The Experience of Simulation and the Perception of Preparedness of Developmental Service Worker Students to Practice in Field Placement

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Abstract

The field of Developmental Services (DS), specifically community based services for persons with developmental disabilities, is a relatively new field of study and practice. Simulation has been effectively used in other disciplines to create learner-centered activities designed to motivate students and deepen their learning experience. Students have the opportunity to engage in role play that simulates real problems requiring them to practice their skills in an authentic way. Students have described the simulation as a teaching technique to be more beneficial than the traditional lecture pertaining to abstract theoretical descriptions of roles and problems (Prinsen & Overton, 2011). There is a paucity of research in the pedagogy of learning applicable to the Developmental Services field in general. Specifically, there is little research on the effectiveness of the use of simulation in teaching support skills in the Developmental Services field.

Competency in providing quality support is a critical component of the Developmental Services Worker (DSW) Program. DSW students are often concerned and anxious about adequately providing support for the first time to people with developmental disabilities while on field placement. The purpose of this qualitative research study which uses a phenomenological approach is twofold: (1) to contribute to the pedagogical body of knowledge pertaining to active learning approaches in the human services field, particularly Developmental Services; and, (2) to explore the perceptions and preparedness of second year DSW students regarding the impact of simulated (using the Standardized Patient Program of the University of Toronto) activities used in a Personal Support Skills course designed to teach them the skills required to provide quality supports to people with developmental disabilities.

Introduction

The use of simulation has a relatively long history in education. This teaching method, first introduced in military training, has been used in business schools since the late 1950's (Prinsen & Overton, 2011). Simulation is defined as a "simplified, dynamic, and accurate model of reality that is a system used in the learning context" (Sauve, Renaud, Kaufman, & Marquis, 2007, p. 253). There are many forms of simulation currently being used for teaching communication skills, collaboration and team work, and developing clinical skills, and technical skills and competencies. These various forms of simulation have existed in health and community services such as nursing, social work, and child and youth work for over forty years (Krain & Lantis, 2006).

It is difficult to explain abstract ideas verbally, and as such, ideas shared by instructors during a traditional lecture may hinder the student's attention and comprehension of the material (Cotton, Ahmadi, & Esselborn, 1997). Simulation has been effectively used in other disciplines to create learner-centered activities designed to motivate students and deepen their learning experience. Students have the opportunity to engage in role play that simulates real problems requiring them to practice their skills in an authentic way. Students have described this method of teaching/learning to be more beneficial than the traditional lecture about abstract theoretical descriptions of roles and problems (Prinsen & Overton, 2011). There is limited research in the pedagogy of learning applicable to formal training of workers in the DS field. Specifically, there is little research on the effectiveness of the use of simulation in teaching support skills in the Developmental Services field.

Rationale for the study

Competency in providing quality support is a critical component in the DSW Program. DSW students are often concerned and anxious about adequately providing support to people with developmental disabilities, often for the first time, while on practicum placement. The purpose of this research is twofold: (1) to contribute to the pedagogical body of knowledge pertaining to active learning approaches in the human services field, particularly Developmental Services; and, (2) to explore the perceptions and preparedness of second year DSW students regarding the impact of a simulation (using the Standardized Patient Program of the University of Toronto) intervention used in a Personal Support Skills course designed to teach them the skills required to provide quality supports to people with developmental disabilities.

Background

The Developmental Services field is unique. The skills and required training of a DSW is different than those of workers in other social services sectors. For this reason, research that is specifically focused on the Scholarship of Teaching and Learning (SoTL) in the DS sector is required to address the current gap. Developmental Services Workers require a specific and unique set of skills to provide quality supports to people with developmental disabilities. The role of the DSW includes advocating on behalf of the people they support to ensure that they have choice, self-determination, and participate as valued citizens.

The Developmental Services Human Resource Strategy (DS HR Strategy) is a partnership between the Provincial Network on Developmental Services and the Ministry of Community and Social Services. The focus of this group is to position employment in the developmental services sector as a "career of choice" in Ontario; and "to enhance the effectiveness of agency recruitment

practices by appealing to prospective employees who are seeking a "meaningful career" and who are passionate about making a positive contribution to the lives of people with developmental disabilities." The work of the DSHR Strategy includes developing and implementing core competencies for Ontario's Developmental Services, developing a model for Agency-Based Training and Best HR Practices, and creating strategies to impact the education of the future workforce. The DS HR Strategy takes on a consultative approach with key stakeholders throughout the sector to ensure that its work enhance the lives of the people who receive support in Ontario's Developmental Services sector (Ontario Developmental Services, 2015). In 2012, the Ministry of Training Colleges and Universities (MTCU) revised the DSW Program Standards to include the Provincial DSW Core Competency Model into the current DSW Curriculum.

The Core Competency Model clearly identifies the role of the Developmental Service Worker. A literature review exposed the lack of research related to the education of DSW's. This research study was designed using a qualitative phenomenological approach to explore students' perceptions regarding the use of simulation (Standardized Patients) as a teaching and learning strategy to enhance the DSW curriculum and strengthen the personal support skills and competencies of the DSW students in the community practicum setting.

Research Questions

This study attempts to answer the following research question: "What are the perceptions of second year DSW students prior to, and at the end of field placement, regarding the impact of simulated (case study scenario based) activities presented in a Personal Support Skills course in preparing them to practice core competency skills with clients?" Additionally, a set of sub-questions related to student perceptions about their level of confidence to practice in the field as a

result of engaging in this learner-centered method were also explored: (1) What are the perceptions of the students regarding the authenticity of the scenarios? (2) How engaged did the students feel as a result of having participated in the simulation activities? (3) What are the overall observations of the instructor and do these observations match the perceptions of the students regarding preparedness? (4) How accurate were the students' perceptions about their preparedness for field placement?

