INVESTIGATING THE EFFECTIVENESS OF SIMULATION-BASED TRAINING ON SOCIAL WORK STUDENTS IN FIELDWORK PLACEMENT

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This study aims to explore the effectiveness of simulation-based case conferences, developed in partnership with the Ministry of Social and Family Development (MSF), on the competency of students in handling real-life internship-based case conferences. This research will examine whether simulation-based training can effectively prepare students for the challenges they will encounter during their internships, and how this preparation influences their confidence, decision-making skills, and overall performance in actual case conference settings. Three validated survey tools; Simulation Effectiveness Tool, Self-Efficacy in Clinical Skills Scale and Social Work Skills Inventory, were contextualized with consideration towards the attainable key competencies in the Nanyang Polytechnic's (NYP) Social Work simulation framework to develop a pre and post training survey for the learners. The participants for this research are Year 3 students from the Diploma in Social Work in NYP. Learners' perceptions of the training were also gathered and thematically analysed to gather qualitative insights into the effectiveness of simulation-based training on field work placements. The results of the pre- and post-survey indicate a significant positive impact of simulation-based training on students' preparedness for managing real-life case conferences. These findings affirm the effectiveness of simulation-based training in bridging the gap between theoretical learning and real-world practice in social work education. This research also highlights the value of simulation-based learning as a powerful tool for enhancing practical skills in social work students. The partnership with the Ministry of Social and Family Development (MSF) underscores the benefits of collaboration with external agencies, which bring real-world relevance and depth to training scenarios.

Keywords: Social work, Simulation based training, Placement

Introduction

In social work education, bridging the gap between theoretical knowledge and practical application is a persistent challenge. Simulation-based training has emerged as a promising pedagogical approach to enhance students' preparedness for real-world scenarios. (Lateef, 2010) This study investigates the effectiveness of simulation-based case conferences, developed in collaboration with the Ministry of Social and Family Development (MSF), in equipping students with the competencies required for managing real-life case conferences during their internships. Specifically, the research examines the impact of such training on students' confidence, decision-making skills, and overall performance in actual case conference settings. Simulation-based learning offers students the opportunity to practice their skills in a realistic, yet risk-free setting. Feedback and inputs from fellow classmates and facilitators also contribute to the students' learning. At the end of the session, students were able to learn about stakeholder management and experience how to navigate various barriers to achieve a collective goal.

To prepare social work students for their fieldwork placement, Nanyang Polytechnic's School of Health and Social Sciences, partnered with the Ministry of Social and Family Development (MSF) to pilot a simulation-based case conference in November 2023. After the pilot training program, research was designed to investigate the effectiveness of the training. The research was conducted between June 2024 and February 2025. The objective of the research was mainly to investigate the effectiveness of this training. The 2 main research questions were –

1. How does simulation-based training impact the competency levels of social work students during their field work placements?
2. What are the perceptions of the students on the simulation-based training?

Literature Review

What is Simulation?

Simulation is an "exemplar method" in teaching holistic competence; and has a long history of wide use in medicine, nursing and other healthcare professions. (Lateef, 2010) During the simulation-based case conference, each student was tasked to portray a certain stakeholder role. Based on the assigned role, the students were given different information, and they had to engage in discussion, with the aim to collaborate and come to a consensus on follow up plans based on the issues identified in the case study. This gave students opportunities to practice their engagement, empathy, case conceptualisation and micro skills. Students will then be asked to reflect on their learning and have feedback given via the instructor and other fellow students.

Importance of simulation-based learning

Simulation-based learning has gained traction in social work education as an effective means to develop practical skills in a controlled environment. Studies have demonstrated that simulations can significantly enhance students' self-efficacy and clinical competencies. For instance, a systematic review by Kourgiantakis et al. (2019) highlighted the positive outcomes of simulation-based education in social work, noting improvements in students' confidence and skill acquisition.

The use of standardized clients, portrayed by trained actors, has been identified as a common simulation method that provides consistent and realistic practice scenarios (Bogo, Rawlings, Katz, & Logie, 2014). Such simulations allow students to engage in authentic client interactions, thereby enhancing their readiness for field placements. Additionally, virtual reality and computer-based simulations have been explored as innovative tools to further enrich social work training (Washburn et al., 2016).

Furthermore, simulation-based training has been linked to increased self-efficacy among social work students. A study by Badger and MacNeil (2002) found that students who participated in simulated client interactions reported greater confidence in their direct practice skills. These findings suggest that simulation exercises can effectively prepare students for the complexities of real-world social work practice.

