Professional and Bureaucratic Role Conceptions and Moral Behavior Among Nurses

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This descriptive study tested the relationship between professional and bureaucratic role conceptions and moral behavior. It was theorized that professional–bureaucratic role conceptions of nurses, and their perceptions of the discrepancy between ideal and actual values influence the manner in which they practice and operationalize their professional values, including moral behavior. Data were obtained from 217 practicing nurses representing different positions, areas of practice, education, age, ethnic groups, and work settings. Two of the subscales of Nursing Role Conceptions (Pieta, 1976) were used to measure professional and bureaucratic role conceptions; moral behavior was measured by Judgments About Nursing Decisions (Ketefian, 1981). Professional categorical role conception was positively related to moral behavior. Professional normative role conception and professional role discrepancy were negatively related. Bureaucratic role discrepancy was found to be positively related to moral behavior. Hierarchical multiple regression analyses showed that the combination of professional normative and bureaucratic normative role conceptions, professional categorical and bureaucratic categorical role conceptions, and professional and bureaucratic role discrepancies explained greater variance in moral behavior than either one of the pairs of variables alone. The interactions between these variables were not significant.

A great deal of research has focused on the role orientations of professionals in general and nurses in particular, as these relate to their work and organizational variables. The perspective that has emerged differentiates those committed to professional orientation from those committed to bureaucratic orientation. The distinct attitudes inherent in each of these orientations are thought to influence the perceptions and performance of the individual. Professional behavior, according to the norms of a professional group, has long been regarded as being at the heart of professional practice (McGlothlin, 1964); such behavior in turn is intended to serve and to protect the public. This study examined the relationship between role conceptions and role discrepancies and moral behavior as a selected dimension of professional practice.

Review of the Literature

Miller (1967) documented that varying degrees of alienation among industrial scientists and engineers were associated with differences in type of supervision, freedom of choice for research, professional climate, and company encouragement. In correlating various indexes of professionalization and bureaucratization, Hall (1968) found that only the autonomy dimension of professionalization consistently related significantly with indexes of bureaucratization, while other indexes of professionalization did not.

Sorensen and Sorensen (1974) studied 264 certified public accountants in bureaucratic organizations and the conflicts they experienced as a result of inconsistencies between professional and bureaucratic norms. In examining the effects of these orientations and their interactions on job satisfaction and job migration, they found that low professional orientation, when accompanied by high bureaucratic orientation, tended to be associated with high job satisfaction, and that "the bureaucratic orientation appears to be a greater determinant of level of job satisfaction" (p. 103).

Organ and Greene (1981) found that professionalization and organizational formalization were inversely related in that in the work unit of the most professionalized groups (basic research scientists) there was the lowest level of formalization. Nonetheless, their research suggested some positive effects of organizational formalization. While formalization tended to activate role conflict, it also tended to reduce role ambiguity, clarify operational standards, and provide a basis for identification with the organization by articulating congruence between organizational mission and professional goals. They concluded that "the conflict between formalization of organization context and professional job involvement is neither omnipresent nor inevitable" (p. 251).

Professionals are educated to make individual judgments and to function autonomously; they are committed to uphold the ethical standards of their profession and to

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practice according to the scientific tenets of their disciplines. Yet, as employees of organizations, they have certain obligations as well. Etzioni (1964) pointed out the inherent incompatibilities of these two sets of expectations and the resultant conflicts.

Despite conflicts and incompatibilities between professional and bureaucratic roles, an alternative perspective has been proposed by a number of authors. In their view, professional and bureaucratic orientations can be reconciled, and are, indeed, interdependent. In their study of the degree of compatibility between professional and bureaucratic role orientations, Miller and Wager (1971) identified more complex orientation types derived from the two orientations. In their typology they presented four types of orientations based on the particular combination of the two orientations. While the "pure" types scored high on one orientation and low on the other, 42% of their sample of scientists and engineers were "mixed" types in that this group was either high or low on both dimensions, suggesting that the two orientations are not always incompatible.

Theoretical Rationale

During professional education nurses are introduced to an ideal professional role and learn to value individualized care of clients based on scientific knowledge. They are taught to exercise independent judgment and to follow the profession's standards of practice and its ethical code (Kramer, 1970). Upon entering the work world of an organization, they find work to be segmented and routine; they are expected to adhere to bureaucratic rules and regulations, and to observe a hierarchy of authority. These role demands are perceived to be antithetical to the ideal role that they learned. Kramer's (1974) findings suggest that role conceptions, as well as nurses' perceptions of the discrepancy between ideal and actual values, are influenced by a range of factors, and that they in turn affect the manner in which nurses function in their work setting and practice their professional values.

