

## ORIGINAL RESEARCH

# Evaluating preceptors' and preceptees' satisfaction concerning preceptorship and the preceptor-preceptee relationship

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## Abstract

**Background:** Retention of newly graduated nurses is becoming a costly challenge regardless of efforts such as orientation and residency programs. Satisfaction with the preceptorship relationship is important if the preceptor is to remain committed to fulfilling the role and if the preceptee is to complete the experience and then exhibit satisfactory clinical performance. Most studies have focused on describing either preceptor or preceptee perspectives regardless of the fact that both parties impact the outcomes. The purpose of this study was to describe what factors are associated with preceptors' commitment to, and satisfaction with, the preceptor role; with preceptees' satisfaction with the preceptorship experience and with their nursing performance; and with preceptors' and preceptees' job satisfaction.

**Methods:** This study used a descriptive correlational design with a convenience sample of preceptors ( $n = 85$ ) and preceptees ( $n = 85$ ) from a tertiary medical center in the north-eastern U.S. Subjects were surveyed within six months of a preceptorship experience. Data were analysed for associations between preceptors' experience and perceptions of the preceptorship role; and with multiple regression for predictive models of the preceptorship relationship.

**Results:** Total job satisfaction was rated "high" or "quite high" by 99% of preceptors and 97% of preceptees, with intrinsic factors rated higher than extrinsic factors. Preceptors ranked "assisting new staff to integrate into the unit" and "teaching and sharing knowledge" as the greatest benefits to the preceptorship program. Preceptees ranked interpersonal relationships, communication, and professional development as their strongest skills, and teaching and collaboration and critical care as their least strong skill set. Positive correlations were found between the preceptors' perceptions of benefits and rewards and their perceptions of support ( $r = .448, p < .01$ ) and commitment to the role ( $r = .652, p < .01$ ). The preceptors' perceptions of support predicted extrinsic, intrinsic and total job satisfaction; and explained 36%, 48%, and 50% of the variability in the outcome, respectively. The total score on the preceptee satisfaction scale was the only variable predicting extrinsic, intrinsic, and total job satisfaction; with 45%, 39%, and 20% explained by the model.

**Conclusions:** Our findings suggest that systems should be established so that preceptors perceive that their preceptorship role is rewarded and supported. Preceptee satisfaction with the preceptorship experience was correlated with favorable evaluation of the relationship between the preceptee and preceptor. Beyond experience and competence, precepting requires considerable teaching skill. Experience is a necessary, but not sufficient, condition for a good preceptor. These findings indicate that when preceptors and preceptees have the benefit of formal preceptorship programs that are well supported, and when the preceptors' efforts are rewarded, satisfaction is enhanced for both participants, preceptors'

commitment to the role is reinforced, and the preceptee has a foundation for strong clinical performance. Ultimately, the patient is the direct beneficiary of a well-designed preceptorship program.

## Key words

Preceptor, Preceptee, Preceptorship satisfaction

## 1 Introduction

Preceptorship programs, preceptors' and preceptees' experiences have been studied extensively in nursing since the 1970s. However, an interesting observation is that most of the studies have focused on describing either preceptor or preceptee perspective regardless of the fact that both parties have impact on the outcomes<sup>[1-3]</sup>. It is important to re-visit this topic because of the current, urgent and costly workforce issues, such as retention of newly graduated nurses and high turnover-rates. Maintaining a workforce in health-care organizations is becoming a costly challenge regardless of such efforts as, for example, orientation and residency programs. The novelty of this study is its exploration of both preceptors' and preceptees' perspectives regarding the satisfaction of the preceptorship experience.

### Preceptee satisfaction

Satisfaction of preceptees has been studied as an outcome variable by self-report in survey methodology or inferred from the rates of retention and turnover in a given cohort. Rush<sup>[1]</sup> published an integrative review of formal new graduate nurse transition programs; common features of these programs include a defined resource person, a mentorship role, and peer support opportunities. A total of 163 papers were reviewed. The authors asserted that variability in design limited their analysis. The thirteen papers with retention or turnover data reported rates of approximately 90% and 10%, respectively. Nine papers reported that their transition programs were provided at a favorable cost compared to the savings due to improved retention. Rush and colleagues asserted that these retention rates compare favorably with the average corresponding rates in both Canada and the U.S. Several studies in the review reported that although satisfaction tends to decline during the six-to-nine month period, by the end of the first year of the preceptees' experience, satisfaction is significantly improved compared to baseline.

Bullock<sup>[2]</sup> conducted an evaluation of a five-year program to enhance the effectiveness of nursing orientation at a community hospital; the goal of the program was to decrease turnover by the end of the first year. The authors assert that during the first three years of the program turnover decreased from 14% at year one to 7% at year 2 and zero at year 3. The ratio of expense to benefit associated with the program was reported at 1:10. The authors attributed much of the success of this program to a scheduling innovation of four consecutive ten-hour shifts for participants.

