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**IMPACT OF PREBRIEFING ON CLINICAL
JUDGMENT AND EXPERIENCE IN SIMULATION: AN
EXPERIMENTAL STUDY**

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Impact of Prebriefing on Clinical Judgment and Experience in Simulation: An Experimental Study

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Abstract – Clinical judgment, and the view of the prebriefing background of those members accepting organized prebriefing and those getting customary prebriefing exercises, were looked at. The connection between simulation performance and students' self-evaluated prebriefing background was likewise inspected. Scores from the Creighton Competency Assessment Instrument and the Prebriefing Background Scale were investigated utilizing parametric and non-parametric statistics. A factually noteworthy contrast was shown between bunches for competency performance ($p < 0.001$), clinical judgment ($p < 0.001$) and prebriefing knowledge ($p < 0.001$). No relationship was found between impression of prebriefing background and students' reproduction performance.

This investigation gives an establishment to prebriefing research in nursing simulation. The examination showed the mediation of a model-based, organized prebriefing movement, educated by concept mapping and reflection hypothesis, for upgrading competency performance, clinical judgment and students' impression of their prebriefing experience.

Keywords: Prebriefing, Clinical Judgment, Simulation, Nursing.

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INTRODUCTION

In view of the potential prebriefing holds, an investigation of how learning could be bolstered amid this stage may prompt further comprehension of how well student learn through simulation, and may encourage the advancement of able practice. The impacts of organizing data and manners of thinking in the prebriefing stage are unexplored in the writing in this unique situation. Along these lines, an organized prebriefing intercession might be useful in shaping basic subjective aptitudes and significant discovering that create clinical skill.

High-constancy human patient reproduction (HFS) gives a domain that as practically as conceivable mirrors a clinical setting, offering understudies a chance to improve various adapting needs in a safe condition. Chances to make strides appraisal abilities, pick up knowledge into the choice making process and the results of those choices can happen with recreation (Adamson, et. al., 2011).

A few investigations have investigated recreation (Arafeh, et. al., 2010. Cates, 2014. Dreifuerst, 2012).

There have been ponders investigating how well simulation plans understudies for clinical judgment development (Arafeh, et. al., 2010), (Eggenberger, et. al., 2010), (Faul, et. al., 2009) yet considers are still expected to explore the intelligent process that is interwoven with clinical thinking to further improve information maintenance. Clinical judgment is very unpredictable, and requires an adaptable and particular capacity to perceive vague clinical data, decipher its meaning and react properly (Garrett, et. al., 2011), (Hyland and Hawkins, 2009). In conjunction with clinical judgment is reflection on training which is basic for the advancement of clinical information and change in clinical thinking (Eggenberger, et. al., 2010), (Garrett, et. al., 2011). Reflecting upon one's encounter advances learning, and a guide for reflection utilizing the clinical judgment demonstrate was created to advance understudies' intelligent writing to empower basic reasoning, learning exchange, change, metacognition, and investigation of enthusiastic parts of circumstances experienced in clinical encounters (Irby, et. al., 2013), (National Committee of State Sheets of Nursing, 2009). Clinical judgment and

reflection are basic to the advancement of future medicinal services suppliers.

This investigation investigated the viability of simulation pre-instructions preliminary material that is at present being used by workforce and understudies in an assorted urban undergrad School of Nursing (Child) program. It moreover investigated the association of simulation to clinical judgment and reflection. As the Simulation Facilitator for a substantial urban Child in the USA, the analyst created understudy and workforce preliminary formats, in view of NLN case consider simulation situations, including all the exhorted methodologies and in addition extra inventive, reenacting and connecting with methodologies, consolidating YouTube recordings, instructive Compact discs from the College Wellbeing Callings Instructive Center; and broad data relating to the situation therapeutic condition (counting physiology, pathophysiology, inconveniences and pictures) to plan understudies what's more, instructors. Pre-instructions preliminary materials are gifts that give a diagram of the simulation case situation. Proposed data can incorporate a perspective to gear being used amid the reproduction, the reproduced understanding condition and puppet, understudy parts amid the reproduction, time assignment, simulation goals and patient circumstance (The INASCL Governing body, 2011).

