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The Impact of Type of Basic
Nursing Education on the
Practice of Registered Nurses
in the State of Iowa: A Research
Report Commissioned by the Iowa
Board of Nursing

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Introduction

In June of 1975, Mildred I. Freel, R.N. as Chairperson of the Commission to Study Nursing in Iowa transmitted the Commission's Report to the Honorable Robert D. Ray, Governor of Iowa. The Commission recommended the establishment of a free-standing nursing research and development organization. Further, the Commission recommended:

"That the proposed research and development organization conduct an in-depth study to determine the level of satisfaction among new graduates, employers, and consumers; and that nursing education curricula and/or consumer and employer expectations be modified in light of the findings" (p. 111).

In regards to the recommendation, the Commission went on to state:

"A major concern is that often the nursing curricula are not totally relevant to actual nursing practice, and that employers' expectations, manifested in nursing job responsibilities, do not always properly take into account nurses' preparation. Appropriate changes in nursing education and in practice need to occur simultaneously" (p. 111).

In June of 1976, the Iowa Board of Nursing contracted with Arthur P. Brief, Ph.d., an Assistant Professor of Management and Organizational Behavior in the College of Business Administration, University of Iowa, to conduct, in part, the research mandated by the above recommendation of the Commission. (Dr. Brief's vita is contained in Appendix I). The following final report of that research is presented below in four parts: Purpose, Methodology, Results, and Conclusions.

Purpose

Consistent with the recommendations of the Commission to Study Nursing in Iowa (1975), the purpose of this report is to present the results of an in-depth program of research designed to ascertain in a broad sense the impact of nursing education curricula on nursing practice in the State of Iowa. As mandated by the Iowa Board of Nursing (the Board) only the education of registered nurses (R.N.'s) and, not, the education of licensed practical nurses was investigated. Furthermore, data was collected directly from practicing R.N.'s and their employers. No attempt was made to collect data from consumers of nursing services (i.e., patients).

Nursing education curricula was operationalized in terms of basic nursing education preparation as specified on the license application renewal form of the Board. In other words, three forms of nursing education curricula were studied: Diploma degree, Associate degree (A.D.) and Baccalaureate degree (B.S.).

As depicted in Figure 1, the general research question, "What impact does type of basic nursing education have on the practice of registered nurses in the State of Iowa?", was conceptualized in terms of three sub-questions. The sub-questions include: (1) Does the type of basic nursing education completed by a registered nurse influence the activities performed on-the-job? (2) Does the type of basic nursing education completed by a registered nurse influence how well the nurse performs his/her job?

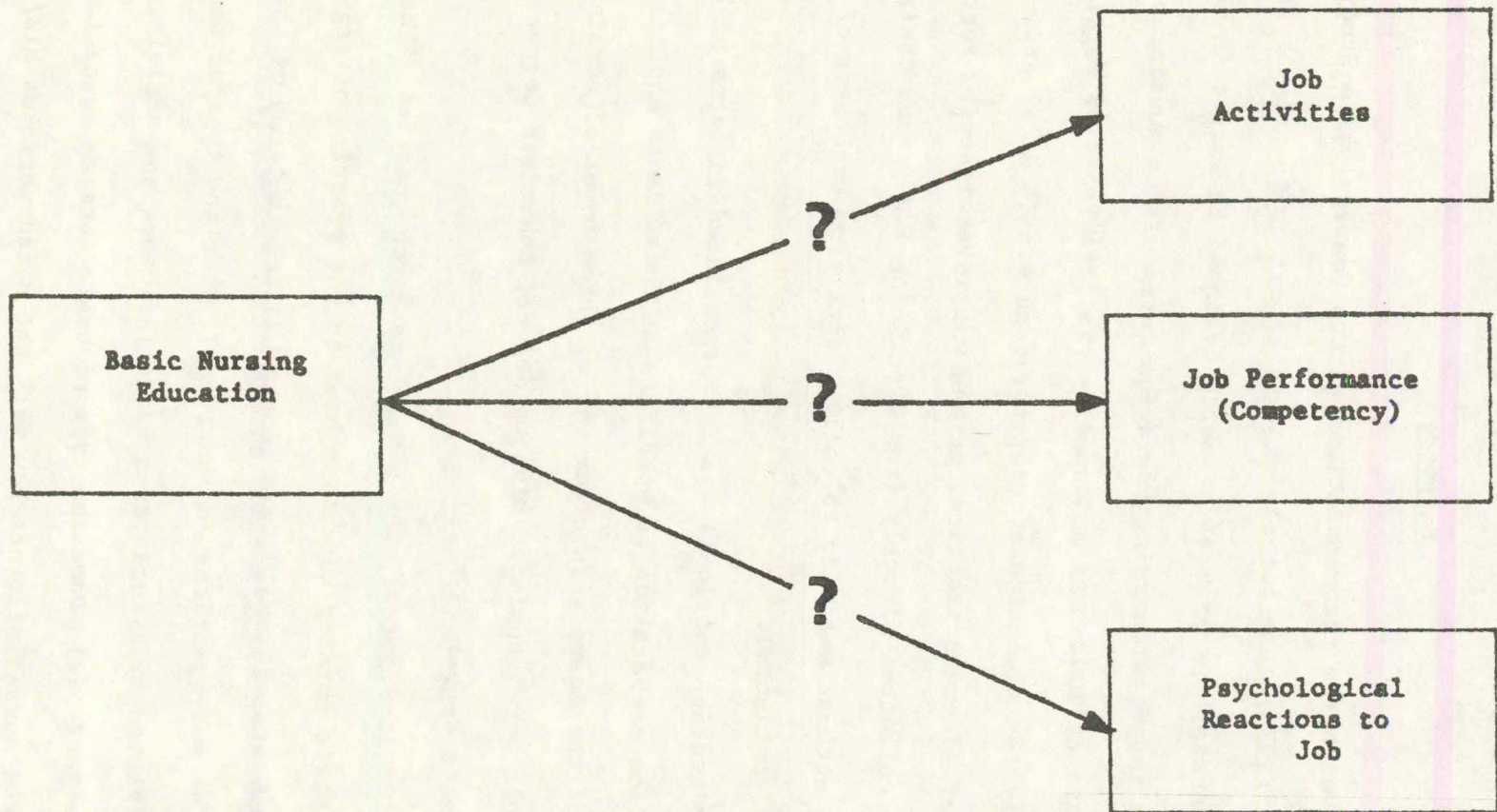


Figure 1
Research Questions

(3) Does the type of basic nursing education completed by a registered nurse influence the nurse's psychological reactions to his/her job?

The first sub-question essentially addresses the issue of whether or not nurses with a Diploma, A.D., or B.S. degree are utilized to the same extent by their employers. Much nursing and sociological literature leads one to predict that regardless of basic nursing education, registered nurses perform the same set of activities on their jobs (e.g., Kruger, 1971). It is commonly assumed that different types of basic nursing education prepare nurses to engage in somewhat different activities. If this is true and if it is found that the activities performed by registered nurses regardless of their basic nursing education are the same, then it must be concluded that the education of some nurses is being under-utilized. Given that the B.S. degree is commonly considered the most advanced type of basic nursing education, this potential under-utilization problem may be particularly severe for B.S. degreed nurses. The importance of the under-utilization question lies in both the areas of health care cost and quality of care. Assume nurses with B.S. degrees are under-utilized; and, the B.S. degree costs the student and the taxpayer more than a Diploma or A.D. education in nursing. It then would appear that significant savings could be accrued by channelling students away from B.S. programs in nursing. Conversely, if the two stated assumptions are met, then increased utilization of B.S. degreed nurses (rather than channelling students away from B.S. programs) should have a positive impact on the quality of nursing care provided.

The second sub-question posed more directly addresses quality of care issues. If it is found that Diploma, A.D., and B.S. degreed nurses do perform the same type of activities one could still justify the status quo only if it was also found that nurses with different types of education performed their jobs at varying levels of competency. Obviously, one would want to find a positive association between education level and job performance. In other words, B.S. degreed nurses should be more competent than Diploma or A.D. educated nurses given the greater investment in time and money. Assume for the moment, however, that it is found that B.S. degreed nurses perform the same activities as Diploma and A.D., nurses and perform those activities at the same level of competency. It would then be clear that a change in education curricula and/or nursing practice would again appear warranted.

The final sub-question was derived from a broad body of literature indicating that if a nurse's education is under-utilized on-the-job, the nurse will respond negatively in terms of a number of psychological reactions (e.g., Allutto, Hrebick, and Alonson, 1971; Brief, 1976; Forrest, 1968; Kramer, 1968, 1970). More specifically, it is predicted that if a nurse's expectations go unmet on-the-job, the nurse will experience job related stresses and job dissatisfaction. Importantly, both of these negative reactions have been shown to be related to employees withdrawing from their jobs (Porter and Steers, 1973). Thus, it may be the case that the degree to which a nurse's education is utilized on-the-job is intimately associated with his/her level of participation in the profession. The less

the nurse's education is utilized, the more likely the nurse is to become inactive. Such inactivity has a clear impact on the cost and quality of health care (e.g., Archibald, 1971; Bayer, 1967; Commission to Study Nursing in Iowa, 1975; National Advisory Commission on Health Manpower, 1967).

In summary, this report presents the results of a program of research designed to determine what activities Diploma, A.D. and B.S. degreed nurses perform on their jobs, how well they perform these activities and how they psychologically react to their jobs. These questions were formulated from sound theoretical bases; and, they were formulated such that the answers provided will help governmental agencies in the State of Iowa develop more effective health care policies for the people of Iowa.

Methodology

The program of research consisted of six integrated studies. Each study addressed all of the research questions posed above, however, sampling procedures and instrumentation varied among the studies. For each study, a group of 210 registered nurses reporting full time employment in nursing (according to their responses to the Board's license renewal application) were randomly selected from the Board's listing of registered nurses. Each of these samples was stratified by type of basic nursing education with one-third of the subjects having a Diploma degree, one-third an A.D., and one-third a B.S. degree. Each subject received a mailed questionnaire from the Board. The accompanying cover letter is contained in Appendix II.

Employee responses were obtained from the immediate superiors of the responding nurses. Each nurse was asked to identify his/her immediate superior as well as place of employment. Those superiors also received a mailed questionnaire from the Board. The accompanying cover letter is contained in Appendix II.

It is important to note that the entire program of research was reported upon while in progress to the Board. These reports take the form of a series of 11 technical reports.

Nurse Samples. Again six randomly selected samples of 210 registered nurses stratified by type of basic nursing education were employed in the program of research. Samples A, B, C, and D were selected from those

nurses reporting on their license renewal application that they were employed in hospitals as general duty nurses. Greatest emphasis was placed upon general duty nurses because they represent the largest category of nurses practicing in the State of Iowa (Commission to Study Nursing in Iowa, 1975). The numbers of nurses responding in Samples A-D and the corresponding response rates are as follows: A - 156 and 75%, B - 144 and 69%, C - 135 and 64%, and D - 147 and 70%.

Half of the nurses in Sample E were identified as nurses in supervisory positions (administrator or assistant, supervisor or assistant, and head nurse or assistant); and, half were identified as general duty nurses. It was felt that it was important that supervisory personnel were adequately represented in at least one sample in order to test for the generalizability of the results in Samples A-D. 106 nurses responded in Sample E for a response rate of 50%.

Sample F was stratified by major clinical teaching or practice area (public health, general practice, geriatrics, obstetric/gyneologic, medical-surgical, pediatrics, and psychiatric/mental health); in addition to type of educator. Again, the intent was to broaden the categories of nurses investigated. 103 nurses responded in Sample F for a response rate of 49%.

Immediate Superior Respondents. Again, the immediate superior of each responding nurse was mailed a questionnaire. The numbers of superiors responding and the corresponding response rates are as follows: A - 117 and 75%, B - 95 and 66%, C - 70 and 52%, D - 75 and 51%, E - 82 and 77%,

and F - 29 and 28%. Due to the low response rate from superiors for Sample F, these data were excluded from all analyses.

Instrumentation. A large number of different variables were gaged across the six samples of nurses and superiors. For the particular variables gaged in each instance, see Tables 1-11.

Nursing activities were measured in two ways. First, a Task Activities Inventory (TAI) developed by Principal Investigator was used to measure how frequently particular nursing activities are perceived to be performed. The Inventory containing over 200 items is essentially a revised version of an instrument developed by Calkin, Wallace, Chewing, and Gustafson. (1975). The Calkin et al. instrument was designed to gage nursing activities in ambulatory care settings and the current version was revised to describe the job of a general duty hospital nurse. The categories of activities measured by the TAI are described below:

History taking - sample items include: "Obtain patient's chief complaint or present problem", "Obtain history of present illness or problem," and "Obtain review of symptoms by body system" (items 1-9).

Assist in examination of patient - sample items include: "Set up for examination", "Drape or gown patient for examination," and "Position or hold patient during examination" (items 10-19).

Examination of patient - sample items include: "Perform skin test," "Examine throat and pharynx," and "Take blood pressure" (items 20-55).

Collect, measure, describe and analyze specimen - sample items include: "Obtain fecal specimens," "Obtain urine specimens," and "Strain urine for stones" (items 56-61).

Plan, document, and coordinate care of patient - sample items include: "Formulate and document nursing diagnostic plan for patient," "Read medical literature to plan patient's treatment," and "Make progress notes on patient" (items 62-71).

Patient preparation and assistance in treatment - sample items include: "Position patient during treatment," "Scrub and prep patient for treatment," and "Open sterile packages or packs" (items 72-87).

Patient instruction - sample items include: "Instruct patient in oral hygiene," "Explain patient's condition to patient," and "Explain purpose of treatment to patient" (items 88-106).

Surgical treatment - sample items include: "Perform phlebotomy," "Incise and drain abscess," and "Clean and debride abrasion or second degree burn" (items 107-126).

Physical treatment - sample items include: "Irrigate eyes," "Insert endotracheal tube," "Irrigate or lavage stomach" (items 127-167).

Treatment with medication - sample items include: "Give medicine intravenously," "Give intramuscular injection," and "Give subcutaneous injection" (items 168-184).

Administration and records - sample items include: "Orient new employee to duties and organizations," "Plan or update policies and procedures," and "Explain fees or charges to patients" (items 185-212).

The second way of measuring nursing activities was drawn from the job design literature (Aldag and Brief, in press). Essentially, this literature argues that certain core task dimension perceptions largely determine an employee's intrinsic work motivation. The particular instrument used was the Job Characteristic Inventory (JCI) developed by Sims, Szilagyi, and Keller (1976). Psychometric properties of the JCI and its earlier versions are evaluated by Hackman and Oldham (1975), Dunham, Aldag and Brief (1977), and Brief and Aldag (in press). The core task dimensions

gauged by the JCI and their definitions are listed below:

Variety--The degree to which a job requires employees to perform a wide range of operations in their work and/or the degree to which employees must use a variety of equipment and procedures in their work.

Autonomy--The extent to which employees have a major say in scheduling their work, selecting the equipment they will use, and deciding on procedures to be followed.

Task Identity--The extent to which employees do an entire or whole piece of work and can clearly identify the result of their efforts.

Feedback--The degree to which employees receive information as they are working which reveals how well they are performing on the job.

Dealing with Others--The degree to which a job requires employees to deal with other people to complete the work.

Friendship Opportunities--The degree to which a job allows employees to talk with one another on the job and to establish informal relationships with other employees at work.

Job performance (i.e., competency) was evaluated by the immediate superiors of nurses selectively using three different instruments across the various samples. First, an instrument developed by Flanagan, Gorham, Lichenstein, and Marchese (1959) design to gauge the job performance of general duty nurses along five dimensions was employed. See Gorham and Lichenstein (1957) for additional discussions of the psychometric properties of the instrument. Below are listed the dimensions and the properties they gauge:

Improving Patient's Adjustment to Hospitalization or Illness--
Explaining condition or treatment, helping the patient in relieving emotional tensions, and teaching patient self-care.

Promoting Patient's Comfort and Hygiene--Providing physical care.

Contributing to Medical Treatment of Patient--Carrying out medical orders, initiating medical procedures, reporting on patient's condition, and using and checking operation of apparatus.

Arranging Management Details--Scheduling patient's treatments, directing the work of non-professional personnel, maintaining general supplies, referring patient to non-medical sources, and supervising visitors.

Personal Characteristics--Behaving in a warm and friendly manner and behaving in a professional manner.

The second instrument used to measure performance was the Slater Nursing Competencies Rating Scale developed by Wandelt and Stewart (1975). Only two sub-scales of the Slater Scale were used: Professional Implications (sample items - "Is self-directing: takes initiative and goes ahead on own," "Makes decisions willingly and appropriately" and "Makes decisions that reflect both knowledge of facts and good judgement") and Communication Skills (sample items - "Communicates ideas, facts, feelings, and concepts clearly in speech," "Communicates ideas, facts feelings, and concepts clearly in writing," and "Participates freely in ward patient-care conferences").

The final method of measuring performance was a simple global measure developed by the Principal Investigator consisting of 15 items (e.g., "helpfulness," "decisiveness," and "dependability"). Scores were calculated by summing across the items.

Seven psychological reactions or states were measured. Overall job satisfaction was measured by Brayfield and Rothe's (1953) Job Satisfaction Index (JSI) and Facets of Job Satisfaction (with the work itself, supervision, pay, promotional opportunities, and co-workers) were measured by Smith, Kendall, and Hulin's (1969) Job Descriptive Index (JDI). The psychometric properties of both the JSI and JDI are evaluated by Robinson, Athanasiou and Head (1969).

Two dimensions of job related role stress were measured, role conflict and role ambiguity. The instrument employed was developed by Rizzo, House, and Lirtzman (1970). Psychometric properties of the instrument are reported on by House and Rizzo (1972) and Schuler, Aldag, and Brief (1977).

Job involvement, the degree to which a person is ego-involved in their job, was measured by a 20-item instrument developed by Lodahl and Kejner (1965). Sample items are "For me, mornings at work really fly by," "I live, eat and breathe my job," and "I am very much involved personally in my work."

Organizational commitment, the degree to which a person is attached to their employing organization, was measured by a 15-item instrument developed by Porter and Smith (1970). Porter, Steers, Mowday, and Boullion (1974), Steers (1977) and Van Maanen (1975) report on the psychometric properties of this instrument.

Self and supervisory attribution of (nurse) motivation was measured by a 25-item forced choice format scale developed by the Principal Investigator. High scores on the scale indicate that job performance is principally

attributed to motivation caused by intrinsic factors (e.g., "giving help to others," "personal growth and development," and "doing interesting work"). Low scores on the scale indicate that job performance is principally attributed to motivation caused by extrinsic factors ("pay raise," "job security," and "promotion").

Two dimensions of attitudes toward physicians were measured: potency (or power) and supportiveness. The items used to gauge these attitudes were drawn from a modified version of an instrument developed by Hall and Gordon (1974). The Hall and Gordon instrument has recently been evaluated by Aldag and Brief (in press).