Sandau and Halm<sup>[3]</sup> published a review of twelve research or program evaluation reports of preceptor-based orientation programs. All three of the programs with data regarding preceptee satisfaction reported a significant increase. Sandau<sup>[4]</sup> conducted a mixed-method study with survey methodology of the effect of an eight-hour preceptor workshop on satisfaction. In the quantitative report, the authors asserted that preceptees matched with post-workshop preceptors did not report increased satisfaction<sup>[4]</sup>. In the qualitative report, the authors asserted that preceptees indicated in narrative remarks on their surveys that an excess number of preceptors, lack of timely feedback due to time constraints occasioned by implementation of an electronic medical record occurring concurrently with the preceptorship experience, no paid time for participating preceptors to review program materials that were provided, and lack of tailoring of the program for preceptees who are experienced nurses limited satisfaction<sup>[5]</sup>. Giallonardo<sup>[6]</sup> studied the effect of a New Graduate Initiative at hospitals in Ontario, Canada, with survey methodology and analysis by multiple regression. The authors asserted that graduate nurses paired with preceptors scoring high on authentic leadership reported significantly higher satisfaction and that the graduates' work engagement mediated this effect.

The most recent qualitative studies have illuminated interesting perspectives on preceptorship experiences. Chandler<sup>[7]</sup> examined perspectives of new graduate R.N.s who identified as important themes that *[the preceptors] were there for me*, that *there are no stupid questions*, and that preceptorship was like *nurturing the seeds*. However, two of Chandler's participants who were older second-career nurses felt that they had been supervised too closely and they were not encouraged. Several participants who were employed in long-term care or rehabilitation settings reported a fragmented, negative experience; many participants did not even finish their preceptorship experience. Richards and Bowles<sup>[8]</sup> conducted a qualitative study of the perspectives of preceptors. The authors reported that they identified the themes "professional commitment", "raising our young", and "bridge between the book and the bedside" as capturing the meaning of the participants' preceptorship experience. The authors assert that in particular, the subtheme "need for support" is important, especially when there is a mismatch between preceptor and preceptee due to inadequate managerial groundwork. Taken as a group, these findings indicate that transition-focused programs and strategies are effective as long as they are supported by operational management of the nursing units involved. Specific obstacles to be avoided are the assignment of too many preceptors to an individual preceptee during his or her experience, overlapping the program with other projects such as implementation of electronic medical records, and depriving preceptors of the compensated time needed to participate fully.

### **Preceptor satisfaction**

Horton<sup>[9]</sup> reported on the creation of the Nurse Preceptor Academy to train and support preceptors in the Kansas City area. A total of 714 preceptors were trained in the first three years. The preceptors completing the program scored their satisfaction as 4.17 (4 = high; 5 = very high) and their happiness as a preceptor as 4.18. Sandau<sup>[4]</sup> studied the effect of an eight-hour preceptor workshop at a 926-bed hospital in the midwestern U.S.; the qualitative and quantitative findings of their mixed-method study were reported separately. In the quantitative report, the preceptors who completed the workshop reported increased satisfaction with their education for the preceptor role<sup>[4]</sup>. In the qualitative report, they identified themes including preceptors' increased knowledge of the importance of timely feedback, socialization of preceptees, and greater patience as well as exposure to different learning styles and reinforcement of their own positive attitudes after completing the workshop.

### **Predictors to preceptor satisfaction from prior use of instruments**

Dibert and Goldenberg<sup>[10]</sup>, working in Canada, conducted the first pioneering study in the 1990s regarding the relationships among preceptors' commitment to precepting as a function of their perception of benefits, rewards, and support. The authors found that commitment was positively correlated with such a perception and, interestingly, that further commitment, rather than burnout, tended to result when the number of individuals precepted increases. Participants in the study reported that they chose to precept because of the opportunity to assist new staff and students, to teach and improve their teaching skills, to share knowledge and thereby increase their own knowledge base, and to gain personal satisfaction. Usher<sup>[11]</sup> replicated this study in the late 1990s in Australia with similar results; they also found that satisfaction increased with additional access to resources for professional development and support from coworkers and the institution. Hyrkas and Shoemaker<sup>[12]</sup> replicated these studies more recently in Canada with similar findings; they also found that ongoing preceptor support was needed from faculty if the preceptee was a student and from the healthcare organization if the preceptee was a qualified nurse. In summary, these findings indicate that preceptors are generally committed to their preceptorship role and that programs focused on the development of preceptors are valued and desired by participants. If the preceptor role is to be sustained and ultimately impact preceptees' performance and satisfaction, providing preceptorship workshops needs to be accompanied by organizational support.

### **Research questions and purpose**

To the authors' knowledge, the present study is the first such investigation with a sample of nurses from the U.S. Our twofold purpose was to describe what factors are associated with (1) commitment to, and satisfaction with, the preceptor role in a sample of preceptors and with (2) satisfaction with the preceptorship experience and with nursing performance in

a sample of preceptees from a multi-campus tertiary medical center located in northern New England, U.S. The research questions were as follows:

- 1) What is the relationship between **preceptors'** perceptions of benefits and rewards for the preceptor role and preceptors' commitment to the role?
- 2) What is the relationship between **preceptors'** perceptions of support for the preceptor role and commitment to the role?
- 3) What is the relationship between the **preceptors'** number of years of nursing experience and perception of benefits and rewards, preceptors' perceptions of support, and commitment to the role?
- 4) What is the relationship between the **preceptors'** number of preceptorship experiences and perception of benefits and rewards, preceptors' perceptions of support, and commitment to the role?
- 5) In a predictive model of **preceptors'** evaluation of the preceptor-preceptee experience (i.e. relationship, encouraging learning, and asking questions/giving feedback) and of job satisfaction (i.e. extrinsic, intrinsic, and total job satisfaction), what are the effects of personal characteristics, scheduling characteristics, and perception of benefits and rewards, preceptors' perceptions of support, and commitment to the role?
- 6) In a predictive model of **preceptees'** self-rated performance (i.e. performance on leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relations/communications, and professional development) and of job satisfaction (i.e. extrinsic, intrinsic, and total job satisfaction), what are the effects of personal characteristics, scheduling characteristics, and evaluation of the preceptorship experience (i.e. preceptee-preceptor relationship, encouraging learning, and asking questions/giving feedback and overall satisfaction)?

