Perception of Role Strain Among Male Critical Care Nurses: A Quantitative Descriptive Approach

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Abstract

The purpose of this study was to examine and describe role strain among male RNs in critical care settings. This quantitative study utilized a descriptive design to examine the four causes of role strain – role conflict, role overload, role ambiguity, and role incongruity. The target population was male RNs in critical care settings in a northeastern state of the United States. The sample for this quantitative descriptive study was obtained from the Board of Registration in Nursing in this northeastern state database. The Sherrod Role Strain Scale (SRSS), a 5-point Likert scale survey, was the instrument used to examine participants' perceptions of the four causes of role strain. Data analysis of the results included descriptive and inferential statistics. Inferential statistics involved the use of repeated measures ANOVA testing for significant difference in the causes of role strain between male RNs employed in critical care settings, and a post hoc comparison of specific demographic data using multivariate analyses of variance (MANOVAs). The findings of this study were significant for two causes of role strain: role ambiguity (M = 2.88, SD = 0.23); and role overload based on ethnicity (M = 2.87, SD = 0.27); $F(1, 35) = 9.77$, $p = .004$. The varied standard deviation exhibition in the participants' scores warrants further exploration and research. This study will serve as the foundation for future studies related to role strain in the healthcare setting.

Research Questions

The research questions for this quantitative descriptive study are:

1) Do male RNs in a critical care setting perceive the four causes of role strain: role conflict, role overload, role ambiguity, and role incongruity and
2) To what extent, do male RNs in a critical care setting experience the four causes of role strain: role conflict, role overload, role ambiguity, and role incongruity?

Hypotheses

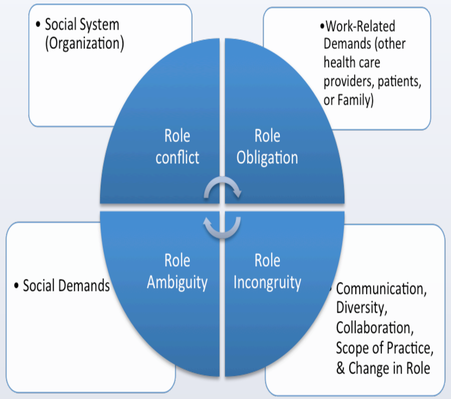
- H0: Male RNs in a critical care setting do experience the four causes of role strain: role conflict, role overload, role ambiguity, and role incongruity.
- HA: Male RNs in a critical care setting do not experience the four cases of role strain: role conflict, role overload, role ambiguity, and role incongruity.

Purpose of Study

- Quantitative descriptive study examined male RNs working in specialty areas including: intensive care, the operative room, and the emergency room
- Analyze to what extent these nurses experience role strain (i.e., role conflict, role overload, role ambiguity, and role incongruity).
- The research focus in role strain has been among male nursing students and male RNs employed in medical-surgical units (Baker, 2001; Brady & Sherrod, 2003; Egeland & Brown, 1989; Ierardi et al., 2010; Le-Hinds, 2010; Sherrod, 1988; Sherrod, 1991; Tzeng et al., 2009).
- This area of research has received little attention with males in the critical care setting.

Theoretical Framework

- Research used a combination of Goode's theory of role strain and Neuman's Systems model.
- Goode's major assumption that multiple role obligations can be a cause of role strain, and that this is a condition that people face in society (Goode, 1960; Lengacher, 1993).
- Goode (1960) found that institutions consist of role relationships and approaches to social action and social structure leading to role strain.
- Riahi (2011) suggested that Neuman's Systems Model should serve as the theoretical framework in further studies of role in health care.



Instrumentation & Methodology

- A two-part structured questionnaire was used to collect data for this quantitative descriptive study.
- Part one consisted of demographic characteristics, namely: age, ethnicity, employment status, whether the individual is an RN, highest level of nursing education completed, type of organizational facility, employment setting, years working as an RN, salary, and primary assigned shift
- Part two consisted of the Sherrod Role Strain Scale (SRSS), which provided the intellectual map and assessment of ideas for this quantitative descriptive study
- Sherrod (1988) developed the SRSS to examine role strain in nursing students during obstetrics practice.
- The SRSS contains 40 items with sub-scales for role conflict, role overload, role ambiguity, and role incongruity.
- This study adopted the same 5-point Likert scale used in the original instrument
- The higher a participant reports a score on the Likert scale, the higher the degree of role strain the participant is experiencing.

RESULTS

Cronbach's Alpha, Means, and Standard Deviations for the Role Strain Scales

Scale	No. of items	α	*M*	*SD*
Role Conflict	10	0.65	2.67	0.42
Role Overload	10	0.33	2.87	0.27
Role Ambiguity	10	0.11	2.88	0.23
Role Incongruity	10	0.52	2.14	0.29

Results of Repeated Measures ANOVA for Role Strain

Source	*SS*	*df*	*MS*	*F*	*p*	Partial η^2
Strain	13.22	3	4.41	53.81	< .001	.60
Error	8.85	108	0.08			

Post Hoc MANOVAs for Differences in Role Strain by Demographics

		ANOVA *F*			
Demographic	MANOVA *F*	Role conflict	Role overload	Role ambiguity	Incongruity
Age	2.15	1.11	6.91*	0.23	0.54
Ethnicity	2.93*	0.85	9.77**	0.11	0.59
Education	1.72	1.37	0.70	5.00*	0.20
Income	1.43	4.03*	0.65	0.91	0.07
Experience	0.82	2.14	0.41	0.64	2.24
Primary shift	0.86	0.08	0.99	1.87	1.60

Note. * $p < .05$. ** $p < .01$.

Summary of Results

- The sample consisted of 37 male registered nurses in a northeastern state who worked in critical care settings.
- The research question: To what extent, do male RNs in a critical care setting experience the four causes of role strain: role conflict, role overload, role ambiguity, and role incongruity; was tested using a valid instrument.
- The SRSS was used to examine the predictor variable role strain; the four causes of role strain (role conflict, role overload, role ambiguity, and role incongruity).

Summary of Results (cont'd)

- The results of this study found that male nurses in critical settings may experience role overload and role ambiguity based on descriptive statistics; role overload (M = 2.87, SD = 0.27) and role ambiguity (M = 2.88, SD = 0.23).
- An ANOVA was done and indicated that role incongruity (M = 2.14, SD = 0.29) was significantly lower than role conflict (M = 2.67, SD = 0.42), role overload (M = 2.87, SD = 0.27), and role ambiguity (M = 2.88, SD = 0.23).
- A MANOVA analysis found that ethnicity plays a role for male RNs in the critical care settings; $F(4, 32) = 2.93$, $p < .036$; Specifically, role overload based on ethnicity (Caucasian vs. non-Caucasian); $F(1, 35) = 9.77$, $p < .004$.

Limitations & Recommendations

- The reliability results of coefficient alpha (α) ranging from 0.11 to 0.65 is low.
- The convenience (Sampling method) may lead to biases of the target population.
- Sample size of this study is relatively small at 37.
- Future research should include replication of this study to include a larger and more diverse population of health care providers.
- Further investigation of a larger population, examining role strain in both clinical and classroom settings, may demonstrate a significance in the effects of the four causes of role strain among health care professionals.
- A more extensively developed list of variables may give researchers a better understanding of the strategies that they could provide to this population of registered nurses, who may be experiencing one or more of the causes of role strain in the clinical environment.

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