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Perceptions of nurse preceptors of students and new graduates with learning difficulties and their willingness to precept them in clinical practice (Part 2)

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ABSTRACT

The aim of this study was to describe the perceptions of nurse preceptors of nursing students and new graduate nurses with learning disabilities in clinical settings. Learning disabilities pose potential challenges in nursing education, especially in clinical settings when working with preceptors. Preceptors ($N = 166$) who attended a state-wide preceptor workshop responded to an electronic survey that assessed their perceptions. Four concepts were explored: preceptor perceived level of preparedness; preceptor perceived confidence in implementation of their role; preceptor beliefs regarding the potential of learners with learning disabilities; and preceptor agreement with provision of accommodations for learners with learning disabilities. Preceptors felt unprepared and lacked confidence in their ability to implement their role as preceptor for those with learning disabilities. Those who had exposure to learning disabilities reported feeling more prepared, however they had expectations for the learner to work hard, have strategies and accommodations in place, ask for help when needed, and take responsibility for their learning. Preceptors reported they are willing to precept nurses with learning disabilities, and they expect support for those with learning disabilities. Educational modules and support to increase preceptor preparedness and confidence should be incorporated into preceptor training.

1. Introduction

Nurses are frequently called on to serve as 'preceptors' in clinical settings. In this role, they assume responsibility for clinical education of student nurses prior to graduation and newly employed nurses after graduation (new graduate nurses). A preceptor is an experienced nursing professional who teaches, supervises, and serves as a role model in a clinical setting. Preceptors receive little training for this role, and may not be prepared for educating students or new graduates who struggle, or who have additional learning needs, such as learning difficulties. There is limited research on issues encountered by preceptors who work with trainees with learning difficulties in clinical settings. This article reports findings of a study designed to identify the perceptions of preceptors toward their role as educator for trainees with learning difficulties in order to better understand the practice environment in which students and new graduates will be entering.

There is overlap and confusion in the use of the terms 'learning difficulty' and 'learning disability'. The term learning difficulty is more inclusive and includes learning disabilities (MacKay, 2009). This study was completed in the United States (U.S.) where the term learning disability is commonly used and defined as disorders that negatively impact learning, and the ability to speak, listen, think, read, write, spell or compute (U.S. Department of Education, 2006). The history of learning disabilities is complex, and experts have struggled with definitions, eligibility criteria, service delivery, and best practices (Ferri, 2011; MacKay, 2009). In this study learning disabilities was distinguished from physical and sensory disabilities, and psychological disabilities, which have their own diagnosis and implications. In practice, nurse faculty and preceptors are likely more concerned about the experience of the student who struggles versus the terminology.

2. Background

Literature on preceptorship, the training of preceptors, education of nursing students with learning difficulties in both classroom and clinical settings, the challenges they may face as they transition from student to graduate, and the framework of Stigma Theory (Goffman, 1963) informed this study as discussed in the first article of this pair (L'Ecuyer, 2019). The terminology related to learning difficulty and the variations found internationally was explained. A review of the literature was also conducted to identify concepts related to attitudes, perceptions, and concerns of learners with learning difficulties. From the literature, four key concepts were identified and used in development of a survey. First is *preparation* for working with students with learning difficulties. Preceptors are challenged by students experiencing difficulties (Kalischuk et al., 2013), frustrated with unclear role expectations (White, 2007),

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and because they do not receive instruction on how to support a student with a disability, they feel unprepared for their role (White, 2007). Studies on preceptor education have shown preceptors are more effective if they have received some preparation for their role (Cotter and Dienemann, 2016; Henderson et al., 2006; Horton et al., 2012; Martensson et al., 2016; Smedley et al., 2010).

The second concept is *confidence* in the implementation of the preceptor role when working with students with learning difficulties. Preceptor education and preparation for the role increase precpetor self confidence (Staykova et al., 2013), and preceptor confidence leads to more positive attitudes toward students (Smedley et al., 2010). The third concept is the preceptor's *belief* that students or new graduates with learning difficulties will be successful. These beliefs may have an effect on a preceptor's attitudes and acceptance of these learners in the clinical environment (Sowers and Smith, 2004).

The last concept is about *accommodations*. Although numerous researchers have studied the issue of academic accommodations for college students with learning difficulties, less research has been conducted with nursing students, particularly in the clinical environment. Beliefs that accommodations are helpful, and understanding the need for accommodations, may impact attitudes toward the need for and use of accommodations in clinical settings (Bourke et al., 2000; Nelson et al., 1990; Wood and Marshall, 2010). Interviews of clinical faculty (called link lecturers in the United Kingdom) who oversee precepted clinical's described a lack of clear guidance regarding accommodations and the need for more information about reasonable adjustments (King, 2018).

Preceptor perceptions of students with learning difficulties may impact clinical learning experiences and acceptance into the field of nursing, and have not been previously addressed in the literature. In addition, nurses may be preceptors for new graduate nurses who move into the workplace. How learning difficulties impact the clinical environment has also not been addressed. To fill this gap, this exploratory study was designed to better understand the clinical environment where students and new graduate with learning difficulties will be expected to practice.

3. Methods

This study was a survey investigation of the perceptions of staff nurse preceptors toward the clinical education of students and new graduates with learning difficulties and their willingness to serve as a preceptor for them. The term learning disability was used and defined in the survey which explored four concepts of perceptions of students and new graduates with learning disabilities: 1) perceived levels of preparation for preceptor role, 2) perceived level of confidence in preceptor role, 3) strength of beliefs about potential for success, and 4) level of agreement with the provision of reasonable accommodations in clinical settings. In addition, preceptors were asked if they were willing to precept students or new graduates with learning disabilities. Open-ended questions were used to further explore perceptions of preceptors and to allow participants to explain their answers, or provide comments that were not addressed in the closed-ended questions.