## 2 Methods

The study employed a descriptive correlational design and a convenience sample of preceptors and preceptees surveyed between September 2008 and January 2009. Packets were distributed to the managers and/or unit-based educators asking for participation and cooperation in this research. An informational letter explaining the study was included. A follow-up letter was sent after four months. An interoffice envelope addressed to the investigator was enclosed in both mailings.

### Sample

One hundred participants each from the groups of preceptors and preceptees were recruited from the various nursing units. Inclusion criteria were (1) registered nurses who are currently precepting newly-hired nurses or have precepted a new nurse within the prior six months; and (2) newly-hired registered nurses who have completed a preceptorship program within the prior six months.

### Ethical considerations

Expedited approval from the medical center's Institutional Review Board (#3528X) was obtained. Anonymity of participants was assured. De-identified raw data were secured in locked offices of members of the research team.

### Instruments

- 1) Preceptor and Preceptee Demographic Information surveys collected data on the subjects' age, gender, level of nursing education attained, years of nursing experience, and employment status. Preceptor specific questions focused on years of preceptorship experience and preceptor training. Preceptee specific questions focused on duration of preceptorship and number of preceptors encountered.

- 2) Preceptee Satisfaction Questionnaire <sup>[13]</sup> consists of 18 core items plus 3 preceptee-specific questions. The response options range from 1 “strongly disagree” to 5 “strongly agree” (maximum total score = 105). Items address preceptee needs and satisfaction with the amount and quality of teaching and guidance received from the preceptor.
- 3) Preceptor Satisfaction Questionnaire <sup>[13]</sup> is an 18 item survey plus 2 additional preceptor-specific items. Responses range from 1 “strongly disagree” to 5 “strongly agree” (maximum total score = 100). Items were matched with corresponding questions on the Preceptee Satisfaction Questionnaire. Both the Preceptor and Preceptee Satisfaction surveys produce an overall score and three subscale scores: preceptor-preceptee relationship, incentive approach to learning in practice, and asking questions and giving feedback.
- 4) Minnesota Job Satisfaction Scale <sup>[14, 15]</sup> is a 20 item questionnaire that measures job satisfaction. The questionnaire is comprised of two subscales of extrinsic and intrinsic items. The extrinsic scale factors emerge from surroundings in the work environment like salary, policies or interpersonal relations; while the intrinsic scale factors arise from the performance of the job itself such as recognition, responsibility, advancement, and potential for growth. Questions are administered in a Likert-type format ranging from 1 “very dissatisfied” to 5 “very satisfied”.
- 5) The Six Dimension Scale of Nursing Performance <sup>[16]</sup> measures the preceptees’ self-appraisal of job performance. This 52 item instrument included two scales: (A) how often and (B) how well “do you perform these activities in your current job?” Responses on scale A range from 1 “not expected at my level of experience” to 5 “frequently”. Responses on scale B range from 1 “not very well” to 4 “very well”. The six subscales are Leadership, Critical Care, Teaching/Collaboration, Planning/Evaluation, Interpersonal Relationships/Communications, and Professional Development. Cronbach’s alphas for subscales were previously reported as .901, .919, .926, .936, .959, and .978, respectively <sup>[16]</sup>.
- 6) The Dibert and Goldenberg Questionnaire <sup>[10]</sup> is a 38 item, Likert-type instrument used to measure agreement of the preceptors’ perceptions of benefits and rewards, preceptors’ perceptions of support, and the preceptors’ commitment to the preceptor role. Cronbach’s alpha for subscales previously reported as .91, .86, and .87, respectively <sup>[10]</sup>.