Practice according to the tenets of the profession's code of ethics is posited here as an important professional value. Moral behavior has been selected as an index of professional behavior and is studied as the criterion variable as it relates to the above variables as the predictors.

The term ethics involves critical and rational analysis of morality. While ethics reflect values, and might provide the basis for making judgments, they do not provide decisions for action. Moral judgments or behavior refer to the determination of right or wrong in a given situation. Since this study is concerned with nurses' decisions in nursing care situations, the term moral behavior is used. Although the moral judgments and behavior of persons necessarily reflect their values, this study did not deal directly with those values, nor the extent to which individuals engaged in rational analysis in arriving at their moral judgments and behavior.

Hypotheses

I. Professional normative role conception, professional categorical role conception, and professional role discrepancy each relate to moral behavior.

II. Bureaucratic normative role conception, bureaucratic categorical role conception, and bureaucratic role discrepancy each relate to moral behavior.

III. The combination of professional normative and bureaucratic normative role conceptions explains greater variance in moral behavior than either variable individually.

IV. The combination of professional categorical and bureaucratic categorical role conceptions explains greater variance in moral behavior than either variable individually.

V. The combination of professional role discrepancy and bureaucratic role discrepancy explains greater variance in moral behavior than either variable individually.

Method

Sample and Procedures: The sample consisted of 217 registered nurses currently in practice in a variety of settings in large and small towns in two states in the Mid-Atlantic region. Participation was voluntary, and all respondents were assured anonymity.

Verbal and written explanation was provided before each subject signed a consent form. The volunteers were allowed to take questionnaire packets home and were asked to return them in a preaddressed and stamped envelope provided. The project was approved by the Human Subjects' Committee of the investigator's home institution.

Instruments: MORAL BEHAVIOR MEASURE. Moral behavior was defined as the respondents' assessment of the extent to which nursing actions in simulated ethical dilemmas that are in accord with the Code for Nurses (American Nurses' Association, 1976) are likely to be implemented in practice. Moral behavior was measured by the scores on column B of Judgments About Nursing Decisions (JAND) (Ketefian, 1981). The JAND is a self-administered, objective test with six stories depicting nurses in ethical dilemmas. Each story is followed by a list of six or seven nursing actions. For each nursing action respondents check "yes" or "no" twice; first, in column A, whether they think the nurse experiencing the dilemma in the story *should* or *should not* engage in that action; second, in column B, whether they think the nurse experiencing the dilemma is *likely* to engage in the nursing action. There are 39 items in the current test. Given the low reliabilities obtained on column A scores, only column B scores were used in testing the hypotheses.

Following the initial item development, nurse experts were consulted to ascertain that the conflict situations included were representative of the domain of ethical conflicts nurses face; they were also asked to evaluate each item in terms of the extent to which each embodies the tenets of the Code for Nurses, which served as the standard for moral behavior in constructing the test.

Empirical evidence for JAND's validity was obtained by correlating it with a known measure of moral reasoning—the Defining Issues Test ($r=.19$, $p<.05$) (Ketefian, 1984). It was also found to distinguish between professionally and technically prepared nurses who were theoretically expected to perform differently on the test, $t=-1.73$, $p<.05$, $df=77$ (Ketefian, 1981).

Data from 489 practicing nurses were used for a principal factor analysis; Varimax® rotations were performed on the intercorrelation matrix among the 39 items of the

column B scale. Varimax® solutions were explored in four through eight dimensions following the application of the scree test on the initial 14 factors with eigenvalues $\geq$ 1 (Mulaik, 1972). Items were retained that correlated at least .30 with a given factor. The simplest factor structure was observed in the seven-factor Varimax® solution. Seven of the 39 items were eliminated because of loadings <.30. The seven factors identified addressed related underlying dimensions of moral behavior (Ketefian, 1984). The scores for the 32 items retained were used in analyses.

Internal consistencies for column B yielded coefficient alphas that ranged from .73 to .66 across different registered nurse samples (total N=309). There was adequate variability in the range of scores. The internal consistency for the 32 items of column B, which had loadings of .30 or higher in the factor analysis, was .66.