3.1. Design and sample

A preceptor is defined broadly as a nurse who is involved in the clinical education of either a student or a newly hired graduate nurse. The study participants were preceptors who attended a Preceptor Academy between 2008 and 2013. The Preceptor Academy is an 8-h program for practicing nurses to teach essential preceptor knowledge and skills to facilitate clinical training, sponsored by the Missouri Hospital Association. This workshop was offered 128 times to 3603 preceptors in a variety of cities throughout the state of Missouri in the United States. Nurses have attended the Academy from 145 hospitals. Following the workshop attendees were sent monthly newsletters via email from an email database maintained by the hospital association. At the time of this study, the database contained 3318 email addresses.

Institutional Review Board (IRB) approval (#23501) was obtained. Information regarding informed consent was contained on the first page of the survey. Participation was voluntary. Participants were informed that their responses were anonymous, and they were able to withdraw from the study at any time.

3.2. Data collection

The Hospital Association granted the use of the preceptor email database and agreed to distribute a recruitment email letter and survey link developed by the researcher. One reminder email was delivered after two weeks. Upon the announced survey close date and time, access was no longer permitted, and data analysis began. Preceptors were given the opportunity to enter their email address into a separate database not linked to the survey data to enter into a drawing for one of four $50 gift cards.

3.3. Survey/questionnaire

The Qualtrics© software program was used to design a 23-question survey. Questions were reviewed by expert nurse faculty, nurse preceptors, and a statistician to determine content validity. In addition, five nursing faculty, with experience as nurse preceptors and educators of nursing students with learning difficulties, completed the survey to test its reliability and validity. Comments from expert opinion helped shape the final version of the survey. Again, because the survey was completed in the U.S., the more specific term learning disability was used, as that is the term known to potential survey respondents.

The following demographic data were collected: gender, age, number of years as a nurse, education, current nursing position, past and current work settings, and experience precepting both nursing students and new graduate nurses. Five additional questions were asked to gather information about the preceptor's experience with learning disabilities: 1) familiarity with learning disabilities, 2) knowledge level regarding U.S. legal issues and accommodation issues related to learning disabilities, 3) previous training in learning disabilities, 4) learner assessment practices, and 5) perceived benefit of further education on learning disabilities.

Preceptor perceptions were assessed based on questions related to concepts identified from the literature. Preceptor preparedness was assessed by asking respondents to rate how prepared they feel to support a student or new graduate with learning disabilities in the clinical setting. Participants were asked to rate their confidence in their ability to implement their role for a student or new graduate with a learning disability. Respondents were asked to rate the strength of their beliefs in their potential to be successful in the field of nursing. They rated the level of their agreement that reasonable clinical accommodations should be granted for trainees with learning disabilities. And, finally, respondents were asked to rate their level of willingness to work with students or new graduates with learning disabilities in the clinical setting.

Differences in perceptions and willingness to work with trainees with learning disabilities were explored with separate responses for students and new graduates. They rated each question using a scale from 1 (lowest) to 5 (highest). Ratings related to students and new graduates were scored separately in order to assess for differences in perceptions of the two groups. Since a score of 3 is the midpoint on the scale, any mean score of less than 3 was determined to be low (negative), and any mean score above 3 was determined to be high (positive).

Participants were given the following definition in the survey instructions: *"For the purpose of this study, the term 'learning disability' includes specific learning disabilities and ADHD. Specific Learning Disabilities: Disorder in the processes involved in understanding of using written or spoken language which affects the ability to listen, think, speak, read, spell,*

or do mathematical calculations (e.g. dyslexia, dysgraphia, dyscalculia, auditory or visual processing disorders, etc.). ADHD: Attention Deficit/ Hyperactivity Disorder is a disorder that limits alertness and adversely effects educational performance." Together both of these disorders present as learning difficulties and can be particularly challenging in nursing education.

3.4. Data analysis

Quantitative data were analyzed using IBM SPSS Statistics version 23 (SPSS, IBM Inc., Armonk, NY, USA). Data analysis methods included descriptive statistics to describe the sample and overall responses to the survey and correlation analyses to describe the relationship between variables. A Chi-square goodness-of-fit test was conducted to assess how well the preceptor sample represented a national sample of U.S. nurses in terms of gender and age from a 2013 National Council State Board of Nursing survey (Budden et al., 2013).

Mean scores were calculated for each of the four concepts related to both perceptions of students and perceptions of new graduates with learning disabilities. The individual scores were combined to create a perception score of students and a perception score of new graduates with learning disabilities. Next, an overall preceptor perception score was created by combining the means of all eight perception scores. Mean scores were also calculated individually for willingness to precept students and willingness to precept new graduates with learning disabilities, then combined to create an overall preceptor willingness score.

Cronbach's alpha tests were completed to assess internal consistency among items. The distributional assumptions for the analyses and reliability were checked. Although some issues were observed, further inspection showed no substantial impact on findings. Differences in perceptions and willingness to work with students versus new graduates were explored with paired *t*-test results, and effect size calculations. Pearson correlation analyses were used to examine the relationship between preceptor perceptions and their willingness to precept.

Qualitative data analysis included inductive content analysis of the responses to the open-ended questions to systematically describe and quantify phenomena in order to categorize data into themes (Elo and Kyngas, 2008; Sandelowski, 2001). Strategies of open coding and creating categories were utilized to code the data. The frequency that the codes occurred were counted in order to generate meaning, document, and verify the experiences of the preceptors as well as to further describe the results (Sandelowski, 2001). Later, the codes were used to identify broader conceptual themes.

4. Results

A total of 190 preceptors responded to the two email invitations, for a response rate of 5.7%. Twenty-four surveys were deleted from the sample because the respondents either did not agree to participate or were not nurses. Some respondents did not answer all of the questions. Missing data were random, with only a few items missing from any one survey, therefore a decision was made to keep incomplete cases in the final data set ($N = 166$).

