

Review Article

# Psychosocial Risk and Quality of Relationships among Nursing Students during Clinical Learning

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## Abstract

In addition to academic stress, nursing students have to face work-related stress during their clinical practice in hospitals. Specifically, clinical placements provide real-world environments in which students can develop clinical skills and attitudes toward the nursing profession. Nevertheless, nursing students describe clinical placements as unsatisfying experiences, reporting feeling unwelcome, poor support and feedback. The aim of this study was to test a conceptual model of the relationship among role stress, relationship between nurse tutor and students, student's perceived respect and satisfaction with clinical practice. A cross-sectional, descriptive online survey was completed by 278 second- and third-year undergraduate nursing students enrolled at an Italian university. We tested relationship between variables by using the principles of structural equation modeling. The overall results suggested that the model fitted the data well. We observed the expected positive relationship between perceived respect and satisfaction with clinical practice. Role ambiguity was significantly associated with clinical practice satisfaction. Role conflict was negatively associated with perceived respect. Relationship with nurse tutor was significantly associated with role ambiguity, role conflict, and clinical practice satisfaction. This study explored the role of clinical practice as working and learning context for nursing students. Healthy workplaces characterized by respect, trust and high-quality relationships may reduce psychosocial risk in undergraduate nurses. Due to the current global nursing shortage, our results may have important implications for graduate recruitment, retention of young nurses and professional progression.

**Keywords:** Clinical learning; Internship; Nursing students; Psychosocial risk

## Introduction

Quality of education in nursing students depends from the quality of their clinical experience within the University curricula. The literature highlights that nursing students are exposed not only to psychosocial stress due to their academic study, but also to occupational stress due to clinical practice during their clinical learning [1]. In effect, from a training perspective, clinical internship can offer to the student a real work environment in which he/she can apply professional attitudes, knowledge, and skill developed during theoretical training part [2]. On the other hand, from a clinical perspective, clinical learning acquired on field allows the education of new potential professionals able to adapt to specific area in which nursing training is occurred [3]. Nevertheless, even if clinical learning may represent the most important aspect of the nurse training, scientific evidence shows that students' training experience is frequently unsatisfying. Their do not feel part of the team, they do not receive adequate support and constructive feedback, and are terrified to make mistakes [1,4,5].

Based on these premises, clinical learning may represent for nursing students a first source of psychosocial risk which can influence not only successive dysfunctional work behaviors, but also the desire to continue the academic study. Although moderate amounts of stress (eustress) may motivate people and enhance their

wellbeing and performance [6], the need for alleviate distress by improving training practice and creating supportive environments, becomes important to foster success and professional socialization of future nurses.

## Study aim

Based on the Job Demand-Resources (JD-R) of Bakker and Demerouti [7], the aim of the study was to test an exploratory model of relationship between variables in which role stress, relationship with supervisor, and perceived respect are related to satisfaction with clinical practice. JD-R states that each work environment can have its own specific risk factors associated with stress. These factors can be categorized into two general categories named job demands and job resources, which are differently related to specific organizational outcomes. Precisely, the theory proposes that psychological stress occurs when (physical, emotional, mental, etc.) job demands require sustained psychological (cognitive and emotional) efforts and skills that are not balanced by adequate individual or organizational resources (e.g., support, autonomy, feedback, etc.). On the other hand, resources may be functional in accomplishing work goals, decrease job demands, and promote individual empowerment in terms of personal improvement, learning, and development. Thus, they are important because have motivational potential [8] and lead to high work engagement and positive organizational outcomes [7].

**Table 1:** Means, standard deviation and correlations between study variables.

		M	SD	1	2	3	4	5
1	Role Ambiguity	3.37	0.78	(0.70)				
2	Role Conflict	2.57	0.99	0.46**	(0.74)			
3	Perceived Respect	2.60	1.00	-0.53**	-0.49**	(0.80)		
4	Satisfaction with clinical practice	3.50	0.85	-0.51**	-0.39**	0.66**	(0.78)	
5	Relationship with nurse tutor	3.26	1.10	-0.50**	-0.40**	0.56**	0.57**	(0.91)

\*\*P < 0.01. Cronbach's Alpha values for each variable are reported in parenthesis.

In this study, we considered role conflict and ambiguity as job demands that require sustained cognitive and emotional efforts and are perceived by nurses in training as a source of stress. Also, we considered both supportive relationship by nurse tutor and perceived respect as organizational resource aspects able to protect nurses from stress and increase students' satisfaction with clinical learning.

## Methods

### Design and sample

A descriptive and cross-sectional analysis was carried out through an online self-reported questionnaire. A total of 287 second- and third-year undergraduate students enrolled at the Nursing Sciences course from one Italian University were involved in the study. First-year nursing students were not included in the study because they did not still start their internship yet.