## Study design

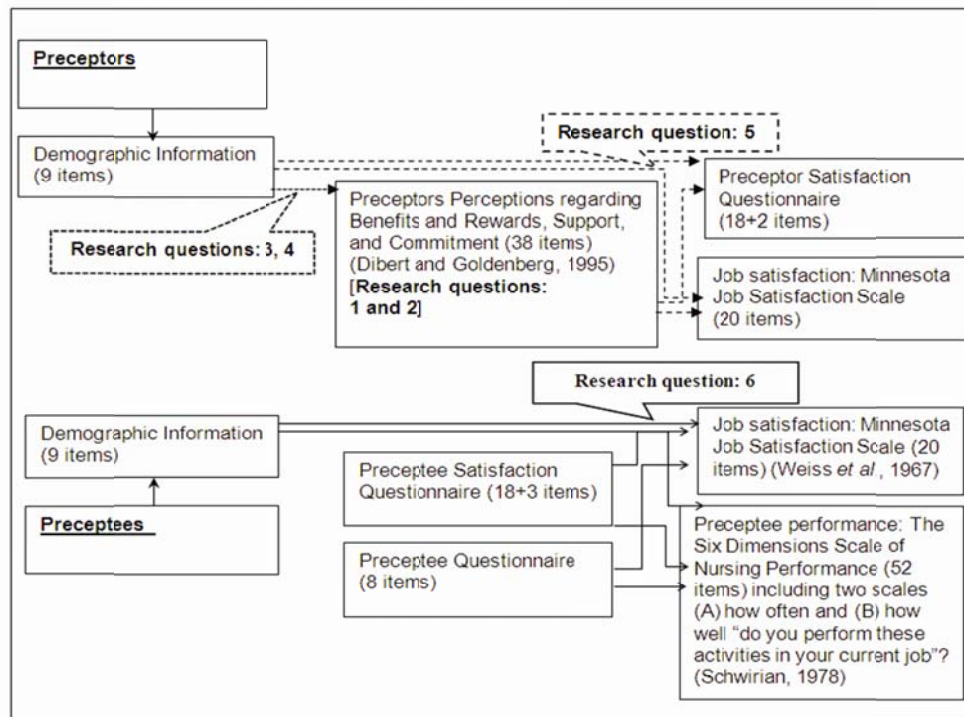
The main focus of interest is the relationship between the preceptor and preceptee, aimed at teaching and learning in clinical settings, and characterized by continuous feed-back and evaluation supporting and encouraging learning (see Figure 1). These are studied using the Preceptor and Preceptee Satisfaction scales <sup>[13]</sup>. In addition, the preceptors’ perspective on such key factors/concepts related to preceptorship such as: motivation, commitment, role, attitudes, job satisfaction, support, and development are examined using the Preceptors’ Perceptions of Benefits and Rewards, Preceptors’ Perceptions of Support, and Commitment to the Preceptor Role scales <sup>[10]</sup> and the Minnesota Job Satisfaction Scale (short form) <sup>[14-15]</sup>. Preceptees’ perspectives of clinical performance and job satisfaction are studied using the Six Dimension Scale of Nursing Performance <sup>[16]</sup> and the Minnesota Job Satisfaction Scale <sup>[14, 15]</sup>.

## Data analysis

The answers to the questionnaires were coded and entered into an SPSS 20.0 Software for Windows <sup>TM</sup> file <sup>[17]</sup>. The frequencies and distributions of each variable were inspected for obvious data entry errors. Where missing values represented more than about one-fifth of the sample and a conceptually meaningful way to impute them was not available, that variable was removed from further analysis. Where categories contained very few data points, variables were recoded to combine categories in a conceptually meaningful way. In preparation for the regression analyses, where subscales for candidate predictors were very closely correlated in a multicollinearity screen (Pearson’s  $r > .9$  and significant at  $p < .05$ ; data not shown), the subscales were disregarded and the score for the total scale was entered into the model instead. The assumptions underlying the use of a multiple regression procedure (that the residuals are normally distributed, linearly

related with constant variance, and independent and that there are no outliers or unduly influential values) <sup>[18]</sup> were checked by inspection of normal probability plots, plots of residual vs. predicted values, and the Durbin-Watson statistic for values close to two. The authors were in agreement that the assumptions were met (data not shown). All of the scales and subscales of interest in the study questions had Cronbach's alpha scores of greater than .7; the authors are in agreement that any assertions made were supported (data not shown). The associations between various subscales of the survey instruments were examined with Pearson's product moment correlation coefficient for questions 1 and 2. Interpretation of the correlation coefficient was performed according to criteria of Burns and Grove <sup>[19]</sup>. The associations between years of preceptor nursing experience and number of preceptorships during the prior year and the various subscales were examined with Spearman's rank order correlation coefficient for questions 3 and 4.

A multiple regression model of each dependent variable of interest was run with a block of personal characteristics, a block of scheduling characteristics, and a block of preceptorship variables for questions 5 and 6. As long as each model was not significant in predicting the variable, the candidate predictor with the highest p value was removed and the model was rerun until the final model was a significant predictor of the variable.



Note. Dashed arrows denote preceptors' and solid arrows denote preceptees' research questions.

Figure 1. Study Design and Research Questions

### 3 Results

One hundred sets of questionnaires were distributed to each group (preceptors and preceptees); 85% were returned by both the preceptors (n = 85) and the preceptees (n = 85). Ninety percent or more of the preceptors and preceptees were female and the majority in both groups worked full-time. The preceptors were generally a decade older than the preceptees. More preceptees than preceptors had achieved a master's degree in nursing; but both groups had similar proportions of bachelor's degree nurses (BSN). For preceptors, there was a wide range for the year of graduation (1962 - 2006); without any year(s) in which the majority graduated. Preceptees' years of graduation spanned 1976 - 2008, with 71.4% (n = 50)

graduating between the years of 2006-2008, closest to the time of the study and also to their preceptorship experience (see Table 1). The years since graduation reflect the study's data collection period from September to October 2008.

**Table 1.** Demographic characteristics of preceptors and preceptees

Demographic Characteristics	Preceptors			Preceptees		
	N	n	%	N	n	%
<b>Age</b>	74			71		
20-29 years		13	17.6		34	47.9
30-39 years		18	24.3		24	33.8
40-49 years		25	33.8		12	16.9
50-59 years		15	20.3		1	1.4
≥ 60 years		3	4.1		0	0
<b>Gender</b>	72			72		
Female		65	90.1		67	93.1
<b>Education</b>	74			72		
Diploma		9	12.2		15	20.8
<b>Associate's degree or other degree</b>		12	16.2		5	6.9
Bachelor's degree		52	70.3		47	65.3
Master's degree		1	1.4		5	6.9
<b>Employment</b>	72			71		
Full time		57	79.2		63	88.7
Part time		14	19.4		5	7.0
<b>Year graduated (within 5 years of study)</b>	71			70		
2004		7	9.9		1	1.4
2005		8	11.3		5	7.1
2006		3	4.2		11	15.7
2007		0	0		18	25.7
2008		0	0		21	30.0

As expected, preceptors had more years of nursing, specialty, and preceptorship experience than the preceptees; but both had encountered similar numbers of preceptees/preceptors (see Table 2). The majority (n = 46, 63.9%) of preceptors did not have any experience in teaching or education. Less than half (n = 34, 46.6%) of the preceptors had attended a preceptor workshop.

