s)  
☐ instructor(s)/professor(s)  
☐ practicing nurse(s)  
☐ co-worker(s)  
☐ spouse  
☐ relative(s) other than spouse  
☐ physician(s)  
☐ health professional(s) other than doctors and nurses  
☐ other (please specify): \_\_\_\_\_

17. PRESENTLY, with whom do you discuss personal problems or concerns? (please check ALL applicable statements):

☐ pre-nursing student(s)  
☐ nursing student(s)  
☐ university student(s) other than pre-nursing and nursing student(s)  
☐ friend(s) other than university student(s)  
☐ friend(s) other than medical professional(s)  
☐ instructor(s)/professor(s)  
☐ practicing nurse(s)  
☐ co-worker(s)  
☐ spouse  
☐ relative(s) other than spouse  
☐ physician(s)  
☐ health professional(s) other than doctors and nurses  
☐ other (please specify): \_\_\_\_\_

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