### Ethical consideration

Students were contacted during the lessons and informed about the purpose of the research in order to guarantee ethical clarity. They were informed on how to access to the University platform and complete the online questionnaire. Informed consent to participate was assumed when students send their completed questionnaires.

### Measures

The online questionnaire included a socio-demographic section and a set of validated scales from international literature. For the measures for which an Italian validation was not available, the translation-back-translation procedure [9] was performed. All the used scales included items rated using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree).

**Relationship with nurse tutor.** Three items adapted from Leader-Member Exchange scale by Graen & Uhl-Bien [10] was used. A sample item was "My tutor understood problems and needs related to my work".

**Role stress.** Four items for the role ambiguity subscale and three items for role conflict from Rizzo et al., scale [11] were adapted for the study aim. Sample items were "I understood which were my responsibility as an intern" and "I worked on superfluous and unnecessary things", respectively.

**Perceived respect.** It was measured by using three items adapted from the Reward Component Esteem Scale by Siegrist [12]. A sample item was "In my ward nurses did not have an adequate respect of interns".

**Satisfaction with clinical practice.** We used three items adapted from Cortese [13]. A sample item was "Globally, I feel satisfied with my internship experience".

### Data analysis

Statistical analyses were carried out using AMOS 18.0 (Development Corporation, Crawfordville, FL, USA) 18.0 for Windows software packages. A Confirmatory Factor Analysis (CFA) with the maximum likelihood method of estimation was used for examining the structure of the measures. The relationship between variables was tested via Structural Equation Modeling (SEM) principles.

According to Kline [14], the following fit indices were used to test both the factor structure and the structural model: Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root-Mean-Square Error of Approximation (RMSEA). To indicate a good fit of the model, the TLI and CFI critical values should be  $\geq .90$ , and RMSEA  $\leq .08$  [14].

To estimate the significance of the mediation effects of commitment variables in the role conflict-internship satisfaction relationship, 95% bias-corrected bootstrap Confidence Intervals (CI) were constructed [15] around the estimated indirect effects of role conflict through perceived respect. To do so, 5000 random re samples of the data with replacement were used. This approach represents the most appropriate way to test for mediation effects because of the known asymmetry of the theoretical distribution of indirect effects.

## Results

We recruited a total of 300 nursing students enrolled at the nursing sciences course from one Italian University. Among these, 287 completed the questionnaire (response rate = 95.7%). Regarding gender characteristics, 47.5% are males and 18.7% are females. Ninety-four students (33.8%) did not answer to the item. The most part of the sample (53%) The students' ages ranged from 20 to 23 years, from 28 to 35 years for 26%, and from 24 to 27 years for 15%. A small part of the sample includes over 36 years (6%).

Means, standard deviations and correlations between variables are presented in (Table 1). The Cronbach's Alpha values for the measures are presented in the table, as well.

### Factor structure analysis

Confirmatory Factor Analysis (CFA) was carried out to test the measurement model with five factors. The five-factor structure was compared with a one-factor model to assess the distinctiveness of the study variables. The results showed a good model fit ( $\chi^2$  (df=109) = 191.4, CFI = 0.96, TLI = 0.95, RMSEA = 0.05). All the indicators loaded significantly on their reference constructs ( $p < 0.001$ ). The five-factor structure also improved significantly ( $p < .001$ ) over the one-factor structure ( $\chi^2$  (df = 119) = 931.5; CFI = 0.64; TLI = 0.59; RMSEA = 0.16). The five-factor model was supported. Reliability analysis of

measures showed good internal consistency (inter-item correlation in the same scale ranged from 0.70 to 0.91).

### Structural model and mediation analyses

The structural model showed a good fit to the data:  $\chi^2$  (df = 97) = 159.37, CFI = 0.97, TLI = 0.96, RMSEA = 0.05).

Specifically, there is a negative association between quality of relationship with nurse tutor and both role ambiguity ( $\beta = -0.63$ ,  $p < 0.05$ ) and role conflict ( $\beta = -0.46$ ,  $p < 0.05$ ), and also a positive relationship with satisfaction with clinical practice during the internship ( $\beta = 0.38$ ,  $p < 0.05$ ). Then, we found a negative relationship between role ambiguity and internship satisfaction ( $\beta = -0.41$ ,  $p < 0.05$ ), while role conflict was negatively associated to perceived respect by staff members during the internship ( $\beta = -0.22$ ,  $p < 0.05$ ), which, in turn, was positively associated to satisfaction with clinical practice ( $\beta = 0.22$ ,  $p < 0.05$ ). Thus, perceived respect play an important mediating role in the role conflict-internship satisfaction relationship. Boot strapped Confidence Intervals (CI) for the indirect effect of role conflict on satisfaction with clinical learning through perceived respect was calculated. The mediation effect was significant ( $\gamma = 0.61$ , CI = 0.43–0.60,  $p < 0.001$ ), and the direct effect was non-significant ( $\beta = -0.09$ ,  $p > 0.05$ ), thus indicating a full mediation effect by perceived respect.