Research Objectives

Simulation has been successfully used in many teaching disciplines. This study contributes to the limited body of scholarly research and literature in the DS Field. Particularly, this research provides information on student perception of the use of simulation specifically related to the feelings of preparedness of DSW students to practice the skills taught in the field. Findings related to student perception regarding authenticity of this teaching methodology could potentially improve teaching practices in the DSW Program and the application to practice in the DS Field. The results of the study could also serve as confirmation of the effectiveness of the use of simulation for other teachers in similar DSW programs.

Review of Literature

The field of Developmental Services, specifically community based services to people with developmental disabilities, is a relatively new field of study and practice by comparison to many disciplines. The movement to repatriate people with developmental disabilities back to the community began in the early 1970's, with the last institution closing in 2009. While there are studies pertaining to training direct support workers, there is very limited research related to formal

education of DSW's or the use of simulation to teaching support skills to community based practitioners in the developmental services field. For this reason, literature in similar community based field will be reviewed.

Attributes of Simulation in Education

A review of the literature suggests that simulation activities (also referred to as simulation games) can help to reduce the gap between the formal educational setting and the environment of the real working world (Cotton, Abmadi, & Esselborn, 1997). Simulations mimic reality and provide students with the opportunity to practice using real life experiences in the classroom (Sauve et. al., 2007).

When looking specifically at training for staff working with people with disabilities, Jahr (1998) found that role-playing is beneficial as it allows for the staff to repeatedly practice scenarios in almost identical situations. He also found that feedback given to staff through role-playing techniques has increased the durability of maintaining the skills they learned.

Vachon, (2011) reported that the use of simulations has high learning potential in training Child and Youth Workers. Research has indicated that knowledge in older adults increases more from experiences than it does from reading textbooks. The ability to directly experience the limitations of ageing adults resulted in a decrease in stereotyping and an increase in advocacy for human services students (Schuldberg, 2005).

The National League for Nursing (2006) found that students who complete simulations are able to use the knowledge gained through education in a realistic but non-threatening environment. Being able to actively involve themselves in simulations, apply their skills and reflect on their

experience afterwards leads to increased self-confidence. Also, being able to practice and get feedback on their simulation can help their learning process.

Knowing that the situations are artificially being created and the environment is controlled and non-threatening is a positive attribute according to Sanford (2010). This allows the students to create situations that may not actually happen in any other way. Another positive aspect of simulations that Sanford mentions is that it allows students to practice when placement sites are overcrowded.

Skills Building through Simulation

A review of the literature on the use of simulation with nursing students suggests that there may be applicable benefits to DSW students. Simulation is highly effective in developing the competencies necessary for graduate nursing residents to enter into practice (Kameg, Howard, Clochesy, Mitchelle, & Suresky, 2010). Furthermore, (Kameg et. al., 2010) suggested that these nursing residents have stronger assessment and clinical skills, and enhanced ability to think critically in responding to simulated patient scenarios. They also indicated that the students reported high confidence levels as a result on the learning through simulation.

The practice of using standardized patients to train health care students has been in place for over 50 years, and simulation in teaching counselling techniques also has a very long history. Personal Support skills have been practiced using role-play where faculty and students take on the roles of client or therapist (Vachon, 2011).

Sanford (2010) discusses that students who participate in simulations learn the ability to experience and deal with crisis situations before they are responsible in the real world. They also

get the opportunity to evaluate the choices they made in a situation and reflect on what occurred in a controlled and non-threatening environment.

Van Oorsouw, Embregts, Bosman and Jahoda (2009) found that verbal feedback given during "on the job" training (including role-playing) is most beneficial for those looking to work with people with disabilities. They also found that including role-play along with the other various types of training was most effective for the trainees' success.

Student Perceptions

Previous research indicates that students who have had the opportunity to participate in experiential learning activities have viewed them as significant learning tools. It was also reported that the learning was applied during the students' field practicum and students reported that they felt more comfortable applying their skills because they had faced the situation before (Vachon, 2011).

Nursing students are often concerned and anxious about their first clinical placement in a mental health setting because most students have little to no experience working directly with patients. High-fidelity simulators have been used to address students' fears and anxiety. Students reported increased confidence and high levels of comfort after having the opportunity to participate in simulated activities to build their skills prior to going out in the field (Kameg et. al., 2010).

Rogers (2009) found that before participating in the simulation, students were both anxious and hesitant about the experience. Afterwards however, they explained that they enjoyed the simulation and found themselves immersed in it. The students often reported that they liked being able to work with others in the simulation to come up with solutions. They believed that their

confidence once out in the real world would be increased because of their ability to experiment and try things out in the simulation.

Sanford (2010) discusses how students who participated in a simulation study expressed that they felt the simulation helped them take the information they had learned in the classroom and the skills they had learned in a lab together in a real life setting. They also mentioned the depth of the experience and stated that the simulation allowed them to truly understand the gravity of a specific situation that may occur in the field.

Research Methodology and Approach

A phenomenological approach specifically based on three surveys adapted with permission from the National League of Nursing (NLN) simulation tools was used. Specifically, a pre-simulation survey, a post simulation survey, and a post field placement survey were used. Open ended questions reflected in student journal logs were also used. Experiential learning sessions with Standardized Patients (SPs) were selected as the intervention. Cases/scenarios were designed to simulate specific communication and situational challenges DSW students encounter in field placement. Community content experts reviewed all cases/scenarios for validity and accuracy prior to the simulation intervention.

Participants

A cohort of forty-one students enrolled in the second year, third semester, Personal Support Skills Course of the two year (four semesters) DSW program were invited to participate in this voluntary research study. The third and fourth semesters of the program are organized in two seven week blocks. In the first seven weeks of the semester students' courses are organized on a

compressed seven-week schedule. This means that students attend each course twice per week for a total of six hours. During the second seven weeks, the students are enrolled in a field placement practicum where they are expected to practice and demonstrate the skills and competencies taught in the program.

Confidentiality and Ethics

Approval to conduct this study was granted by the Durham College Research Ethics Board (REB). Students who chose not to participate in the research project were not disadvantaged in any way regarding their opportunity to participate in all in-class activities and discussions. All students enrolled in the Personal Support Skills course were able to participate in the teaching/learning activities whether or not they chose to be part of the research study. Students who did not participate in the study were not required to complete the 3 research surveys. All students completed the journal assignment but those who participated in the research study also submitted their journals to the Research Assistant.