4.1. Demographics of preceptors

The preceptors who responded to the survey were primarily female (89.6%). Respondents ranged in age from 24 to 69 plus; their average age was 45 ($M = 45.23$, $SD = 11.78$). Gender and age of this state-wide sample were compared to a national sample from a National Council of State Boards of Nursing (NCSBN) 2013 survey (Budden et al., 2013). Gender was similarly distributed in both samples, X^2 *(1 n = 163) = 2.95, p < .05;* however, the majority of preceptors were younger than the national sample, therefore age was not similarly distributed, X^2 *(1, n = 164) = 4.74, p < .05.* Demographic data are reported in Table 1.

Table 1
Preceptor Demographics Valid responses (*N*), Mean (*M*), Standard Deviation (*SD*), Frequency (*n*), Percentage (%).

		N	*n* (%)	*M* (*SD*)
Gender	Male	163	17 (10.4)	
	Female		146 (89.6)	
Age	< 30	164	18(11)	45.23
	30–39		39 (23.4)	(11.747)
	40–49		34 (20.4)	
	50–59		55 (35.4)	
	60–64		14 (8.5)	
	65 and older		4 (2.4)	
Number of years as a nurse	0–10	164	50 (30.4)	19.63
	> 10-20		39 (23.5)	(11.445)
	> 20-30		40 (24.3)	
	> 30-39		27 (16.3)	
	40 or more		8 (4.9)	
Highest level of nursing education	ADN	163	48 (29.4)	
	BSN		84 (51.5)	
	MSN		29 (7.8)	
	DNP		2 (1.2)	
	PhD		0 (0)	
Current nursing position	Staff Nurse	165	79 (47.9)	
	Charge Nurse		25 (15.2)	
	Nurse Manager		12 (7.3)	
	Nurse Educator		46 (27.9)	
	Other		3 (1.8)	

The median number of years as a nurse was 19, and about half had baccalaureate (nursing) degrees. Almost half of the preceptors indicated that their current position was staff nurse; others were nurse educators, charge nurses, or nurse managers. While these preceptors had previous experience in a variety of settings, the current settings that were most common were nursing education, followed by adult medical, pediatrics, intensive care, and emergency room. The preceptors were experienced and had precepted an average of 10 nursing students and 10 new graduate nurses (Table 2). In summary, this is a sample of preceptors

Table 2
Preceptor Work Settings and Experience with Preceptor Role.Valid responses (*N*), Mean (*M*), Standard Deviation (*SD*), Frequency (*n*), Percentage (%).

Preceptor work settings ($N = 164$)	Past Work Settings *n (%)*	Current Work Settings *n (%)*
Maternity	16 (9.6)	10 (6.0)
Pediatrics	38 (22.9)	24 (14.5)
Adult Medical	77 (46.4)	29 (17.5)
Adult Surgical	60 (36.1)	19 (11.4)
Psychiatric	14 (8.4)	8 (4.8)
Community Health	14 (8.4)	6 (3.6)
Intensive Care Unit	51 (30.7)	21 (12.7)
Step down	31 (18.7)	14 (8.4)
Operating room	13 (7.8)	8 (4.8)
Emergency Room	39 (23.5)	19 (11.4)
Nursing Administration	20 (12)	7 (4.2)
Nursing Education	50 (30.1)	47 (28.3)
Other	16 (9.6)	13 (7.8)
Preceptor Experience ($N = 164$) insert return Numbers precepted	Students *n* (%) $M = 10.43$, $SD = 9.714$	New graduate nurses *n* (%) $M = 10.15$, insert return $SD = 8.565$
NONE	27 (16.5)	11 (6.7)
1–5	51 (31)	56 (34.1)
6–10	38 (19.4)	47 (28.7)
11–15	7 (4.2)	12 (7.3)
16–20	10 (6.1)	12 (7.3)
21–25	2 (1.2)	2 (1.2)
> 25	35 (21.3)	24 (14.6)

Table 3
Preceptors experience with learning disabilities.

Experience type	Responses	*N*	*N* (%)	*M* (*SD*)
Familiarity with learning disabilities:	Has a LD:	159	9 (5.6)	
	Family has LD:		64 (40)	
	Friend has LD:		74 (46.5)	
	Past work w Nurses w LD:		77 (47.8)	
	Past work w HCPs with LD:		80 (49.7)	
	Currently work w a nurse w LD:		29 (18.1)	
	Currently work w a HCP w LD:		31 (19.4)	
Assessment of knowledge related to U.S. Legal Issues: (Scale 0–3: 0 = low, 1.5 = midpoint, 3 = high)	IDEA*	148		1.21 (.883)
	Section 504	149		.74 (.831)
	ADA act of 199	149		1.28 (.936)
	Accommodations	149		1.34 (.884)
Assessment of knowledge related to Accommodation Issues: (Scale 0–3: 0 = low, 1.5 = midpoint, 3 = high)	The term “reasonable”	149		1.15 (.858)
	Academic accommodations	149		1.32 (.863)
	Use in academic settings.	149		1.03 (.870)
	Use in clinical settings	147		.97 (.863)
Previous training in learning disabilities:	Journal Articles	148	31 (20.9)	
	Nursing School		30 (20.3)	
	Continuing Education		14 (9.5)	
	Other		19 (12.8)	
	None		54 (36)	
Learner assessment practices: Do you typically assess your preceptee for a learning disability?	Yes	163	79 (48.5)	
	No		84 (51.5)	
Perceived benefit of further education on learning disabilities: (Scale: Strongly disagree = 1, Strongly agree = 5)	Legal issues	135		4.11 (.798)
	Educational needs	135		4.24 (.833)
	Reasonable accommodations	134		4.19 (.770)
	Classroom accommodations	134		4.04 (.957)
	Clinical accommodations	134		4.28 (.855)

Note: Learning disabilities (LD); Individuals with Disabilities Education Act (IDEA); Americans with Disabilities Act (ADA).

with a mean age of 45, who are educated with BSN degrees, work in a variety of nursing settings, have been nurses for almost 20 years, and have a wide range of precepting experience (Tables 1 and 2).