The JAND was scored by assigning a weight of one for an "appropriate" nursing action, and a zero for an "inappropriate" nursing action (based on the experts' assessment of each item). These were then added to yield a subject's score on moral behavior.

NURSING ROLE CONCEPTION MEASURE. Role conceptions were defined as the value orientations of nurses. The professional role conception addresses principles that deal primarily with loyalty to the nursing profession: involvement in professional organizations, commitment to practice standards, scientific knowledge as the basis for practice, exercise of professional judgment in decision-making (Kramer, 1968).

The values inherent in the bureaucratic role conception are loyalty to the employing institution and those in authority, and following the administrative rules and routines (Kramer, 1968).

Role discrepancy refers to the "extent to which the perception of the ideal role conception of nursing differs from the perception of the actual practice of the role" (Pieta, 1976, p. 8). Bureaucratic and professional subscales of Nursing Role Conceptions (Pieta, 1976) were used to measure the predictor variables. Role discrepancies were measured by computing the numeric difference between the normative and categorical scores for the professional and bureaucratic subscales.

Nursing Role Conceptions is a modification of the original scale developed by Corwin (1960). Normative, categorical, and discrepancy scores were computed for each subscale. Positive role discrepancy indicates that respondents perceive a situation does not exist to the extent they think it should; negative role discrepancy indicates respondents perceive a situation exists to a greater extent than they think it should.

Pieta (1976) reported internal consistency reliabilities of .84 and .63 for the bureaucratic and professional scales, respectively, for her sample of nursing students and nurse faculty. Forrester (1983), using a sample of 208 baccalaureate-prepared nurses, reported the following reliabilities: For the professional role conception, .67 for normative, .69 for categorical; for the bureaucratic role conception, .67 for normative, .51 for categorical.

The known group method was used to determine predictive validity. The scores of groups of nurses were compared. As expected, the nurse faculty (n=15) had the highest scores on the professional role conception, and

nurse administrators (n=17) had the highest bureaucratic scores (Pieta, 1976).

Nursing Role Conceptions was scored by assigning values from 5 to 1, representing a scale from strongly agree to strongly disagree, respectively, and adding these to obtain a normative and a categorical score for each subscale. Subsequently, a role discrepancy score for each subscale was obtained by subtracting the categorical score from the normative score for each of the two subscales.

An information sheet was developed to obtain data on relevant personal variables such as education, age, years of practice in nursing, position, area of practice, agency of employment.

Results

In analyzing data, pairwise deletion was used, so that if data were available on a given variable, they were used; otherwise, they were deleted.

The means, standard deviations, and ranges for the study variables are presented in Table 1. The sample as a whole seemed to have a greater degree of professional role discrepancy ($\overline{X}$ = 14.6) than bureaucratic role discrepancy ($\overline{X}$ = −2.7). Furthermore, the professional role discrepancy was positive, suggesting the perception that actual practice did not meet the nurses' expectations, whereas bureaucratic role discrepancy was negative, suggesting that actual role enactment for this dimension exceeded the individual's expectation for this role.

Hypotheses I and II were tested by computing Pearson product moment correlations between the predictor variables and the total scores of column B of JAND. Hypotheses III, IV, and V were tested by hierarchical multiple regression analysis. In each instance, the effect of the combination of the two predictor variables, as well as any interactions between them, was observed. In testing these three hypotheses the appropriate professional role conception score was entered first, followed by the appropriate bureaucratic role conception score.

Table 1. Means, Standard Deviations, and Ranges of Scores on Study Variables[a]

VARIABLES	MEAN	SD	RANGE
JAND (Total)	20.4 (208)	3.9	11-30
Bureaucratic normative	36.7 (210)	6.0	20-54
Bureaucratic categorical	39.0 (211)	5.0	17-51
Bureaucratic discrepancy	−2.7 (210)	7.8	−26-31
Professional normative	42.0 (211)	3.9	31-50
Professional categorical	27.0 (209)	5.4	14-43
Professional discrepancy	14.6 (209)	6.5	−2-33

[a]The size of the sample used for analysis of each variable is indicated in parenthesis.

Table 2 presents the intercorrelations between the study variables. The correlations of professional normative, professional categorical role conceptions, and professional role discrepancy to moral behavior were −.13 (p<.05), .30 (p <.001), and −.33 (p<.001), respectively. These data provided statistical support for hypothesis I.