The principal investigator for this study is also faculty in the DSW Program, and teaches the Personal Support Skills course. Since students may feel obligated to participate or may feel that participation may somehow advantage or disadvantage them in the course, consents for each stage (pre-simulation survey, post simulation survey, collection of journal log, and post field placement survey) of the research study were obtained by the research assistants and withheld from the investigator. A consent statement was attached to each of the surveys and to the journal log submission. Participants were required to sign consent forms at each stage of the study. Participants were assured that choosing not to participate in the study would not disadvantage them in any way.

Students were also assured that their participation was voluntary and that they could withdraw from the study at any point without repercussion.

Use of National League of Nursing (NLN) Simulation Tools

The Educational Practices in Simulation Scale was adapted with permission from the NLN. It is a 16-item tool that uses a five point scale and it is used to measure active learning, collaboration, diverse ways of learning, and high expectations. It also measures how important these items are to the participants of the simulation. The subject matter of the survey was adapted to reflect information about competencies of a DSW as opposed to the medical surgical subject matter of the NLN survey. The survey was also adapted from a five point scale to a four point scale in order to eliminate the neutral/undecided response option. Reliability was tested by NLN (NLN, 2006), although it should be noted that NLN does not guarantee reliability once surveys are adapted.

The Student Satisfaction with Learning Scale and the *Self-Confidence in Learning Using Simulations Scale* were also adapted and combined with permission from the NLN. The Student Satisfaction with Learning Scale is a five item tool that uses a five point scale to measure the student's satisfaction with the simulation. The Self-Confidence in Learning Using Simulations Scale is an eight item tool that uses a five point scale to measure how confident the students felt after the simulation with regard to the skills they used and the amount of caring they felt for the patient involved. The subject matter of the survey was adapted to reflect information about competencies of a DSW as opposed to the medical surgical subject matter of the NLN survey. The survey was also adapted from a five point scale to a four point scale in order to eliminate the neutral/undecided response option, and open ended questions were added instructing the

participants to provide examples of how the simulation exercise helped them better understand and apply the competencies. Both content validity and reliability were tested by NLN (NLN, 2006). Again, NLN does not guarantee reliability for surveys that have been adapted.

Research Method

The Simulation (Intervention)

Standardized Patients (SPs) are trained actors who provide a vehicle for students to learn and practice skills relevant to their field. SPs are able to realistically portray clinical, social, and family history; and provide emotional and affective information in-the-moment to which students can respond (Standardized Patient Program, 2015). Strategies were put in place to create a safe and welcoming environment for students engage since they had no previous exposure to simulation as a teaching method. A pre-briefing session was help two weeks prior to the simulation intervention. Students were also briefed by the facilitator and provided with the opportunity to seek clarification and ask questions immediately before the simulation intervention took place. The students also received case stems of the two cases two weeks prior to the simulation intervention and were given the opportunity to work in small groups to plan strategies to respond to the cases. The learning session was co-facilitated by a communication expert from the Standardized Patient Program and professionals from the DSW field. The experiential learning session with two cases/scenarios was delivered in the classroom setting. The simulation experience included SPs within a setting that was designed to create an immersive learning environment that mirrored the characteristics of the "real life" experience and situation. Students were invited to actively participate and put into practice their theoretical knowledge related to communication and advocacy skills. Students took turns engaging the SPs to resolve the cases and were instructed that they could time out at any time during the simulation. Students who were observing could also opt to time-in if they wanted to

engage the standardized patients. The facilitator debriefed the case as the scenario unfolded. All students were given the opportunity to engage the facilitator during the debriefing. During the simulation and the associated debriefing, student engagement and response was observed and recorded.

Immediately following the experiential learning session, students completed survey #2. This Post Simulation Survey was designed to record their overall perceptions of the learning experience and their confidence to practice the support skills during the upcoming field placement.

At the conclusion of the learning session using open ended questions, students documented their thoughts, feelings and perceptions in a journal format as to how this experience impacted their development of, and confidence level to practice their skills/competencies.

Data Collection

Three surveys were administered to the students who volunteered to participate in the study. The two research assistants administered the first pre-simulation survey in the classroom together, prior to the delivery of the theoretical content pertaining to the Core Competencies of the DSW. The purpose of this survey was to determine the demographics of the students; and to determine their theoretical understanding of the competencies as well as prior competency usage in supporting people with developmental disabilities.

The second post simulation survey was also administered to the students by the two Research Assistants immediately following the delivery of the simulated case studies by the Standardized Patients (SPs). The purpose of this survey was to explore satisfaction with current learning, self-confidence in learning, active learning/engagement, perceptions about the authenticity

of the simulation exercise, as well as and their perceptions of simulation as a teaching method in preparing them to practice their skills during field placement practicum.

A third post field placement survey was administered on-line following the seven-week field placement practicum. The purpose of this survey was to explore self-perception of skills and preparedness to practice in field placement. This survey also provided the students with the opportunity to give open ended feedback regarding their perceptions of preparedness, self-confidence, and the impact of simulation on their learning of the competencies.

Data Analysis

Data was derived from a convenience sample of students enrolled in the third semester Personal Support Skills Course in the DSW Program. All students in this cohort were eligible to participate. The principal researcher utilized three independent surveys to better understand the self-perceived change in knowledge among Developmental Services Worker students after their experiences with a simulation activity. It was hypothesized by the principal investigator that by using simulations as a teaching/learning technique, students would report an increase in their levels of confidence and ability to implement the core competencies to support people with developmental disabilities. With an overall goal of understanding how students felt about the use of simulation as a preparatory tool, the questionnaires were administered before the simulation activity, immediately after the simulation, and after the completion of the field placement.

