

ORIGINAL RESEARCH

Perceptions of preparedness for nursing practice using a preceptorship model

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ABSTRACT

Nursing graduates need to be “real world ready”, and able to meet the demands of the healthcare workforce. Research indicates that baccalaureate graduates have adequate theoretical base, but often lack competence in the clinical setting. Preceptorship programs are an effective way of developing clinical competence in the nursing student. The purpose of this study was to compare a traditional senior clinical course to a preceptorship model on students, faculty, and nurses’ perceptions of student preparedness for the nursing role. A formal preceptorship program with the support of a clinical nurse faculty member was developed to enhance the success of clinical nursing education. A quasi-experimental design with nonequivalent groups was used to determine the feasibility and effectiveness of a preceptorship model for senior nursing students comparing the students’, the faculty, and the nurses’ perceptions of the students’ preparedness for clinical practice after a traditional clinical and a preceptor clinical experience. The sample consisted of the fall 2017 senior semester cohort and the spring 2018 senior semester cohort, senior faculty who taught in those semesters, and nurses at the participating facilities. Overall, findings did not show a statistically significant difference between the traditional cohorts and the precepted cohorts; however, there is evidence of clinical significance. After implementation of the preceptorship model, there was an increase in the percent of nurses (100%), faculty (100%), and students (95%) who felt that the senior nursing students were ready for the professional role of a registered nurse.

Key Words: Preceptorships, Preceptors, Clinical nursing students, Student nurse preparedness

1. INTRODUCTION

The need to prepare competent nurses for the workforce is the ultimate goal for any nursing program. The clinical environment can be stressful and cause much anxiety for nursing students.^[1] To assist in the clinical environment, preceptorship programs have been developed. The literature supports the need for effective teaching and learning in the clinical setting for nursing students. The clinical learning environment integrates theory into practice. The Institute of Medicine’s (IOM) Report on the Future of Nursing stated that the quality and safety of patients is directly impacted by nurses’ education and training.^[2] A preceptor is a registered nurse (RN) who guides and teaches students in the

clinical setting. Preceptors facilitate the linkage of nursing students’ theoretical knowledge to clinical skills.^[3] Pairing a student with a preceptor facilitates learning in a realistic environment.

Professional nursing organizations promote preceptorship programs in today’s academic settings as a teaching practice to improve clinical competency for nursing students.^[4] Preceptorships have been known to increase role performance and socialization. Preceptors’ behaviors, such as role modeling and constructive criticism, is a positive contribution to the students’ learning and critical thinking. The student-preceptor relationship allows for more opportunities to learn

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and leads to students feeling part of the team.^[5] The literature also supports an increase in confidence in the new graduate after having a preceptor guided clinical experience.^[6] The collaboration between the preceptor, faculty member, and student is of utmost importance to enhance the learning opportunities in the clinical setting. The faculty member is still involved with the nursing curriculum and in assuring each student is achieving the course learning outcomes.^[7]

Students have increased opportunities for skills and procedures with the use of a preceptorship model.^[8] In a traditional clinical setting faculty are responsible for as many as eight or more students in the leadership/management and high acuity course. Supervision of students in this type of setting can be frustrating on the faculty and students as it is often not feasible for faculty to observe skills, and students have limited opportunities to complete medication administration due to time constraints and workload of faculty. When each student has a personally assigned preceptor, the student has one on one guidance in challenging situations and decision making.^[6] The preceptorship program allows students to gain an appreciation for workload complexities when exposed to them earlier and more frequently in their education.^[8]

Preceptorship programs have also increased the collaboration between healthcare organizations and universities.^[9] Students enroll in a clinical section in relation to where they live or envision working. Having students in a preceptorship setting allows for networking and recruitment. Preceptorship programs allow senior students to build a rapport with their preceptor, clinical staff, and nurse managers. This rapport opens up lines of communication and engagement for the new graduate to explore job possibilities.^[9]

At one university in the Southeast region of the United States, a traditional model of clinical for senior nursing students consisted of one faculty supervising eight nursing students. After faculty and facility requested to evaluate curriculum change to a preceptorship model, a literature review of evidence to support the preceptorship model was completed. The evidence supported the move to a preceptorship model. In an effort to validate the change in curriculum, a proposal to compare the students', the faculty, and the nurses' perceptions of the students' preparedness for clinical practice after a traditional clinical and a preceptorship clinical experience was developed. The purpose of this quasi-experimental design with nonequivalent groups study was to 1) determine the feasibility and effect of a preceptorship model for senior nursing students on the students', the faculty, and the nurses' perceptions of the students' preparedness for clinical practice and 2) gain a deeper understanding of the preceptorship as experienced by the nursing students via qualitative methods

to guide future course development.