The correlations of bureaucratic normative, bureaucratic categorical role conceptions, and bureaucratic role

Table 2. Intercorrelations Between Study Variables[a]

VARIABLES	1	2	3	4	5	6	7
1. JAND (Total)	1.000						
2. Bureaucratic normative	.11 (202)	1.000					
3. Bureaucratic categorical	−.11 (202)	.002 (210)	1.000				
4. Bureaucratic discrepancy	.16** (202)	.76*** (210)	−.64*** (210)	1.000			
5. Professional normative	−.13* (203)	.02 (210)	.20*** (211)	−.11 (210)	1.000		
6. Professional categorical	.30*** (201)	.16** (208)	.13* (209)	.05 (208)	.07 (209)	1.000	
7. Professional discrepancy	−.33*** (201)	−.13* (208)	.01 (209)	−.11 (208)	.54*** (209)	−.80*** (209)	1.000

[a]The size of the sample used for each pair of relationships is indicated in parenthesis.
*p<.05 **p<.01 ***p<.001

discrepancy to moral behavior were .11 (ns), −.10 (ns), and .16 (p <.01), respectively.

In testing hypotheses III, IV, and V the components of the professional role conception were entered first, given the stronger magnitude of the relationships of these to the dependent variable when compared to the components of the bureaucratic role conception.

To test hypothesis III, professional normative role conception was entered into the regression equation at step one. It accounted for less than 2% of the variance in total moral behavior scores. The obtained multiple R was .13. The test of the beta weight showed that this contribution was not significant, $F = 3.5$, $df = 1$, 196. The bureaucratic normative role conception was entered at step two, with nonsignificant results. However, the overall F value of 3.05 ($df = 2$, 195), with a multiple R of .17, was significant at the .05 level. Both variables together accounted for 3% of the variance in moral behavior. While these analyses statistically supported hypothesis III, their practical importance remains doubtful. The interaction term between professional normative and bureaucratic normative role conceptions was not significant.

To test hypothesis IV, professional categorical role conception was entered into the regression equation at step one; it accounted for 9% of the variance in total moral behavior scores. The obtained multiple R was .30. The test of the beta weight showed that this contribution was significant at the .001 level, $F = 19.4$, $df = 1$, 196. The bureaucratic categorical role conception was entered at step two, contributing an additional 2.4% of the variance in the dependent variable. The test of the beta weight showed this to be significant at the .05 level. The overall F value at step two was significant beyond the .001 level, $F = 12.5$, $df = 2$, 195; multiple R was .34. The total variance accounted for in moral behavior was 11.4%. These data statistically supported hypothesis IV. The interaction term between professional categorical and bureaucratic categorical role conceptions was not significant.

To test hypothesis V, professional role discrepancy was entered into the regression equation at step one; it accounted for 11% of the variance in total moral behavior scores. The obtained multiple R value was .33. The test of the beta weight showed that this contribution was significant beyond the .001 level, $F = 24.6$, $df = 1$, 196. The bureaucratic role discrepancy was entered at step two, contributing an additional 1.5% variance in the dependent variable. The overall F value was significant beyond the .001 level, $F = 14.1$, $df = 2$, 195. The multiple R

value was .36. The total variance accounted for in the dependent variable was 12.5%. On the basis of these analyses, hypothesis V was supported. The interaction term between professional and bureaucratic role discrepancies was not significant.

AUXILIARY ANALYSES: As in the Miller and Wager (1971) approach, each orientation scale was dichotomized at the median score to produce respondents who were high or low on a particular dimension. The median score was 27.5 for the professional orientation and 40 for the bureaucratic orientation. The two dichotomized scales were then cross-classified to produce four types of orientations (see Figure 1).

Miller and Wager (1971) labeled the groups as follows: Group 1, LBLP, indifferent; Group 2, LBHP, cosmopolitan; Group 3, HBLP, local; Group 4, HBHP, local–cosmopolitan. Groups 2 and 3 were considered "pure" types in that they represented predominantly one type of orientation, with low scores on the other. Groups 1 and 4 were considered "mixed" types in that they embodied both orientations to a high or a low degree.