Questionnaire 1 explored the students self- perceived ability to work with people who have a developmental disability; Questionnaire 2 sought feedback about students' experiences with the simulation activity, primarily the perceived levels of preparation for the field placement; and

Questionnaire 3 evaluates the usage level of the skills and competencies learned during the simulation.

Participation in each of the three surveys was completely voluntary, and students were informed prior to administration that they could abandon the survey at any time as well as refuse to answer any/all questions. Due to the fact that each survey was anonymous, it would be impossible to withdraw data after submission because of an inability to identify the respondents' survey. During the time of survey administration, there were 41 students enrolled in the Personal Support Skills course. The response rates for each survey were 53.6% for questionnaire 1; 73.1% for questionnaire 2; and 41.4% for questionnaire 3.

Results

Questionnaire # 1: Demographics

Gender	Complete	As %
Male	3	13.6%
Female	19	86.4%
Total	**22**	**100%**

Age	Complete	As %
17-20 Years	9	40.9%
21-25 Years	4	18.2%
26 - 29 Years	5	22.7%
30 Years or older	4	18.2%
Total	**22**	**100%**

Number of years as a college student	Complete	As %
One	9	40.9%
Two	8	36.4%
Three	3	13.6%
Four	0	0.0%
Five or More	2	9.1%
Total	**22**	**100%**

* Includes all colleges, not specifically Durham

Previously employed where you provided support to persons with a disability*	Complete	As %
Yes	9	40.9%
No	13	59.1%
Total	**22**	**100%**

*developmental disability; includes work in a group home, day program and individual support

For the respondents that have indicated having previous employment experience in a provincial setting with direct support to people with a developmental disability, the average length of experience was three and a half years; in comparison, those who indicated having volunteer experience, their average length of experience was slightly more than four years.

Volunteered and provided support to persons with a disability*	Complete	As %
Yes	18	81.8%
No	4	18.2%
Total	**22**	**100%**

*developmental disability; includes work in a group home, day program and individual support

Data Analysis

Questionnaire # 1: Theoretical Understanding

How would you rate your level of understanding behind each of the theories for the core competencies listed?

Theoretical Understanding (n=22)
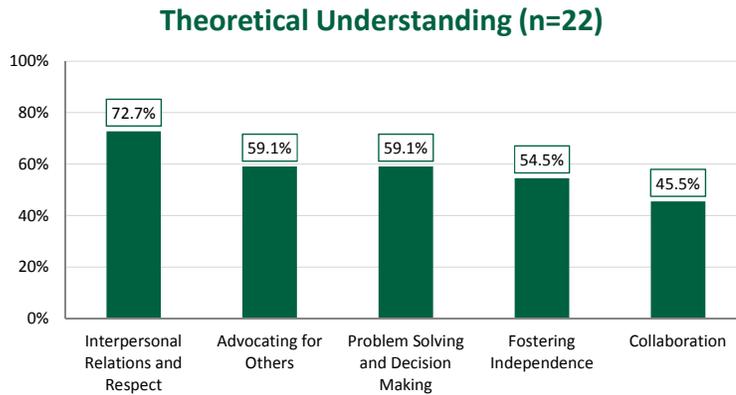
Overall, combining all theories, the proportion of students that responded with either good or excellent knowledge was

58.2%

Note: Respondents were rated on a 4-point scale (No Knowledge; Some Knowledge; Good Knowledge; and Excellent Knowledge). The chart above only includes score for those who reported a good or excellent level of understanding.

How prepared are you to apply each of the following competencies to directly support people with developmental disabilities?

Level of preparation (n=22)
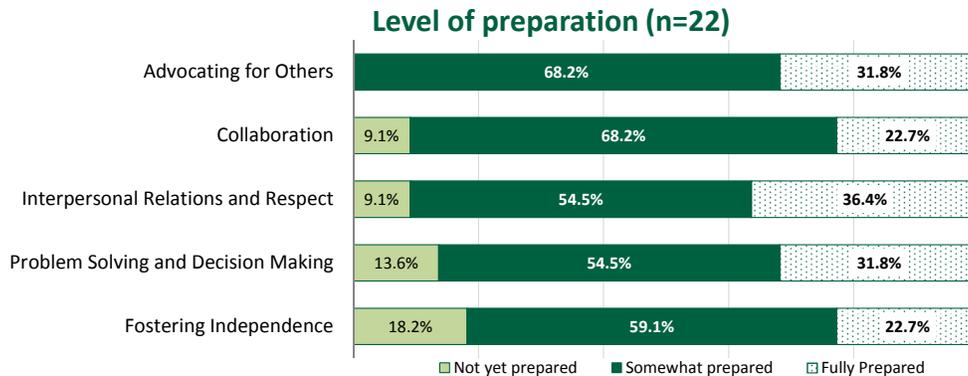
29.1%
(Overall)

… of the respondents have indicated that they are fully prepared to apply the five core competencies.

Data Analysis

Which of the following competencies have you used to directly provide support to people with a developmental disability; Have you ever participated in a simulation which required you to use any of the following competencies?

Competency	Previously Used		Simulation Activity	
	Count	As a %	Count	As a %
Advocating for others	17	27.0%	4	10.5%
Creative Problem Solving and Decision Making	13	20.6%	6	15.8%
Fostering Independence	12	19.0%	3	7.9%
Interpersonal Relations	12	19.0%	5	13.2%
Collaboration	8	12.7%	4	10.5%
None of the above	1	1.6%	16	42.1%
Total	63	100%	38	60%

Note: Respondents were advised to select all that apply

Although the vast majority (82%) of students feel they are either "somewhat prepared" or "fully prepared" to apply all 5 competencies to support people with disabilities, the competency with the highest percentage of students who believe that they are "not prepared" is "fostering independence in others"

Data Analysis

In order to determine the best practices within the simulation(s), respondents were asked to think about their experiences and respond to the questions as to how they perceived the method.