2. METHOD

Phase one was a quasi-experimental design using nonequivalent groups; those being taught before the implementation of the preceptorship model and those after the implementation of the preceptorship model. This manuscript is a discussion of phase one. A phase two is planned which will include interviews of students who completed the preceptorship program to gain a deeper perspective on their experiences with the preceptor and the preparedness for practice that this model of education provided.

Data were collected from a convenience sample including all senior nursing students, senior nursing faculty, and nurses at agencies where senior nursing students were taught the semester prior to implementation of the preceptorship model (fall 2017), and the semester after implementation (spring 2018). The sample size from fall 2017 (pre-intervention) included 13 students (22% response rate), 6 faculty (75% response rate), and 53 nurses. The sample from spring 2018 (post intervention) included 23 students (42% response rate), 4 faculty (57% response rate), and 69 nurses. All identified students, faculty, and nurses were emailed a SurveyMonkey© link to the Casey-Fink Readiness for Practice Survey^[6]

The Casey-Fink Readiness for Practice Survey (CFRPS) developed by Casey et al. (2011)^[6] was used for the student nurses' perceptions of preparedness after a traditional clinical semester and then again from students after a preceptorship model semester. The underlying premise of the tool was also used to gather data from nurses working with senior students and from faculty before and after the implementation of the preceptorship model. The CFRPS reported content validity based on expert consensus review and construct validity based on factor analysis. Factor analysis validated on two samples resulted in four subscales: clinical problem solving, learning techniques, professional identity, and trial and tribulations. Chronbach's for each scale ranged from 0.5 (trial and tribulations) to 0.8 (clinical problem solving). The CFRPS has been used in a subsequent study with confirmatory analysis related to validity.^[10]

In fall 2017, all nursing students in the senior semester were taught as usual. One faculty was assigned to eight students. The faculty had direct supervision of students on designated floors of a hospital and were present in the hospital from start to end of the shift. This was most commonly completed in two eight-hour day shifts. Some students may have been assigned to evenings. Students did not carry out any patient care without faculty present in the facility. The course

objectives included management of a caseload of patients, typically around four patients per student. At the end of the fall 2017, these students, nursing faculty, and nurses who worked on units where students were taught were invited by email to participate in the survey.

Spring 2018, all nursing students in their senior semester were assigned a registered nurse preceptor. State Board of Nursing regulations indicated the nurse must have a BSN with a minimum of one year of clinical experience in the area or an AD with a minimum of three years of experience in the clinical area. Senior nursing faculty assessed student ability and clinical area preference for preceptor assignment. The student, faculty, and preceptor negotiated a schedule where the student mirrored the registered nurse, most often on 12-hour shifts. Each student was required to complete 13 12-hour shifts. A preceptor would have oversight of one student nurse on a given shift. Areas ranged from medical floor, orthopedic floor, neuro-surgical floor to specialty units such as intensive care, cardiac care and emergency departments. At the end of spring 2018, these students, nursing faculty, and nurses who worked on units where students were taught were invited by email to participate in the survey.

Prior to implementation the researchers gained Institutional Review Board approval from their university as well as letters of support from all agencies where senior students were trained. Two facilities required additional approval via their own research/ethics committees. All IRB and agency approvals were obtained prior to data collection. A cover letter was sent with the survey link indicating the survey responses were anonymous with completion indicating consent.

3. RESULTS

This study included an analysis of demographic data and the perceptions of preparedness of the faculty, student, and nurse. Descriptive statistics, frequencies and percentages were calculated to describe the sample. A dependent t-test was the inferential statistic used to compare results from the student and nurses' perceptions of preparedness after the traditional experience to (fall 2017) and the preceptorship experience (spring 2018) and to assess for significant differences.