All of the above instruments are contained in Appendix III. In addition, Appendix IV contains the range, grand mean, and standard deviation for each variable by sample. Contained in Appendix V is a manuscript reporting the evaluation in Sample A of the impact of instrument order on respondent conditioning as well as estimates of internal consistency reliabilities.

All raw data has been provided to the Board on magnetic tape. It is important to note, that the tape contains a number of variables not germane to the current program of research and, therefore, not reported upon. Examples of these variables are: higher order need strength, social desirability and agreement response set tendencies, belief in the Protestant Work Ethic, locus of control, need for achievement, supervisory power base and social distance, communication levels, valence of work outcomes, and a wide array of demographic factors.

Analyses: For each sample the research questions were conceptualized as a simple one-way analysis of variance problem (Hays, 1963) with three treatment conditions: Diploma, A.D., and B.S. A p value less than or equal to .05 was used as the decision criterion to judge the significance of differences across type of basic nursing education.

Results

First, results for the samples of registered nurses will be presented, then the results for the nurse's immediate superiors.

Registered Nurses Responses. The Task Activities Inventory was administered in Samples A-D. Only 5 of 44 statistical tests performed reached significance. In Sample B, Diploma nurses performed more history taking and surgical treatment activities. In Sample C, B.S. nurses performed more planning and administration activities. In Sample D, Diploma nurses performed more patient preparation activities. See Tables 2, 3, and 4 for these results.

The Job Characteristics Inventory was administered in Samples A, E, and F. Only 1 of 18 statistical tests performed reached significance. In Sample F, A.D. nurses reported the highest level of friendship opportunities as shown in Table 6.

In total, the above results generally indicate that the activities performed by registered nurses do not systematically vary by type of basic nursing education in the State of Iowa. In other words, it appears that Diploma, A.D., and B.S. degreed nurses perform essentially the same type of activities on their jobs.

The Job Satisfaction Index was administered in all samples. Two of the six statistical tests performed yielded significant results. As shown in Tables 1 and 6, in both cases Diploma nurses reported the highest levels of job satisfaction.

The Job Descriptive Index was administered in Sample D. No statistically significant difference was detected.

TABLE 1
Sample A - Nurses

Means for Each Job Content, Job Satisfaction
and Role Stress Variable by Type of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference (p \leq .05)
	Diploma	Associate Degree	Bacca-laureate	
Job Characteristics				
Inventory				
Variety	16.08	15.82	16.06	No
Autonomy	22.99	23.21	22.82	No
Task Identity	14.96	15.02	15.06	No
Feedback	14.60	14.80	14.24	No
Dealing with Others	11.83	12.03	11.68	No
Friendship Opportunities	25.48	25.56	25.82	No
Task Activities				
Inventory				
History Taking	36.27	35.14	33.98	No
Assisting in Examinations	37.55	33.50	35.28	No
Examining Patients	115.40	116.90	116.70	No
Specimen Activities	22.27	20.16	22.30	No
Planning Activities	39.86	40.29	43.82	No
Patient Preparation	52.06	51.78	54.05	No
Patient Instruction	58.30	57.84	58.39	No
Surgical Treatment	34.15	31.61	34.18	No
Physical Treatment	97.02	92.59	93.09	No
Medication	64.29	64.22	64.89	No
Administration	81.71	79.25	80.23	No
Overall Job Satisfaction	71.29	66.73	69.12	Yes
Role Stress				
Role Conflict	18.16	19.35	20.56	Yes
Role Ambiguity	10.98	11.73	13.12	Yes

Note: Scores are not comparable down columns--only across rows.

TABLE 2
 Sample B - Nurses
 Means for Each Job Content, Job Satisfaction
 and Job Attachment Variable by Type
 of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference (p ≤ .05)
	Diploma	Associate Degree	Baccalaureate	
Task Activities				
Inventory				
History Taking	34.80	34.29	28.94	Yes
Assisting in Examinations	36.33	33.21	30.31	No
Examining Patients	117.65	111.61	109.80	No
Specimen Activities	20.51	23.28	18.97	No
Planning Activities	39.15	39.57	43.20	No
Patient Preparation	50.74	50.89	43.63	No
Patient Instruction	55.54	54.78	51.09	No
Surgical Treatment	32.45	32.64	27.45	Yes
Physical Treatment	86.00	90.21	79.09	No
Medication	62.02	61.39	52.27	No
Administration	80.13	76.75	74.54	No
Overall Job Satisfaction	69.07	68.48	69.34	No
Job Involvement	53.42	54.51	53.55	No
Organizational Commitment	66.95	67.54	59.47	Yes

Note: Scores are not comparable down columns--only across rows.

TABLE 3
Sample C - Nurses

Means for Each Job Content, Job Satisfaction
and Attribution Variable by Type
of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference ($p \leq .05$)
	Diploma	Associate Degree	Bacca-laureate	
Task Activities				
Inventory				
History Taking	32.65	34.36	35.74	No
Assisting in Examinations	31.35	33.78	38.17	No
Examining Patients	101.67	109.94	116.76	No
Specimen Activities	18.58	20.28	22.17	No
Planning Activities	30.69	36.58	42.96	Yes
Patient Preparation	49.86	52.19	50.75	No
Patient Instruction	51.89	53.75	60.29	No
Surgical Treatment	31.64	33.50	33.28	No
Physical Treatment	83.08	88.75	91.42	No
Medication	55.11	58.03	59.54	No
Administration	73.25	78.20	83.43	Yes
Overall Job Satisfaction	68.28	68.87	69.32	No
Self Attribution of Motivation	45.29	45.71	46.97	No

Note: Scores are not comparable down columns--only across rows.

TABLE 4
 Sample D - Nurses
 Means for Each Job Content, Job Satisfaction
 and Job Attachment Variable by Type
 of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference ($p \leq .05$)
	Diploma	Associate Degree	Bacca-laureate	
Task Activities				
Inventory				
History Taking	35.51	34.16	31.75	No
Assisting in Examinations	39.00	32.33	32.88	No
Examining Patients	105.20	115.62	115.95	No
Specimen Activities	19.52	19.33	20.15	No
Planning Activities	39.37	36.65	40.43	No
Patient Preparation	60.25	49.26	46.20	Yes
Patient Instruction	53.75	51.70	52.20	No
Surgical Treatment	35.09	32.47	32.94	No
Physical Treatment	85.66	92.10	90.15	No
Medication	56.78	62.16	57.11	No
Administration	77.80	72.36	76.67	No
Overall Job Satisfaction	66.12	66.74	66.16	No
Facets of Job Satisfaction				
The Work Itself	37.95	35.67	36.03	No
Supervision	38.22	42.54	40.61	No
Pay	14.92	14.15	15.27	No
Promotional Opportunities	8.22	10.44	10.24	No
Co-Workers	45.27	45.83	41.81	No
Job Involvement	53.23	53.60	54.14	No
Organizational Commitment	68.40	64.53	59.41	Yes

Note: Scores are not comparable down columns--only across rows.

TABLE 5
 Sample E - Nurses
 Means for Each Attitude Job Satisfaction
 and Job Characteristic Variable by
 Type of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference (p < .05)
	Diploma	Associate Degree	Bacca-laureate	
Job Characteristics				
Inventory				
Variety	16.69	16.20	17.50	No
Autonomy	24.09	24.20	23.67	No
Friendship	26.34	24.71	27.43	No
Dealing with Others	12.97	12.20	13.20	No
Feedback	14.40	15.38	16.87	No
Task Itself	16.66	15.39	15.57	No
Overall Job Satisfaction	72.91	68.61	68.86	No
Role Stress				
Role Conflict	19.20	19.70	19.84	No
Role Ambiguity	11.80	13.03	12.84	No
Attitude Toward Physicians				
Potency	18.92	20.33	20.16	No
Supportiveness	18.46	19.23	20.14	No

Note: Scores are not comparable down columns--only across rows.

TABLE 6
Sample F - Nurses
Means for Each Attitude Job Satisfaction
and Job Characteristic Variable by
Type of Nursing Education

Dependent Variable	Type of Nursing Education			Statistical Significance Difference ($p < .05$)
	Diploma	Associate Degree	Bacca-laureate	
Job Characteristics				
Inventory				
Variety	14.96	14.61	15.41	No
Autonomy	24.97	24.80	24.03	No
Friendship	26.72	27.54	23.94	Yes
Dealing with Others	12.93	12.65	12.21	No
Feedback	15.59	16.27	15.15	No
Task Itself	16.82	15.91	15.68	No
Overall Job Satisfaction	75.04	69.50	67.61	Yes
Role Stress				
Role Conflict	19.25	19.64	19.11	No
Role Ambiguity	11.67	11.32	11.69	No
Self Attribution of Motivation	47.93	47.90	45.85	No
Attitude Toward Physicians				
Potency	18.59	18.41	19.93	No
Supportiveness	16.39	17.41	19.16	No

Note: Scores are not comparable down columns--only across rows.

The role conflict and role ambiguity scales were administered in Samples A, E, and F. One of three statistical tests performed yielded significant results. As shown in Table 1, B.S. nurses reported the highest levels of conflict and ambiguity.

The job involvement scale was administered in Samples B and D. No statistically significant differences were detected.

The organizational commitment scale was administered in Samples B and D. In both cases statistically significant results were found. As shown in Tables 2 and 4 in both instances, Diploma nurses reported the highest levels of organizational commitment.

The self attribution of motivation scale was administered in Samples C and F. No statistically significant differences were detected.

The attitude towards physician scales were administered in Samples E and F. No statistically significant differences were detected.

In total, the above results suggest that psychological reactions (or states) may vary with type of nursing education. In particular in all instances where a statistically significant difference was detected for over-all job satisfaction and organizational commitment, it was found that Diploma nurses responded more favorably. In addition in one sample it was found that B.S. degreed nurses reported experiencing significantly higher levels of role conflict and role ambiguity than did Diploma and A.D. nurses. Thus, one might conclude that the results indicate that B.S. degreed nurses respond along some dimensions less favorably than Diploma or A.D. nurses to their jobs.

Immediate Superior Responses. The Task Activities Inventory was administered in Sample A to the superiors to describe the subordinate nurse's jobs. No statistically significant difference was found.

TABLE 7
 Sample A - Superiors
 Means for Each Job Content and Job Performance
 Variable by Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference ($p \leq .05$)
	Diploma	Associate Degree	Baccalaureate	
Job Characteristics				
Inventory				
Variety	16.59	16.03	15.89	No
Autonomy	23.03	23.38	22.16	No
Task Identity	15.66	15.32	15.27	No
Feedback	16.16	16.49	16.41	No
Dealing with Others	11.77	12.03	11.70	No
Friendship Opportunities	25.53	26.73	24.86	No
Task Activities				
Inventory				
History Taking	33.69	33.26	33.58	No
Assisting in Examinations	36.73	35.19	34.97	No
Examining Patients	113.00	112.66	107.70	No
Specimen Activities	23.25	21.62	22.75	No
Planning Activities	37.19	37.21	38.43	No
Patient Preparation	54.00	50.28	52.95	No
Patient Instruction	58.14	51.44	53.91	No
Surgical Treatment	32.61	32.61	31.25	No
Physical Treatment	97.97	95.34	89.10	No
Medication	69.06	69.20	66.60	No
Administration	81.41	75.28	75.29	No

TABLE 7, continued
Sample A - Superiors

Means for Each Job Content and Job Performance
Variable by Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference ($p \leq .05$)
	Diploma	Associate Degree	Bacca- laureate	
Flanagan Performance Scale				
Improving Patients Adjustment to Hospitalization or Illness	51.78	56.28	51.27	No
Promoting Patients Comfort and Hygiene	45.50	46.83	47.53	No
Contributions to Medical Treatment of Patient	51.96	46.69	47.28	No
Arranging Management Retails	51.84	51.16	52.84	No
Personal Characteristics	48.92	49.30	50.96	No
Slater Scale				
Professional Implications	3.71	3.41	3.54	No

Note: Scores are not comparable down columns--only across rows.

TABLE 8
 Sample B - Superiors
 Means for Each Job Performance
 Variable by Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference (p ≤ .05)
	Diploma	Associate Degree	Bacca-laureate	
Flanagan Scale				
Improving Patients Adjustment to Hospitalization or Illness	45.67	42.86	46.25	No
Promoting Patients Comfort and Hygiene Contributions to Medical Treatment of Patient	38.97	42.66	39.80	No
Arranging Management Retails Personal Characteristics	37.06	40.24	37.00	No
	32.87	31.66	34.95	No
	45.42	44.09	42.00	No
Slater Scale				
Professional Implications	3.55	3.48	3.92	Yes

Note: Scores are not comparable down columns—only across rows.

TABLE 9
Sample C - Superiors
Means for Each Job Performance
Variable by Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference (p. \leq .05)
	Diploma	Associate Degree	Bacca-laureate	
Flanagan Scale				
Improving Patients Adjustment to Hospitalization or Illness	44.03	43.59	43.72	No
Promoting Patients Comfort and Hygiene Contributions to Medical Treatment of Patient	38.81	38.32	39.11	No
Arranging Management Details	38.75	40.54	39.21	No
Personal Characteristics	33.68	33.54	37.54	No
Supervisor Attribution of Motivation	45.63	43.40	40.29	No
	41.28	42.27	45.59	No

Note: Scores are not comparable down columns--only across rows.

TABLE 10
 Sample D - Superiors
 Means for Each Job Performance
 Variable by Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference (p \leq .05)
	Diploma	Associate Degree	Bacca-laureate	
Flanagan Scale				
Improving Patient's Adjustment to Hospitalization or Illness	41.59	44.70	46.35	No
Promoting Patient's Comfort and Hygiene	38.18	37.80	37.00	No
Contributions to Medical Treatment of Patient	39.50	38.35	36.45	No
Arranging Management Details	32.50	33.55	33.60	No
Personal Characteristics	48.28	45.55	46.70	No
Slater Scale				
Communication Skills	3.39	3.39	3.49	No

Note: Scores are not comparable down columns--only across rows.

TABLE 11
 Sample E - Superiors
 Means for Job Content, Role Stress
 and Job Performance Variables by
 Type of Subordinate's Nursing Education

Dependent Variable	Type of Subordinate's Nursing Education			Statistical Significance Difference ($p \leq .05$)
	Diploma	Associate Degree	Bacca-laureate	
Job Characteristics				
Inventory				
Variety	16.07	15.83	18.00	No
Autonomy	24.73	24.30	24.79	No
Task Identity	16.71	16.07	16.79	No
Feedback	17.45	17.77	17.27	No
Dealing with Others	11.96	12.20	13.05	No
Friendship Opportunities	25.80	26.24	26.79	No
Role Stress				
Role Conflict	18.50	18.07	16.21	No
Role Ambiguity	11.20	11.33	11.75	No
Job Performance	29.45	32.00	26.91	No

Note: Scores are not comparable down columns--only across rows.

The Job Characteristic Inventory was administered in Samples A and E to the superiors to describe the subordinate nurse's jobs. No statistically significant differences were found.

The above results are consistent with the analogous responses from the nurses themselves.

The role conflict and role ambiguity instrument was administered in Sample E to the superiors to describe the subordinate nurse's reactions. No statistically significant difference was found.

The supervisory attribution of nurse motivation was administered in Sample C. No statistically significant difference was found.

The Flanagan et al. performance appraisal instrument was administered in Samples A, B, C, and D. No statistically significant differences were found.

The professional implications sub-scale of the Slater Scale was administered in Sample B. It was found that B.S. degreed nurses were evaluated most highly as shown in Table 8.

The communication skills sub-scale of the Slater Scale was administered in Sample D. No statistically significant difference was found.

The global performance measure developed by the Principal Investigator was administered in Sample E. No statistically significant difference was found.

In total, the above performance (competency) results clearly show that in general job performance does not vary by type of nursing education. In other words, Diploma, A.D., and B.S. degreed nurses appear to perform their jobs at the same level of competency.

Conclusions

The results from the above program of research indicate that in the State of Iowa: (1) Diploma, A.D., and B.S. degreed nurses perform similar activities on their jobs as registered nurses; (2) Diploma, A.D., and B.S. degreed nurses perform their jobs at similar levels of competency according to their employers; and (3) B.S. degreed nurses react psychologically somewhat less favorably to their jobs as registered nurses than do Diploma and A.D. nurses. Thus, it seems reasonably safe to conclude that B.S. degreed nurses are under-utilized in the State of Iowa and may respond negatively to this under-utilization. Such a negative response may manifest itself in an increased rate of inactivity in the profession and, therefore, may lead to increased health care cost and a reduction in the quality of care provided. Appendix VI contains a manuscript which explores these notions in further detail for Sample A.

These results lead one to make the following recommendations:

Recommendation: Until the under-utilization of B.S. degreed nurses in the State of Iowa is corrected, the Board should not approve any new B.S. degree programs in nursing.

This recommendation is consistent with the recommendation of the Commission to Study Nursing in Iowa (1975): "The Commission recommends THAT NO ADDITIONAL BACCALAUREATE NURSING PROGRAMS BE APPROVED AT THIS TIME." (p. 104). Additionally, however, it is suggested that the Board continue to approve as needed in the interim new Diploma and A.D. programs in order to insure an adequate supply of registered nurses in Iowa.

Recommendation: The Board should immediately undertake a course of action to increase the degree of congruence between nursing education curricula and the practice of registered nurses in the State of Iowa.

The suggested course of action should be two pronged. First, the Board should encourage specific alterations in curricula such that the program of education provide the nursing student with a realistic preview of the type of nursing practice he or she is most likely to engage in. To accomplish this end, the Board should require the heads of the nursing programs to include in their annual reports to the Board a listing of where their most recent graduates have been placed. This listing should specify the employment status of each recent graduate, name and address of employer, and title of position occupied. Furthermore, the annual report should include a brief statement specifying the relationship between curricula content and the duties performed by the majority of the most recent graduates on their jobs. Such a statement should place strong emphasis on the relationship between structured clinical experiences in the program and the clinical demands placed on the new graduates. Finally, if the head of the nursing program reports that the focus of the curricula is not congruent with the job demands being placed on the program's graduates, the annual report should include a statement specifying what corrective steps are being taken to remedy the situation. The Board should seriously scrutinize this additional annual data and interject it's own judgements and innovative corrective actions when required.

The second avenue of action the Board should take to increase the degree of congruence between curricula and practice centers on employers of registered nurses rather than educators. The Board should directly under-take a program of public information to familiarize current and potential employers of registered nurses in the State of Iowa with the distinctions between the educational preparation of licensed practical nurses and Diploma, A.D., and B.S. degreed registered nurses. This public information campaign should try to encourage current employers to utilize the education of the nurses they employ. In addition, the campaign should encourage new employment opportunities consistent with the nurse's educational background. The design and execution of the campaign may require that the Board engage the services of a professional public information officer. Furthermore, the Board should seriously explore what administrative and/or legislative steps would be required to insure that employers differentially utilize nurses with varying levels of preparation. It may be the case that there is the need to delineate some new, higher level category of nurses in addition to the distinction between licensed practical and registered nurses. This new category would most likely require the nurse to possess a B.S. degree in nursing for entry.