% Agree / Strongly Agree

Statement	%
The simulation provided me with a variety of learning materials and activities to promote my future learning	100%
Teaching method used was helpful and effective	93%
The teaching methods used in this simulation were motivating and helped me to learn	90%
I enjoyed how the instructor taught the simulation	80%
The way the instructor taught the simulation was suitable to the way I learn	79%

Questionnaire # 2: Self - Confidence in Learning

In order to determine the best practices within the simulation(s), respondents were asked to think about their experiences and respond to the questions as to how they perceived the learning outcome.

Outcome...	Strongly Disagree	Disagree	Agree	Strongly Agree
I am confident that the simulation covered critical content necessary for the mastery of the skills required to support people with disabilities	0.0%	10.0%	46.7%	43.3%
My instructors are helpful resources	0.0%	6.7%	56.7%	36.7%
It is my responsibility to learn what I need to know from this simulation	0.0%	0.0%	64.3%	35.7%
I know how to use simulation activities to learn critical aspects of these skills	0.0%	10.3%	58.6%	31.0%
I am confident that I am developing skills and knowledge from this simulation to perform necessary tasks in field placement	0.0%	0.0%	76.7%	23.3%
It is the instructors responsibility to tell me what I need to learn of the simulation activity content during class time	3.4%	44.8%	34.5%	17.2%
I am confident that I am mastering the skills taught in the simulation activity	0.0%	6.7%	76.7%	16.7%
I know how to get help when I do not understand the concepts covered in the simulation	0.0%	0.0%	85.7%	14.3%

89.7%

... of the participants indicated they "Agree" or "Strongly Agree" with the listed learning outcomes; however, only 27.3% indicated that they "Strongly Agree."

Data Analysis

<table>
<tr><td colspan="3">**Questionnaire # 2: Active Learning**</td></tr>
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In order to determine the best practices within the simulation(s), respondents were asked to think about their experiences and respond to the questions as to how they perceived the learning opportunity. The table below presents satisfaction and importance compared side by side.

Opportunity	*Satisfaction* (% Agree/ Strongly Agree)	*Importance* (% Important / Very Important)
I had the opportunity during the simulation activity to discuss the ideas and concepts taught in the course	**90.0%**	**90.0%**
I actively participated in the debriefing session	**66.7%**	**75.9%**
I had the opportunity to put more thought into my comments during the debriefing session	**80.0%**	**86.7%**
There were enough opportunities to find out if I clearly understood the material	**90.0%**	**80.0%**
I learned from the comments made by the instructor before, during, or after the simulation	**93.3%**	**90.0%**
I received cues during the simulation in a timely manner	**83.3%**	**86.7%**
I had the chance to discuss the simulation objectives with the instructor	**70.0%**	**86.7%**
I had the opportunity to discuss ideas and concepts taught with my instructor	**80.0%**	**86.7%**
The instructor was able to respond to the individual needs of the learners	**90.0%**	**86.7%**
Using the simulation activities made my learning time more productive	**83.3%**	**90.0%**

Note: The proportion above are those who responded with an 'Agree' or 'Strongly Agree', and similarly, 'Important' or 'Very Important' - the sample sizes reported include all responses.

86.7%

.... indicated that "I had the chance to discuss the simulation objectives with the instructor" was important; however, only 70% indicated that they have a chance to do so.

Data Analysis

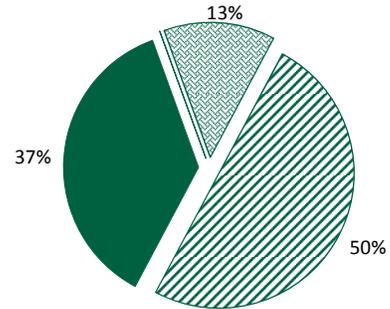**Questionnaire # 2: Active Learning: Collaboration, Diversity, Expectations, and Realism**

High Expectations

The objectives for the simulation experience were clear and easy to understand

10%

33%

57%
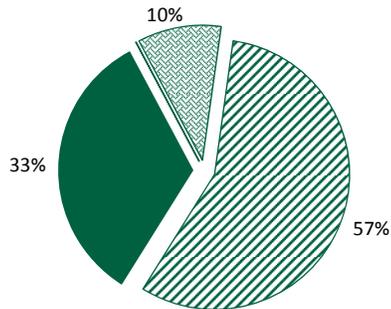
◨ Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

My instructor communicated the goals and expectations to accomplish during the simulation

13%

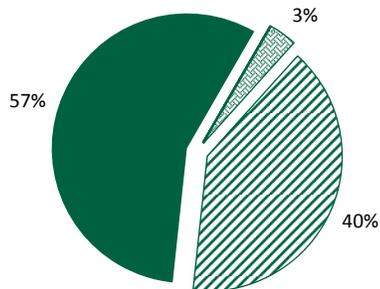37%

50%

◨ Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

Importance:

90.0% of the participants strongly agreed that this component was "Important or Very Important"

86.7% of the participants strongly agreed that this component was "Important or Very Important"

Realism / Authenticity

The case scenarios resembled real life situations

3%

57%

40%

◨ Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

Real life factors and situations and variables were built into the simulation scenarios

3%

63%

33%
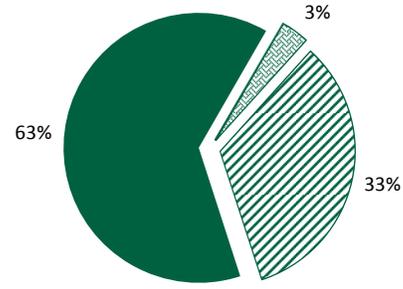
◨ Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

Importance: **Data Not Collected**

The statements that respondents indicated were the least important included the following: During the simulation, my peers and I had to work together as a team *(83.3%);* There were enough opportunities in the simulation to find out if I understood the material *(80.0%);* and I had the chance to work with my peers during the simulation *(80.0%).*

*Note: Percentages reported are the sum of % Important and % Very Important*

Data Analysis

Questionnaire # 2: Active Learning: Collaboration, Diversity, Expectations, and Realism