Six senior faculty out of nine from the fall 2017 semester responded to the survey, and four out of eight from the spring 2018 semester responded. Of the 59 senior students from the fall 2017 cohort, 13 students responded, resulting in a 22% response rate. Two (15%) of those students indicated they had a prior bachelor's degree before entering the nursing program. Of the 53 students from the spring 2018 cohort, 23 students responded, resulting in a 43% response rate. Fifty-two percent (n = 12) of the students who were part of the

preceptorship reported that they would accept a job at the facility where they were precepted as compared to 23% (n = 3) of those in the traditional clinical. All of the students in the traditional and preceptorship groups indicated they were satisfied with choosing nursing as a career.

Demographics were collected on the facility nurses who responded to the survey. The number of facility nurses that responded from fall 2017 totaled 53, and from the spring 2018 was 69. Seventy-five percent of the facility nurses were 44 years of age or younger with the largest proportion of facility nurses being in the 25 to 34-year age category for both data collection periods. The highest level of nursing education for the facility nurses surveyed was a Bachelor's degree. Additionally, 44% of the facility nurses in the traditional group had experience as a preceptor with new nurses compared to 29% of the facility nurses in the preceptorship group. (see Table 1).

Table 1. Facility nurse characteristics

	Traditional n = 53	Preceptorship n = 69
Age		
< 25 years	15%	12%
25-34 years	47%	46%
35-44 years	13%	16%
45-54 years	13%	22%
55-64 years	9%	1%
65+ years	1%	4%
Highest level of Nursing Education		
Diploma	2%	4%
Associate's Degree	9%	31%
Bachelor's Degree	85%	62%
Master's Degree	4%	3%
How long have you been a Nurse?		
< 1 year	7%	12%
1 – 5 years	43%	46%
6 – 10 years	24%	15%
11 – 15 years	4%	6%
> 16 years	22%	21%
How long have you worked on your current clinical unit?		
< 1 year	10%	16%
1-5 years	50%	62%
6-10 years	21%	7%
11-15 years	6%	9%
> 16 years	14%	6%
Experience as Preceptor with new nurses	44%	29%
Experience working with senior nursing students in the past six (6) months	79%	65%

As shown in Table 1, demographics of the Nurse participants in the study are described which includes age, years of experience and experience as a preceptor.

When comparing the faculty’s perception of the student preparedness from the traditional and preceptorship experience, there was an increase in all of the indicators measured in the preceptorship experience with the exception of simulation. Eighty-three percent of faculty during the traditional experience reported simulation helped the student feel prepared for clinical compared to 75% after the preceptorship experience.

None of the faculty in either data collection period reported students having difficulty recognizing significant changes in the client’s condition, being overwhelmed by ethical issues when providing care, or difficulty prioritizing the client’s needs. Interestingly, 25% of faculty during the preceptorship experience reported the student had difficulty documenting in the electronic medical record whereas none was reported dur-

ing the traditional experience, however due to small sample size this would be one faculty.

The nurses’ perception of student preparedness was similar for the traditional and the preceptorship experience. No large changes in percentages were noted. Higher improvement was noted in the students being comfortable in knowing what to do for a dying client, from 62% after the traditional experience to 72% after the preceptorship experience, and in communicating and coordinating care with the disciplinary team which went from 78% to 84%. Fewer nurses reported students had the ability to solve problems (78%), were comfortable taking action to solve problems (83%) and were confident communicating with physicians (69%) when compared to the traditional clinical experience with changes ranging from 4% to 8% (see Table 2).

As shown in Table 2 comparison of traditional and preceptorship model results for faculty and nurses is shown.