**Table 2.** Preceptors' and preceptees' preceptorship experience

	Preceptors			Preceptees		
	Mean	SD	Range	Mean	SD	Range
Years nursing experience	14.62	10.7	2-39	4.29	6.47	0-32
Years specialty experience	9.88	7.93	2-36	3.47	5.33	0-25
Preceptorship experience*	8.09 yrs	8.28	1-34	10.41 wks	4.95	3-24
No. preceptees/preceptors	2.59	2.43	1-6	2.54	1.33	1-5

\*calculated based on years as a preceptor; weeks as a preceptee.

For the Preceptor and Preceptee Satisfaction surveys, internal consistency was satisfactory for the total and subscale scores (see Table 3). The items ranked by preceptors with the highest agreement were *questions are welcomed*, *knowledge is shared*, *understanding*, and *support and encouragement is a constant*. The items ranked by preceptees with the highest

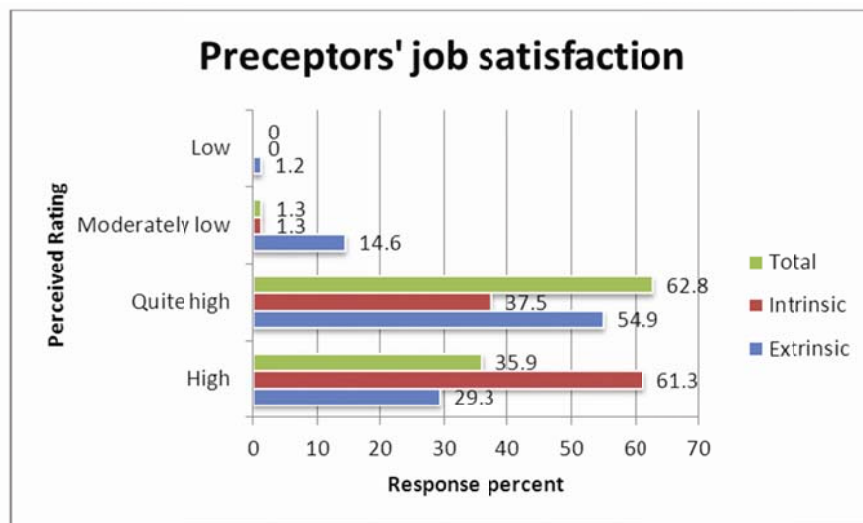
agreement were *knowledge is valuable*, *questions are welcomed*, *learning is shared*, and *knowledge is shared*. In terms of their satisfaction with the preceptorship experience, both preceptors and preceptees agreed with the statement that *learning is shared* ( $M = 4.50$ ,  $SD = 0.67$ ,  $p = .03$  and  $M = 4.58$ ,  $SD = 0.77$ ,  $p = .001$  respectively). Items that contributed to preceptors' satisfaction with the preceptorship experience were *encouraged to plan, implement and evaluate care in their own way* ( $M = 4.41$ ,  $SD = 0.76$ ,  $p = .04$ ) and *being always open* ( $M = 4.55$ ,  $SD = 0.67$ ,  $p = .02$ ). For preceptees, items that significantly impacted their satisfaction with the experience were that they were made to *feel comfortable talking about work* ( $M = 4.45$ ,  $SD = 0.84$ ,  $p = .003$ ) and *comments were tactful* ( $M = 4.53$ ,  $SD = 0.82$ ,  $p = .002$ ).

**Table 3.** Internal consistency and preceptor-preceptee total and subscale satisfaction scores

	$\alpha$	Mean	SD	Min	Max
<b>Preceptors</b>					
Preceptor satisfaction questionnaire	.969	90.10	10.71	20.00	100.00
Preceptor-preceptee relationship	.937	40.38	4.92	9.00	45.00
Incentive approach to learning in practice	.852	22.10	93.74	5.00	25.00
Asking questions and giving feedback	.920	18.57	2.21	4.00	20.00
<b>Preceptees</b>					
Preceptor satisfaction questionnaire	.983	93.74	16.69	21.00	105.00
Preceptor-preceptee relationship	.957	35.40	6.55	8.00	40.00
Encouraging learning	.962	22.59	4.02	5.00	25.00
Asking questions and giving feedback	.946	21.96	4.50	5.00	25.00

Notes.  $\alpha$  = Cronbach's alpha, Min = minimum, Max = maximum, SD = standard deviation.

Preceptors' and preceptees' total job satisfaction was compared for total satisfaction, intrinsic and extrinsic factors (see Figures 2 and 3). Intrinsic factors are related to the job itself while extrinsic factors are related to the work environment. Fewer preceptors (35.9%) rated their total job satisfaction as 'high', compared to preceptees (53.3%). However, the proportion of preceptors and preceptees who rated their total job satisfaction as either 'high' or 'quite high' was very similar (98.7% and 97.3% respectively). Both preceptors and preceptees rated intrinsic factors as 'high' (61.3% and 67.9% respectively). Extrinsic factors of job satisfaction were rated 'high' by proportionately fewer preceptors (29.3%) and preceptees (42.9%), compared to their ratings of both total job satisfaction and intrinsic factors.