In order to determine the best practices within the simulation(s), respondents were asked to think about their experiences and respond to the questions as to how they perceived the learning outcome.
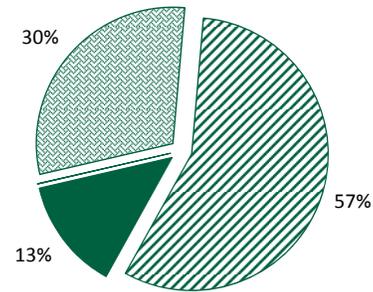
Collaboration

I had the chance to work with my peers during the simulation

23%
53%
23%
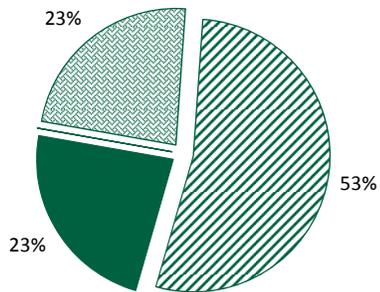
🟩 Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

During the simulation, my peers and I had to work together as a team.

30%
57%
13%

🟩 Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

Importance:

80.0% of the participants strongly agreed that this component was "Important or Very Important"

83.3% of the participants strongly agreed that this component was "Important or Very Important"

Diverse Ways of Learning

The simulation offered a variety of ways in which to learn the material

10%
57%
33%
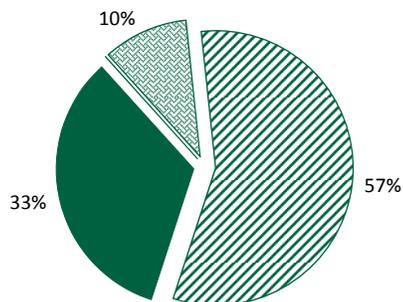
🟩 Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

The simulation offered a variety of ways of assessing my learning
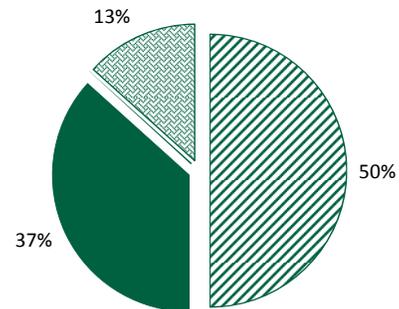
13%
50%
37%

🟩 Strongly Disagree ▨ Disagree ▨ Agree ■ Strongly Agree

Importance:

90.0% of the participants strongly agreed that this component was "Important or Very Important"

90.0% of the participants strongly agreed that this component was "Important or Very Important"

Data Analysis

Questionnaire # 3: Personal Narratives

Please provide examples of how you used the skills/ competencies taught in the simulation:

Praise:
- I was provided the opportunity to gain exposure with many different situations that I could expect to face in my placement - the real benefit was that I didn't have to worry about are repercussions for making the wrong decision.

- The situation with the team meeting was particularly important to me, and it was interesting to see how the personalities collided. Going into team meetings makes me nervous, but it made it easier by seeing how to appropriately handle the situation.

- I expected to learn about my biases and discover any roadblocks that might be met while trying to provide direct support to individuals. I did learn a lot about conflict resolution but not much about my own biases.

- I understood that active listening plays helps to win the cooperation and confident of the people who need support

Critique:
- I actually thought it was going to be more hand on like a lab practicum

Overall, most comments indicated the authenticity of the settings as being extremely beneficial. Certain skills were not distinctly mentioned.

Do you have any recommendations about how we can improve the simulation experience?

- It would be helpful to conduct more than one simulation

- For students who have never participated in an in-class simulation, a short demonstration might be a good idea to get people started.

- Hold them on multiple days so that we can all role play

- The professor needed to give us a chance to actually do it on our own and stop timing us out

- My only suggestion would be breaking it down even further. Due to our time constraints we weren't able to spend as much time on each simulation as I would have wanted to. Either breaking it into separate classes where we could choose which of the simulations we wanted to sit through entirely, or have a day for each simulation. Other than time, the simulation was fantastic!

Overall, most identified the simulation as being a great experience, although one common theme mentioned was -having a chance to alternate the people participating in order to experience more perspectives. There were multiple mentions of the time-outs as being more of a hindrance than a benefit.

Data Analysis

In order to determine the best practices within the simulation(s), respondents were asked to think about their experiences in their field placement and respond to the questions as to how they perceived the learning component.

Component	Survey question	% (Agree / Strongly Agree)
Completion	I successfully completed Field Placement II and received a passing grade.	94.1%
Sensitivity	I feel the simulation helped me to become sensitive to the perspectives of others.	93.8%
Practice	During Field Placement II, I was able to practice skills I learned during the simulation in the Personal Support Skills class.	88.2%
Development	The simulation activities I participated in helped me to develop skills that I used during field placement.	88.2%
Advancement	The simulation helped me realize that I had learned a lot in this class.	88.2%
Engagement	I think I am a more engaged support staff after having participated in the simulation.	88.2%
Progress	I think my experience in the simulation will be useful in my future career as I build my skills.	88.2%
Preparation	The simulation experience helped me to feel more prepared for field placement.	82.4%
Opportunities	During field placement I was given several opportunities to practice the skills and competencies I learned in the simulation activity.	82.4%
Advocacy	I feel the simulation made me become more aware of opportunities to advocate on behalf of people I supported during field placement.	82.4%
Career	By the end of Field Placement II, I was able to practice the skills and competencies taught in the simulation at the level expected of a novice DSW as defined on the field placement evaluation form.	82.4%
Application	I found myself seeking out opportunities to practice the skills taught during the simulation while I was on field placement.	76.5%
Procedures	While on field placement, I found myself thinking through how to approach a situation based on what I learned during the simulation	76.5%
Reflection	I was able to draw on my experience during the simulation to discuss approaches to supporting people with my field placement supervisor and/or coworkers at field placement.	76.5%
Feedback	I received positive feedback from my field placement supervisor regarding the skills taught during the simulation	70.6%

Data Analysis

Project Summary: Research Questions

The main research question for this project sought to identify the perceptions of second year Developmental Services Workers students regarding the impact of simulated (scenario based and role play) activities taught in a Personal Support Skills course. Five research sub-questions were explored in an attempt to answer the main Research Question.