In addition to the above recommendations which flowed from the results presented, a recommendation is offered consistent with the wishes of the Commission to Study Nursing in Iowa (1975). In particular, the Commission recommended the establishment of a free-standing nursing research and development organization in the State.

Recommendation: The Board should sponsor additional policy-oriented analyses of the data produced by the current program of research.

Good government requires the formulation of public policy based upon objective and accurate information. The current program of research has produced such an information base for the study of nursing in the State of Iowa. An example of how this information may be utilized by the Board is suggested in the report of the Commission to Study Nursing in Iowa (1975). The Commission recommended that emphasis be placed on deterring nursing from leaving the profession. The current data can provide clear-cut suggestions regarding how nurses could be encouraged to remain in the profession. In particular, a model specifying levels of commitment based upon a number of educational, institutional, and personal factors could be constructed. Such a model could be used by the Board in formulating policies directed at keeping nurses in the work-force.

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APPENDIX I

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Birthdate: August 4, 1946

Birthplace: Newark, New Jersey

Marital Status: Married June 14, 1970

Children: Daughter born December 31, 1974

EDUCATION

Ph.D. University of Wisconsin, Madison, 1974
Major: Management and Organization
Minors: Minority Employment and Enterprise
Development
Sociology (Complex Organizations and
Social Psychology)

M.S. University of Wisconsin, Madison, 1971
Major: Management and Organization

B.S. University of Tennessee, 1968
Major: Industrial Management

HONORS AND AWARDS:

Phi Kappa Phi Honor Society
Who's Who Among Students in American Colleges and Universities, 1973
Recipient of U.S. Department of Housing and Urban Development Dissertation Fellowship through the City of Madison, Wisconsin, 1973-74
Recipient of University of Kentucky Summer Research Fellowship, 1975
Recipient of Iowa Board of Nursing Research Contract, 1976
Recipient of Research Proposal Award for Administrative Research in Health Care from the Institute of Administrative Research, 1976.

HONORS AND AWARDS:
(continued)

Recipient of Iowa Board of Nursing Research Contract, 1977.

ad hoc reviewer for Academy of Management Journal, Social Issues, Journal of Applied Psychology, Nursing Administration Quarterly, Decision Sciences, Little Brown Co. and West Publishing Co.

Who's Who in the Midwest 1977.

Participant in a research contract entitled "Evaluation of Federal Medication and Conciliation Service's Technical Assistance Program, Labor-Management Relations by Objective," funded by the U.S. Department of Labor.

PROFESSIONAL AFFILIATIONS AND ACTIVITIES:

Academy of Management
American Psychological Association
American Institute of Decision Sciences
American Sociological Association
American Public Health Association

Session Chairperson, Behavioral Issues in the Public Sector, National Meeting of the Academy of Management, Kansas City, 1976.

Co-Chairperson of Public Sector Interest Group, Academy of Management, 1975-1976.

Program Committee, Midwest Division of the Academy of Management, 1976.

Co-Chairperson Public Sector Interest Group, Academy of Management, 1976-1977.

Program Committee, Social Issues in Management Division, National Meeting of the Academy of Management, Kissimmee, Florida, 1977.

Nominating Committee, Midwest Academy of Management, 1977.

State Membership Drive Co-ordinator, American Institute of Decision Sciences, 1977.

Reviewer Organizational Behavior and Decision Theory Section, National American Institute of Decision Sciences Meeting, Chicago, 1977.

Discussant, Organizational Behavior and Decision Theory Program, National American Institute of Decision Sciences Meeting, Chicago, 1977.

Program Chairperson, Organizational Behavior and Workforce Track, Midwest America Institute of Decision Sciences, Cincinnati, 1978.

TEACHING:

Interest:

Organizational Behavior, Organization Theory, Management and Personnel

TEACHING:
(continued)Experience:

- 1971-72 Lecturer, Graduate School of Business
University of Wisconsin, Madison
- 1973-74 Lecturer, Graduate School of Business
University of Wisconsin, Madison
- 1974-75 Assistant Professor
College of Business and Economics
University of Kentucky
- 1975-present Assistant Professor
College of Business
University of Iowa

A list of teaching activities is available
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UNIVERSITY SERVICES:

- Academics Computer Services Committee, University of
Iowa, 1976-present.
- Elected Faculty Council, College of Business, University
of Iowa, 1977-present
- Chairperson, Human Subjects Review Committee, College
of Business, University of Iowa, 1977-present.
- Dean's Search Committee, College of Business, University
of Iowa, 1977-present.
- Ph.D. Committee, College of Business, University
of Iowa, 1977-present.
- Collegiate Review Committee, College of Business
University of Iowa, 1977-present.

OTHER WORK
ACTIVITIES:

- 1968-69 State Medical Society of Wisconsin (Management
Trainee)
- 1972-73 Governor's Health Policy and Planning Task
Force, State of Wisconsin (Staff Associate)

Dr. Brief has conducted numerous workshops for various
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JOURNAL PUBLICATIONS:

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Dunham, R., Aldag, R. J. and Brief, A. P. Dimensionality of the Job Diagnostic Survey. Paper presented at the National Meeting of the Academy of Management, Kansas City, 1976.

Brief, A. P., Aldag, R. J., and Jacox, A. The impact of task characteristics on employee responses in hospital nursing. Paper presented at the National Meeting of the Academy of Management, Kansas City, 1976.

Brief, A. P., Aldag, R. J., and Van Sell, M. The impact of role stress among lower level hospital employees. Paper presented at the National Meeting of the American Public Health Association, Miami Beach, 1976.

Brief, A. P., Aldag, R. J. and Chacko, T. The Miner Sentence Completion Scales: A psychometric appraisal. Paper presented at the National Meeting of the American Institute for Decision Sciences, San Francisco, 1976.

Brief, A. P., Aldag, R. J., Van Sell, M. and Melone, N. Unmet expectations as experienced role stress. Paper presented in a seminar at the National Meetings of the Academy of Management, Kissimmee, Florida, 1977.

Brief, A. P. and Aldag, R. J. Order effected organizational research. Paper presented at the National Meeting of the Academy of Management, Kissimmee, Florida, 1977.

Aldag, R. J. and Brief, A. P. Self-image and stereotypes of Femininity. Paper presented at the National Meetings of the Academy of Management, Kissimmee, Florida, 1977.

**PAPER PRESENTATIONS
AND PROCEEDINGS
PUBLICATIONS:**
(continued)

Brief, A. P., Aldag, R. J. and Van Sell, M. Job satisfaction among married working women. Paper presented at the National Meetings of the Academy of Management, Kissimmee, Florida, 1977.

Rose, G. and Brief, A. P. Impact of job type and applicant disability on judgements in the selection process. Paper presented at the National Meetings of the Academy of Management, Kissimmee, Florida, 1977.

Oliver, R. and Brief, A. P. Behavioral managerial satisfaction and motivation in the retail organization. National Meetings of the American Marketing Association, Hartford, 1977.

Moriarty, M. and Brief, A. P. Social desirability and acquiescence in marketing research. Paper presented at the Western Meetings of the American Institute of Decision Sciences, Phoenix, 1977.

Brief, A. P., Aldag, R. J., and Van Sell, M. Moderators of the relationship between self and superior evaluation of job performance. Paper presented at the Midwest Meeting of the American Institute of Decision Sciences, Cleveland, 1977.

Aldag, R. J. and Brief, A. P. Age, work values, and employee reactions. Paper presented at the Midwest Meeting of the American Institute of Decision Sciences, Cleveland, 1977.

Aldag, R. J. and Brief, A. P. Moderators of the relationship of job behaviors to perceptions of task dimensions. Paper presented at the Midwest Meeting of the American Institute of Decision Sciences, Cleveland, 1977.

Aldag, R. J. and Brief, A. P. Examination of a measure of higher order need strength. Paper presented at the Midwest Meeting of the Academy of Management, Milwaukee, 1977.

Schuler, R., Aldag, R. J. and Brief, A. P. Empirical indices of role stress. Paper presented in a seminar at the Midwest Meeting of the Academy of Management, Milwaukee, 1977.

Aldag, R. J. and Brief, A. P. Relationship of leader behavior variability indices and subordinate responses. Paper presented at the Midwest Meeting of the Academy of Management, Milwaukee, 1977.

WORK IN PROGRESS:

In addition to the two books Dr. Brief is co-authoring, he is currently refining conceptual models in the task design and role theory areas. His empirical work is focusing upon studies of organizational commitment and methodological difficulties in the task design literature.

A list of manuscripts under review and working papers is available upon request.

REFERENCES:

Available upon request.

TEACHING ACTIVITIES:

Courses taught at Iowa:

6B:161 Individual Behavior in Organizations
 6B:162 Group Behavior in Organizations
 6B:169 Selected Problems in Administrative Management
 6B:261 Administrative Science I MBA
 6B:266 Behavioral Science and Business Organizations I
 6B:269 Seminar in Behavioral Science Problems
 in Organizations.

Ph.D. Dissertation Committees:

Tom Chacko (member) (Degree granted 1977)
 Mary Van Sell (Co-chairperson)

Ph.D. Advisees (current):

Arthur Darrow
 Daniel Power
 Steve Barr

Number of Masters and Ph.D. Exams: Four

Number of Undergraduate Advisees (current): 15

Actively involved in course development and
 curriculum revisions in FROB area.

For example:

Participant in the design of M.A. degree in
 Industrial and Labor Relations (1977).

Design of undergraduate introductory Administrative
 Management course for Undergraduate Committee (1976).

Developer of graduate level group processes course
 (6B:262) (1976).

Reorganization and conceptual integration of
 doctoral organizational behavior course (6B:266)(1976)

Design of new course 6B:269--Job design and the
 quality of working life.

Management Development and/or Research Projects

National Child Welfare League
Office of Economic Opportunity
Estes Park Institute
College of Engineering, University of Iowa
College of Nursing, University of Iowa
College of Business Administration, University of Iowa
Rockford Memorial Hospital
Mercy Hospital, Iowa City
Des Moines General Hospital
Federated Department Stores
School of Public Health, University of North Carolina
Iowa Hospital Association
University of Kentucky Hospital
Veterans Administration Hospital, Iowa City
Division of Corrections, State of Wisconsin
Governor's Health Policy and Planning Task Force, State of Wisconsin
Wisconsin League of Credit Unions
Iowa Board of Nursing
Police Department, Madison, Wisconsin
City of Madison, Wisconsin
Madison-Kasp, Inc.
Administrative Services, University of Iowa

PAPERS UNDER REVIEW
AND CURRENT
WORKING PAPERS:

Brief, A. P. and Aldag, R. J. Antecedents of organizational commitment among hospital nurses, under review.

Aldag, R. J. and Brief, A. P. Supervisory style and and police role stress, under review.

Aldag, R. J. and Brief, A. P. Examination of a measure of higher order need strength, under review.

Brief, A. P., Aldag, R. J., Van Sell, M. and Malone, M. Anticipatory socialization and role stress, under review.

Brief, A. P., Aldag, R. J., Darrow, A., and Power, D. An examination of the manifest needs questionnaire, under review.

Brief, A. P., Chacko, T., Aldag, R., Power, D., and Malone, M. Community characteristics and work attitudes revisited, under review.

Van Sell, M., Brief, A. P., and Schuler, R. Role stress and ambiguity: A review of the literature, under review.

Brief, A. P., Aldag, R. J., and Van Sell, M. Role stress among lower hospital personnel, under review.

Brief, A. P., Van Sell M., and Aldag, R. J. Job scope-employee reactions relationships: Some methodological considerations, under review.

Haman, D. C., Brief, A. P., and Peggnetter, R. Studies in mediation and the training of public sector mediators, under review.

Chacko, T., Stone, T., and Brief, A. P. Participation and feedback in goal setting programs: An attributional analysis, under review.

Brief, A. P., Aldag, R. J., Power, D., and Darrow, A. Perceived hierarchical communications and subordinate response, working paper.

Brief, A. P. An examination of the Bem Sex Role Inventory, working paper.

Brief, A. P. and Aldag, R. J. Order effect and organizational research, working paper.

APPENDIX II

COVER LETTERS - IOWA STUDY OF NURSING

Iowa Board of Nursing

52

STATE OFFICE BUILDING
300 - 4TH STREET
DES MOINES, IOWA 50319

YVONNE M. ILLES, R.N.
EXECUTIVE DIRECTOR

PHONE 515/281-3225

August 2, 1976

Dear Iowa Registered Nurse:

On July 1, 1975 the Commission to Study Nursing in Iowa appointed by the Honorable Robert D. Ray, Governor, State of Iowa, presented their final report of study. Contained within this report were 19 recommendations, one of which stated:

The Commission recommends that the proposed research and development organization conduct an in-depth study to determine the level of satisfaction among new graduates, employers, and consumers; and that nursing education curricula and/or consumer and employer expectations be modified in light of the findings.

A major concern is that often the nursing curricula are not totally relevant to actual nursing practice and that employers' expectations, manifested in nursing job responsibilities, do not always properly take into account nurses' preparation. Appropriate changes in nursing education and in practice need to occur simultaneously.

The members of the Iowa Board of Nursing believed this recommendation to be of vital importance as a guide to their making future decisions relating to nursing education in Iowa.

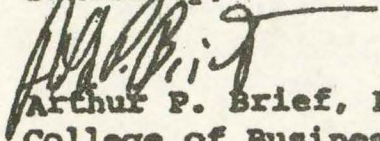
On May 14, 1976 the Iowa Board of Nursing contracted with Arthur P. Brief, Assistant Professor of Organizational Behavior, College of Business Administration, The University of Iowa to conduct the necessary research involved to fulfill the recommendation.



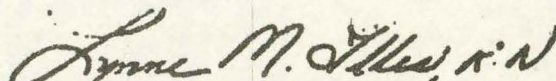
The first part of the research project involves collecting information from registered nurses in Iowa. You have been randomly selected as a part of this research group. The members of the Iowa Board of Nursing would sincerely appreciate your participating in the project which is of vital importance to the future of nursing in Iowa.

Please complete the enclosed questionnaire as soon as possible and return in the self-addressed envelope.

Sincerely,



Arthur P. Brief, Ph.D.
College of Business
Administration
The University of Iowa



Lynne M. Illes, R.N.
Executive Director
Iowa Board of Nursing

Iowa Board of Nursing

STATE OFFICE BUILDING
300 - 4TH STREET
DES MOINES, IOWA 50319

54

LYNNE M. ILLES, R.N.
EXECUTIVE DIRECTOR

PHONE 515/281-3255

August 12, 1976

Dear Iowa Registered Nurse:

On July 1, 1975 the Commission to Study Nursing in Iowa appointed by the Honorable Robert D. Ray, Governor, State of Iowa, presented their final report of study. Contained within this report were 19 recommendations, one of which stated:

The Commission recommends that the proposed research and development organization conduct an in-depth study to determine the level of satisfaction among new graduates, employers, and consumers; and that nursing education curricula and/or consumer and employer expectations be modified in light of the findings.

A major concern is that often the nursing curricula are not totally relevant to actual nursing practice and that employers' expectations, manifested in nursing job responsibilities, do not always properly take into account nurses' preparation. Appropriate changes in nursing education and in practice need to occur simultaneously.

The members of the Iowa Board of Nursing believed this recommendation to be of vital importance as a guide to their making future decisions relating to nursing education in Iowa.

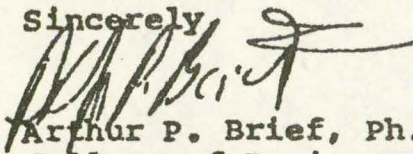
On May 14, 1976 the Iowa Board of Nursing contracted with Arthur P. Brief, Assistant Professor of Organizational Behavior, College of Business Administration, The University of Iowa to conduct the necessary research involved to fulfill the recommendation.



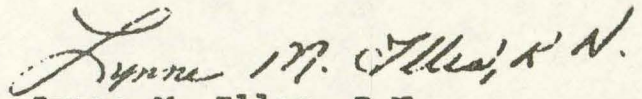
The first part of the research project involves collecting information from registered nurses in Iowa. One of your subordinates has been randomly selected to participate in this research group and has contributed to the study. In order to make that contribution count, your assistance is required. The members of the Iowa Board of Nursing would sincerely appreciate your participating in the project which is of vital importance to the future of nursing in Iowa.

Please complete the enclosed questionnaire as soon as possible and return in the self-addressed envelope.

Sincerely,



Arthur P. Brief, Ph.D.
College of Business
Administration
The University of Iowa



Lynne M. Illes, R.N.
Executive Director
Iowa Board of Nursing

APPENDIX III
INSTRUMENTS - IOWA STUDY OF NURSING

List of Instruments**Task Activities Inventory*****Job Characteristics Inventory*****Flanagan Performance Scales****Slater Scales**
Professional Implications
Communication Scales**Global Performance Measure****Brayfield-Rothe Overall Job Satisfaction****Job Descriptive Index****Role Stress**
Role Conflict
Role Ambiguity**Job Involvement*****Organizational Commitment*****Self Attribution of Motivation*****Attitudes Toward Physicians*****Modified for use with supervisors**

The following items concern the frequency with which you actually perform certain tasks during the course of your job. The tasks are divided into six general categories (A through F). Within each general category the numbered items represent specific tasks you may perform. Please indicate how frequently you perform each task during an average week. Do this by circling the most appropriate number after each item using the following scale:

Never	Less Than One Time a Week	One Time a Week	Two to four Times a Week	One Time a Day	Two to Seven Times a Day	More Than Seven Times a Day
1	2	3	4	5	6	7

While answering the following items, it may be helpful to think about the tasks you have performed during the past week. Remember, circle only one number for each item

A. DATA COLLECTION: HISTORY TAKING

- 1. Obtain patient's chief complaint or present problem. 1 2 3 4 5 6 7
- 2. Obtain history of present illness or problem 1 2 3 4 5 6 7
- 3. Obtain review of symptoms by body system 1 2 3 4 5 6 7
- 4. Obtain developmental history 1 2 3 4 5 6 7
- 5. Obtain information about patient's past health problems or illnesses . . . 1 2 3 4 5 6 7
- 6. Obtain patient's history of medication use 1 2 3 4 5 6 7
- 7. Obtain patient's psychosocial history, such as drug, alcohol and family situation 1 2 3 4 5 6 7
- 8. Obtain history of family illnesses 1 2 3 4 5 6 7
- 9. Obtain history using health history questionnaire or automated history taker. 1 2 3 4 5 6 7

B. DATA COLLECTION: EXAMINATION OF PATIENT

- 10. Escort or direct patient to examination area 1 2 3 4 5 6 7
- 11. Drape or gown patient for examination. 1 2 3 4 5 6 7
- 12. Position patient prior to examination. 1 2 3 4 5 6 7
- 13. Instruct patient about examination procedures; e.g., to empty bladder before pelvic. 1 2 3 4 5 6 7
- 14. Go and get equipment, instruments, p.r.n. during sterile examination procedures. 1 2 3 4 5 6 7
- 15. Hand instruments or supplies to provider during examination procedure. . . 1 2 3 4 5 6 7
- 16. Set up for examination. 1 2 3 4 5 6 7
- 17. Position or hold patient during examination 1 2 3 4 5 6 7
- 18. Stand by during examination of female patient. 1 2 3 4 5 6 7
- 19. Comfort patient during examination procedures 1 2 3 4 5 6 7
- 20. Examine skin by inspection and palpation. 1 2 3 4 5 6 7
- 21. Test skin for sensory function. 1 2 3 4 5 6 7
- 22. Perform skin test 1 2 3 4 5 6 7
- 23. Read skin test. 1 2 3 4 5 6 7
- 24. Examine hair or nails 1 2 3 4 5 6 7
- 25. Examine for fungal infection using Wood's light 1 2 3 4 5 6 7
- 26. Examine head by inspection or palpation or auscultation 1 2 3 4 5 6 7
- 27. Examine outer ear (pinna) 1 2 3 4 5 6 7
- 28. Examine external structures of the eye such as cornea or conjunctiva. . 1 2 3 4 5 6 7
- 29. Examine throat and pharynx. 1 2 3 4 5 6 7
- 30. Perform examination of breasts for structure and function 1 2 3 4 5 6 7
- 31. Count respirations. 1 2 3 4 5 6 7
- 32. Examine heart by auscultation, percussion, palpation or observation. . . 1 2 3 4 5 6 7
- 33. Examine peripheral pulses 1 2 3 4 5 6 7
- 34. Examine for varicosities (excluding hemorrhoids). 1 2 3 4 5 6 7
- 35. Take blood pressure 1 2 3 4 5 6 7

Task Activities Inventory (Cont.)