4.2. Preceptor experience with learning disabilities

Nine preceptors (5.6%) reported having a learning disability, and a significant number had a family member, friend, or co-worker with a learning disability (n = 127, 79.9%). Only 20.1% (n = 32) reported not having a learning disability or not having any experience with people who have learning disabilities. Knowledge of legal issues and accommodations for students with learning disabilities was low in all areas assessed, with mean scores near 1 on a scale of 0–5. Regarding previous training or education related to learning disabilities, most preceptors indicated that they had no past training (Table 3). Despite the lack of training, preceptors were nearly split in their habits of assessing for learning a disability. Lastly, the benefit of further education related to learning disability was rated highly by the preceptors.

4.3. Perceptions

Preceptors addressed four concepts: preparation for the preceptor role, confidence in their ability to implement their role, the strength of their belief in potential for success in nursing for those with learning disabilities, and agreement with the provision of reasonable accommodations in clinical settings (Table 4). Scores for preparation and confidence were negative revealing that preceptors did not feel prepared to support either students or new graduates with learning disabilities, and they do not feel confident to implement the role of preceptors for those with learning disabilities. However preceptors positively rated the strength of their beliefs in the students and new graduates potential for success in the field, and they agreed that reasonable accommodations should be provided in clinical settings.

Perceptions of students were compared to perceptions of new graduates (see Table 4). Statistically significant lower perceptions were found of students in the areas of confidence and beliefs. However, because the Cohen's effect size values were small, there is low practical significance in this difference. Combined mean scores for the four preceptor perceptions of students was 3.06 (SD = 1.11, α 0.793), and of new graduates was 3.13 (SD = 1.11, α 0.767). The overall score combining the mean of all eight perception scores of both students and new graduates was 3.09 (SD = 1.11, α = 0.901), which indicates that overall perception is slightly positive. The Cronbach's alpha reliability coefficient results indicate good internal consistency.

Table 4
Comparison of preceptor perceptions toward nursing students and new graduate nurses and willingness to precept.

	Nursing Students		New Graduate Nurses				
	n	*M* (*SD*)	*n*	*M* (*SD*)	*t* (*df*)	*p*	*d*
Perception:							
Preparation	146	2.34 (1.11)	147	2.40 (1.15)	−1.63 (144)	.106	−0.05
Confidence	145	2.81 (1.20)	143	2.90 (1.22)	−2.61 (141)	.010[a]	−0.07
Belief	140	3.56 (1.03)	139	3.66 (0.975)	−2.75 (137)	.007[a]	−0.09
Agreement	140	3.54 (1.12)	139	3.58 (1.10)	−1.42 (137)	.158	−0.04
Willingness:	137	3.76 (1.16)	138	3.83 (1.14)	−2.02 (135)	.045[a]	−0.06

Note: Participants rated their perceptions to the above concepts with the following scale:1 = least, 3 = average, 5 = most. A score of 3.0 was the midpoint. Scores < 3 were considered negative, and scores > 3 were considered positive.
[a] Statistical significance at the .05 level.

4.4. Willingness to precept

Scores for willingness to precept students and new graduates with learning disabilities were positive (see Table 4). A statistically significant difference was seen in willingness to precept the two groups, however because the Cohen's effect size values were small, there is low practical significance in this difference between preceptor's willingness

Table 5
Correlations between willingness to precept and preceptor perceptions.

Variables	Willingness to Precept			
	r	*n*	*r*	*n*
	Nursing Students		Nursing Graduates	
1. Preparation	.402**	137	.356**	139
2. Confidence	.470**	138	.479**	137
3. Beliefs	.655**	137	.525**	138
4. Agreement with Accommodations	.510**	138	.521**	138

*$p < .05$, **$p < .01$.

to precept students versus new graduates. The combined willingness score for both groups was 3.81 (SD = 1.15, α = 0.978), higher than all four scores of perception.

4.5. Relationship of perceptions to willingness

Correlational analyses indicated a strong relationship between perceptions of both students and new graduates and their willingness to precept them (see Table 5). This indicates that the preceptors with more positive perceptions of trainees with learning disabilities are more willing to precept them. The strongest correlation was seen in the assessment of preceptor's beliefs in the students and new graduates with learning disabilities and their potential to be successful in the field of nursing.

4.6. Qualitative findings

The researcher read through all qualitative data twice prior to identifying codes. The third reading resulted in the establishment of an initial set of codes. Some overlap existed, and an effort was made to evaluate comments and assign codes based only on what was written. No interpretation of what might have been implied was made. A master list of codes (Table 6) was used to code the comments collected from the open-text questions. The total number of comments is listed in the final row of Table 6. Responses such as 'N/A,' 'none,' 'I don't know,' or 'I have not experienced this,' were deleted from the total count. Responses such as 'same as above,' 'see above,' or 'as previously stated' in the new graduate responses indicate they did not perceive a difference between students and new graduates and were included in the final row of Table 6 in parenthesis after the new graduate count.

Comments were recorded as either 'agree' or 'disagree' (Code 1 and 2) to get an overall sense of preceptor perceptions of the concepts. The agree/disagree count indicates mixed thoughts about preparation; more positive comments were written regarding confidence, beliefs, agreement with accommodations, and willingness to serve as preceptors. Preceptors commented on their own educational experiences (code 3), personal experiences (code 4), and the need for information ahead of time (code 5). The prevalence of comments related to learners in the 'beliefs' regarding expectations of the learner prompted the development of sub-codes (code 6 a-d). This prompted another reading of all questions, and a re-coding of code six. Expectations of faculty, preceptor, and the clinical site were also prevalent (code 7–9). Preceptors commented that they needed more information/education (code10). Some preceptors talked about issues related to disclosure (code 11), making it through nursing school and being ready for a new graduate role (code12), and mentioned tools (accommodations) needed for the job (code 13). Finally, the researcher reviewed all comments for notations regarding differences between students and new graduates (code 14). Discussion of each concept follows with sample remarks.