Table 2. Faculty and nurse perception of preparedness by number and percent

	Faculty		Nurse	
	Traditional n = 6	Preceptorship n = 4	Traditional n = 53	Preceptorship n = 69
Student was confident communicating with physicians	50%	100%	73%	69%
Student was comfortable communicating with patients from diverse populations	67%	100%	98%	94%
Student was comfortable delegating tasks to the Nursing Assistant	33%	100%	64%	63%
Student was provided feedback about their readiness to assume an RN role	100%	100%	98%	90%
Student was confident in their ability to problem solve	67%	100%	85%	78%
Student had opportunities to practice skills and procedures more than once	100%	100%	93%	94%
Student was comfortable asking for help	100%	100%	97%	96%
Student used evidence-based practice to make clinical decisions	83%	100%	95%	90%
Student was comfortable communicating and coordinating care with interdisciplinary team members	33%	100%	78%	84%
Student was comfortable knowing what to do for a dying client	50%	75%	62%	72%
Student was comfortable taking action to solve problems	83%	100%	91%	83%
Student was confident when identifying client’s actual or potential safety risks	100%	100%	93%	92%
Student is ready for the professional nursing role	83%	100%	93%	92%
Simulations have helped the student feel prepared for clinical practice	83%	75%	N/A	N/A
Writing reflective journals/logs provided insights into the student’s clinical decision-making skills	83%	100%	N/A	N/A
Reverse Worded Questions				
Student had difficulty documenting care in the electronic medical record	0%	25%	12%	18%
Student had difficulty prioritizing client care needs	0%	0%	25%	23%
Student was overwhelmed by ethical issues when providing client care	0%	0%	10%	9%
Student had difficulty recognizing a significant change in the client’s condition	0%	0%	18%	14%

Note. N/A denotes questions not on nurses’ survey.

Student responses to only three indicators after the preceptorship experience were lower than the responses after the traditional experience. Ninety-five percent of the students reported feeling comfortable communicating with patients from diverse populations and 96% used evidence-based practice to make clinical decisions after the preceptorship experience, while both of these indicators were reported at 100% after the traditional experience. Additionally, 48% of the nursing students after the preceptorship experience stated that simulation helped them feel prepared for clinical

compared to 54% after the traditional experience.

Fewer students reported having difficulty documenting care in the electronic medical record and difficulty prioritizing client care needs after the preceptorship experience when compared to the traditional experience. There was a 4% increase students who indicated they felt overwhelmed by ethical issues when providing client care after the preceptorship experience (see Table 3). As shown in Table 3, comparison of traditional and preceptorship model results for students is shown.

Table 3. Student perception of preparedness by number and percent

	Traditional n = 13	Preceptorship n = 23
I was confident communicating with physicians	54%	65%
I was comfortable communicating with patients from diverse populations	100%	95%
I was comfortable delegating tasks to the Nursing Assistant	69%	91%
I was provided feedback about their readiness to assume an RN role	92%	96%
I was confident in their ability to problem solve	100%	100%
I had opportunities to practice skills and procedures more than once	77%	91%
I was comfortable asking for help	100%	100%
I used evidence-based practice to make clinical decisions	100%	96%
I was comfortable communicating and coordinating care with interdisciplinary team members	92%	100%
I was comfortable knowing what to do for a dying client	54%	83%
I was comfortable taking action to solve problems	100%	100%
I was confident when identifying client's actual or potential safety risks	100%	100%
I am ready for the professional nursing role	85%	96%
Simulations have helped me feel prepared for clinical practice	54%	48%
Writing reflective journals/logs provided insights into my own clinical decision-making skills	46%	52%
Reverse Worded Questions		
I had difficulty documenting care in the electronic medical record	15%	8%
I had difficulty prioritizing client care needs	8%	4%
I was overwhelmed by ethical issues when providing client care	0%	4%
I had difficulty recognizing a significant change in the client's condition	0%	0%

A dependent samples *t*-test was conducted to compare the perception of preparedness of the senior nursing student after completion of a traditional clinical experience and completion of a preceptorship clinical experience. While there were differences in the result means, there was no statistically significant difference in the perception of preparedness by the student. Table 4 provides dependent samples *t*-test results of the student.

As shown in Table 4, results of the dependent *t*-Test for student participants is shown.

A dependent samples *t*-test was conducted to compare the perception of preparedness of the senior nursing students

after completion of a traditional clinical experience and completion of a preceptorship clinical experience. While there were differences in the result means, there was no statistically significant difference in the perception of preparedness by the nurses. Table 5 provides dependent samples *t*-test results for the nurses.

As shown in Table 5, results of the dependent *t*-Test for nurse participants is shown.

4. DISCUSSION

Authors have shown that nursing students who were accepted in their senior clinical experience had more oppor-

tunities to perform skills and procedures.^[2,3,8] The findings of this study reinforce previous literature as nursing students' perceptions of their ability to care for the dying patient, delegate tasks, communicate with the healthcare team, and perform clinical skills and procedures all increased. Additionally, nursing students felt overall more prepared and ready for the professional role of registered nurse.