**Figure 2.** Comparison of preceptors' job satisfaction



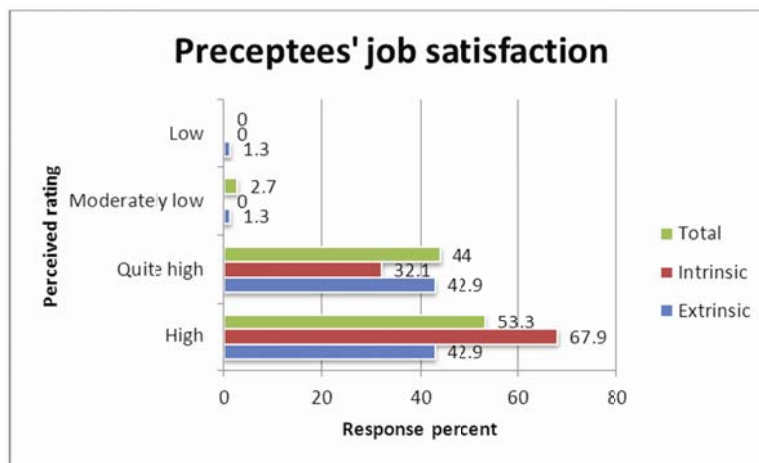


Figure 3. Comparison of preceptees' job satisfaction

The highest ranked items regarding preceptors' perceptions of benefits and rewards were assisting new staff and nursing students to integrate into the nursing unit ( $M = 5.28, SD = 0.80$ ) and teaching and sharing knowledge with them ( $M = 5.27, SD = 0.80$ ). Preceptors rated chances for promotion ( $M=4.24, SD=1.32$ ) and improving their organizational skills ( $M = 4.52, SD = 1.10$ ) as the lowest perceived benefits and rewards of the preceptorship program. The highest ranked items for preceptors' perceptions of support indicated that co-workers were committed to supporting the role ( $M = 4.61, SD = 0.89$ ), nurse managers are committed ( $M = 4.56, SD = 1.26$ ) and that goals are clearly defined ( $M = 4.51, SD = 1.17$ ). Preceptors disagreed with the statements that they functioned as a preceptor too often ( $M = 2.49, SD = 0.99$ ) and that nursing staff don't understand the goals of the preceptor program ( $M = 2.82, SD = 1.21$ ). The highest ranked items for preceptors were "being a preceptor really inspires me" ( $M = 4.96, SD = 1.01$ ), "I am willing to put in a great deal of effort beyond what is normally expected" ( $M = 4.74, SD = 0.97$ ), and "I really care about the fate of the preceptor program in this hospital" ( $M = 4.73, SD = 1.04$ ). Preceptors were least likely to agree with the statements that it was a mistake to be a preceptor ( $M = 1.97, SD = 1.10$ ) and that they did not have much to gain by being a preceptor ( $M = 2.45, SD = 1.05$ ). Regarding performance, preceptees ranked interpersonal relationships and communication ( $M = 3.46$ ) and professional development ( $M = 3.43$ ) as their strongest skill sets (reported as how well they perform). Preceptees rated teaching and collaboration ( $M = 2.90$ ) and critical care ( $M = 3.02$ ) as their least strong skill sets (see Table 4). Interestingly when preceptees responded to how often they performed the specific nursing dimension (or task), they also confirmed that the skills they perceived to be their best were the same ones they performed the most often. Similarly, the skills they self-reported as being their weakest were also performed the least often (see Table 4).

Table 4. Preceptees' Six Dimensions of Nursing Performance

	How often (A)		How well (B)	
	$\alpha$	Mean	$\alpha$	Mean
Overall performance	.905	4.42	0.975	3.20
Leadership	.628	4.37	0.828	3.22
Critical care	.653	4.10	0.853	3.02
Teaching/collaboration	.901	4.03	0.942	2.90
Planning/evaluation	.806	4.36	0.899	3.08
Interpersonal relations/communications	.714	4.73	0.912	3.46
Professional development	.797	4.76	0.898	3.43

Notes.  $\alpha$ =Cronbach's alpha.

Instrument: Schwirian<sup>[16]</sup> Six Dimensions of Nursing Performance. Measurement Scale A: not expected at my level of experience (1) to frequently (5). Scale B: not very well (1) to very well (4).

Correlation findings for research questions 1-4: A strong positive correlation was found between the preceptors' perceptions of benefits and rewards and their perceptions of support and (see Table 5). Years of nursing experience and the number of times the preceptor has served in the role during the trailing year were not significantly correlated with perceptions of benefits and rewards, perceptions of support, or (data not shown).

**Table 5.** Preceptors' Perceptions Subscale Correlation Matrix

Subscales	Perceptions of Benefits & Rewards (PBR)	Perceptions of Support (PPS)	Commitment to the Preceptor Role (CPR)
PBR	1		
PPS	.448**	1	
CPR	.652**	.469**	1

Notes. Instrument: Dibert and Goldenberg Questionnaire <sup>[10]</sup>.