4.7. Preparation

Preceptor comments were mixed regarding their preparation to provide support and accommodations. Disagreement in the construct (particularly in students) was noted in comments such as "I feel that I need to be more aware of students with disabilities" and "I would need more information … I don't think I've been given any direction for working with someone with a disability". Preceptors who felt prepared noted "I have quite a bit of material for different types of learning styles" and "I am interested in this field and read all the material that I can find". Their education and personal experiences with learning disabilities contributed to preparation. One preceptor said "Only … because I had some coursework … do I have any level of preparation" (code 3) and "What I know I have obtained from experiences with my own family" (code 4). The preceptors seemed to put conditions on their level of preparation. Some expressed that if they had more information ahead of time (code 5), they would be more prepared. Regarding expectations of learners, preceptors said that "all nurses need to function within their role in a crisis" (code 6), and "students need to be honest with you" (code 6d), and Others noted they needed more information on the topic, and expected "school administrators or faculty to share pertinent information … and how specific nursing students will benefit most in the clinical" (code 7). Preceptors acknowledged that they "must

Table 6
List of themes with frequency counts in each concept for nursing students (NS) and new graduate nurses (NG). Preparation (P), Confidence (C), Beliefs (B), Agreement with Accommodations (A), Willingness to Precept (W).

Codes	P NS	P NG	C NS	C NG	B NS	B NG	A NS	A NG	W NS	W NG
1. Agreement	3	5	13	9	18	16	13	10	19	17
2. Disagreement	9	2	3	5	5	3	9	3	6	4
3. Educational experiences	4	4	1		0					
4. Personal experiences	3			1				1	1	1
5. Needed information ahead of time	7		1	1						
6. Expectations of Learner	7	5	1	1	31	13	1	3	3	1
a:Have the desire/need to want it/need to work hard					*13*	*7*	*1*		*2*	*1*
b:Strategies or accommodations needed	*1*	*2*	*1*		*11*	*3*		*2*	*1*	
c:Asking for help					*4*	*1*				
d:Learner attributes (critical thinking, honesty, taking responsibility)	*3*	*1*			*3*	*2*		*1*		
7. Expectations of faculty	3						1			
8. Expectations of preceptor	3	3	1	1	2	2				
9. Expectations of Facility/hospital/unit	2	4	5	5	3	2		4	2	1
10. Needing more information	4	5	4	4		2			2	3
11. Disclosure	4	1	1	1	2	3			2	2
12. Making it through nursing school/being ready for new graduate role		2			2	9				
13. Tools needed for the job	1						1			
14. Difference between SN and NG (other than 'same as above')				2						
TOTAL (same as above)	50	31(8)	30	30(8)	63	50(13)	25	21(7)	35	29(6)

continually adjust their instruction to accommodate a preceptee whether they have a LD or not" (code 8), and said "with additional resources from the education team, it is possible to maintain and retain these employees" (code 9).

4.8. Confidence

Comments regarding confidence in the preceptor's ability to precept learners with learning disabilities were mostly positive. They noted "I am confident that I would do a fine job" and "I feel like I could do a good job". Many preceptors described their confidence in relation to having the right tools or information. One preceptor said "I am confident that with the right tools I could be a great preceptor for a nursing student with a learning disability" (code 5). Some expressed concern "whether they will disclose the information" (code 11). One preceptor related their confidence to student success thus far and noted "by the time student nurses reach the level of nursing school clinical, they have already learned to work around any learning disability, or they wouldn't have made it this far" (code 6b). A few mentioned issues such as budget, staffing, and time constraints as barriers.

4.9. Beliefs

Preceptors described their beliefs in the potential of trainees with learning disabilities to be successful in the field of nursing, when certain conditions were met. Although beliefs were mostly positive, some disagreement was noted in statements such as: "I believe that some disabilities may lead to more errors in medications and become a safety issue … their success is compromised due to their learning disability" and "I believe a nursing student needs to be able to keep up with the other students without special assistance". Positive beliefs depended on the students desire to be successful, their extra effort, approach to learning, ability to work around their disability, openness to assistance, or ability to ask for help. One said "I believe they can be as successful as they want to be, determination is a factor" (code 6a). Another said "If they have the desire and drive, they have the same potential as someone without a disability". Preceptors talked about the learner attributes as a factor in statements such as "do they have critical thinking skills", "they need to take accountability", and "they must have extra time, patience and perseverance". A few preceptors were concerned about patient safety. One noted she understood the "prejudices they face" (code 4). A few commented that the type of disability was a factor. One preceptor remarked that "communication was important, and the awareness of the disability should be shared with co-workers, allied health team, physicians, and even patients" (code 11). Lastly, preceptors linked success in nursing school to success in their future careers in statements such as "If they make it through nursing school, I see no reason that they would not have a successful career as a nurse" (code 12).

4.10. Agreement with accommodations

There were fewer responses to this question, but the comments presented indicated that preceptors were mostly in favor of the use of clinical accommodations. Participants had concerns about the interpretation of reasonable accommodations, level playing fields, and how accommodations would impact patient safety. One preceptor was concerned that "special accommodations may increase peer pressure and peer lateral violence." While one preceptor notes that "everyone deserves equal opportunity", another notes that "I have trouble with this one, I think all nurses should be held to the same standard". Personal experiences were again noted as a contributing factor. One preceptor said "As for myself, I have trouble with numbers and dyslexia, but I can still work and just know I need to check numbers and calculations more carefully, and read more carefully" (code 4). Preceptors noted that "accommodations could and should be made, but what happens after that depends mostly on the student" (code 6a), and "as long as their assessment skills are excellent, then there in nothing wrong with making accommodations" (code 6d). One statement highlighted the faculty role: "Hopefully the instructor would not place the student without the accommodations" (code 7). The institution also has a role: "Will take all levels of management to understand the impact so that it can be upheld, this should be taken care of in the interview process" (code 9).