Nursing curriculum consistently incorporates the use of simulation to expose nursing students to low volume high risk

patient encounters. No previous research found addressed the use of simulation in relation to preparation for precepted clinical experiences. Survey results from nursing students in this study indicated that simulation experiences had a lower benefit for students who were precepted as compared to students who were taught by the traditional model. Perhaps the increased exposure to skills and procedures in clinical practice for those students who were precepted may have influenced the perception that simulation was not as valuable to their preparedness.

Table 4. Dependent samples *t*-test results-students

Pairs	Mean	Standard Error Mean	<i>t</i>	Sig. (2-tailed)
Communicating with Physicians - Traditional Communicating with Physicians - Preceptor	-.154	.317	-.485	.636
Communicating with Patients from Diverse Populations -Traditional Communicating with Patients from Diverse Populations - Preceptor	.167	.271	.616	.551
Delegating Tasks to Nursing Assistant - Traditional Delegating Tasks to Nursing Assistant - Preceptor	-.462	.351	-1.315	.213
Difficulty Documenting in EMR - Traditional Difficulty Documenting in EMR - Preceptor	.308	.175	1.760	.104
Difficulty Prioritizing Patient Care Needs - Traditional Difficulty Prioritizing Patient Care Needs - Preceptor	.231	.201	1.148	.273
Feedback Provided - Traditional Feedback Provided - Preceptor	.077	.265	.291	.776
Confident in Ability to Problem Solve - Traditional Confident in Ability to Problem Solve - Preceptor	.154	.222	.693	.502
Overwhelmed by Ethical Issues - Traditional Overwhelmed by Ethical Issues - Preceptor	.000	.226	.000	1.000
Difficulty Recognizing Change in Patient's Condition - Traditional Difficulty Recognizing Change in Patient's Condition - Preceptor	-.077	.211	-.365	.721
Opportunities to Practice Skills and Procedures - Traditional Opportunities to Practice Skills and Procedures - Preceptor	-.462	.418	-1.105	.291
Comfortable Asking for Help - Traditional Comfortable Asking for Help - Preceptor	-.154	.191	-.805	.436
Uses Evidence Based Practice - Traditional Uses Evidence Based Practice - Preceptor	-.077	.178	-.433	.673
Comfortable with Interdisciplinary Communication - Traditional Comfortable with Interdisciplinary Communication - Preceptor	-.077	.211	-.365	.721
Simulation Helped with Clinical Preparation - Traditional Simulation Helped with Clinical Preparation - Preceptor	.308	.347	.887	.392
Reflective Journaling Provided Insights - Traditional Reflective Journaling Provided Insights - Preceptor	-.231	.378	-.610	.553
Comfortable Caring for Dying Patient - Traditional Comfortable Caring for Dying Patient - Preceptor	-.615	.331	-1.971	.071
Comfortable with Problem Solving - Traditional Comfortable with Problem Solving - Preceptor	-.308	.175	-1.760	.104
Confident Identifying Patient Safety Risks - Traditional Confident Identifying Patient Safety Risks - Preceptor	-.154	.222	-.693	.502

There are limitations to the research which must be considered. The use of non-equivalent groups prevented the ability to show causality, and a small sample size impacted the ability to show statistically significant changes between the traditional and preceptorship models on the outcome of preparedness. Additionally, due to the small number of preceptors and no comparison group, all nurses who had worked with nursing students in the traditional model as compared to the preceptorship model were invited to complete the post intervention only survey. The results from these surveys showed little changes in the nurses' perceptions of the nursing students' preparedness between the two groups. If only nurse preceptors had been surveyed, findings may have

depicted a more positive change in preparedness from the traditional to the precepted student. Or, this could be interpreted as both models of providing clinical education are equivalent. Additionally, nurses may not have worked with the nursing students who were precepted long enough for the effect of the preceptorship to be evident in the new nurses' clinical practice. However, the students and faculty perceptions both indicated consistently higher positive scores on preparedness for those who were precepted. These findings could be considered clinically significant as nursing students who feel more confident and prepared for the professional role they will be assuming will likely feel less anxiety and less role fatigue.