Never	<u>Less Than One</u> Time a <u>Week</u>	<u>One Time</u> a <u>Week</u>	<u>Two to Four</u> Times a <u>Week</u>	<u>One Time</u> a <u>Day</u>	<u>Two to Seven</u> Times a <u>Day</u>	<u>More Than Seven</u> Times a <u>Day</u>	59
1	2	3	4	5	6	7	
36. Take pulse.	1	2	3	4	5	6	7
37. Set up central venous pressure equipment	1	2	3	4	5	6	7
38. Monitor central venous pressure.	1	2	3	4	5	6	7
39. Interpret electrocardiogram.	1	2	3	4	5	6	7
40. Hook up patient for cardiac monitoring	1	2	3	4	5	6	7
41. Observe cardiac monitor for changes in patient's condition	1	2	3	4	5	6	7
42. Examine abdomen for organs, masses, ascites, bowel sounds or hernia. . .	1	2	3	4	5	6	7
43. Perform visual inspection of anus.	1	2	3	4	5	6	7
44. Perform digital examination of anus, rectum or prostate	1	2	3	4	5	6	7
45. Measure uterine fundus	1	2	3	4	5	6	7
46. Check fetal heart	1	2	3	4	5	6	7
47. Measure range of motion of joint in degrees	1	2	3	4	5	6	7
48. Examine extremities for neurological function (including reflexes). . .	1	2	3	4	5	6	7
49. Determine patient's orientation to time, place and person.	1	2	3	4	5	6	7
50. Determine patient's memory for recent and past events	1	2	3	4	5	6	7
51. Determine appropriateness of patient's affect (mood)	1	2	3	4	5	6	7
52. Measure height or weight.	1	2	3	4	5	6	7
53. Measure and record fluid intake and output	1	2	3	4	5	6	7
54. Take oral or rectal temperature	1	2	3	4	5	6	7
55. Determine bleeding time	1	2	3	4	5	6	7
C. DATA COLLECTION: COLLECT MEASURE, DESCRIBE, OR ANALYZE SPECIMEN							
56. Perform activities in support of specimen collection.	1	2	3	4	5	6	7
57. Obtain fecal specimen	1	2	3	4	5	6	7
58. Obtain gastric contents	1	2	3	4	5	6	7
59. Obtain urine specimen	1	2	3	4	5	6	7
60. Test urine by dipstick or tablet.	1	2	3	4	5	6	7
61. Strain urine for stones	1	2	3	4	5	6	7
D. PLAN, DOCUMENT, AND COORDINATE CARE OF PATIENT							
62. Formulate and document nursing diagnostic plan for patient.	1	2	3	4	5	6	7
63. Document or record examination findings including history, physical and diagnostic tests.	1	2	3	4	5	6	7
64. Review examination reports including history, physical and diagnostic tests.	1	2	3	4	5	6	7
65. Read medical literature to plan patient's treatment	1	2	3	4	5	6	7
66. Consult with health care providers; i.e., physicians, social workers. . .	1	2	3	4	5	6	7
67. Coordinate treatment plan with other providers	1	2	3	4	5	6	7
68. Discuss patient with non-providers (e.g., teacher, employer, relatives) to formulate patient treatment plan	1	2	3	4	5	6	7
69. Make or document working nursing diagnosis or problem list.	1	2	3	4	5	6	7
70. Specify or document treatment plan or course of therapy	1	2	3	4	5	6	7
71. Make progress notes on patient.	1	2	3	4	5	6	7
E. PATIENT TREATMENT							
72. Escort or direct patient to treatment area.	1	2	3	4	5	6	7
73. Drape or gown patient for treatment	1	2	3	4	5	6	7
74. Position patient during treatment	1	2	3	4	5	6	7

Never	Less Than One Time a Week	One Time a Week	Two to Four Times a Week	One Time a Day	Two to Seven Times a Day	More than Seven Times a Day	60
1	2	3	4	5	6	7	
75. Ground patient for electrical cauterization with bougie or bovie.	1	2	3	4	5	6	7
76. Scrub and prep patient for treatment.	1	2	3	4	5	6	7
77. Count sponges or needles during or after surgical procedure	1	2	3	4	5	6	7
78. Open sterile packages or packs.	1	2	3	4	5	6	7
79. Prepare sterile tray for injection or minor surgery	1	2	3	4	5	6	7
80. Pour sterile solution such as water or saline.	1	2	3	4	5	6	7
81. Prepare non-sterile tray for special treatment.	1	2	3	4	5	6	7
82. Hold patient during treatment	1	2	3	4	5	6	7
83. Standby during treatment of female patient by male provider or male patient by female provider	1	2	3	4	5	6	7
84. Comfort patient during treatment.	1	2	3	4	5	6	7
85. Go and get equipment, medications, instruments p.r.n. during sterile treatment procedure	1	2	3	4	5	6	7
86. Hand instruments, supplies or medications to provider during treatment procedure	1	2	3	4	5	6	7
87. Reinforce dressings	1	2	3	4	5	6	7
88. Instruct patient regarding family planning.	1	2	3	4	5	6	7
89. Instruct patient in sex education	1	2	3	4	5	6	7
90. Instruct patient in basic nutrition	1	2	3	4	5	6	7
91. Instruct patient in oral hygiene	1	2	3	4	5	6	7
92. Instruct patient on child rearing or adolescent behavior.	1	2	3	4	5	6	7
93. Instruct patient on problems of the elderly (geriatrics).	1	2	3	4	5	6	7
94. Explain patient's condition to patient.	1	2	3	4	5	6	7
95. Explain patient's condition to patient's family	1	2	3	4	5	6	7
96. Inform next of kin of deceased patient and explain situation.	1	2	3	4	5	6	7
97. Explain purpose of treatment to patient	1	2	3	4	5	6	7
98. Instruct patient in what to do before or during treatment procedure. . .	1	2	3	4	5	6	7
99. Instruct patient on self-care following surgical, orthopedic or other treatment	1	2	3	4	5	6	7
100. Instruct patient in use of medication	1	2	3	4	5	6	7
101. Explain a specific diet to patient.	1	2	3	4	5	6	7
102. Instruct patient in use and care of orthopedic or prosthetic device . . .	1	2	3	4	5	6	7
103. Teach patient active exercises to restore muscle and skeletal function. .	1	2	3	4	5	6	7
104. Teach patient postpartum exercises.	1	2	3	4	5	6	7
105. Listen to patient to provide emotional support.	1	2	3	4	5	6	7
106. Counsel and advise patient on behavioral, emotional or situational problem	1	2	3	4	5	6	7
107. Clip toenails	1	2	3	4	5	6	7
108. Establish and maintain airway using needle into trachea	1	2	3	4	5	6	7
109. Perform tracheotomy or tracheostomy	1	2	3	4	5	6	7
110. Perform phlebotomy.	1	2	3	4	5	6	7
111. Incise and drain abscess	1	2	3	4	5	6	7
112. Remove subcutaneous foreign body such as splinter	1	2	3	4	5	6	7
113. Remove sutures or skin clips.	1	2	3	4	5	6	7
114. Control traumatic bleeding by direct pressure only	1	2	3	4	5	6	7
115. Clean wound or burn without debriding	1	2	3	4	5	6	7
116. Clean and debride wound other than abrasion or burn	1	2	3	4	5	6	7
117. Clean and debride abrasion or second degree burn	1	2	3	4	5	6	7

Tast Activities Inventory (Cont.)

Never	Less Than <u>One</u> Time a <u>Week</u>	<u>One</u> Time a <u>Week</u>	<u>Two</u> to <u>Four</u> Times a <u>Week</u>	<u>One</u> Time a <u>Day</u>	<u>Two</u> to <u>Seven</u> Times a <u>Day</u>	More Than <u>Seven</u> Times a <u>Day</u> <u>61</u>	
1	2	3	4	5	6	7	
118. Suture wound of skin only (not face or ear).	1	2	3	4	5	6	7
119. Suture wound of skin only (face or ear).	1	2	3	4	5	6	7
120. Place packing or drain in wound.	1	2	3	4	5	6	7
121. Dress burn.	1	2	3	4	5	6	7
122. Dress wound other than burn.	1	2	3	4	5	6	7
123. Control bleeding as assistance in a surgical procedure	1	2	3	4	5	6	7
124. Perform suction and sponging while assisting in a surgical procedure	1	2	3	4	5	6	7
125. Obliterate tissue as assistance in a surgical procedure such as cauterization or dissication	1	2	3	4	5	6	7
126. Apply dressings as assistance in surgical procedure.	1	2	3	4	5	6	7
127. Remove cerumen or foreign body from ear canal.	1	2	3	4	5	6	7
128. Irrigate eyes.	1	2	3	4	5	6	7
129. Irrigate nose.	1	2	3	4	5	6	7
130. Pack nose anteriorly	1	2	3	4	5	6	7
131. Remove foreign body from throat.	1	2	3	4	5	6	7
132. Assist patient to run, cough and deep breathe.	1	2	3	4	5	6	7
133. Perform vibration, cupping or postural drainage	1	2	3	4	5	6	7
134. Change or clean tracheostomy tube	1	2	3	4	5	6	7
135. Ventilate patient with volume respirator (IPPB)	1	2	3	4	5	6	7
136. Insert endotracheal tube.	1	2	3	4	5	6	7
137. Ventilate patient with ambubag or rebreathing bag	1	2	3	4	5	6	7
138. Ventilate patient using mouth-to-mouth resuscitation.	1	2	3	4	5	6	7
139. Establish and maintain airway using oral airway	1	2	3	4	5	6	7
140. Defibrillate patient.	1	2	3	4	5	6	7
141. Perform external cardiac massage manually	1	2	3	4	5	6	7
142. Perform external cardiac massage by machine	1	2	3	4	5	6	7
143. Insert Levine or naso-gastric tube.	1	2	3	4	5	6	7
144. Insert rectal tube other than for enema	1	2	3	4	5	6	7
145. Remove fecal impaction digitally.	1	2	3	4	5	6	7
146. Give enema or irrigate colon (not colostomy).	1	2	3	4	5	6	7
147. Irrigate or lavage stomach.	1	2	3	4	5	6	7
148. Give colostomy or ileostomy care.	1	2	3	4	5	6	7
149. Insert urinary bladder catheter.	1	2	3	4	5	6	7
150. Deliver baby (not in delivery room)	1	2	3	4	5	6	7
151. Assist patient to stand, walk, or dangle.	1	2	3	4	5	6	7
152. Fit or adjust crutches or canes	1	2	3	4	5	6	7
153. Carry out passive exercises for patient	1	2	3	4	5	6	7
154. Immobilize joint with appropriate sling, bandage or splint.	1	2	3	4	5	6	7
155. Bivalve, window or trim plaster cast.	1	2	3	4	5	6	7
156. Remove cast from patient.	1	2	3	4	5	6	7
157. Apply traction	1	2	3	4	5	6	7
158. Apply hot packs	1	2	3	4	5	6	7
159. Sponge patient to reduce temperature.	1	2	3	4	5	6	7
160. Apply ice packs	1	2	3	4	5	6	7
161. Apply or change elastic bandage, not to immobilize joint	1	2	3	4	5	6	7

Task Activities Inventory (Cont.)

Never	<u>Less Than One</u> Time a <u>Week</u>	<u>One Time</u> a <u>Week</u>	<u>Two to Four</u> Times a <u>Week</u>	<u>One Time</u> a <u>Day</u>	<u>Two to Seven</u> Times a <u>Day</u>	<u>More Than Seven</u> Times a <u>Day</u>	62
1	2	3	4	5	6	7	
162. Apply restraining device to patients; e.g., posey or straps.	1	2	3	4	5	6	7
163. Lift, turn or transport patient with injuries.	1	2	3	4	5	6	7
164. Assist patient in activities of daily living; e.g., eating, bathing, etc.	1	2	3	4	5	6	7
165. Suction patient.	1	2	3	4	5	6	7
166. Remove indwelling catheter	1	2	3	4	5	6	7
167. Administer care for indwelling catheter	1	2	3	4	5	6	7
168. Administer oral medication.	1	2	3	4	5	6	7
169. Give oxygen therapy.	1	2	3	4	5	6	7
170. Give medicine intravenously.	1	2	3	4	5	6	7
171. Administer blood transfusion	1	2	3	4	5	6	7
172. Start IV fluid via needle (not scalp vein)	1	2	3	4	5	6	7
173. Start IV fluid via intracath	1	2	3	4	5	6	7
174. Add medication to and label IV solution.	1	2	3	4	5	6	7
175. Regulate IV flow.	1	2	3	4	5	6	7
176. Discontinue IV therapy or clysis.	1	2	3	4	5	6	7
177. Give intramuscular injection.	1	2	3	4	5	6	7
178. Give vaccination or intradermal injection.	1	2	3	4	5	6	7
179. Give subcutaneous injection	1	2	3	4	5	6	7
180. Administer vaginal medication	1	2	3	4	5	6	7
181. Administer rectal medication.	1	2	3	4	5	6	7
182. Administer topical medication to skin	1	2	3	4	5	6	7
183. Administer eye, ear or nose drops.	1	2	3	4	5	6	7
184. List medication which patient needs renewed.	1	2	3	4	5	6	7
F. ADMINISTRATION AND RECORDS							
185. Counsel staff on job performance or personal problem	1	2	3	4	5	6	7
186. Orient new employee to duties and organizations.	1	2	3	4	5	6	7
187. Orient student, volunteer or preceptee to duties and organization.	1	2	3	4	5	6	7
188. Check out staff on new procedure or technique.	1	2	3	4	5	6	7
189. Train staff to operate equipment or instruments.	1	2	3	4	5	6	7
190. Conduct meeting or class for site staff.	1	2	3	4	5	6	7
191. Attend staff seminar (in-service) on site.	1	2	3	4	5	6	7
192. Attend course or seminar outside site	1	2	3	4	5	6	7
193. Prepare and present paper at professional meeting.	1	2	3	4	5	6	7
194. Read professional literature for general development (not for specific patient problem)	1	2	3	4	5	6	7
195. Explain administrative procedure or form (other than insurance) to patient or family.	1	2	3	4	5	6	7
196. Complete administrative form such as incident, accident or safety report.	1	2	3	4	5	6	7
197. Plan or update policies and procedures	1	2	3	4	5	6	7
198. Attend professional meetings such as nursing association or hospital committee.	1	2	3	4	5	6	7
199. Participate as a health-related person in community affairs.	1	2	3	4	5	6	7
200. Answer phone and record messages	1	2	3	4	5	6	7

Task Activities Inventory (Cont.)

<u>Never</u>	<u>Less Than One</u> <u>Time a Week</u>	<u>One Time</u> <u>a Week</u>	<u>Two to Four</u> <u>Times a Week</u>	<u>One Time</u> <u>a Day</u>	<u>Two to Seven</u> <u>Times a Day</u>	<u>More Than Seven</u> <u>Times a Day</u>	63
1	2	3	4	5	6	7	

201. Explain fees or charges to patient.	1	2	3	4	5	6	7
202. Schedule ancillary (lab, x-ray) patient services.	1	2	3	4	5	6	7
203. Respond to patient complaint concerning service.	1	2	3	4	5	6	7
204. Account for and place patient's possessions in safe place	1	2	3	4	5	6	7
205. Make arrangements to refer patient to a community agency	1	2	3	4	5	6	7
206. Make arrangements to refer patient for medical consultation or specialty care.	1	2	3	4	5	6	7
207. Make arrangements to admit or release patient from hospital	1	2	3	4	5	6	7
208. Record provider's verbal orders (not prescription).	1	2	3	4	5	6	7
209. Review patient's chart or record for completeness	1	2	3	4	5	6	7
210. Explain consent form, obtain patient's signature, and sign as witness to signature.	1	2	3	4	5	6	7
211. Count and record narcotics or other drugs	1	2	3	4	5	6	7
212. Check pharmaceutical stock to insure potency and freshness.	1	2	3	4	5	6	7

INSTRUCTIONS

Please use the scales below to describe the objective characteristics of your job. Do not use these scales to show how much you like or dislike your job. Instead, please try to make your evaluations of the job as objective and factually correct as possible.

For each item, circle the number which best describes your job, based on the scale below:

Very Little	Slight Amount	Moderate Amount	Considerable Amount	Very Much
1	2	3	4	5

For example, when answering item 1, if your job has little variety, circle a number toward the left-hand end of the scale. If your job has a great deal of variety circle number toward the right-hand end of the scale.