4.11. Willingness

There were far more positive responses to willingness than negative, indicating that preceptors were willing to serve as a preceptor for both students and new graduates with learning disabilities. Notable comments include "I would love to serve as a preceptor for someone with a LD", "I am willing to try, always", "I am always willing and am very patient". Comments such as "I feel a younger nurse would be better suited for this", "I know I don't have the patience for this", and "I feel like this could potentially put my patients at risk" are important. Nurses with personal experience expressed willingness: "I am very comfortable … since I have a son with a LD" (code 4). A few of the positive comments included conditions such as the "organization must be willing to make accommodations" (code 9), and being "properly trained" or having "the proper education" (code 10). Interestingly, disclosure impacts willingness as noted "I am willing to if I am made aware of their limitations restrictions".

4.12. Themes

After the above analysis, the data were re-examined to identify broader conceptual themes. The following themes emerged that explain how preceptors perceive their role as clinical educators of students and new graduates with learning disabilities and their willingness to precept them:

1) Exposure to learning disabilities: Preceptor perceptions are shaped by educational and personal experiences with learning disabilities. In addition, if they had information ahead of time, they felt more prepared, confident, and willing.
2) Expectations of the learner: Preceptors expect the student and the new graduate to work hard, have developed strategies and accommodations in place, ask for help, and take responsibility for their learning.
3) Expectations for Support: Preceptors have expectations of faculty, preceptors, and clinical sites to provide support for learners. Faculty should share information with preceptors, preceptors should adjust their instruction to the needs of the student, and clinical sites might need to be adjusted to meet the needs of the learners.

5. Discussion

Considering the increased numbers of nursing students with learning difficulties, it is important to assess the issues surrounding clinical education. Almost half of the preceptors in this sample said they typically assess students or new graduates for learning disabilities, indicating that some consider learning disabilities a possible condition. There is no literature to date that addresses preceptor's perceptions of their role in educating nurses with learning disabilities, or their willingness to take on the additional challenge. Findings from this study suggest that preceptors have little experience with learning disabilities, have low levels of knowledge related to legal issues and the role of accommodations to support nursing students, and have had little previous training or education specific to learning disabilities. Yet, overall perception of students and new graduates with learning disabilities was slightly positive, and they are willing to work with learners with learning disabilities.

The preceptors felt unprepared and lacked confidence in the implementation of their preceptor role with students and new graduates with learning disabilities. Preparation for the role of precepting a student or new graduate with learning disabilities could be improved by education and support from nurse educators, as preceptors rated the need for further education on the topic of learning disabilities as high. This content could be added to preceptor preparation courses, or continuing nursing education offerings.

It is encouraging that preceptors had positive beliefs in the future success of students and new graduates with learning disabilities. Other researchers have discussed effective accommodations for nurses with disabilities in clinical settings (Tee and Cowen, 2011; Wood and Marshall, 2010). The preceptors had positive perceptions of use of reasonable accommodations in clinical settings. This may indicate that preceptors think students with learning disabilities can be successful given the appropriate accommodations. These findings lend support for the need for supportive faculty and preceptors in clinical settings for students with learning disabilities (Kolanko, 2003; White, 2007; Wood and Marshall, 2010; King, 2018).

Qualitative analysis revealed consistency with concepts from Goffman's (1963) stigma theory, in that preceptors may be "sympathetic others," many of whom own the stigma or were wise to it and empathized with learners with learning disabilities (code 4). The positive perceptions of preceptors are an important contribution to the literature and have not been previously assessed. Many of the preceptor comments contained conditions such as: "I believe I can provide an effective experience provided the necessary conditions as required are met." The expectations of preceptors (code 6–9) are high, and have implications for nurse educators, preceptors, students, and researchers. Although differences in preceptor perceptions between students and new graduates were expected, major differences were not found (code 14).

This study focused on learning difficulties; perceptions and willingness to work with students with other disabilities such as physical disabilities, and psychological disabilities also need to be investigated. Identification of barriers, facilitators, and outcomes of nursing students with learning difficulties regarding academic and clinical completion, success on licensure examinations and transition to practice needs further study. Readiness of the clinical environment and its ability to meet the needs of students and new graduates with learning disabilities should be assessed. Additionally, learning difficulties are only one reason students struggle. Other reasons need to be explored.

Limitations of the study should be noted particularly the low response rate. This may be due to the limitations of online surveys, which have a historically low response rate (Dykema et al., 2013; Van Geest and Johnson, 2011). This was one sample of nurse preceptors in one state within the U.S. The researcher chose the concepts to explore, and designed the survey; although the instrument was tested, it lacks scientific validation from previous research. Self-report can affect validity of these results since participants may answer with socially desirable answers as opposed to their true attitudes (Yuker et al., 1966). The variety of experience as a preceptor might also contribute to their report. Additionally, some respondents identified themselves as nurse educators or nurse managers–it is unknown if they are also currently serving as preceptors, or are relying on their past experiences as a preceptor.

Confidence in the results of this study is enhanced by the diversity of the demographic characteristics of the sample. The respondents of this survey are representative of a national sample, and include nurses from 145 hospitals in one state, who work on a variety of different types of units, and have a wide range of experience and backgrounds. This study, which is the first to characterize nurse preceptor perceptions and willingness to work with nurse trainees with learning difficulties, represents a beginning exploration of the issue. It needs to be further studied in a broader population of nurses in other locations.