\*\*findings significant at  $p < .01$  level (2-tailed)

Regression findings for research question 5: There was no model which emerged from the regression analysis that predicted preceptors' scores on the subscales for evaluation of the preceptee-preceptor relationship or encouraging learning. In a model controlling for personal and scheduling characteristics, the score for commitment to the preceptor role significantly predicted the asking questions and giving feedback subscale of the Preceptor Satisfaction Questionnaire; this model explained about 19% of the variability in the outcome. The score for preceptors' perceptions of support significantly predicted extrinsic, intrinsic, and total (Minnesota) Job Satisfaction; the models explained about 36%, 48%, and 50% of these outcomes, respectively (see Table 6).

**Table 6.** Preceptors' regression results (n = 85)

Variables	Full model statistics		Predictor statistics
	<i>F</i> (df, N), <i>p</i> value	R squared	Standard beta coefficient, <i>p</i> value
<b>Preceptor Satisfaction Questionnaire subscales</b>			
Questions/feedback	<i>F</i> (3,49)3.552, <i>p</i> = .022	.191	
Commitment to preceptor role			.355, <i>p</i> = .023
<b>Minnesota Job Satisfaction subscales</b>			
Extrinsic job satisfaction	<i>F</i> (7,38)2.417, <i>p</i> = .043	.361	
Perception of support			3.429, <i>p</i> = .002
Intrinsic job satisfaction	<i>F</i> (7,38)3.979, <i>p</i> = .003	.481	
Perception of support			2.288, <i>p</i> = .029
Total job satisfaction	<i>F</i> (7,38)4.253, <i>p</i> = .002	.498	
Perception of support			3.614, <i>p</i> = .001

Regression findings for research question 6: In a model controlling for personal and scheduling characteristics, the total score on the Preceptee Satisfaction Questionnaire was a significant predictor of self-rated preceptee performance on the leadership and interpersonal relations/communication subscales of the Six Dimensions of Nursing Performance scale; this model explained about 40% and about 24% of the variability in these outcomes, respectively (see Table 7). The number of years of specialty experience predicted performance on the teaching/collaboration subscale; this model explained about 33% of the variability in the outcome. Both the personal variable years of specialty experience and total score on the Preceptee Satisfaction Questionnaire predicted performance on the critical care and planning/evaluating subscales; these models explained about 47% and 38% of the variables, respectively. The total score on the Preceptee Satisfaction Questionnaire was the only variable predicting extrinsic, intrinsic, and total (Minnesota) Job Satisfaction; these models explained about 45%, 39%, and 20% of the variability in the outcomes, respectively (see Table 7).

**Table 7.** Preceptees' regression results (n = 81)

Variables	Full model statistics		Predictor statistics
	<i>F</i> (df, N), <i>p</i> value	R squared	Standard beta coefficient, <i>p</i> value
<b>Six Dimension Scale of Nursing Performance subscales</b>			
<b>Leadership</b>	<i>F</i> (7,40)3.104, <i>p</i> =.013	.404	
Preceptee Questionnaire total			2.807, <i>p</i> =.008
<b>Critical Care</b>	<i>F</i> (7,35)3.410, <i>p</i> =.010	.469	
Years of specialty experience			3.117, <i>p</i> =.004
Preceptee Questionnaire total			3.245, <i>p</i> =.003
<b>Teaching/collaboration</b>	<i>F</i> (6,38)2.561, <i>p</i> =.039	.331	
Years of specialty experience			2.354, <i>p</i> =.025
<b>Planning/evaluation</b>	<i>F</i> (7,41)2.833, <i>p</i> =.020	.375	
Years of specialty experience			2.605, <i>p</i> =.014
Preceptee Questionnaire total			2.202, <i>p</i> =.035
<b>Relationship/communication</b>	<i>F</i> (4,46)3.165, <i>p</i> =.023	.236	
Preceptee Questionnaire total			2.763, <i>p</i> =.009
<b>Minnesota Job Satisfaction subscales</b>			
<b>Extrinsic job satisfaction</b>	<i>F</i> (5,56)2.481, <i>p</i> =.044	.446	
Preceptee Questionnaire total			3.011, <i>p</i> =.004
<b>Intrinsic job satisfaction</b>	<i>F</i> (4,63)2.638, <i>p</i> =.043	.392	
Preceptee Questionnaire total			2.958, <i>p</i> =.004
<b>Total job satisfaction</b>	<i>F</i> (5,62)2.716, <i>p</i> =.029	.195	
Preceptee Questionnaire total			3.442, <i>p</i> =.001

## 4 Discussion

The purpose of this paper was to describe and report factors associated with preceptors' commitment to, and satisfaction with, their roles; and preceptees' satisfaction with the preceptorship experience and nursing performance. Our overall findings are positive; satisfaction was rated high and factors antecedent to preceptors' commitment and preceptees' performance were also rated high. It is important that an organization understands the effectiveness of the preceptorship system. Investigations of satisfaction, commitment, and performance are a means of gaining this understanding and guiding ongoing implementation and re-evaluation of preceptorship programs. Criteria used for evaluation of preceptorships need to be standardized, or variability in implementation will occur among different units, hindering the interpretation of effectiveness of the overall program<sup>[20]</sup>.

## Limitations

Our study was limited by a relatively small sample and by missing data for some variables ranging up to approximately half our sample size. This resulted in the elimination of several variables before statistical analysis could begin. A larger sample with a more complete set of responses would have strengthened our assertions and might have resulted in more candidate predictor variables significant in the various final models. Another limitation was the use of self-report alone to evaluate preceptees' nursing performance. Confirmation of performance with another source of information might have strengthened our assertions. Finally, it may be that respondents who returned complete surveys may have been a group self-selected to be thorough not only in completing and returning surveys but also in fulfilling preceptorship responsibilities, and on this basis they may have differed from non-respondents, possibly biasing our findings toward increased satisfaction.