Clinical Situation

The clinical situation gives points of interest to the staff procedure of creating SBL encounters. The clinical situation is characterized as: The arrangement of a normal and potential course of occasions for a mimicked clinical affair. The clinical situation gives the setting to the recreation and can change long and many-sided quality, contingent upon the destinations. The clinical situation configuration incorporates:

- Member arrangements
- Prebriefing
- Understanding data portraying the circumstance to be overseen
- Member goals (Meakim et al., 2013, p. S4).

OBJECTIVE

Is there a distinction in clinical judgment amid a clinical recreation situation between nursing student in a customary baccalaureate program who take part in an organized prebriefing mediation and the individuals who take part in conventional prebriefing exercises?

REVIEW OF LITERATURE

Writing that examines the concepts of prebriefing, competency performance, clinical judgment, and student experiences as far as concept mapping and

guided appearance in organized prebriefing, will be blended and assessed. So as to arrange these concepts inside the setting of the proposed examine, bolster from hypothetical systems identified with constructivism and intelligent practice will initially be verbalized.

Tilley's (2008) concept investigation of competency demonstrated that one of the outcomes of competency incorporates clinical judgment. Leather expert characterized clinical judgment as "a translation or determination about a patient's needs, concerns or medical issues, as well as the choice to make a move (or not), utilize or change standard methodologies, or extemporize new ones as considered proper by the patient's reaction" (2006, p. 204). Clinical judgment was additionally explained by Benner, Leather expert and Chesla (2009) as "the manner by which attendants come to comprehend the issues, issues, or worries of customers and patients, to take care of remarkable data, and to react in concerned and included ways" (p. 200). These creators proposed that the comprehension of this term includes ponder choice based ability that includes numerous parts of care. For example, the aptitude of at the same time looking forward and back, normal for expectant reflection and of more experienced medical caretakers displaying clinical judgment (Benner, Stannard, and Hooper, 1995; Leather expert, 2006), is an expertise involved the joining of different abilities. Nonetheless, prebriefing structures that assistance get ready fledgling medical attendants and student for the fundamental aptitude of clinical judgment are not plainly clear in the simulation writing.

In 2006, Leather treater initially proposed a model of clinical judgment for recreation, including key parts of seeing, deciphering, reacting and reflecting. From that point forward, just a couple of studies have investigated clinical judgment in undergrad nursing student in connection to simulation plan and prebriefing specifically (Chmil, Turk, Adamson, and Larew, 2015); an as of late distributed examination showed that conventional prebriefing exercises, for example, inspecting tolerant case notes on the web and an introduction to the simulation zone were evaluated low by student as helping with clinical judgment advancement (Kelly, Hager, and Gallagher, 2014). A comprehension of how organized prebriefing may bolster enhanced simulation conveyance, undergrad understudy competency performance, and in this manner clinical judgment would help with filling the holes in the recreation writing.

METHODOLOGY

Design

This examination utilized an experimental; assemble randomized piece design, with organized prebriefing as the single mediation. Student in every one of the fall (seventh) and winter (6th) terms of a Baccalaureate of Science in Nursing (BSN) program, were at that point

enlisted in one of two segments of the restorative surgical course focused by this investigation. Groups were randomized by course area, in obstructs (each term). Subsequently each term, the two areas of student taking this course, who assented to take an interest, were arbitrarily relegated to either the test or control group.

Setting, Population and sampling

Setting

The investigation was led at a vast college school of nursing in Kanpur, in the nursing simulation focus (NSC). This middle was furnished with SimMan® mannequins, one of which was utilized as a part of the investigation's recreation encounters. Recreation focus bolster staff were accessible to help with specialized parts of the simulations, yet were not engaged with leading the investigation or in group information.

Population

Members were enlisted from a huge accommodation test of 379 BScN student selected in a fourth-year medicinal surgical, clinical nursing course amid the 6th and seventh term of a conventional 4-year program. This population was chosen in light of the prerequisite for these student to perform ably at the course level, and to create clinical judgment abilities amid the upper years of the program. All student in this focused on course: met a similar program confirmation criteria; were enlisted from a similar 4-year program compose; had a similar measure of medicinal surgical clinical and recreation encounter because of introduction to the same curricular structure and content; and, met a similar essential necessities for the fourth-year restorative surgical course. The capacity to peruse, talk, and write in English is a prerequisite for program affirmation, so all student could communicate in English.