Table 5. Dependent samples *t*-test results-nurses

Pairs	Mean	Standard Error Mean	<i>t</i>	Sig. (2-tailed)
Communicating with Physicians - Traditional	.069	.198	.348	.730
Communicating with Physicians - Preceptor				
Communicating with Patients from Diverse Populations - Traditional	.034	.153	.226	.823
Communicating with Patients from Diverse Populations - Preceptor				
Delegating Tasks to Nursing Assistant - Traditional	.269	.162	1.659	.110
Delegating Tasks to Nursing Assistant - Preceptor				
Difficulty Documenting in EMR - Traditional	.103	.125	.828	.415
Difficulty Documenting in EMR - Preceptor				
Difficulty Prioritizing Patient Care Needs - Traditional	.036	.167	.214	.832
Difficulty Prioritizing Patient Care Needs - Preceptor				
Feedback Provided - Traditional	.103	.115	.902	.375
Feedback Provided - Preceptor				
Confident in Ability to Problem Solve - Traditional	.138	.147	.941	.355
Confident in Ability to Problem Solve - Preceptor				
Overwhelmed by Ethical Issues - Traditional	.000	.157	.000	1.000
Overwhelmed by Ethical Issues - Preceptor				
Difficulty Recognizing Change in Patient's Condition - Traditional	.138	.119	1.162	.255
Difficulty Recognizing Change in Patient's Condition - Preceptor				
Opportunities to Practice Skills and Procedures - Traditional	.033	.148	.226	.823
Opportunities to Practice Skills and Procedures - Preceptor				
Comfortable Asking for Help - Traditional	.034	.145	.239	.813
Comfortable Asking for Help - Preceptor				
Uses Evidence Based Practice - Traditional	.000	.117	.000	1.000
Uses Evidence Based Practice - Preceptor				
Comfortable with Interdisciplinary Communication - Traditional	-.103	.174	-.593	.558
Comfortable with Interdisciplinary Communication - Preceptor				
Comfortable Caring for Dying Patient - Traditional	.037	.155	.238	.814
Comfortable Caring for Dying Patient - Preceptor				
Comfortable with Problem Solving - Traditional	.071	.125	.570	.573
Comfortable with Problem Solving - Preceptor				
Confident Identifying Patient Safety Risks - Traditional	-.033	.122	-.273	.787
Confident Identifying Patient Safety Risks - Preceptor				

The findings of this study have been used to improve teaching practices and have enhanced recruitment opportunities of these new nurses by the healthcare facility partners who supported the change to the preceptorship model. This study indicates that moving from a traditional to a preceptorship model for senior nursing students is feasible and has positive outcomes with faculty and healthcare agencies' collaboration and support. Anecdotal narratives from students, preceptors, and faculty all indicated positive experiences with the preceptorship model. A follow-up phase II will include in-depth interviews of the nursing students who were precepted to provide a richer understanding of their lived experience.

5. CONCLUSIONS

The findings from phase one quantitative surveys of students', faculty and nurse preceptors' support previous research indicating incorporation of a preceptorship model for senior students' clinical as best practice. This study found that change to a preceptorship model across multiple health care agencies is feasible and possible with positive results from the agencies' and the students' perspective. This preceptorship model was unique in implementation in that the assignment of the preceptor/student pair and faculty involvement was decentralized at the faculty level. Each faculty coordinated the assignments, supervision of the experience, and evaluations

for a team of eight students. All aspects of the preceptorship were handled by the faculty, including handling day to day issues such as sick preceptors, preceptors who may take leave or even resign, etc. during the course of the semester. This decentralized preceptorship model allowed the faculty to develop close relationships with the healthcare facility, preceptors, and nursing students, which allowed for quick identification and addressment of any issues or concerns.

Many of the healthcare facilities provided nurses who agreed to precept a nursing student with shift differentials and or other incentives such as clinical ladder gains. These incentives contributed to the success of the change to the preceptorship model and provided faculty and students with experienced nurses who were positive role models and who wanted to provide the level of guidance needed in the preceptor role. Recommendations for future studies include research into how to better prepare nurses for the preceptor role and how to better match students with their desired clinical area, as well as the impact of a preceptorship model on the recruitment and retention of new nursing students by healthcare agencies.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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