- How much variety is there in your job? 1 2 3 4 5
- How much are you left on your own to do your own work? 1 2 3 4 5
- How often do you see projects or jobs through to completion? 1 2 3 4 5
- To what extent do you find out how well you are doing on the job as you are working? 1 2 3 4 5
- How much opportunity is there to meet individuals whom you would like to develop friendship with? 1 2 3 4 5
- How much of your job depends upon your ability to work with others? . . . 1 2 3 4 5
- How repetitious are your duties? 1 2 3 4 5
- To what extent are you able to act independently of your supervisor in performing your job function? 1 2 3 4 5
- To what extent do you receive information from your superior on your job performance? 1 2 3 4 5
- To what extent do you have the opportunity to talk informally with other employees while at work? 1 2 3 4 5
- To what extent is dealing with other people a part of your job? 1 2 3 4 5
- How similar are the tasks you perform in a typical work day? 1 2 3 4 5
- To what extent are you able to do your job independently of others? . . . 1 2 3 4 5
- The feedback from my supervisor on how well I'm doing 1 2 3 4 5
- Friendship from my co-workers 1 2 3 4 5
- The opportunity to talk to others on my job 1 2 3 4 5
- The opportunity to do a number of different things. 1 2 3 4 5
- The freedom to do pretty much what I want on my job 1 2 3 4 5
- The degree to which the work I'm involved with is handled from beginning to end by myself. 1 2 3 4 5
- The opportunity to find out how well I am doing on my job 1 2 3 4 5
- The opportunity in my job to get to know other people 1 2 3 4 5
- The amount of variety in my job 1 2 3 4 5

Job Characteristics Inventory (Cont.)

Very Little 1	Slight Amount 2	Moderate Amount 3	Considerable Amount 4	Very Much 5
The opportunity for independent thought and action.				
.1	2	3	4	5
The opportunity to complete work I start				
.1	2	3	4	5
The feeling that I know whether I am performing my job well or poorly.				
.1	2	3	4	5
The opportunity to develop close friendships in my job				
.1	2	3	4	5
Meeting with others in my work				
.1	2	3	4	5
The control I have over the pace of my work.				
.1	2	3	4	5
The opportunity to do a job from the beginning to end (i.e., the chance to do a whole job)				
.1	2	3	4	5
The extent of feedback you receive from individuals other than your supervisor				
.1	2	3	4	5

INSTRUCTIONS

The purpose of this section is to develop a profile of performance for the nurse designated on the cover sheet. This profile will reveal areas in which the nurse is particularly effective, as well as areas where performance might be improved.

The 50 items in this section are divided into ten groups (A through J) with five statements in each group. The statements within each group represent duties that nurses perform as part of their job.

In each group of five statements, you are to indicate two statements which are MOST LIKE the nurse you are describing. Do this by circling the number 1 after the appropriate statements.

You are also to indicate two statements which are LEAST LIKE the nurse you are describing in each group of five statements. Do this by circling the number 2 after the appropriate statements.

Finally, there will be one statement remaining in each group after circling the two numbers indicating MOST LIKE and the two numbers indicating LEAST LIKE. Indicate the one remaining statement which is neither MOST LIKE nor LEAST LIKE the nurse you are describing by circling a 3 which indicates NEITHER.

The following example shows how the groups of statements will appear in this section of the questionnaire. It will also demonstrate the manner in which you are to indicate our responses in each group of five statements.

EXAMPLE

	MOST LIKE	LEAST LIKE	NEITH R
1. This statement is MOST LIKE the nurse you are describing.	①	2	3
2. This statement is LEAST LIKE the nurse you are describing.	1	②	3
3. This statement is NEITHER most like or least like the nurse.	1	2	③
4. This statement is also MOST LIKE the nurse you are describing.	①	2	3
5. This statement is also LEAST LIKE the nurse you are describing.	1	②	3

Remember, all answers are COMPLETELY CONFIDENTIAL and will never be seen by anyone at our hospital. Please do not skip any item.

	MOST LIKE	LEAST LIKE	NEITHE R
Makes medications more palatable to patients.	1	2	3
Talks to patients in friendly manner.	1	2	3
Relays patients' needs to social workers.	1	2	3
Encourages exercises for rehabilitation.	1	2	3
Instructs patients in post-hospital care.	1	2	3
Provides between-meal nourishment.	1	2	3
Checks for clerical errors by others.	1	2	3
Investigates outside help for patients.	1	2	3
Tells patients she is interested in them.	1	2	3
Encourages patients in hobbies or recreational activities.	1	2	3

Flanagan-Performance Scale #1 (Cont.)

Remember, in each group of five statements, circle the number 1 twice, circle the number 2 twice and circle the number 3 once.

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	MOST LIKE	LEAST LIKE	NEITHER
. Arranges for no visitors for patient's comfort.	1	2	3
. Overcomes obstacles in teaching self-care.	1	2	3
. Overcomes patients' resistance to exercise.	1	2	3
. Sympathizes with patients.	1	2	3
. Supplies patients with needed medication upon discharge.	1	2	3
. Instructs patients clearly.	1	2	3
. Informs doctors about patients' complaints.	1	2	3
. Cares for patients with genuine concern.	1	2	3
. Corrects bed patients' positions.	1	2	3
. Utilizes assistants appropriately.	1	2	3
. Makes patients comfortable during on-going treatments	1	2	3
. Checks work of assisting personnel.	1	2	3
. Explains forthcoming treatments to patients.	1	2	3
. Changes I.V. bottles skillfully.	1	2	3
. Calms patients by her attitude.	1	2	3
Develops rapport with patients.	1	2	3
Looks in on patients who are frightened or lonely.	1	2	3
Keeps bedridden patients dry.	1	2	3
Informs doctors promptly about lab reports.	1	2	3
Anticipates and prepares for physicians' needs.	1	2	3
Prepares equipment for physicians' use.	1	2	3
Pads pressure areas.	1	2	3
Adjusts apparatus for maximum benefits.	1	2	3
Explains on-going procedures to patients.	1	2	3
Greets patients kindly.	1	2	3
Listens to patients' problems.	1	2	3
Answers patients' calls immediately.	1	2	3
Reports observations needed for permitting adjustment of drugs.	1	2	3
Obtains religious aid for patients.	1	2	3
Turns bedridden patients.	1	2	3

Remember, in each group of five statements, circle the number 1 twice, circle the number 2 twice and circle the number 3 once.

	MOST LIKE	LEAST LIKE	NEITHER
Reports possible explanation for patients' symptoms.	1	2	3
Limits visitors according to patient's condition.	1	2	3
Asks patients if they are comfortable.	1	2	3
Assists patients in self-treatment procedures.	1	2	3
Arranges room transfers to promote relaxation.	1	2	3
Talks to patients in quiet tone of voice.	1	2	3
Maintains alignment of bedridden patients.	1	2	3
Explains why tests were ordered.	1	2	3
Schedules procedures in proper sequence.	1	2	3
Institutes temporary relief measures prior to orders.	1	2	3

INSTRUCTIONS

This section consists of twenty pairs of statements that describe things which the nurse designated on the cover sheet may do. In each pair you are to indicate one statement that is MORE TYPICAL of the usual performance of the nurse you are describing.

If the first statement in the pair is MORE TYPICAL of his/her usual performance circle the number 1 following the statement.

If the second statement in the pair is MORE TYPICAL of his/her usual performance circle the number 2 following the statement.

Although the decision may be difficult at times, you will be giving a more revealing picture of the designated nurse when you circle only one number in each pair as being MORE TYPICAL of his/her usual performance.

Remember, all answers are COMPLETELY CONFIDENTIAL and will never be seen by anyone at your hospital. Please do not skip any items.

- | | |
|---|---|
| 1. Checks on availability of special medication. | 1 |
| Puts things within patient's reach. | 2 |
| 2. Encourages adequate fluid intake. | 1 |
| Speaks to patients softly and kindly | 2 |
| 3. Alerts ward personnel to special problems | 1 |
| Observes patients for anticipated reactions | 2 |
| 4. Orders patients and families about. | 1 |
| Fails to give appropriate health teaching | 2 |
| 5. Encourages patients in eating | 1 |
| Limits visiting time to prevent patient fatigue | 2 |
| 6. Calms upset patients through manner. | 1 |
| Checks on adequacy of drugs on hand. | 2 |
| 7. Checks medicine cards carefully | 1 |
| Checks condition of unconscious patients | 2 |
| 8. Instructs without checking on patient's understanding. | 1 |
| Neglects to introduce herself to patient | 2 |
| 9. Spends more time with "problem" patients | 1 |
| Positions patients for comfort. | 2 |
| 10. Arranges environment for patients' comfort | 1 |
| Checks accuracy of requisition slips. | 2 |

- 11. Omits information in assigning work. 1
- Does not encourage patients. 2

- 12. Reassures patients about forthcoming treatments. 1
- Assembles needed equipment in advance. 2

- 13. Is careless about personal hygiene 1
- Gives treatments at incorrect time 2

- 14. Contacts social workers for patients. 1
- Explains importance of rest and relaxation 2

- 15. Delays in reporting patients' symptoms. 1
- Deals with patients abruptly 2

- 16. Makes sure patients are fed. 1
- Welcomes patients cordially 2

- 17. Gives treatments skillfully. 1
- Assigns work clearly 2

- 18. Delays answering patients' calls 1
- Turns patients less often than needed. 2

- 19. Informs doctors about patients' fears. 1
- Interprets procedures to patients to avoid misunderstanding. 2

- 20. Lets patients see she is worried 1
- Waits until asked before preparing equipment 2

INSTRUCTIONS

The following items, concern your evaluation of the nursing performance of the nurse designated on the cover sheet. Each item will be typed in BOLDFACE print and followed by a scale ranging from 1 through 6. If you feel that the performance of the designated nurse reflects the behavior of an ideal nurse, circle a 1 which indicates BEST NURSE.

If you feel that he/she falls somewhat below the BEST NURSE, but above the AVERAGE NURSE, circle a 2 which indicates BETWEEN the two.

If you feel that his/her performance reflects the behavior of an AVERAGE NURSE, circle a 3 which indicates AVERAGE NURSE.

If you feel he/she falls somewhat below the AVERAGE NURSE, but above the POOREST NURSE, circle a 4 which indicates BETWEEN the two.

If you feel that his/her performance reflects the behavior of the POOREST NURSE, circle a 5 which indicates POOREST NURSE.

If the item reflects a set of activities which are in no way part of his/her job or are not observable by you, circle a 6 which indicates NOT APPLICABLE.

The following example will demonstrate how the items will appear in SECTION I and the proper way to indicate your evaluations.

EXAMPLE

BEST NURSE	BETWEEN	AVERAGE NURSE	BETWEEN	POOREST NURSE	NOT APPLICABLE						
1	2	3	4	5	6						
00. GIVES FULL ATTENTION TO PATIENT.						1	2	3	4	5	6
Is alert and responds verbally and nonverbally without asking patient to repeat phrases. Assumes positions that will aid in observation and communication with patient. Restricts talking to conversation with patient as she carries out activities for his care; avoids chitchat with other personnel. Looks at and talks to infant as she gives bottle feeding. Poses questions encouraging patient to express feelings.											

Please answer the questions honestly and openly. Remember, no one at the hospital will ever see your answers. Do not skip any item.

1. IS SELF-DIRECTING: TAKES INITIATIVE AND GOES AHEAD ON OWN. 1 2 3 4 5 6
 Provides side rails for elderly patient who has been admitted for injuries following a fall; discusses reason for rails with the patient.
 Notices patient in chair seems tired, seeks assistance and helps patient back to bed.
 Notices IV is infiltrating tissues; stops flow and notifies physician.
 Asks questions when in doubt regarding treatment goals and utilizes knowledge and facilities to meet goals.

2. MAKES DECISIONS WILLINGLY AND APPROPRIATELY. 1 2 3 4 5 6
 Phones supervisor (in absence of charge nurse) to report staffing that could endanger patient safety; reports requirements for patient care, present plan for caring for patients, and anticipated effects of limited staff.
 Suggests that two persons care for certain patient whenever he must be moved, with view to promoting patient safety, feeling of safety, and comfort, reducing time, and moving to achieve positioning in good body alignment.
 Changes lunchtime for aide to permit him to accompany patient to cystoscopy.
 Calls physician when patient "jokingly" comments that he thinks he will not have his operation the next morning, but will perhaps jump out the window instead.

3. MAKES DECISIONS THAT REFLECT BOTH KNOWLEDGE OF FACTS AND GOOD JUDGMENT . . . 1 2 3 4 5 6
 Changes room assignment of patient whose baby died during delivery to avoid placing her in room with mother with day-old baby.
 Administers both PRN analgesic and PRN hypnotic at bedtime to second-day post-operative patient with spinal fusion.
 Promptly slows flow of IV when she notices postoperative patient manifesting increased difficulty in and rate of breathing.
 Suggests that emphysema patient be served six small feedings a day.

Slater Scale - Professional Implications (Cont.)

BEST		AVERAGE		POOREST	NOT	
NURSE	BETWEEN	NURSE	BETWEEN	NURSE	APPLICABLE	
1	2	3	4	5	6	

4. GIVES VERBAL EVIDENCE OF GOOD INSIGHT INTO DEEPER PROBLEMS AND NEEDS OF PATIENTS 1 2 3 4 5 6
 Proposes that patient who lost first two children at birth not be left alone any more than necessary, that nurses "be with her" and share her experience with her.
 Suggests ways that personnel might help adolescent with severe acne to recognize and utilize assets and abilities to contribute to interest and happiness of others, thereby gaining confidence and satisfaction in his own worth.
 Is sincere when speculating regarding the possible dynamics of behavior and provides supportive evidence.

5. CONTRIBUTES AS NURSE MEMBER OF HEALTH TEAM TO PLANNING AND EVALUATING CARE . 1 2 3 4 5 6
 Reports care with which patient will need help at home and suggests persons in home who might provide the help.
 Suggests that wound be dressed following wife's visit, since dressing upsets patient and he discusses little else with her and sometimes will not speak at all.
 Suggests that patient willingly perform arm exercises, but seldom does leg exercises when therapist is not present.

6. SPENDS TIME WITH PATIENTS, RATHER THAN WITH OTHER NURSES OR HOSPITAL PERSONNEL. 1 2 3 4 5 6
 Identifies and performs "extra" tasks with patients, as time permits; e.g.:
 (1) Encourages colostomy patient to discuss plans for care when he goes home and returns to work.
 (2) Discusses return to school plans with adolescent who has missed final four months of twelfth grade, due to motorcycle accident.
 (3) Gets patient out of bed.
 (4) Renews plastic and adhesive on edges of body cast.
 Leaves "visiting" session of ward personnel to visit with patients.
 Leads nurse-to-nurse conversation to include patients and to focus on patients interests.

7. RELIABLE: FOLLOWS THROUGH WITH RESPONSIBILITIES. 1 2 3 4 5 6
 Asks for help in doubtful situations, rather than making errors.
 Reports when work is not completed.
 Views situation herself, rather than depending on reports alone; e.g., visits patient on report of bleeding, checks conditions of very ill patients in preparation for change-of-shift report.
 Periodically reviews assignment and work accomplished with view to replanning and establishing priorities and fulfilling responsibilities for all of day's assignments.

8. STAYS WITH ASSIGNED PATIENTS, OR KNOWS WHERE AND HOW THEY ARE. 1 2 3 4 5 6
 Visits all assigned patients to ascertain their conditions before beginning tasks of the day.
 Knows where patients are, reasons for their being off the ward or away from bedside unit, and when they are expected to return.
 Knows current condition, as well as changes in past 24 hours, of all assigned patients, and can report plans for care of each.

9. IMPRESSES OTHERS WITH SINCERITY OF INTEREST AND NURSING EFFORT 1 2 3 4 5 6
 Offers constructive suggestions for improvements in care of individual patients and in routines on nursing unit.
 Undertakes additional tasks when her own assignments are completed.
 Tries new ways of doing things--those suggested by others and those devised by herself.

10. GIVES CONTINUED INTEREST AND ENCOURAGEMENT TO VARIOUS-LEVEL PROGRAMS, WHETHER DIRECTED TO CARE OF PATIENTS OF HER IMMEDIATE CONCERN OR INSTITUTION-WIDE PROGRAMS. 1 2 3 4 5 6
 Assists with evaluation of programs; e.g., conscientiously makes and records formalized observations, reports casual observations, suggests interpretations of apparent results of programs.
 Helps interpret new administrative policies and offers suggestions for implementing procedures needed to carry out policies; e.g., proposes appropriate role of nurse in new patient-billing plan, helps with planning for husbands to be with wives during labor and for fathers' classes, discusses new rotation plan with aides.
 Encourages and supports mothers in breast feeding.
 Identifies patients who will need professional nursing care after discharge, in nursing home or own home.

Slater Scale - Professional Implications (Cont.)

	BEST NURSE	BETWEEN	AVERAGE NURSE	BETWEEN	POOREST NURSE	NOT APPLICABLE
	1	2	3	4	5	6
11. PARTICIPATES IN STAFF MEETINGS.	1	2	3	4	5	6
Reports innovation on own nursing unit that might be useful on other units. Reports ideas from current literature that may have meaning for functioning of her own nursing service. Asks pertinent questions. Suggests programs or persons that might provide staff with information and ideas for improvements in practice. Volunteers for committee membership.						
12. AVAILS SELF OF OPPORTUNITIES FOR LEARNING	1	2	3	4	5	6
Discusses patient's condition and rationale of treatment with physician and paramedical specialists. Uses ward library to learn about diseases and treatments of particular patients. Asks for additional explanation to enhance her knowledge and understanding of patients' conditions and treatments. Plans work so she can attend therapy conferences or film sessions.						
13. IS A GOOD FOLLOWER (HELPFUL, COOPERATIVE)	1	2	3	4	5	6
Willingly performs tasks assigned to her. Accepts less than desirable assignments. Offers to help others, makes point of ensuring that new staff member feels free to seek help or ask about unfamiliar things. Offers suggestions for movement toward team goals without usurping prerogative of leader. Accepts rejection of her suggestions and readily moves to follow plan established by group or by leader.						
14. IS A GOOD LEADER (CONSTRUCTIVE)	1	2	3	4	5	6
Invites suggestions from members of group. Gives recognition to achievement of individual members and to that of group as a whole. Offers instruction and guidance when proposing a different way of doing things. Encourages members of group to express likes and dislikes and to choose portion of work they would like to do. Assists group to evaluate work accomplished and plan continued work.						
15. IS HELPFUL TO WARD PERSONNEL.	1	2	3	4	5	6
Discusses rationale for patient care, helping personnel to know why treatments are prescribed in relation to patient's illness and expected effects of treatments. Ascertains knowledge personnel have about new or different or unusual "case"; teaches or plans ways that all can increase their knowledge. At mid-shift, determines progress with work and offers assistance with planning for or accomplishing completion. Assists with planning modification of treatment or procedure when patient's condition or cast or traction necessitate innovation.						
16. COOPERATES WITH WARD ROUTINES AND HOSPITAL REGULATIONS.	1	2	3	4	5	6
Assists with children's toileting and handwashing before meals. Plans own schedule in consultation with others so that she will prepare for her patients at a time when others will not be doing theirs. Performs treatments at times that will not interfere with visiting hours. Courteously explains to visitors reasons for not allowing patients to have food brought in and left at bedside.						
17. ACCEPTS AUTHORITY SITUATIONS WITH UNDERSTANDING.	1	2	3	4	5	6
Willingly moves to another nursing unit to fill emergency vacancy. Accepts fact that two year-end holidays cannot be taken together and in combination with a weekend. Refuses, politely but firmly, to carry out physician order that is in opposition to hospital policy; e.g., IV medication, adding second bottle of blood without physician present, phone order for narcotic, too old narcotic order, suture removal, etc. Accepts and carries out the recommendations of people in supervisory						

Slater Scale - Communication Skills

INSTRUCTIONS

The following items concern your evaluation of the nurse designated on the cover sheet. Each item is typed in **BOLDFACE** print and followed by numbers ranging from 1 through 6. Beneath each item is a list of several behaviors that illustrate the behavior of an ideal nurse. This ideal nurse is called BEST NURSE. If you feel the performance of the designated nurse reflects the behavior of this ideal nurse, circle a 1 which indicates BEST NURSE.