5.1. Implications for nurse educators

Nurse educators have reported concern for students with learning disabilities in academic and clinical settings (Morris and Turnbull, 2006; White, 2007). Preceptors in this study reported positive perceptions about their role as educators for students and new graduates in clinical settings, but asked for education about learning disabilities, and specific learning needs of students. In addition, they need help identifying strategies and accommodations to ensure student success. Experts in the field of disabilities in higher education advocate for shared responsibility and collaboration across campus for students with disabilities, in terms of access, accommodations, and inclusion (Bryan and Myers, 2006). This collaboration needs to extend to off-campus settings in which students are educated, such as hospitals for clinical experiences. Nursing faculty are in a position to bridge the gap from the supportive academic environment to the clinical environment.

Strategies for nurse educators center on creating a supportive environment, being understanding, and fostering open communication and dialogue with students (Ijiri and Kudzma, 2000; Morris and Turnbull, 2006; White, 2007). Nurse educators have used strategies such as simulation to create a safe environment in which to assess, monitor, evaluate and support students with a disability (Azzopardi et al., 2013), and mindfulness to help manage stress (van der Riet et al., 2015). The OPEL method (Openness and transparency; Planning and organization; Evaluation and reflection; Learning and feedforward) was introduced as an additional tool to support students with specific learning disabilities and their mentors in clinical practice (Salkeld, 2016), and may be applicable to other students who struggle. Self-efficacy coaching, study skill session, and creating positive learning environments that focus on the strengths of an individual student have been helpful for some students with learning disabilities, and are techniques that could be utilized by nursing faculty and preceptors (Costello and Stone, 2012; Pajares, 2001; Seligman, 2007; Wray et al., 2013).

5.2. Implications for preceptors

Preceptors have a unique vantage point to assess a student's clinical practice. Preceptors often notice when students struggle. In this study, preceptors reported needing education, tools, and strategies to help trainees with learning difficulties in the clinical setting. Preceptors repeatedly mentioned issues related to disclosure, and may benefit by understanding the fear, negative attitudes, and stigma that students may face if they disclose their disability (Hartman-Hall and Haaga, 2002). Incorporating information about Goffman's theory of stigma and the fear of being discredited into preceptor preparation might help preceptors better understand this problem. Many preceptors in this sample commented they had previous education or personal experiences with learning disabilities. It is possible that owning the stigma or being wise to it impacted these findings, and deserves further study.

It has been shown that students with learning disabilities are more willing to seek help when they receive social support (Roer-Strier, 2002); preceptors play a critical role in creating this social support in the clinical setting. Preceptors can collaborate with students and faculty to identify the individual learning strengths and weaknesses to bridge the academic and clinical educational settings. Although there has been little research in this area, preceptors can begin by being aware of the issue, improving their assessment skills to identify struggling students, and focusing on creating an inclusive welcoming environment for all learners.

5.3. Implications for nursing students with learning disabilities

Research indicates students with learning disabilities have experienced positive as well as negative attitudes in higher education, schools of nursing, and in clinical settings. Students with learning disabilities

prefer enabling environments that are small, have supportive teams, and a friendly relaxed atmosphere with structured routines and clear protocols (White, 2007). Challenges were apparent when the clinical area was unpredictable, required students to remember a lot of material and write many papers, had unfamiliar vocabulary or equipment, and where staff were unsupportive (White, 2007). Students benefit by being active participants in the development of life-long successful learning skills (Ijiri and Kudzma, 2000), and can help themselves by taking responsibility for their learning needs, and developing coping strategies to enable safe practice during clinical education (White, 2007). The fear of disclosure is an additional concern, and researchers continue to advocate that students communicate with their preceptors in order to gain their acceptance and support (McPheat, 2014).

This study reveals preceptors, although they have some concerns for the impact on clinical standards and patient care, believe in the potential success of the students with learning disabilities and are willing to precept them. The beliefs were slightly lower for students than new graduates, as preceptors believed new graduates had already proven themselves successful by graduating. Further, preceptors noted that if a student with a learning disability can succeed in nursing school, they can find success in nursing. Preceptors also had high levels of agreement that accommodations should be used in clinical settings, an issue that needs further study.

6. Conclusion

With increased preparation and confidence in their role, preceptors can support students with learning difficulties by believing in their potential for success, understanding their learning needs, and assisting them in the provision and use of reasonable clinical accommodations. Learning needs of students with learning difficulties should be further understood by educators who train preceptors. Faculty can consult with the university's disability services department to learn more about legal considerations, available accommodations, and provisions for students with difficulties to better understand the implications for clinical learning. Faculty who work with preceptors should provide training, support, and education to better prepare nurse preceptors and increase their confidence. Because students are not required to disclose their disabilities, preceptors should be taught to consider learning difficulties as one reason a student might struggle. Continuing education modules should be developed for preceptors to better prepare them to meet the needs of these students. Preceptors should be encouraged to discuss issues of concern with the supervising faculty early in a precepted clinical experience. At the same time, because this study found preceptors to be supportive of students with learning disabilities, faculty should encourage students to discuss their specific learning needs with their preceptor.

This study reports findings from important research questions that had not been asked before. In addition to preceptors, many other professionals interact with nurses in clinical settings. The perceptions and willingness of administrators, managers, clinical educators, and peer staff nurses toward hiring, training, and working alongside nurses with learning difficulties, and the use of accommodations in clinical settings warrant further investigation.

Conflicts of interest

None.