Analysis of variance was used to compare these four groups regarding their professional and bureaucratic role

Figure 1. Typology of Role Orientations

JULY/AUGUST 1985 VOL. 34, NO. 4

discrepancy scores and their moral behavior scores. Significant differences were noted among the four groups on their professional role discrepancy scores, F (3,196) = 14.4, $p<.001$. Scheffé's contrast showed that the scores of Groups 2 and 4 were significantly higher than Groups 1 and 3 (p <.05). The four groups also differed on their bureaucratic role discrepancy scores, F (3,196) = 38.9, $p<.001$. Multiple comparisons showed that Groups 1 and 2 had significantly higher scores than Groups 3 and 4 (p <.05).

No significant differences were observed among the groups on their moral behavior scores. Cross-tabulations with personal variables were used to examine if any of these factors served to differentiate the role orientation types.

The most important differentiating factor between the "pure" types (Groups 2 and 3) seemed to be that of education (highest degree held). Thirty-one nurses (52.5%) in Group 3 (locals) held diplomas or associate degrees, compared to 20 (33.9%) in that group who held baccalaureate or master's degrees. On the other hand, 37 nurses (74%) in Group 2 (cosmopolitans) held baccalaureate or master's degrees in nursing compared to 10 (20%) in this group with diplomas or associate degrees. The "mixed" types could not be easily differentiated by education.

Similarly, the four groups could be differentiated on the basis of whether the nurses were currently engaged in a program of study, with the sharpest differentiation observed between Groups 2 and 3. Eighteen nurses (40%), who were in Group 2 (cosmopolitans), were engaged in master's study, 7 (16%) in baccalaureate study, compared with 20 (44%) who were not in a program of study. On the other hand, examination of Group 3 (locals) revealed that 45 nurses (79%) were not engaged in any type of study, with 6 (10.5%) in master's study and 6 (10.5%) in baccalaureate study. A comparison of Groups 1 and 4 did not reveal noteworthy differences.

Further analyses using analyses of variance and Scheffé's procedure were carried out between personal variables and the study variables.

Significant differences in nursing role conception scores were noted among groups according to whether they were currently engaged in academic study. Nurses in master's study (n = 32) had significantly higher professional normative scores ($\overline{X}$ = 44.4) than those not in a program of study (n = 127, $\overline{X}$= 40.4), or those engaged in baccalaureate study (n = 29, $\overline{X}$ = 41.55, $p<.05$). Nurses who were not in a program of study had significantly higher bureaucratic normative scores ($\overline{X}$ = 37.7) than nurses engaged in master's study ($\overline{X}$ = 33, $p<.05$). Those in master's study had significantly higher bureaucratic discrepancy scores ($\overline{X}$= −7.5) than those in baccalaureate study ($\overline{X}$ = −2.34) or those not in a program of study ($\overline{X}$ = −1.8, $p<.05$). These findings are similar to the trend observed in comparing the four role orientation types in that both highlight the influence of academic study on role conceptions.

Differences by position were noted in professional categorical scores and in professional discrepancy scores. Supervisors had significantly lower professional categorical scores ($\overline{X}$ = 22.9) than other groups ($\overline{X}$ = 27.9), and significantly higher professional discrepancy scores ($\overline{X}$ = 19.4) than staff nurses ($\overline{X}$ = 14, $p<.05$).

Significant differences were noted in the moral behavior scores of nurses of different age groups. Nurses over 46 years of age had significantly higher moral behavior scores ($\overline{X}$ = 22.3) than nurses between 26 and 35 years of age ($\overline{X}$ = 19.8, $p<.05$).

Discussion

It was theorized that nurses' professional–bureaucratic role conceptions, and their perceptions of the discrepancy between ideal and actual values, influence the manner in which they practice their professional values. Moral behavior, the criterion variable, was posited as an important professional value. When five specific hypotheses derived from the above were tested, the professional categorical role conception was found to be positively related to moral behavior, while the professional normative role conception and professional role discrepancy were negatively related. The bureaucratic role discrepancy was found to be positively related to moral behavior. Other components of bureaucratic role conception were not found to be related to moral behavior.

Hierarchical multiple regression analyses showed that the combination of professional normative and bureaucratic normative role conceptions, professional categorical and bureaucratic categorical role conceptions, and professional and bureaucratic role discrepancies accounted for greater variance in moral behavior than either element in each pair of variables alone. The interactions between these variables were not significant.