If you feel he/she falls somewhat below the BEST NURSE, but above the AVERAGE NURSE, circle a 2 which indicates BETWEEN the two.

If you feel his/her nursing performance reflects the behavior of an AVERAGE NURSE, circle a 3 which indicates AVERAGE NURSE.

If you feel he/she falls somewhat below the AVERAGE NURSE, but above the POOREST NURSE, circle a 4 which indicates BETWEEN the two.

If you feel his/her nursing performance reflects the behavior of the POOREST NURSE, circle a 5 which indicates POOREST NURSE.

If the item reflects a group of activities which are in no way a part of his/her job is not observable by you, circle a 6 which indicates NOT APPLICABLE.

The following example will demonstrate how the items will appear and the manner in which are to indicate your responses.

EXAMPLE

BEST NURSE	BETWEEN	AVERAGE NURSE	BETWEEN	POOREST NURSE	NOT APPLICABLE
1	2	3	4	5	6

GIVES FULL ATTENTION TO PATIENT. 1 2 3 4 5 6
 Is alert and responds verbally and nonverbally without asking patient to repeat phrases.
 Assumes positions that will aid in observation and communication with patient.
 Restricts talking to conversation with patient as she carries out activities for his care; avoids chitchat with other personnel.
 Looks at and talks to infant as she gives bottle feeding.
 Poses questions encouraging patient to express feelings.

Please answer the questions honestly and openly. Remember, no one at the hospital will ever see your answers. Do not skip any item.

COMMUNICATES IDEAS, FACTS, FEELINGS, AND CONCEPTS CLEARLY IN SPEECH. . . . 1 2 3 4 5 6
 Gives complete description of patient's behavior, using good sequence and without excessive repetition.
 Expresses feelings in normal tone, without either mumbling or high emotionalism.
 Reports observations objectively, without resorting to meaningless generalizations.
 Uses questions to help aides report and describe patient's condition and to ascertain that aides have understood plan for care.

Slater Scale - Communication Skills (Cont.)

BEST NURSE 1	BETWEEN 2	AVERAGE NURSE 3	BETWEEN 4	POOREST NURSE 5	NOT APPLICABLE 6	
<p>COMMUNICATES IDEAS, FACTS, FEELINGS, AND CONCEPTS CLEARLY IN WRITING. 1 2 3 4 5 6</p> <p>Charts precise and specific observations; uses few generalizing cliches. Records possible interpretation of reason for patient's behavior. Uses nouns; avoids using pronouns that could lead to misinterpretations or misidentifications.</p>						
<p>ESTABLISHES A WELL-DEVELOPED NURSING CARE PLAN. 1 2 3 4 5 6</p> <p>Includes immediate and long-range objectives of care. Includes information about patient's likes and dislikes. Includes suggestions for modification of procedures that make care easier or more effective for patient. Includes plan for progressive care in relation to anticipated future needs of patient; e.g., "plan to teach colon irrigation beginning tomorrow."</p>						
<p>GIVES ACCURATE REPORTS, VERBAL AND WRITTEN, OF PATIENT BEHAVIOR, INCLUDING BEHAVIOR THAT INVOLVED INTERACTION WITH SELF. 1 2 3 4 5 6</p> <p>Reports that patient refused to take IM injection, claiming she hurt him last time she gave it. Reports patient's refusal to sit up in chair; patient states she left him up too long yesterday. Includes her responses during the interaction with the patient.</p>						
<p>PARTICIPATES FREELY IN WARD PATIENT-CARE CONFERENCES. 1 2 3 4 5 6</p> <p>Volunteers observations she has made. Supplies information about a particular disease condition and recommended treatment. Offers proposals of approaches to care of particular patient. Asks questions that will elicit information or ideas from other workers.</p>						
<p>COMMUNICATES EFFECTIVELY AND ESTABLISHES GOOD RELATIONSHIPS WITH OTHER DISCIPLINES. 1 2 3 4 5 6</p> <p>Consults with physical therapist about "physio" treatment of patient, seeking suggestions of what nurses might do to enhance treatment. Calls social worker to suggest that a patient might benefit from help, volunteering information about patient and family. Notifies X-ray or lab, as indicated, to clarify orders for preparation of patient or when patient will be delayed or unable to keep appointment. Makes certain that physician learns all pertinent information about patient; reports verbally, places bold print note on front of chart, requests that head nurse inform physician.</p>						
<p>ATTENDS TO PATIENT'S NEEDS THROUGH USE OF REFERRALS, BOTH TO DEPARTMENTS IN THE HOSPITAL AS AGENCY AND TO OTHER COMMUNITY AGENCIES. 1 2 3 4 5 6</p> <p>Requests occupational therapy consultation for patient with severely injured hand. Makes VNA referral for new mother with first baby who is new to city and has no family or friends who can assist with teaching care of new baby. Consults with social worker about referral to visiting housekeeper for elderly patient who lives alone. Calls local school system to arrange for home teaching for adolescent patient.</p>						

INSTRUCTIONS

The following fifteen items, concern your evaluation of the performance of the employee designated on the cover sheet. Each item will be followed by scale ranging from 1 through 5.

If you feel that the performance of the designated employee reflects the behavior of an AVERAGE EMPLOYEE, circle a 3 which indicates AVERAGE EMPLOYEE.

If you feel that he/she falls somewhat below the BEST EMPLOYEE, but above the AVERAGE EMPLOYEE circle a 2 which indicates BETWEEN the two.

If you feel his/her performance reflects the behavior of an AVERAGE EMPLOYEE, circle a 3 which indicates AVERAGE EMPLOYEE.

If you feel that he/she falls somewhat below the AVERAGE EMPLOYEE, but above the POOREST EMPLOYEE circle a 4 which indicates BETWEEN the two.

If you feel that his/her performance reflects the behavior of the POOREST EMPLOYEE circle a 5 which indicates POOREST EMPLOYEE.

Please circle the most appropriate number for each item based upon the following scale:

BEST EMPLOYEE	BETWEEN	AVERAGE EMPLOYEE	BETWEEN	POOREST EMPLOYEE
1	2	3	4	5

Do not skip any items.

Helpfulness	1	2	3	4	5
Nursing skills and abilities	1	2	3	4	5
Communication skills	1	2	3	4	5
Effort	1	2	3	4	5
Supervisory abilities	1	2	3	4	5
Quantity of output	1	2	3	4	5
Initiative	1	2	3	4	5
Quality of output	1	2	3	4	5
Decisiveness	1	2	3	4	5
Dependability	1	2	3	4	5
Sincerity	1	2	3	4	5
Cooperativeness	1	2	3	4	5
Leadership skills	1	2	3	4	5
Likeability	1	2	3	4	5
General attitude	1	2	3	4	5

Brayfield-Rothe Overall Job Satisfaction

INSTRUCTIONS

Some jobs are more interesting and satisfying than others. We want to know how people feel about different jobs. This page contains eighteen statements about jobs. You are to circle the number following each statement, based on the scale below, which best describes how you feel about your present job. There are no right or wrong answers. We would like your honest opinion on each one of the statements.

Strongly Agree 1	Agree 2	Undecided 3	Disagree 4	Strongly Disagree 5
My job is like a hobby to me.	1	2	3	4 5
My job is usually interesting enough to keep me from getting bored. . . .	1	2	3	4 5
It seems that my friends are more interested in their jobs.	1	2	3	4 5
I consider my job rather unpleasant	1	2	3	4 5
I enjoy my work more than my leisure time	1	2	3	4 5
I am often bored with my job	1	2	3	4 5
I feel fairly well satisfied with my present job.	1	2	3	4 5
Most of the time I have to force myself to go to work	1	2	3	4 5
I am satisfied with my job for the time being.	1	2	3	4 5
I feel that my job is no more interesting than others I could get. . . .	1	2	3	4 5
I definitely dislike my work	1	2	3	4 5
I feel that I am happier in my work than most other people.	1	2	3	4 5
Most days I am enthusiastic about my work.	1	2	3	4 5
Each day of work seems like it will never end	1	2	3	4 5
I like my job better than the average worker does.	1	2	3	4 5
My job is pretty uninteresting.	1	2	3	4 5
I find real enjoyment in my work.	1	2	3	4 5
I am disappointed that I ever took this job.	1	2	3	4 5

INSTRUCTIONS

The following adjectives and phrases describe five aspects of a job: the work itself, supervision, pay, promotions, and co-workers. Carefully consider each adjective or phrase and indicate whether or not it is true of your job by circling

Y for YES, this is true of my job.

? for I cannot decide if this is true of my job.

N for NO, this is not true of my job.

Be sure to answer all items.

The Work on My Job

The Supervision on My Job

- 1. Fascinating Y ? N
- 2. Routine Y ? N
- 3. Satisfying Y ? N
- 4. Boring Y ? N
- 5. Good Y ? N
- 6. Creative Y ? N
- 7. Respected Y ? N
- 8. Hot Y ? N
- 9. Pleasant Y ? N
- 0. Useful Y ? N
- 1. Tiresome Y ? N
- 2. Healthful Y ? N
- 3. Challenging Y ? N
- 4. On your feet Y ? N
- 5. Frustrating Y ? N
- 6. Simple Y ? N
- 7. Endless Y ? N
- 8. Gives sense of accomplishment. Y ? N

- 19. Asks my advice Y ? N
- 20. Hard to please Y ? N
- 21. Impolite Y ? N
- 22. Praises goodwork Y ? N
- 23. Tactful Y ? N
- 24. Influential Y ? N
- 25. Up-to-date Y ? N
- 26. Doesn't supervise enough . Y ? N
- 27. Quick tempered Y ? N
- 28. Tells me where I stand . . Y ? N
- 29. Annoying Y ? N
- 30. Stubborn Y ? N
- 31. Knows job well Y ? N
- 32. Bad Y ? N
- 33. Intelligent Y ? N
- 34. Leaves me on my own. . . . Y ? N
- 35. Lazy Y ? N
- 36. Around when needed Y ? N

Job Descriptive Index (Cont.)

Y = YES, this is true of my job.

? = I cannot decide if this is true of my job.

N = NO, this is not true of my job.

The Pay on My Job

- . Income adequate for normal expenses. . Y ? N
- . Satisfactory profit sharing Y ? N
- . Barely live on income Y ? N
- . Bad Y ? N
- . Income provides luxuries. Y ? N
- . Insecure Y ? N
- . Less than I deserve Y ? N
- . Highly paid Y ? N
- . Underpaid Y ? N

Promotions on My Job

- 5. Good opportunity for advancement. . Y ? N
- 7. Opportunity somewhat limited. . . . Y ? N
- 8. Promotion on ability. Y ? N
- 9. Dead-end job. Y ? N
- 0. Good chance for promotion Y ? N
- 1. Unfair promotion policy Y ? N
- 2. Infrequent promotions Y ? N
- 3. Regular promotions. Y ? N
- 4. Fairly good chance for promotion . . Y ? N

The Co-Workers on My Job

- 55. Stimulating Y ? N
- 56. Boring. Y ? N
- 57. Slow. Y ? N
- 58. Ambitious Y ? N
- 59. Stupid. Y ? N
- 60. Responsible Y ? N
- 61. Fast. Y ? N
- 62. Intelligent Y ? N
- 63. Easy to make enemies. . Y ? N
- 64. Talk too much. Y ? N
- 65. Smart. Y ? N
- 66. Lazy Y ? N
- 67. Unpleasant Y ? N
- 68. No privacy Y ? N
- 69. Active Y ? N
- 70. Narrow interests Y ? N
- 71. Loyal. Y ? N
- 72. Hard to meet Y ? N

Job Stress

INSTRUCTIONS

The following statements will describe some specific characteristics about your particular job. For each statement you are asked to rate how true the Job Characteristic is of your particular job. Read each characteristic, and circle the scale number that best reflects your opinion, based on the scale below.

Completely Not True of My Job	Moderately Untrue of My Job	Uncertain	Moderately True of My Job	Extremely True of My Job
1	2	3	4	5

I am able to determine what has to be done in my job. 1 2 3 4 5

My authority matches the responsibilities assigned to me. 1 2 3 4 5

My work load is too heavy. 1 2 3 4 5

The planned goals and objectives are not clear. 1 2 3 4 5

I have to do things that should be done differently. 1 2 3 4 5

I don't know what is expected of me. 1 2 3 4 5

I receive different requirements from different people. 1 2 3 4 5

I am generally able to reconcile conflicting demand from different people. 1 2 3 4 5

I know that I have divided my time properly. 1 2 3 4 5

I know what my responsibilities are. 1 2 3 4 5

The resources and material that I receive are enough for doing my job. 1 2 3 4 5

I often find that I cannot figure out what should be done to accomplish my work. 1 2 3 4 5

I cannot get information needed to carry out my job. 1 2 3 4 5

Explanations are clear of what has to be done. 1 2 3 4 5

I often feel frustrated because it is difficult for me to work on more than one assignment at a time. 1 2 3 4 5

I have to buck a rule or policy in order to carry out a policy. 1 2 3 4 5

My knowledge and skills are enough for doing my job. 1 2 3 4 5

I am frequently confused about what I have to do. 1 2 3 4 5

Job Stress (Cont.)

Definitely Not True of My Job	Moderately Untrue of My Job	Uncertain	Moderately True of My Job	Extremely True of My Job
1	2	3	4	5
42. I am frequently unsure about how to do my work.				1 2 3 4 5
43. I don't know how to improve my performance on the job.				1 2 3 4 5
44. I know exactly what is expected of me.				1 2 3 4 5
45. I don't know how to develop my capabilities for future success in my job.				1 2 3 4 5
46. When I need to solve a problem on my job, I usually can figure it out by myself				1 2 3 4 5
47. I receive incompatible requests from two or more people.. . . .				1 2 3 4 5

INSTRUCTIONS

The following twenty statements are concerned with your general attitudes toward our job. For each statement indicate the response that best reflects your true feelings about your job. Do this by circling the appropriate number following each statement based on the scale below. Do not skip any statements.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
	1	2	3	4
I'll stay overtime to finish a job, even if I'm not paid for it.	1	2	3	4
You can measure a person pretty well by how good a job he does	1	2	3	4
The major satisfaction in my life comes from my job.	1	2	3	4
For me, mornings at work really fly by.	1	2	3	4
I usually show up for work a little early, to get things ready	1	2	3	4
The most important things that happen to me involve my work	1	2	3	4
Sometimes I lie awake at night thinking ahead to the next day's work. . .	1	2	3	4
I'm really a perfectionist about my work.	1	2	3	4
I feel depressed when I fail at something connected with my job.. . . .	1	2	3	4
I have other activities more important than my work	1	2	3	4
I live, eat and breathe my job.	1	2	3	4
I would probably keep working even if I didn't need the money	1	2	3	4
Quite often I feel like staying home from work instead of coming in. . .	1	2	3	4
To me, my work is only a small part of who I am.	1	2	3	4
I am very much involved personally in my work	1	2	3	4
I avoid taking on extra duties and responsibilities in my work.. . . .	1	2	3	4
I used to be more ambitious about my work than I am now	1	2	3	4
Most things in life are more important than work.	1	2	3	4
I used to care more about my work, but now other things are more important. 1	2	3	4	
Sometimes I'd like to kick myself for the mistakes I make in my work. . .	1	2	3	4

Organizational Commitment

INSTRUCTIONS

Listed below are a series of statements that represent possible feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working--please indicate the degree of your agreement or disagreement with each statement by circling one of the seven alternatives based upon the scale below:

	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Disagree nor Agree	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
I am willing to put in a great deal of effort beyond that normally expected in order to help this organization be successful.	1	2	3	4	5	6	7
I talk up this organization to my friends as a great organization to work for.	1	2	3	4	5	6	7
I feel very little loyalty to this organization.	1	2	3	4	5	6	7
I would accept almost any type job assignment in order to keep working for this organization.	1	2	3	4	5	6	7
I find that my values and the organization's values are very similar.	1	2	3	4	5	6	7
I am proud to tell others that I am part of this organization.	1	2	3	4	5	6	7
I could just as well be working for a different organization as long as the type of work was similar	1	2	3	4	5	6	7
This organization really inspires the very best in me in the way of job performance.	1	2	3	4	5	6	7
It would take very little change in my present circumstances to cause me to leave this organization.	1	2	3	4	5	6	7
I am extremely glad that I chose this organization to work for over others I was considering at the time I joined.	1	2	3	4	5	6	7
There's not too much to be gained by sticking with this organization indefinitely.	1	2	3	4	5	6	7
Often, I find it difficult to agree with this organization's policies on important matters relating to its employees	1	2	3	4	5	6	7
I really care about the fate of this organization.	1	2	3	4	5	6	7
For me this is the best of all possible organizations for which to work.	1	2	3	4	5	6	7
Deciding to work for this organization was a definite mistake on my part	1	2	3	4	5	6	7

When asked, people give a variety of reasons why they are motivated on their jobs. For example, a teacher may say he is motivated to give help to others; a salesman may say he is motivated to earn a pay raise; and a construction worker may say he is motivated to gain job security.

Listed below are several pairs of reasons people have given for being motivated on their jobs. In each of the pairs, circle the number following the one reason, which in your judgement is closest to the designated nurse's reasons for being motivated on his/her job. Please do not skip any pair. Remember, circle only one number in each pair.

- Giving help to others. 1
- Pay raise. 2

- Job Security 1
- Personal growth and development. . . 2

- Doing interesting work 1
- Promotion. 2

- Offering good service. 1
- Special awards and recognition . . . 2

- Respect from co-workers. 1
- Doing important work 2

- Job security 1
- Giving help to others. 2

- Personal growth and development. . . 1
- Promotion 2

- Doing interesting work 1
- Special awards and recognition . . . 2

- Offering good service. 1
- Respect from co-worker 2

- Pay raise 1
- Doing important work. 2

- Doing interesting work. 1
- Job security. 2

- Special awards and recognition . . . 1
- Personal growth and development . . 2

- Giving help to others 1
- Promotion 2

- 14. Pay raise 1
- Offering good service 2

- 15. Respect from co-workers 1
- Doing interesting work 2

- 16. Special awards and recognition. . 1
- Doing important work. 2

- 17. Pay raise. 1
- Personal growth and development . 2

- 18. Promotion. 1
- Offering good service. 2

- 19. Giving help to others. 1
- Respect from co-workers. 2

- 20. Doing important work 1
- Job security 2

- 21. Pay raise. 1
- Doing interesting work 2

- 22. Giving help to others. 1
- Special awards and recognition . 2

- 23. Respect from co-workers. 1
- Personal growth and development. 2

- 24. Doing important work 1
- Promotion. 2

- 25. Offering good service. 1
- Job security 2

INSTRUCTIONS

Below is a question followed by five statements. For each statement indicate your response by circling the appropriate number, based on the scale below.