Our findings regarding questions 1 and 2 are congruent with those of Hyrkäs and Shoemaker<sup>[12]</sup> Usher and colleagues<sup>[11]</sup>, and Dibert and Goldenberg<sup>[10]</sup>. There was a strong positive correlation between preceptors' perceptions of benefits and rewards and perceptions of support and commitment to the preceptor role. The implication is that systems should be set up and maintained so that preceptors will perceive that their fulfillment of this role is rewarded and supported.

Our findings regarding questions 3 and 4 were similarly congruent with those of Hyrkäs and Shoemaker<sup>[12]</sup> and Usher and colleague<sup>[11]</sup>; that is, years of nursing experience and number of preceptorships conducted in the prior year are not associated with perceptions of benefits and rewards, perceptions of support, or commitment to the preceptor role. The implication is that preceptors will develop these perceptions and will be committed to the role regardless of their seniority and productivity in the role. This finding differs from that of Dibert and Goldenberg<sup>[10]</sup>, who found that the number of preceptorships was positively associated with commitment to the role. The authors found this counterintuitive; rather than experiencing burnout, the preceptors in their study seemed to thrive on the exposure.

Preceptee satisfaction with the preceptorship *experience* is correlated in the present study with favorable evaluation of the *relationship* between the preceptee and preceptor. New nurses are introduced into their professional role by a preceptor who is assumed to be experienced and clinically competent within a certain healthcare environment. Beyond experience and competence, precepting requires considerable teaching skill; this capability should not be assumed<sup>[21]</sup>. Experience is a necessary, but not sufficient, condition for a good preceptor. The selection should be based not only on the learning needs but also on the preferred learning style of the preceptee<sup>[22]</sup>. Personal characteristics and learning styles of both participants should be evaluated before selecting and matching preceptor and preceptee. When the preceptee is a qualified nurse new to a specialty area such as the operating room, the relationship is very important; the selection should be made based on a very good interpersonal match and on the preceptee's preferred learning style<sup>[23]</sup>. Poradzisz and colleagues<sup>[24]</sup> conducted an exploratory study of the distribution of personality types according to scores on the Myers-Briggs Type Indicator. The instrument was administered to a convenience sample of 250 preceptees and 174 preceptors. The authors reported that all sixteen of the possible personality types were present among the preceptees and fifteen types were present among the preceptors. When circumstances permit this, the knowledge of the personality types of preceptee and preceptor might be helpful in matching them; even if circumstances do not permit it, this knowledge might help adjust the approach to a precepting situation where a mismatch is anticipated.

Preceptor satisfaction is correlated in the present study with their perceptions of benefits and rewards and perceptions of support for the role. Proper preparation of a preceptor is a good way to cultivate such favorable perceptions, yet there is evidence that many preceptors do not feel adequately prepared for their role, particularly in the areas of teaching and evaluating<sup>[25]</sup>. Clinical performance is difficult for preceptors to assess; most preceptors have little or no experience with this role. Preceptors are often selected based only on availability, and not on interest or abilities; thus there is variability in the nature and depth of their preparation. Preceptorship is often an extra responsibility not inherent in the staff nurse job description<sup>[26]</sup>. Where this is the case, consideration must be given to supporting preceptors in this incremental responsibility. Speers and colleagues reported on the implementation of a two-level approach to support and recognition composed of a Basic Preceptor Program and an invitation-only Advanced Preceptor Program<sup>[27]</sup>. The authors assert that implementation of the advanced program was associated with increased satisfaction and decreased burnout experienced by preceptors. Palumbo and colleagues<sup>[28]</sup> reported the findings of a secondary analysis of re-licensure data to investigate trends in the Vermont Nurse Internship Program. This program is a state-wide initiative implemented to train and support preceptors and to ensure that new graduate R.N.s will have a dedicated preceptor for the initial six months and enhanced access to resources for the following six months of the initial year of their employment. Findings include that in 2005, but not in 2009, respondents to the survey who were preceptors, compared to those who were not preceptors, were younger and less likely to work part time. In 2009, but not in 2005, the preceptors compared to the non-preceptors were more experienced and had occupied the same position for a longer period of time. In both years preceptors compared to non-preceptors were engaged in continuing their own formal education and resided in areas of medium population density rather than in urban or rural areas. The authors concluded that the preceptors in this state with a standard training program

tended to demonstrate characteristics of professionalism, that this characteristic seemed to have strengthened between 2005 and 2009, and that the preceptors may have predominately been employed at community hospitals in an environment particularly conducive to preceptor selection and development.

## 5 Conclusion

Taken as a group, our findings and those in the literature reviewed indicate that when preceptors and preceptees have the benefit of formal preceptorship programs that are well supported, and when preceptor effort is rewarded, satisfaction is enhanced for both participants, preceptors' commitment to the role is reinforced, and the preceptee has a foundation for strong clinical performance. Preceptorship allows for a coalescing of philosophies, ideas, and goals toward the ultimate well-being and good of the profession<sup>[29]</sup>. With preceptorship, nursing education and nursing practice merge. The direct beneficiary is the newly hired nurse; the preceptor, staff, faculty, and nursing profession in general also enjoy the benefit, as well as the patient who is the ultimate beneficiary.

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## Competing interests

The authors declare that they have no competing interests.

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