Competence

NYP's Diploma in Social Work aims to develop professionals who can function competently as Social Work Associates in the social service sector. Kourgiantakis (2019) outlined a model of Holistic Competence as comprising procedural and meta-competence. Procedural competence consists of skills such as developing a collaborative relationship, conducting an assessment, and utilizing diverse intervention frameworks. Meta- competence refers to

"the ability to be introspective about one's cognitive and affective states" and includes processes such as self-regulation, reflection and awareness. The figure below outlines NYP's Social Work Simulation Framework.
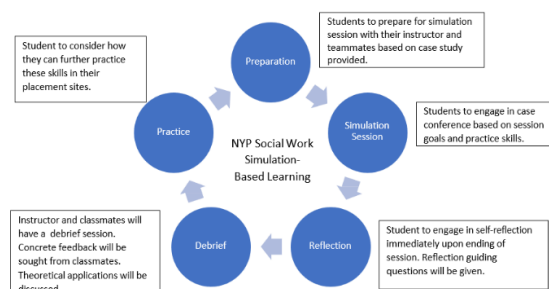

Fig 1 NYP's Social Work Simulation Framework

Materials and Methods

Participants

Participants comprised Year 3 students enrolled in NYP's Diploma in Social Work program. There were 43 students who were enrolled in the program and who completed the survey. Inclusion criteria required the learners to have completed 2 years of the NYP's Diploma in Social work program and the training program organised in collaboration with MSF. Ethical approval was obtained from the polytechnic's institutional review board, and informed consent was secured from all the participants. There was no control group in this study, as all students were required to undergo the simulation-based training to ensure fairness and uniformity in the educational experience.

Measures

This study employed a mixed-methods approach to assess the effectiveness of simulation-based case conferences through the simulation-based training. The survey instrument comprised of 16 items which were adapted from three validated simulation tools and aligned with the key competencies outlined in Nanyang Polytechnic's (NYP) Social Work simulation framework. The alignment identified four main domain areas to be measured, namely the student's self-perception on the following,

1. Confidence and self efficacy
2. Skill acquisition and competence
3. Self awareness and mental resilience
4. Interpersonal and collaboration skills

The three validated survey tools were namely –

1. Simulation Effectiveness Tool (SET): Measures students' perceptions of the simulation's realism and educational value.
2. Self-Efficacy in Clinical Skills Scale (SECSS): Assesses students' confidence in their clinical abilities.

3. Social Work Skills Inventory (SWSI): Evaluates proficiency in essential social work skills.

Research design and procedure

Pre- and post-training surveys were administered to quantitatively measure changes in the four identified domain areas stated above. The participants rated their level of agreement on a five-point Likert scale, which ranged from one (strongly disagree) to five (strongly agree). Five response categories were used because, although research indicates that as the number of response categories increases, so do reliability and validity, such small differences within a large number of response categories may not reflect actual differences in the construct being measured. Additionally, learners' perceptions of the training were also gathered and thematically analysed to gather qualitative insights into the effectiveness of simulation-based training on field work placements.

The pre-survey was conducted before the training. The post-survey and the qualitative feedback were conducted after the training and after the students completed their field work placement.

Intervention

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The intervention involved Year 3 Students enrolled in the Diploma in Social Work Programme. MSF briefed the students on the cases they would be simulating. This would be followed by role allocation and preparation for the simulated case conference. After the simulation, the students would have a reflective practice session, and a group debrief. This simulation would involve several cases and it would be conducted 1-2 months before the students fieldwork placement.

Results and Discussion

Data Analysis

Before conducting paired t-tests to compare pre- and post-test scores, data normality was assessed using the Shapiro-Wilk test. If normality assumptions were violated, non-parametric alternatives such as the Wilcoxon signed-rank test were applied. Effect sizes were calculated to determine the magnitude of observed changes. Participants completed the pre-survey prior to the simulation-based training and the post-survey immediately after the training. Data were analysed using paired t-tests to determine the significance of changes in survey scores. Analysis of the pre- and post-survey data revealed a significant positive impact of the simulation-based training on students' preparedness for real-life case conferences.

Qualitative feedback was collected through open-ended questions administered via the same online survey platform, allowing participants to elaborate on their perceptions of the resources and their applicability to teaching practices. This method was chosen for its

flexibility and capacity to gather in-depth insights from diverse participants asynchronously. For the qualitative data, a grounded theory approach was used for thematic analysis. Data from open-ended survey responses and participant reflections were systematically coded. Initial open coding identified recurring patterns, followed by axial coding to establish relationships among themes. Selective coding refined overarching themes while addressing any contradictions in participant responses. To enhance reliability, two independent researchers reviewed the coding framework, and discrepancies were resolved through discussion.

Results

Students demonstrated notable improvements in key competencies, including:

1. Analyzing Case Information: Enhanced ability to critically assess and interpret client data.
2. Facilitating Stakeholder Collaboration: Improved skills in coordinating with various parties involved in case management.
3. Formulating Actionable Plans: Greater proficiency in developing effective intervention strategies.

The table below presents the quantitative findings displaying the mean pre- and post- survey scores. Significant improvements were observed in all domains ($p < 0.05$), indicating the positive impact of the training.