Fairly Often	Often	Occasionally	Rarely
1	2	3	4

How frequently are you involved with the person designated on the cover sheet in the activities listed below?

- | | | | | |
|---|---|---|---|---|
| 1. Lunch or dinner. | 1 | 2 | 3 | 4 |
| 2. Talking about his/her concerns | 1 | 2 | 3 | 4 |
| 3. Talking about your concerns. | 1 | 2 | 3 | 4 |
| 4. Talking about incidentals. | 1 | 2 | 3 | 4 |
| 5. Talking about his/her opinions on hospital matters | 1 | 2 | 3 | 4 |

On this page, describe your image of the typical physician.

1. INDEPENDENT	1	2	3	4	5	6	7	DEPENDENT
2. RESTRAINED	1	2	3	4	5	6	7	UNRESTRICTED
3. CLOSED	1	2	3	4	5	6	7	OPEN
4. HARSH	1	2	3	4	5	6	7	TENDER
5. CAUTIOUS	1	2	3	4	5	6	7	DARING
6. INSECURE	1	2	3	4	5	6	7	SELF-CONFIDENT
7. POWERFUL	1	2	3	4	5	6	7	HELPLESS
8. CALM	1	2	3	4	5	6	7	EXCITABLE
9. CONSIDERATE	1	2	3	4	5	6	7	CALLOUS
0. STURDY	1	2	3	4	5	6	7	FRAGILE
1. UNCERTAIN	1	2	3	4	5	6	7	DECISIVE
2. REALISTIC	1	2	3	4	5	6	7	IDEALISTIC
3. CREATIVE	1	2	3	4	5	6	7	UNCREATIVE
4. DULL	1	2	3	4	5	6	7	BRIGHT
5. DELIBERATE	1	2	3	4	5	6	7	IMPULSIVE
6. NOVEL	1	2	3	4	5	6	7	CONVENTIONAL
7. RESERVED	1	2	3	4	5	6	7	SPONTANEOUS
8. ACTIVE	1	2	3	4	5	6	7	PASSIVE
9. TENSE	1	2	3	4	5	6	7	RELAXED
0. ASSERTIVE	1	2	3	4	5	6	7	SUBMISSIVE
1. TIMID	1	2	3	4	5	6	7	BOLD
2. INSENSITIVE	1	2	3	4	5	6	7	SENSITIVE
3. STRONG	1	2	3	4	5	6	7	WEAK
4. CAPABLE	1	2	3	4	5	6	7	INCAPABLE
5. PATIENT	1	2	3	4	5	6	7	IMPATIENT
6. FEMININE	1	2	3	4	5	6	7	UNFEMININE
7. RIGID	1	2	3	4	5	6	7	FLEXIBLE
8. SUSPICIOUS	1	2	3	4	5	6	7	TRUSTING

APPENDIX IV

**RANGE, GRAND MEAN, AND STANDARD
DEVIATION FOR EACH VARIABLE BY SAMPLE**

Appendix IV.01
Sample A - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Job Characteristics Inventory			
Variety	6-30	15.98	3.53
Autonomy	6-30	22.95	3.73
Task Identity	6-30	15.02	2.78
Feedback	6-30	14.52	3.97
Dealing with Others	4-20	11.83	1.60
Friendship Opportunities	7-35	25.61	4.52
Task Activities Inventory			
History Taking	9-63	35.15	10.77
Assisting in Examinations	10-70	35.58	15.44
Examining Patients	36-252	115.98	26.28
Specimen Activities	6-42	21.60	6.34
Planning Activities	10-70	41.15	13.65
Patient Preparation	17-119	52.45	19.41
Patient Instruction	19-133	58.04	16.72
Surgical Treatment	20-140	33.29	9.55
Physical Treatment	40-280	94.06	21.06
Medication	17-119	64.32	15.72
Administration	28-196	80.71	16.75
Overall Job Satisfaction	18-90	69.15	8.34
Role Stress			
Role Conflict	8-40	19.34	4.86
Role Ambiguity	6-30	11.92	3.07

Appendix IV.02
Sample B - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Task Activities Inventory			
History Taking	9-63	32.85	3.32
Assisting in Examinations	10-70	33.55	4.04
Examining Patients	36-252	111.42	5.73
Specimen Activities	6-42	20.39	2.73
Planning Activities	10-70	40.13	3.56
Patient Preparation	16-112	49.33	4.53
Patient Instruction	19-133	54.71	4.10
Surgical Treatment	20-140	31.05	2.92
Physical Treatment	41-287	87.38	4.93
Medication	17-119	59.42	4.28
Administration	28-196	76.90	4.30
Overall Job Satisfaction	18-90	68.65	2.59
Job Involvement	20-80	53.76	2.27
Organizational Commitment	15-105	65.25	3.85

Appendix IV.03
Sample C - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Task Activities Inventory			
History Taking	9-63	34.32	13.05
Assisting in Examinations	10-70	33.57	17.19
Examining Patients	36-252	108.59	31.67
Specimen Activities	6-42	20.29	7.47
Planning Activities	10-70	38.40	14.63
Patient Preparation	16-112	51.73	21.41
Patient Instruction	19-133	55.69	18.16
Surgical Treatment	20-140	32.96	7.93
Physical Treatment	41-287	88.81	25.72
Medication	17-119	59.97	18.28
Administration	28-196	77.71	15.89
Overall Job Satisfaction	18-90	68.66	8.33
Self Attribution of Motivation	0-50	45.91	4.42

Appendix IV.04
Sample D - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Task Activities Inventory			
History Taking	9-63	33.32	12.27
Assisting in Examinations	10-70	34.30	16.40
Examining Patients	36-252	112.63	30.48
Specimen Activities	6-42	19.57	7.51
Planning Activities	10-70	38.27	12.92
Patient Preparation	16-112	52.48	21.66
Patient Instruction	19-133	52.83	16.24
Surgical Treatment	20-140	33.06	9.31
Physical Treatment	41-287	88.82	24.33
Medication	17-119	59.55	18.25
Administration	28-196	75.50	16.87
Overall Job Satisfaction	18-90	66.18	8.44
Facets of Job Satisfaction			
The Work Itself	0-54	36.47	8.87
Supervision	0-54	40.99	11.63
Pay	0-27	15.00	6.18
Promotional Opportunities	0-27	9.73	6.92
Co-Workers	0-54	44.17	9.39
Job Involvement	20-80	53.61	5.26
Organizational Commitment	15-105	64.47	16.60

Appendix IV.05
Sample E - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Job Characteristic Inventory			
Variety	5.0 - 25.0	16.90	4.07
Autonomy	11.0 - 30.0	23.94	4.04
Friendship	9.0 - 35.0	26.11	5.43
Dealing with Others	3.0 - 15.0	12.77	1.84
Feedback	5.0 - 25.0	15.74	4.25
Task Itself	4.0 - 20.0	16.00	2.88
Job Satisfaction	37.0 - 89.0	70.56	8.70
Role Stress			
Role Conflict	11.0 - 32.0	19.43	4.63
Role Ambiguity	6.0 - 25.0	12.40	3.82
Attitude Toward Physicians			
Potency	8.0 - 38.0	19.96	5.72
Supportiveness	11.0 - 29.0	19.31	4.27

Appendix IV.06
Sample F - Nurses

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Job Characteristic Inventory			
Variety	5.0 - 25.0	15.34	4.23
Autonomy	6.0 - 30.0	24.35	3.64
Friendship	7.0 - 35.0	25.96	5.27
Dealing with Others	3.0 - 15.0	12.39	2.13
Feedback	5.0 - 25.0	15.65	4.45
Task Itself	4.0 - 20.0	16.13	2.82
Job Satisfaction	18.0 - 90.0	70.27	11.16
Role Stress			
Role Conflict	8.0 - 40.0	18.90	6.38
Role Ambiguity	6.0 - 30.0	11.36	4.01
Self Attribution of Motivation	25.0 - 50.0	47.13	5.17
Attitude Toward Physicians			
Potency	8.0 - 56.0	18.97	5.06
Supportiveness	5.0 - 35.0	17.80	5.21

Appendix IV.07
Sample A - Superiors

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Range	Grand Mean	Standard Deviation
Job Characteristics Inventory			
Variety	6-30	16.18	2.85
Autonomy	6-30	22.86	3.41
Task Identity	6-30	15.42	2.48
Feedback	6-30	16.34	2.62
Dealing with Others	4-20	11.83	1.59
Friendship Opportunities	7-35	25.71	4.34
Task Activities Inventory			
History Taking	9-63	33.51	11.19
Assisting in Examinations	10-70	35.64	16.18
Examining Patients	36-252	111.22	29.79
Specimen Activities	6-42	22.55	7.45
Planning Activities	10-70	37.60	11.65
Patient Preparation	17-119	52.44	19.74
Patient Instruction	19-133	54.60	15.53
Surgical Treatment	20-140	32.16	9.37
Physical Treatment	40-280	94.11	25.59
Medication	17-119	68.29	17.88
Administration	28-196	77.33	15.65
Flanagan Performance Scale			
Improving Patients Adjustment to Hospitalization or Illness	30-78*	53.21	10.87
Promoting Patients Comfort and Hygiene	25-64*	46.63	8.19
Contributions to Medical Treatment of Patient	27-76*	48.50	9.10
Arranging Management Details	32-84*	51.91	10.46
Personal Characteristics	28-67*	49.70	8.60
Slater Scale			
Professional Implications	1-7	3.59	.72

*Actual Range

Appendix IV.08
Sample B - Superiors

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Range	Grand Mean	Standard Deviation
Flanagan Scale			
Improving Patient's Adjustment to Hospitalization or Illness ^a	28-59*	45.05	6.85
Promoting Patient's Comfort and Hygiene	27-54*	40.29	6.75
Contributions to Medical Treatment of Patient	24-55*	38.17	6.59
Arranging Management Details	21-49*	32.75	6.00
Personal Characteristics	26-57*	43.85	6.85
Slater Scale			
Professional Implications	1-7	3.64	.69

*Actual Range

^aNote: Flanagan scale scores have been calculated somewhat differently than those in Appendix IV.07.

Appendix IV.09
Sample C - Superiors

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Range	Grand Mean	Standard Deviation
Flanagan Scale			
Improving Patient's Adjustment to Hospitalization or Illness	28-59*	43.56	7.51
Promoting Patient's Comfort and Hygiene	27-54*	38.95	7.45
Contributions to Medical Treatment of Patient	24-55*	39.78	6.33
Arranging Management Details	21-49*	34.05	7.96
Personal Characteristics	26-57*	43.80	8.15
Supervisor Attribution of Motivation	0-50	42.73	2.89

*Actual Range

Appendix IV.10
Sample D - Superiors

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Actual Range	Grand Mean	Standard Deviation
Flanagan Scale			
Improving Patient's Adjustment to Hospitalization or Illness	23-59	44.19	6.65
Promoting Patient's Comfort and Hygiene	21-52	37.56	7.04
Contributions to Medical Treatment of Patient	23-51	37.89	6.19
Arranging Management Details	21-55	33.58	7.02
Personal Characteristics	26-61	46.99	7.48
Slater Scale			
Communication Skills	2-5	3.42	0.69

Appendix IV.11
Sample E - Superiors

Potential Range, Grand Mean, and Standard Deviation
for Each Variable

Variable	Potential Range	Grand Mean	Standard Deviation
Job Characteristics Inventory			
Variety	5.0 - 25.0	16.53	3.59
Autonomy	6.0 - 30.0	24.65	3.42
Task Identity	4.0 - 20.0	16.49	2.73
Feedback	5.0 - 25.0	17.57	2.93
Dealing with Others	3.0 - 15.0	12.35	1.93
Friendship Opportunities	7.0 - 35.00	26.30	5.17
Role Stress			
Role Conflict	8.0 - 40.0	17.82	4.17
Role Ambiguity	6.0 - 30.0	11.37	2.80
Job Performance	15.0 - 75.0	29.74	10.75

APPENDIX V
ORDER EFFECT AND ORGANIZATIONAL RESEARCH

Order Effect and Organizational Research¹

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Running head: Order Effect

Abstract

In a randomly selected sample of 157 registered nurses, the effects of ordering measures of role stress, satisfaction, higher order need strength, and job characteristics were evaluated. Three order conditions were randomly selected and subjects randomly assigned to those conditions. It was found that, in general, order did not influence variable means, the relationships between variables, or internal consistency reliability estimates. The importance of these findings is discussed.

Order Effect and Organizational Research

In both the field and the laboratory, the questionnaire is a predominant means of collecting data for the researcher interested in organizational phenomena. In the field, however, the questionnaire frequently becomes the only means of data collection. One may assume, therefore, that a vast body of empirically based knowledge is available to aid the organizational researcher in the design of his/her all important questionnaire. Regrettably, this is not the case (cf. Noelle-Neumann, 1970). Bouchard (1974) has recently noted that questionnaire construction is still basically an art and researchers must depend upon rules of thumb and past experience more than upon empirical data.

The purpose of this paper, therefore, is to report the results of a study designed to yield information relevant to the design of questionnaires in organizational research. In particular, the impact of the order in which questions are presented to a subject will be assessed.

Several authors warn of the pitfalls associated with the sequencing of questions in an interview schedule and/or in a questionnaire (e.g. Bouchard, 1976; Erdos, 1970; Kahn and Cannell, 1957; Kornhauser and Sheatsley, 1959; Oppenheim, 1966). Consistently cited as a potentially troublesome phenomenon is the conditioning of the respondent as he/she moves through the questionnaire. More specifically, concern has been expressed over putting ideas into the respondent's mind or, in the terminology of Kahn and Cannell (1957), establishing a "frame of reference" which could serve as a source of bias.

For the current study, the order of five frequently used instruments of relatively known psychometric quality was investigated. The instruments are (1) Rizzo, House, and Lirtzman's (1970) measures of role conflict and role ambiguity, (2) Smith, Kendall, and Hulin's (1969) measures of facets of job satisfaction, the Job Descriptive Index (JDI), (3) Brayfield and Rothe's (1951) measure of overall job satisfaction, the Job Satisfaction Index (JSI), (4) Hackman and Lawler's (1971) measure of higher order need strength (HONS), and Sims, Szilagyi, and Keller's (1976) measures of job characteristics, the Job Characteristic Inventory (JCI). Examples of some conditioning hypotheses involving the instruments employed include the following. Subjects responding to the JDI prior to responding to the JSI will exhibit significantly different JSI scores from subjects not responding to the JDI prior to responding to the JSI. This hypothesis reflects the belief that after completing the JDI, subjects will think of their overall job satisfaction in terms of the facets identified in the JDI.

Further, subjects responding to the JCI prior to responding to the HONS index will exhibit significantly different JCI subscale scores from subjects not responding to the HONS index prior to responding to the JCI. This hypothesis reflects the position that asking a subject about his or her need for challenge and responsibility in a job will influence his/her perceptions of current levels of variety and autonomy in the job.

As a final example, it is hypothesized that subjects responding to the JCI prior to responding to the JDI will exhibit significantly different JDI satisfaction with the work itself subscale scores from subjects not responding to the JDI prior to responding to the JCI. This hypothesis is based upon the contention that subjects will think of satisfaction

with the work itself in terms of the job characteristics identified in the JCI.

In addition to examining the influence of instrument order on mean scores as represented by the above hypotheses, the impact of order on the relationships between scale scores will be evaluated. It may be the case that the influence of instrument order is reflected in the differences between correlations among variables whose order of measurement has been manipulated.

Also consistently cited as a potential problem associated with question order is that of respondent fatigue. The argument is that questions asked towards the end of a rather lengthy questionnaire are given less attention by the tired respondent than questions appearing earlier. Thus, it is hypothesized that order influences reliability. Specifically, variables gauged later in a questionnaire are expected to exhibit lower levels of internal consistency reliability (cf. Cronbach, 1949) than variables measured earlier.

In sum, the impact of instrument order in organizational research questionnaires is not clearly delineated; but, one is led to hypothesize that order influences variable means, the nature of the relationships between variables, and/or internal consistency reliabilities. The study reported below is designed to explore these hypotheses.

Method

Subjects

The population investigated was all registered nurses licensed in the State of Iowa during 1975 who met all three of the following criteria:

a) working full-time in nursing, b) as a general or staff duty nurse and c) in a hospital. Data regarding the criteria were obtained from the nurse's 1975 application for license. Approximately 3,400 nurses fulfilled all requirements, and 210 nurses were randomly selected from this population to receive a mailed questionnaire. Usable responses were received from 157 nurses, for a response rate of approximately 75 percent.

Instruments

The questionnaire the subjects received contained eight research instruments in addition to a set of biographical questions. Three of the instruments are not germane to the current study. The other five instruments are described below.

Rizzo, House, and Lirtzman (1970) developed a 30-item instrument to gauge role conflict and role ambiguity. Favorable evaluations of the scales' construct validities and reliabilities are reported by Rizzo et al. (1970), House and Rizzo (1972), and Schuler, Aldag, and Brief (1976).

Satisfaction with facets of the job were gauged by the Job Descriptive Index (JDI) (Smith, Kendall, and Hulin, 1969) and overall job satisfaction was gauged by the Job Satisfaction Index (JSI), an 18-item scale developed by Brayfield and Rothe (1951). The psychometric properties of both instruments are evaluated by Robinson, Athanasiou, and Head (1969).

Higher order need strength (HONS) was measured by a 12-item ipsative instrument taken from an early version of the Job Diagnostic Survey (JDS) developed by Hackman and Lawler (1971). Evidence relating to the psychometric properties of the JDS is presented by Hackman and

Oldham (1975) and evidence relating to the HONS measure in particular is presented by Aldag and Brief (1976).

Sims, Szilagyi, and Keller (1976) revised portions of the JDS to yield the Job Characteristic Inventory (JCI). The JCI measures six job characteristics--variety, autonomy, feedback, dealing with others, task identity, and friendship. Sims et al. (1976) reported on the construct validity, reliability, and convergent and discriminant validity of the JCI.