Each sub-question is explored below using question mapping. The self perceived change in confidence/ability is assessed by comparing the proportional change from one question in survey two, to one question in survey three. Because the questions in each survey were different, one question from both survey two and survey three that best represented each of the project's five sub-questions. While this claim cannot be evaluated on an individual level because of anonymity, it can reported based on the aggregated totals.

1. What are the perceptions of the students regarding the authenticity of the scenarios?

Variables used in analysis:

Survey 2: Q29 - Real life factors and situations and variables were built into the simulation scenarios.
Survey 3: Q10 - While on field placement, I found myself thinking through how to approach a situation based on what I learned during the simulation.

Perceptions of Authenticity		
	Survey Two	**Survey Three**
% Strongly Agree	63.3%	17.6%

When comparing student perceptions regarding the authenticity of the scenarios between survey two and survey three, the percentage of students that strongly agreed was smaller amongst survey three respondents. When comparing the total number of students that both agree *and* strongly agree, the same is true. 96.7% of students in survey two indicated that they strongly agree or agree that the simulation included real life factors, situations and variables, while 76.5% of survey three respondents strongly agreed that they found themselves thinking about what they learned in the simulation when approaching situations in their field placement.

2. What were the students perceptions about simulation as a teaching strategy?

Variables used in analysis:

Survey 2: Q1 - The teaching methods used in this simulation were helpful & effective
Survey 3: Q6 - Simulation is a useful teaching strategy to prepare me for field placement

Perceptions of Teaching Strategies		
	Survey Two	**Survey Three**
% Strongly Agree	20.0%	52.9%

When asked about teaching strategies used in the simulation, satisfaction was higher amongst respondents of survey three than those that responded to survey two. Only 20.0% of students strongly agreed that the teaching methods used in the simulation were helpful & effective, while 52.9% of respondents in survey three indicated that they strongly agree that the simulation was a useful teaching strategy to prepare them for field placement.

Data Analysis

3. How engaged did the students feel as a result of having participated in the simulation activities?

Variables used in analysis:

Survey 2: Q14 - I had the opportunity during the simulation activity to discuss the ideas & concepts taught in the course with the instructor & other students

Survey 3: Q8 - I think I am a more engaged support staff after having participated in the simulation

Perceptions of Engagement		
	Survey Two	**Survey Three**
% Strongly Agree	33.3%	47.1%

Feelings of engagement were higher amongst respondents in survey three than amongst respondents in survey two. 33.3% of survey two respondents strongly agreed that they had the opportunity during the simulation to discuss ideas and concepts with the instructor and other students. However, 47.1% of survey three respondents reported that they strongly agree that they are a more engaged support staff after participating in the simulation.

4. What impact did the perceptions about the instructor have on the student's own perception of their preparedness ?

Variables used in analysis:

Survey 2: Q6 - I am confident that I am mastering the skills taught in the simulation activity that my instructors presented to me

Survey 3: Q14 - By the end of Field Placement II, I was able to practice the skills and competencies taught in the simulation at the level expected of a novice DSW as defined on the field placement evaluation form

Perceptions of Instructor		
	Survey Two	**Survey Three**
% Strongly Agree	16.7%	47.1%

Only 16.7% of respondents in survey two strongly agreed that they were mastering the skills being presented by their instructor in the simulation, while 47.1% of respondents in survey three strongly agreed that they were able to practice the skills and competencies that were taught in the simulation.

Data Analysis

5. How accurate were the students' perceptions about their preparedness for field placement?

Variables used in analysis:

Survey 2: Q8 - I am confident that I am developing skills & obtaining the required knowledge from this simulation to perform necessary tasks in field placement

Survey 3: Q3 - The simulation experience helped me to feel more prepared for field placement

Perceptions of Preparedness		
	Survey Two	**Survey Three**
% Strongly Agree	23.3%	17.6%

Overall, most respondents to both survey two and survey three reported that the simulation helped to prepare them for field placement. 100.0% of respondents to survey two indicated that they either agreed or strongly agreed that they were developing knowledge needed for field placement. Similarly, 82.1% of survey three respondents agreed or strongly agreed that the simulation helped them feel more prepared for field placement. That being said, slightly fewer students in survey three specifically indicated that they strongly agreed that the simulation helped them to prepare for field placement, when compared to the percentage of respondents in survey two that strongly agreed they were developing the skills to perform tasks in field placement.

Project Summary: Conclusion

Overall Conclusions

Overall, the vast majority of students in the Developmental Services Worker program that responded to survey two or survey three have indicated that they are both satisfied with their experiences with the simulation activity, and believe that it helped them to feel more prepared while they were completing their field placement. All respondents to survey two agree that the simulation provided them with the skills and knowledge that they require to perform their tasks in field placement, and that the simulation provided them with a variety of materials and activities to promote their learning about the competencies of a Developmental Services Worker. Similarly, more than 88.0% of students who responded to survey three reported that the simulation both helped them to realize they learned a lot in their class, and that that they were able to practice the skills they learned in the simulation, while they completed their Field Placement.

While the anonymity of both survey two and survey three do not allow for tracking student responses across the surveys, the results nevertheless suggest that students generally believe that the simulation activity helps to provide them with the knowledge and the skills that are required for employment as a Developmental Services Worker. Before they enter field placement, respondents to survey two generally agree that the simulation activity is beneficial to their learning experiences in the Developmental Services Worker program. These results are reinforced by the fact that most students who responded to survey three following the completion of their field placement acknowledged that they were able to transfer and use the skills they learned in their simulation activity in their field placement.