Table 1 Quantitative results

Domains	Pre survey Mean (SD)	Post survey Mean (SD)	Mean Difference
Confidence and self efficacy	3.2 (0.6)	4.3 (0.5)	+1.1
Skill acquisition and competence	3.4 (0.7)	4.4 (0.4)	+1.0
Self awareness and mental resilience	3.1 (0.8)	4.0 (0.6)	+0.9
Interpersonal and collaboration skills	3.3 (0.6)	4.2 (0.5)	+0.9

Post-training results reflected a marked improvement in student outcomes across key domains, with the mean score for confidence and self-efficacy rising from 3.2 (SD = 0.6) to 4.3 (SD = 0.5). This substantial increase highlights the positive impact of the simulation-based training in boosting students' confidence and readiness to handle real-life case discussions.

Qualitative feedback underscored the practical relevance of the simulations. Students highlighted that the realistic scenarios and guided debriefing sessions deepened their understanding of the complexities

inherent in case conferences. These findings align with existing literature emphasizing the value of simulation-based learning in enhancing social work education (Kourgiantakis et al., 2019).

Table 1 Quanlitative results

Theme	Key Insights	Example of Feedback
Confidence and Familiarity with Case Conference	Many Students expressed an increased sense of confidence	"It gives me an idea of what to expect in a real case conference" "knowing what to expect in case conference, and preparing ways to structure information when questioned of certain aspects"
Application of Facilitation and Organisational Skills	Students reported a better grasp of facilitation techniques	"Facilitating skills are important" "Prep work is essential"
Understanding of Interagency Collaboration	A recurring theme was students' enhanced understanding of the collaborative nature of case conferences	"This workshop helps me better understand the purpose and roles of the different agencies" "I would listen to the different viewpoints of the different stakeholders"
Professionalism	Several respondents acknowledged the importance of professionalism	"I need to be prepared and professional" "Different workers have different ways of dealing with a certain situation, and it is inevitable to meet people who may be difficult to work with. By exposing myself to these types of people, I can better expect what is coming for me and be prepared to face them with professionalism"
Enhanced readiness for real world practice	Students appreciated the transferability of the simulation experience.	"It is a good idea to pre empt us with a simulation" "In my upcoming fieldwork placement, having this understanding will be beneficial as I would know which agency can support my client in the best way."
Critical thinking and Prioritization of client needs	Students reported gaining insights into how to weigh various perspectives	"I would listen to different viewpoints and prioritise based on safety" "Understanding how to prioritise client's needs, which agency should focus in which aspect"

Discussion

The study's findings affirm the effectiveness of simulation-based training in bridging the gap between theoretical learning and practical application in social work education. By providing students with realistic, practice-based experiences, such training enhances their confidence and competence in stakeholder management and supporting with real-life case conferences. The collaboration with the Ministry of Social and Family Development (MSF) exemplifies the benefits of partnering with external agencies to enrich educational initiatives.

Insights from the experience in empowering students to navigate social work complexity points to its effectiveness in the competency development of students and the importance and significance of partnering, co-creating, co-teaching, and co-mentoring of students that must be a key aspect of any curriculum. As educators prepare students for the transition from the classroom to the professional world, these varied forms of partnership will serve an important role in nurturing the appropriate attitude and aptitude, which will go far in building both the personal and professional identities of our students.

The qualitative responses from students revealed that simulation-based case conference training significantly enhanced their preparedness for fieldwork.

Students reported increased confidence in participating and facilitating discussions, with many noting a clearer understanding of how real-life case conferences are conducted. The training also deepened their awareness of interagency collaboration, enabling them to better appreciate the distinct yet complementary roles of various stakeholders. Furthermore, students highlighted the importance of facilitation skills, preparation, and maintaining professionalism in complex team settings. These insights suggest that beyond technical skill acquisition, simulation-based learning fosters critical thinking, adaptability, and collaborative attitudes essential for effective social work practice. This aligns with prior research emphasizing the value of realistic, practice-oriented training in building both competence and confidence in future practitioners (Kourgiantakis et al., 2019).

Limitations

Several limitations should be noted. First, the study relied on self-reported qualitative feedback, which may be influenced by students' subjective perceptions and a desire to provide socially desirable responses. The absence of a control group also limits the ability to make causal claims about the effectiveness of simulation-based training compared to other learning approaches.

In addition, the findings are based on a small sample size from a single institution, which may affect the generalizability of the results to other social work programs or settings. Finally, long-term impacts on actual field performance were not assessed, leaving questions about how well the skills and insights gained from the simulation transfer to real-world practice.

Recommendations

Given the positive outcomes observed, it is recommended that social work curricula incorporate simulation-based learning as a core component to enhance practical skills development. Future collaborations with external agencies should be pursued to ensure training scenarios remain relevant and reflective of current practice realities. Additionally, further research could explore the long-term impact of simulation-based training on graduates' performance in the field.

Acknowledgements

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