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Appendix A. Supplementary data

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References

Azzopardi, T., Johnson, A., Phillips, K., Dickson, C., Hengstberger-Sims, C., Goldsmith, M., Allan, T., 2013. Simulation as a learning strategy: supporting undergraduate nursing students with disabilities. J. Clin. Nurs. 23, 402–409.
Bourke, A.B., Strehorn, K.C., Silver, P., 2000. Faculty members' provision of instructional accommodations to students with LD. J. Learn. Disabil. 33, 26–32.
Bryan, A., Myers, K.A., 2006. Students with disabilities: doing what's right. About Campus 24, 18–22.
Budden, J.,S., Zhone, E.,H., Moulton, P., Cimiotti, J.,P., 2013. Supplement: the national Council of state Boards of nursing and the forum of state nursing workforce centers 2013 national workforce survey of registered nurses. Jounral of Nursing Regulation 4, S1–S72.
Costello, C.,A., Stone, S.,L.M., 2012. Positive psychology and self-efficacy: potential benefits for college students with attention deficit hyperactivity disorder and learning disabilities. Journal of Postsecondary Education and Disability 25, 119–129.
Cotter, E., Dienemann, J., 2016. Professional development of preceptors improves nurse outcomes. Journal for Nurses in Professional Development 32, 192–197.
Dykema, J., Jones, N.,R., Piche, T., Stevenson, J., 2013. Surveying clinicians by web: current issues in design and administration. Eval. Health Prof. 36, 352–381.
Elo, S., Kyngas, H., 2008. The qualitative content analysis process. J. Adv. Nurs. 62, 107–115.
Ferri, B.A., 2011. Pluralizing methodologies in the field of LD: from "what works" to what matters. Learn. Disabil. Q. 34, 222–231.
Goffman, E., 1963. Stigma: Notes on the Management of Spoiled Identity. Prentice Hall, Englewood Cliffs NJ.
Hartman-Hall, H.M., Haaga, D.A., 2002. College students' willingness to seek help for their learning disabilities. Learn. Disabil. Q. 25, 263–274.
Henderson, A., Fox, R., Malko-Nyhan, K., 2006. An evaluation of preceptors' perceptions of educational preparation and organizational support for their role. J. Cont. Educ. Nurs. 37, 130–136.
Horton, C.D., Depaoli, S., Hertach, M., Bower, M., 2012. Enhancing the effectiveness of nurse preceptors. J. Nurses Staff Dev. 28, E1–E7.
Ijiri, L., Kudzma, E.C., 2000. Supporting nursing students with learning disabilities: a metacognitive approach. J. Prof. Nurs. 16, 149–157.
Kalischuk, R.G., Vandenberg, H., Awosoga, O., 2013. Nursing preceptors speak out: an empirical study. J. Prof. Nurs. 29, 30–38.
Kolanko, K.M., 2003. A collective case study of nursing students with learning disabilities. Nurs. Educ. Perspect. 24, 251–256.
King, L., 2018. Link lecturer's views on supporting student nurses who have a learning difficulty in clinical placement. Br. J. Nurs. 27, 141–145.
L'Ecuyer, K., 2019. Clinical education of nursing students with learning difficulties: an integrative review (Part 1). Nurse Educ. Pract. 34, 173–184.
MacKay, T., 2009. Severe and comples learning difficulties: issues of definition, classification and prevalence. Educ. Child Psychol. 26, 9–18.
Martensson, G., Lofmark, A., Mamhidir, A., Skytt, B., 2016. Preceptors' reflections on their educational role before and after a preceptor preparation course: a prospective qualitative study. Nurse Educ. Pract. 19, 1–6.
McPheat, C., 2014. Experience of nursing students with dyslexia on clinical placement. Nurs. Stand. 28, 44–49.
Morris, D., Turnbull, P., 2006. Clinical experiences of students with dyslexia. J. Adv. Nurs. 54, 238–247.
Nelson, J.R., Dodd, J.M., Smith, D.J., 1990. Faculty willingess to accommodate students with learning disabilities: a comparison among academic divisions. J. Learn. Disabil. 23, 185–189.
Pajares, F., 2001. Self-efficacy beliefs in academic settings. Rev. Educ. Res. 66, 543–578.
Roer-Strier, D., 2002. University students with learning disabilities advocating for change. Disabil. Rehabil. 24, 914–924.
Salkeld, J., 2016. A model to support nursing students with dyslexia. Nurs. Stand. 30, 46–51.
Sandelowski, M., 2001. Real qualitative researchers do not count: the use of numbers in qualitative research. Res. Nurs. Health 24, 230–240.
Seligman, M.E.P., 2007. Coaching and positive psychology. Aust. Psychol. 42, 266–267.
Smedley, A., Morey, P., Race, P., 2010. Enhancing the knowledge, attitudes, and skills of preceptors: an australian perspective. J. Cont. Educ. Nurs. 41, 451–461.
Sowers, J., Smith, M.R., 2004. Nursing faculty members' perceptions, knowledge, and concerns about students with disabilities. J. Nurs. Educ. 43, 213–218.
Staykova, M.P., Huson, C., Pennington, D., 2013. Empowering nursing preceptors to mentoring undergraduate senior students in acute care settings. J. Prof. Nurs. 29, 32–36.
Tee, S., Cowen, M., 2011. Suporting students with disabilities - promoting understanding amongst mentors in practice. Nurse Educ. Pract. 12, 6–10.
U.S. Department of Education, 2006. Building the Legacy: IDEA 2004.
van der Riet, P., Rossiter, R., Kirby, D., Dluzewska, T., Harmon, C., 2015. Piloting a stress management and mindfulness program for undergraduate nursing students: student feedback and lessons learned. Nurse Educ. Today 35, 44–49.
Van Geest, J., Johnson, T.P., 2011. Surveying nurses: identiying strategies to improve participation. Eval. Health Prof. 34, 487–511.
White, J., 2007. Supporting nursing students with dyslexia in clinical practice. Nurs. Stand. 21, 35–42.
Wood, D., Marshall, E., 2010. Nurses with disabilities working in hospital settings: attitudes, concerns, and experiences of nurse leaders. J. Prof. Nurs. 26, 182–187.
Wray, J., Aspland, J., Taghzouit, J., Pace, K., 2013. Making the nursing curriculum more inclusive for students with specific learning difficulties (SpLD): embedding specialist study skills into a core module. Nurse Educ. Today 33, 602–607.
Yuker, H., Block, J., Young, J., 1966. The Measurement of Attitudes towards Disabled Persons. Human Resources Center, Albertson, NY.