Discussion

This research study sought to explore the perceptions of second year DSW students prior to, and at the end of field placement, regarding the impact of simulated (case study scenario based) activities presented in a Personal Support Skills course designed to prepare them to practice core competency skills with people with developmental disabilities. The main research question and sub-questions provided a guide for the study through data gathering and data analysis process and provided a fame work for the conclusions of the study. To illustrate and present the data accurately, and to better authenticate the results, quotes from participants' journals will be incorporated into this discussion section. The data analysis revealed three themes: (1) students' perceptions of the simulation, including the authenticity of the scenarios, simulation as a teaching strategy, and the perceptions about the facilitator leading the simulation, (2) engagement of students in the simulation activity, (3) students self-perception about their own confidence to practice in field placement.

Student Perceptions of Simulation

Overall, the majority of the students reported satisfaction with simulation as a teaching method and 89.7% of the students reported an increase in their perception of confidence to practice the core competency skills. One student reported, "I need hands on work (the simulation) to increase my knowledge and skills." Another student said, "I can say that it was an amazing real life experience which we can't get through reading books or other reading materials." Another student indicated, "I was a direct participant in the simulation and found the experience to be very rewarding because I was able to implement the theories I have learned from class." A student reported that, "the simulation learning opportunity was presented in a non-threatening manner in the class. Being put into a safe environment before we actually were on placement helped me to

not be afraid to make mistakes. The simulation was built on the assumption that we would make mistakes." One student also commented, "the simulation helped to boost my confidence."

A few of the students expressed frustration about the time-in and time-out processes used by the facilitator. Some of the students indicated that they had difficulty or felt frustrated because the facilitator timed-out too frequently. One said, "I did not like all of the interrupting during the simulation. I found it distracting and unproductive and that we didn't get enough time." Another student said, "I found that the time in and time out was helpful but I felt that the facilitator was timing out too much for my liking and I would have preferred to actually say time out if I felt stuck or needed help." A student also noted, "I think that I would have gotten even more out of the simulation if there would have been more switching of students (students engaging with the standardized patients) and more of a chance to witness mistakes rather than (the facilitator) stopping them before they happened."

Overall, students reported that the scenarios were authentic based on what they would expect to encounter in the field. Students reported that they were very impressed with the standardized patient actors. One student reported, "I think that the best part of the learning experience was the realism of the situations and the incredible actors. The actors made the simulation more meaningful than if it had been classmates up at the front (doing role play). I found they really captured the emotions of how people would feel in those situations." One student reported, "the scenarios were so realistic, I could feel myself getting angry and feeling other emotions during the simulation."

Student Engagement

As indicated in the literature (Rogers, 2009; Sanford, 2010) students learn better when they are able to engage with the material. Overall, students reported positively about their engagement in the simulation activities and reported that the simulation positively impacted their learning. One student reported, "I really appreciated the opportunity to observe real situations in an environment where I did not feel under pressure or feared giving the incorrect answer, but did feel compelled to share my input, and felt engaged in the simulation." Another said, "I was pleasantly surprised that even as an observer, I still had the opportunity to participate just as actively as the people directly involved (with the standardized patients)." Students reported that they were engaged in the simulation even if they did not get the opportunity to problem solve the case directly with the standardized patient actors. A student said, "by having us think about what was going on in front of us, and asking us questions, (debriefing in the moment) it kept us involved in the simulation even if we weren't participating directly."

Student Self-perceptions of Self-confidence

All of the respondents to surveys two and three reported that the simulation helped to prepare them for field placement. The majority of the students indicated that they felt confident to implement the core competencies in working with people with developmental disabilities. One student reported, "I am now more confident that I will be able to make more positive choices in these situations now that I have gone through the simulation." Another said, "after the simulation, I certainly feel more confident and prepared to use core competencies in field placement." A student also wrote, "after the simulation was over, I did reflect on how I would apply the simulation to real life and using the core competencies in every situation we come across. I understand that it will

come with time but I am feeling more confident about being able to use the core competencies in my everyday work."

Conclusion

Overall, the results of this research study support the hypothesis made by the principal investigator that by using simulation as a teaching/learning technique, students would report an increase in their levels of confidence and ability to implement the core competencies to support people with developmental disabilities. The study contributes to the limited body of scholarly research and literature pertaining to formal education and simulation in the DS field. It is hoped that the outcome of this study will support the need for additional resources to incorporate simulation into the DSW curriculum in order to improve teaching practices and learning outcomes for DSW students. The results of the study serve as confirmation of the effectiveness of the use of simulation for other teachers in similar DSW and or Social Services programs.

Limitations of the Study

The findings in this research study are based on a relatively small convenience sample size. It would be beneficial to replicate the study using a larger sample size. It would also be beneficial to replicate the study across human services programs.

While the first survey (pre-simulation) explored students' perception of preparedness to apply specific core competencies, this particular study did not explore student perception regarding each of the individual competencies or how the simulation training impacted the students' preparedness and self-confidence to practice each competency during field placement. Instead,

overall preparedness to apply the core competencies and accuracy regarding these perceptions were explored.

The responses to the sub-questions in this research study were explored using question mapping. It would be beneficial to repeat this research and administer survey 1 pre-simulation, as well as post-simulation, so direct comparisons could be made regarding the impact of the simulation activities.

Considerations for Future Research

The literature suggests that students who have had the opportunity to participate in experiential learning activities have viewed these activities as significant learning tools. It was also reported that the learning was applied during the students' field practicum and that they felt more comfortable applying their skills because they had faced the situation before (Vachon, 2011).

Students today are savvy consumers. They want the most for their College investment dollars. Colleges have become more and more competitive in their efforts to recruit and retain students. Colleges need to offer curriculum that is learner focused in order to maintain their competitive edge. The focus of this research was core competency development in the Personal Support Skills course. Further research is required related to the benefits of simulation in other courses in the DSW program as well as in other human services programs. Specifically, it would be beneficial to study the impact simulation has on learning and practical experience in other human services fields. DSW's are part of an interdisciplinary team and as such, it would be beneficial to conduct further research to explore the impact of simulation on developing the competencies of the interdisciplinary team. A further study could also be done which looks at the employers' perceptions about the competencies demonstrated by students who have engaged in simulation training as part of the curriculum prior to field placement.

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