The explained variance for the final model was 39% for role ambiguity, 22% for role conflict, 5% for perceived respect, and 59% for satisfaction with clinical learning (Figure 1).

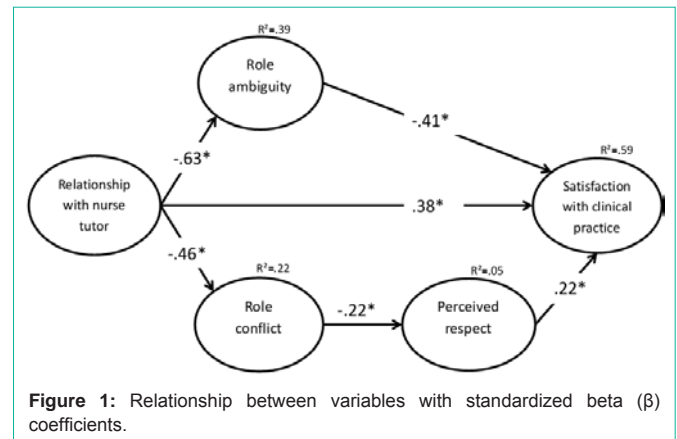
## Discussion

Paying attention to creating healthy and empowering workplace that retain young nurses to the profession is important for supporting the future nursing work force, also in the light of an aging workforce [16]. Nevertheless, literature states that new graduate nurses report high levels of stress and burnout [17] which are detrimental for their health and wellbeing. Our study aimed to examine risk factors but also organizational resources that may affect students' well-being by starting from their academic track. In this sense, understanding risk factors in the nursing internship may protect future nurses from occupational stress.

Specifically, driven on JD-R model [7], we explored the role of some psychosocial factors as factors related to satisfaction with clinical learning for future nurses.

The results suggest that training environments characterized by respect, trust, and quality of relationship can mitigate negative factors associated to distress and reduce organizational discomfort among nursing students.

The results highlighted that when the exchange relationship between nurse tutor and student is poor there is a high risk for role ambiguity and conflict for the student, as well as a minor satisfaction for clinical learning. On the contrary, when that relationship is supportive there is an increased satisfaction with clinical learning. This attitude is important for continuation of university studies and fortification of the profession and identity of the future nurse. Finally, a mediation effect of perceived respect was found for the relationship between role conflict and satisfaction with clinical learning. This means that when increases perceived conflict, students' perceived



respect from staff decreases, which in turn decreases internship satisfaction.

### Study limitations

Even if this study adds new knowledge to the well-being in nursing student topic, the study has a few limitations. First, we carried out a cross-sectional research, thus we were not able to do causal relationship between variables. Second, the questionnaires were completed via on-line and this method is free from any type of control. This could generate a bias in compliance with the study and completing questionnaires. In fact, sometimes questionnaires were returned without completing the socio-demographic part, and as the questionnaires were anonymous, it was impossible to revisiting characteristics of the students who did not fill out the section. Third, we used a self-reported questionnaire and this could influence students' answers because of social desirability [18]. Future studies should integrate perception data with objective data such as tutors' assessment or performance measurement. Finally, the study was carried out in only one Italian University. Thus, we were not able to compare the results with other students and generalize the results. Nevertheless, this research could represent a pilot that places the basis for future investigations overcoming limitations of this study.

### Implications for universities and organizations

Because of current shortage of nursing staff in the health care context [19,20], this findings could have important implications for recruitment and retention of young nurses and for their professional growth. In this sense, some strategies could be implemented in terms of collaboration between University and hospitals that receive students during their internship. For example, clinical learning should be well integrated to the academic schedules, with education interventions appropriately reflected and implemented. This could facilitate relevance of the academic curricula with the internship programs. Also, Universities and hospitals should collaborate and continuously interact for investigating on factors that facilitate and improve learning in the clinical environment. The nurse tutor should be able to support students in the organizational socialization process and plan learning based on clinical objectives and specific educational path. Furthermore, tutors could involve students in clinical courses and assess their effectiveness based on objectives and achieved results. Finally, involving students in definition of teaching strategies (i.e., guided seminars or meetings) and performance evaluation

can increase both students' confidence and identification towards profession, thus improving commitment to clinical practice [21].

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