The above instruments were selected for the current study because of their popularity among organizational researchers, their relatively known psychometric qualities, and because pairs of the instruments are frequently administered simultaneously. For example, several researchers have reported finding variety (as gauged by the JCI or one of its earlier versions) to be positively related to various indices of job satisfaction (e.g., Brief and Aldag, 1975; Hackman and Lawler, 1971; Hackman and Oldham, 1975, 1976). Further, numerous investigators have reported finding Rizzo et al.'s index of role conflict to be negatively related to a variety of indices of job satisfaction (cf. Brief and Aldag, 1976; Van Sell, Brief, and Schuler, 1976).

Procedures

All possible combinations of the five instruments were generated--120 combinations. Three of these combinations were randomly selected as treatment (order) conditions. Subjects were randomly assigned to one of the three conditions. Thus, in Hays' (1973) terminology a "Model II" (random effects) design was employed. Table 1 presents each order condition and the number of respondents per condition.

Results

Table 2 presents the variable means and standard deviations for the total sample as well as for conditions 1, 2, and 3. Both multivariate (Tatsuoka, 1971) and univariate (Hays, 1973) analyses of variance indicate no statistically significant impact of order on those indices.²

The intercorrelation matrices for each condition were calculated. For corresponding correlations, comparisons were made between each pair of conditions. A total of 315 such comparisons were made. As shown in Table 3, 28 comparisons yielded statistically significant ($p < .05$), two-tailed differences.³

Table 4 presents the coefficient alpha estimates of internal consistency reliability (Cronbach, 1949) for the total sample and for conditions 1, 2, and 3. Again, it was predicted that internal consistency reliability would decrease with later positioning in the questionnaire. In fact, internal consistency declined with later positioning in 15 instances and increased in 16 cases. Clearly, the hypothesis does not appear to be supported.

Discussion and Conclusions

None of the hypothesized order effects were confirmed with the current instruments, orders, and subjects. Order did not consistently affect variable means, the relationship between variables, or estimates of internal consistency reliability. Such results should not be taken as a disconfirmation of the effects of order. Rather, they clearly demonstrate that order effects may not be as pervasive as has been previously assumed.

This position is strengthened for the current set of findings in that instruments of relatively known psychometric quality were used and that variations in correlations appear to be considerable in cases where order was not varied. The known properties of the instruments employed allows one to largely reject alternative hypotheses based upon instrumentation weaknesses. Further, subscales within instruments were administered in the same order across conditions; yet, one-fourth of the detected significant differences between pairs of corresponding correlations across conditions occurred between variables gauged within the same instrument in the same position. Such a finding suggests that the overall order effects detected may be a function of sampling rather than treatment sources of differences.

Several factors, however, somewhat weaken the current findings. For example, only three order conditions were randomly selected for study out of a set of 120 conditions. Further, the results are limited to the particular instruments employed and types of subjects surveyed. These potential deficiencies accentuate the need for attempts to "constructively replicate" (Lykken, 1968) the current study.

In general, there is a clear need for additional empirical and theoretical evidence to guide the student of organizations in the applications of various research methodologies. Unfounded negativism or blind acceptance of a set of research procedures should no longer be tolerated.

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¹The authors would like to thank the reviewers of an earlier version
of this paper for their helpful comments.

²Multivariate and univariate analysis of variance tables are
available from the first author.

³Intercorrelation matrices for each condition and the total sample
are available from the first author.

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Table 1
Order Conditions

Position	Treatment		
	1 (n=57)	2 (n=49)	3 (n=57)
1	Job Descriptive Index	Role Conflict and Ambiguity	Job Descriptive Index
2	Job Character- istic Inventory	Job Satisfaction Index	Higher Order Need Strength
3	Role Conflict and Ambiguity	Job Character- istic Inventory	Role Conflict and Ambiguity
4	Job Satisfaction Index	Job Descriptive Index	Job Character- istic Inventory
5	Higher Order Need Strength	Higher Order Need Strength	Job Satisfaction Index

Table 2

Means and Standard Deviations (S.D.)

Variable	Total		Condition					
	Sample		1		2		3	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Satisfaction Facets								
Work Itself	38.01	8.11	36.43	9.68	39.55	6.28	38.27	7.62
Supervision	42.05	10.77	42.68	9.72	42.20	11.92	41.28	10.89
Pay	14.91	6.50	15.75	5.14	14.78	7.37	14.16	6.95
Promotion	9.52	7.38	9.55	7.69	10.18	7.12	8.94	7.38
Co-workers	44.25	9.93	44.19	9.90	44.35	9.83	44.23	10.23
Task Dimension Perceptions								
Variety	16.04	3.56	15.60	3.89	16.62	3.30	15.98	3.43
Autonomy	23.05	3.73	23.11	3.57	23.31	3.92	22.78	3.76
Feedback	14.56	3.95	14.40	3.92	14.84	3.67	14.48	4.24
Dealing With Others	11.87	1.60	11.66	1.47	12.27	1.45	11.76	1.81
Task Identity	15.03	2.81	15.07	2.91	15.42	2.85	14.65	2.67
Friendship	25.75	4.51	25.51	4.09	25.84	4.47	25.89	4.97
Role Stress								
Role Conflict	19.35	4.88	19.80	4.03	18.57	5.96	19.55	4.66
Role Ambiguity	11.91	3.11	12.35	3.00	11.29	3.14	11.98	3.16
General Job								
Satisfaction	69.24	8.24	67.88	8.92	71.62	8.34	68.55	7.14
Higher Order								
Need Strength	53.99	8.17	53.24	8.25	53.38	8.49	55.19	7.85

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Satisfaction Facets															
1. Work Itself															
2. Supervision															
3. Pay	b,c														
4. Promotion															
5. Co-workers	b														
Task Dimension Perceptions															
6. Variety		a		a											
7. Autonomy	c			a,b		b,c									
8. Feedback															
9. Dealing With Others				a											
10. Task Identity	b,c			a	c	b,c									
11. Friendship		c													
Role Stress															
12. Role Conflict		a													
13. Role Ambiguity															
Other															
14. General Job Satisfaction	a,b	b		b	b			b		b					
15. Higher Order Need Strength		a												b	

¹a = Significant difference ($p \leq .05$) between corresponding correlations in condition 1 and 2.

b = Significant difference ($p \leq .05$) between corresponding correlations in condition 1 and 3.

c = Significant difference ($p \leq .05$) between corresponding correlations in condition 2 and 3.

Table 4

Coefficient Alpha Estimates of Internal Consistency Reliability

Variable	Total	Condition		
	Sample	1	2	3
Satisfaction Facets				
Work Itself	.77	.82	.68	.75
Supervision	.87	.84	.90	.86
Pay	.82	.71	.86	.84
Promotion	.87	.87	.88	.87
Co-workers	.88	.87	.87	.88
Task Dimension Perceptions				
Variety	.82	.84	.81	.80
Autonomy	.81	.81	.81	.81
Feedback	.84	.87	.73	.89
Dealing With Others	.43	.29	.38	.59
Task Identity	.80	.84	.80	.77
Friendship	.84	.80	.82	.89
Role Stress				
Role Conflict	.65	.57	.76	.55
Role Ambiguity	.92	.92	.93	.93
Other				
General Job Satisfaction	.88	.90	.89	.85
Higher Order Need Strength	.68	.66	.73	.66

APPENDIX VI
ANTICIPATORY SOCIALIZATION AND ROLE STRESS
AMONG REGISTERED NURSES

*A list of additional working papers included in this series can be obtained from the Secretarial Office, 620 Phillips Hall, College of Business Administration, The University of Iowa, Iowa City, Iowa, 52242

**College of Business Administration, The University of Iowa.

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**ANTICIPATORY SOCIALIZATION AND ROLE STRESS
AMONG REGISTERED NURSES***

by

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ABSTRACT

For a sample of 117 registered nurses, the impact of type of nursing education (conceptualized as the anticipatory stage of the socialization process) on role stresses experienced on-the-job was explored. It was found that role stress increased with the degree of professional training with baccalaureate nurses experiencing the greatest stress. Further, it was found that time on-the-job did not mitigate these effects.

Anticipatory Socialization and Role Stress

Among Registered Nurses¹

From an organizational perspective, a "role" is a set of expectations applied to the incumbent of a particular position by the incumbent and by role senders within and beyond the organization's boundary (Banton, 1965; Gross, Mason and McEachern, 1958; Hunt, 1971; Neel, 1955; Sarbin and Allen, 1968). Individuals required to play roles which conflict with their value systems or to play two or more roles which conflict with each other are said to experience a form of role stress labeled "role conflict." An additional form of role stress, "role ambiguity," occurs when individuals confront single or multiple roles which are not clearly articulated in terms of behaviors or performance levels expected (Kahn, Wolfe, Quinn, Snoeck, and Rosenthal, 1964; McGrath, 1976). Numerous studies have been conducted which explore the antecedents and consequences of these two forms of role stress (cf. Van Sell, Brief, and Schuler, 1976).

Socialization, or the acquisition of the expectations and behaviors which define an organizational role, has been conceptualized as a developmental process which involves passage through several stages (Feldman, 1976; Graen, 1976; Thornton and Nardi, 1975). For roles which require formal training prior to employment, the educational process experienced by a prospective role incumbent constitutes the first stage of socialization; here, skills, knowledge, and role expectations are acquired (Miller and Wager, 1971; Ondrack, 1975). Once the role incumbent is on-the-job, the

role definition acquired during the anticipatory phase of socialization must be adjusted to the demands of role senders (Graen, 1976; Van Maanen, 1975). Thus, the degree of role stress experienced by an organizational member during the second or adjustment phase of socialization is in part a function of the incongruities between his/her definition of the role and the definition of role senders in the employing organization (Corwin, 1961; Feldman, 1976; Haas, 1964).

In the final phase of socialization, role management, individuals impose their own definitions on the roles they occupy, negotiating or modifying the roles to fit both the expectations of role senders and their own preferences (Graen, 1976; Thornton and Nardi, 1975). Feldman's (1976) test of such a multi-stage model of role socialization for a sample of hospital employees revealed that role incumbents do pass through these three stages of socialization. Further, he concluded that experiences in each stage independently contribute to job satisfaction.

In a more narrow context, several researchers have focused their attentions on the role stresses experienced by nursing personnel (e.g., Brief and Aldag, 1976; Corwin, 1961; Haas, 1964; Lyons, 1971; Taves, Corwin and Haas, 1963). A recurring theme in the nursing literature concerns the degree to which the nurse's formal education is under-utilized on-the-job and his/her negative reactions to this under-utilization (e.g., Alutto, Hrebiniak, and Alonson, 1971; Brief, 1976; Forrest, 1968; Kramer, 1968, 1970; Krueger, 1971). In role theory terms, the student nurse is socialized to expect that his/her role as a practicing nurse will include a variety of

professionally valued task demands such as patient instruction and counseling and the planning and coordination of patient care. In fact, however, the nurse's role as defined by his/her most frequent employer, the general hospital, largely consists of task demands which are viewed by the nurse as less central to the practice of professional nursing. The differences between the nurse's anticipatory definition of his/her role and the hospital's definition leads to the nurse's experiencing of stress.

Of further interest are the distinct educational tracks which a student can follow to a registered nurse's position. First, a student can earn a diploma degree which is typically awarded by a school of nursing sponsored by a hospital. Such an "in-house" program commonly incorporates a great deal of experiential training. Secondly, the student can earn an associate degree granted by a vocational school or junior college. The training period for an associate degree is usually 2 1/4 to 3 years. Finally, the student can gain access to a registered nurse's position by earning a baccalaureate degree which includes liberal arts education at the college or university level. The baccalaureate degree is usually associated with the most professional level of nursing. It is presumed that the socialization processes experienced by a diploma as compared to an associate as compared to a baccalaureate degreed registered nurse raise dissimilar levels of professional expectations. In other words, the different educational tracks comprise distinct socialization processes which lead to different role conceptualizations. If the different role socialization processes also led to different nursing positions which demand behaviors consistent with the nurse's role definition, then a dilemma could be avoided. Very

frequently, however, one finds diploma, associate degree, and baccalaureate degree nurses occupying general duty positions within a hospital setting.

The purpose of this paper is to report the results of a study designed to examine the assertions made above. In particular, it is hypothesized that the role stress experienced by general duty nurses varies with their type of basic nursing education. Further, it is predicted that role stress among general duty nurses is associated with such dysfunctional consequences as lowered levels of job satisfaction. Finally, it is predicted that experience on-the-job reduces the strength of the relationship between education and stress. This last hypothesis reflects the assumption that those nurses who occupy a general duty position for a relatively long period of time have entered the third or role management phase of the socialization process, which in effect reduces any differences due to education.

METHOD

Subjects

The population investigated was all registered nurses licensed in the State of Iowa during 1975 who met all three of the following criteria: a) working full-time in nursing, b) as a general duty nurse, and c) in a hospital. Data regarding the criteria were obtained from the nurse's 1975 application for license. Approximately 3,400 nurses fulfilled all requirements, and 210 nurses were randomly selected from this population to receive a mailed questionnaire. The sample was stratified by educational track. One-third of the subjects were diploma nurses, one-third associate degree nurses and

one-third baccalaureate nurses. Usable responses were received from 157 nurses, for a response rate of approximately 75 percent.

In addition, each respondent's immediate supervisor (as identified by the respondent) received a mailed questionnaire. By the time of the analysis, usable questionnaires were received from 117 supervisors for a response rate of greater than 74 percent.

Measures

The questionnaire the subjects received contained, in part, four research instruments as well as a set of biographical questions. These instruments are described below.

Calkin, Wallace, Chewing, and Gustafson (1975) developed an instrument to identify the activities performed by nursing personnel in ambulatory care settings. This instrument was modified to gauge the frequency with which 11 categories of activities are performed by a general duty nurse in hospital settings. The 11 categories are: history taking; assisting in examinations; examining patients; collecting, measuring, describing, or analyzing specimens; planning, documenting and coordinating care; preparing patients and assisting in treatment; instructing patients; assisting in and performing surgical treatments; assisting in physical treatments; treating with medication, and performing administrative and record-keeping duties. Brief and Aldag (1977) offer a favorable evaluation of the instrument's psychometric properties. In addition to being completed by the subjects

for their own jobs, the instrument in slightly modified form was completed by the immediate superiors for their subordinates' jobs.

Rizzo, House, and Lirtzman (1970) developed a 30-item instrument to gauge role conflict and role ambiguity. Favorable evaluations of the scales' construct validities and reliabilities are reported by Rizzo, et al. (1970), House and Rizzo (1972), and Schuler, Aldag, and Brief (in press).

Satisfaction with the work itself was gauged by a subscale of the Job Descriptive Index (JDI) (Smith, Kendall, and Hulin, 1969) and overall job satisfaction was gauged by the Job Satisfaction Index (JSI), an 18-item scale developed by Brayfield and Rothe (1951). The psychometric properties of both instruments are evaluated by Robinson, Athanasiou, and Head (1969).

RESULTS

Subjects had identified themselves as general duty hospital nurses on their application for license in the State of Iowa. It is possible that even though their job titles are identical, nurses from different educational tracks perform different duties. If this is the case, such differences in task demands could explain any observed differences in role stress. To mitigate the plausibility of this position, the task activities of diploma, associate, and baccalaureate degreed subjects were compared. Both the subjects' responses and their immediate superior's responses to the 11 category task inventory instrument were analyzed in the context of a one-way analysis of variance (Hays, 1963). No statistically significant

main effects of educational track were detected from the 22 analyses of variance performed.² Thus, for general duty nurses, it appears that task activities do not vary by educational track.

Analysis of variance was also employed to determine the impact of educational track on role stress. As shown in Table 1 role stress did vary significantly by educational track.

Table 1

Role Stress Cell Means

Role Stress Index	Educational Track			F value
	Diploma	Associate Degree	Bacca-laureate	
Role Conflict	18.16	19.35	20.56	3.06*
Role Ambiguity	10.98	11.75	13.12	6.66**

*p ≤ .05; **p ≤ .01

As predicted, role stress appears to be dysfunctional for the general duty nurse. As shown in Table 2, both role conflict and role ambiguity are significantly negatively correlated with each satisfaction index.

Finally, Zedeck's (1971) recommended procedures for evaluating moderating candidates were employed. Two subgroups were formed by splitting the sample as close to 25 months, the median time on-the-job, as was possible.

Table 2

Correlations between Role Stress and Satisfaction Indices

Satisfaction Indices	Role Stress Indices	
	Role Conflict	Role Ambiguity
Satisfaction with the Work Itself	-.34*	-.32*
Overall Job Satisfaction	-.27*	-.31*

*p ≤ .001

Correlations between educational track and the role stress indices were calculated for each subgroup. As shown in Table 3, the predictions concerning the moderating effects of tenure were not confirmed.

Table 3

Moderating Effects of Tenure

Relationships	Tenure Group	
	High	Low
Educational Track ^a and Role Conflict	.17	.27
Education Track and Role Ambiguity	.27	.24

^aEducational Track was coded as follows: 2 = diploma, 3 = associate degree, and 4 = baccalaureate.

DISCUSSION

The results seem to indicate that (a) type of anticipatory socialization does not influence the activities performed by general duty nurses; (b) nurses from more professional educational tracks experience more role stress on-the-job than do nurses from less professional tracks, (c) role stress is negatively correlated with job satisfaction; and (d) tenure on-the-job does not mitigate the impact of anticipatory socialization on role stress.

From a role theory perspective, these findings suggest that the anticipatory socialization processes experienced during one's formal vocational education define, in part, the individual's work role. Further, if this educationally defined role is incongruent with the role as defined by the employing organization, then role stress occurs; and, such a circumstance is not improved by time on-the-job. That is, the third or role management phase of the socialization process does not occur as hypothesized. These results parallel those of Miller and Wager (1971), who report that length and type of education, but not length of employment, are related to the role orientations of both bureaucrats and professionals. Although both Miller and Wager's study and the present investigation are limited by their cross-sectional and correlational methodologies, they suggest that the current understanding of the resolution of role stress is incomplete, and that available models of the socialization process are in part incorrect. Admittedly, the argument set forth is still somewhat tenuous. Attempts should be made to replicate the current set of findings for other types of

professional socialization, other occupations, and other role stress dimensions.

The findings are also of interest from a health manpower perspective.

First, it appears that when a baccalaureate nurse occupies a general duty position his/her education is in fact underutilized in that he/she performs the same task as a diploma or associate degreed nurse. Brief (1976) has argued that such underutilization leads to one's role expectations being unmet (here conceptualized as a form of role stress) and that the resulting job dissatisfaction influences the high rate of inactivity exhibited among nurses. While Brief's arguments require further systematic scrutiny, the current set of findings appear to be supportive of his position.

In conclusion, the current study has clearly demonstrated the importance of socialization to the definition of one's own work role as well as the potential importance of role theory to the resolution of our nation's nursing supply problems. As stated previously, there exists an obvious need for additional empirical work in both the role theory area in general and in the application of role theory to the nursing profession in particular.

FOOTNOTES

¹Requests for reprints should be sent to Arthur Brief, College of Business Administration, The University of Iowa, Iowa City, Iowa 52242.

²A complete set of the 22 ANOVA tables is available from the first author on request.

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