Analysis showed that the professional role conception, especially the categorical, is a better predictor of moral behavior, contributing greater variance than the bureaucratic role conception. However, given the magnitudes of the relationships observed, the findings of this study need to be viewed as suggestive rather than definitive.

It has been suggested that in certain practice settings, such as public health nursing, nurses have greater freedom to make independent professional judgments than in other settings, such as hospital nursing. If this were true, public health nurses should have higher degrees of professional role orientation or moral behavior. No such differences were found. Perhaps the organizational setting serves to reinforce rather than change the role orientations and practice of nurses.

Nursing supervisors in this study were shown to have the lowest professional categorical scores and highest professional discrepancy scores when compared with other groups. A greater number of supervisory personnel at present possess appropriate academic and professional qualifications than previously. Hierarchical demands require the supervisor to oversee the implementation of institutional policies and regulations. Yet, these may at times be contrary to the supervisor's own judgments and values, creating a situation of conflict. Adding to the supervisor's conflict might be the fact that the implementation of certain rules might limit the ability of nurses under supervision to exercise independent judgments. Thus, the actions and behavior of the supervisor influence the behavior of staff.

It is noteworthy that differences in role conception were found according to whether nurses were engaged in a program of study, and the type of study. Those studying for a master's degree had higher professional normative

scores and higher bureaucratic discrepancy scores than other nurses; those not in a program of study had higher bureaucratic normative scores than other groups. These trends are not surprising, considering the socializing effects of the educational experience. Yet, when nurses were compared according to highest degree held, there were no differences in role conception measures. This suggests that while nurses are engaged in study they experience changes in their role conceptions and undergo professional socialization. It appears, however, that these changes are not enduring, and do not seem to be sustained within the context of the work setting.

Comparison of the role configurations of nurses in this sample of nurses from mixed educational backgrounds (Figure 1) with data on baccalaureate graduates reported by Kramer and Baker (1971) suggests interesting differences. Almost 36% of their sample of 209 nurses were in Group 3 (HBLP), compared to 28% in the present study, while the percentage of the present subjects in the other groups was somewhat higher than in Kramer and Baker's (1971) sample (Group 1, 24.9%; Groups 2 and 3, 19.6% each). The trend in the present sample appears to' be toward a lower bureaucratic role conception and a higher professional role conception. This is especially interesting, given the mixture of educational backgrounds of the present sample. Such a shift in trend could reflect changes in nursing education over the past decade, as well as nurses' increasing efforts toward control over their practice.

In this sample Group 3 (HBLP) appeared to have the least amount of conflict. Members of this same group in Kramer and Baker's (1971) sample were deemed highly successful by their superiors and were rewarded with administrative promotions. Such a similarity may be noted with respect to Group 2 (LBHP). This group in the present sample experienced high levels of both professional and bureaucratic discrepancy. Kramer and Baker (1971) reported that the majority of dropouts from nursing in their sample had high professional role conceptions, belonging either to HBHP or LBHP groups.

Classifying the respondents into four orientation types provided support for Miller and Wager's (1971) contention that it is an oversimplification to view professionals in bureaucracies as either professionally oriented or bureaucratically oriented. It can be seen from Figure 1 that there were almost as many "pure" types (Groups 2 and 3, 51%) as there were "mixed" types (Groups 1 and 4, 49%). When these groups were examined in terms of differences in personal and professional variables, such as education, experience, work setting, area of practice, or position, the only noteworthy findings related to education. This suggests that the educational experience to a large extent shapes nurses' role orientation.

It is possible that high professional role orientation continues to be considered nonfunctional within the realities of work environments; further, this may be the reason why nurses tend to abandon these values following their schooling. Yet, the findings of this study suggest that the higher the professional categorical score, the higher the moral behavior. Therefore, it is desirable to encourage nurses to maintain the professional role conceptions acquired during their education, as well as to practice according to those tenets. It is evident that professional role conflict has an adverse effect on moral behavior;

effort needs to be directed toward reducing such conflict and closing the gap between beliefs held and perceived reality. It appears that if high professional role orientation is accompanied by high bureaucratic orientation, the conflict experienced within the work setting is less intense. Twenty-one percent of the sample had both high professional and high bureaucratic orientations, suggesting that this group did not find these orientations incompatible. This might suggest the need for nurses to cultivate loyalty to both professional and bureaucratic values. Given the important influence that education was shown to have, such attitudes could be developed through the educational process, and maintained by employing agencies. **NR**

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