Assurance of sample size

Since there was minimal earlier information investigated the concept of prebriefing, traditional rules for deciding example estimate (Cohen, 1988) were connected to a from the earlier power examination utilizing G*Power (Faul, Buchner, Erdfelder, and Lang, 2009). A two-followed t-test set at $p = .05$ with an energy of 80% and a medium impact size of $d = .5$ recommended that 64 members were required in each of the exploratory and control groups, for an aggregate example size of 128.

Instruments

Two instruments were utilized to gather information. The members' simulation exercises were surveyed utilizing the Creighton Competency Assessment

Instrument (CCEI), this present instrument's Clinical Judgment subscale (CCEI-CJ), and the Prebriefing Experience Scale (PES). The member scores from the trial aggregate on these estimations were contrasted with those scores from the control group.

RESULTS AND ANALYSIS

IBM SPSS Form 22.0 Premium programming was utilized for every single quantitative examination. Preparatory investigations were directed to survey missing information, exceptions, ordinariness and homogeneity, to decide suppositions and the determination of inferential measurable tests, before tending to the exploration questions.

Preparatory Outcomes

Before tending to the exploration questions, homogeneity of fluctuation was tried to help the plan of joining the fall and winter terms each into the trial and control groups. Add up to scores were inspected for conceivable contrasts between terms ($fu = 31$, $nwinter = 45$) on the factors of age, past simulation encounter, and the scores for the Creighton Competency Assessment Instrument (CCEI), the CCEI Clinical Judgment subscale (CCEI-CJ), and the Prebriefing Experience Scale (PES).

Table 1

Sample Description	Age (years)	Simulation Experience (number of high fidelity exposures)	CCEI Scores (%)	CCEI-CJ Scores (%)	PES Scores (out of 100)
Overall sample (N = 80)	$M = 26.0$ $SD = 6.8$	$M = 2.9$ $SD = 1.8$	$M = 71.2$ $SD = 14.3$	$M = 77.2$ $SD = 18.6$	$M = 92.2$ $SD = 7.7$
Fall (seventh) term (n = 31)	$M = 27.0$ $SD = 7.0$	$M = 2.9$ $SD = 1.8$	$M = 74.1$ $SD = 13.6$	$M = 79.7$ $SD = 19.9$	$M = 92.5$ $SD = 8.4$
Winter (sixth) term (n = 45)	$M = 25.3$ $SD = 6.7$	$M = 2.9$ $SD = 1.8$	$M = 69.2$ $SD = 14.5$	$M = 75.4$ $SD = 17.7$	$M = 92.0$ $SD = 7.2$

Descriptive Outcomes

Sample description based on experimental group.

The accumulation of statistic information included: sex, age, and number of past simulation encounters. The general member test was illustrative of the understudy populace selected in this nursing program. The larger part of members were female (92%; $n = 70$). The extent of male members was practically identical to the extent of guys enlisted in the course areas (10%), and at the school. Members extended in age from 20 to 49 years, with a normal age of 26.0 years ($SD = 6.8$).

The trial group ($n = 44$), who were presented to organized prebriefing, were involved 91% female ($n = 38$), and 9% male ($n = 4$) members. The ages for the test gather ran from 20-43 years, and arrived at the midpoint of 26.0 years ($SD = 6.4$). Half of the control

amass members revealed having between 2-4 past simulation encounters (half).

The control group ($n = 36$), who were not presented to organized prebriefing, was contained 94% female ($n = 32$), and 6% male ($n = 2$) members. The ages for the control amass went from 20-49 years, and found the middle value of 25.9 years ($SD = 7.5$). Most control amass members revealed having between 2-4 past simulation encounters (55.9%). In this way, the socioeconomics were spoken to comparatively in the exploratory and control groups.

Table 2 descriptive outcome

					Scores (% of items assessed)									
Whole Sample ($N = 80$)					Experimental ($n = 44$)					Control ($n = 36$)				
Instrument/Subscales	<i>M</i>	Min	Max	<i>SD</i>	95% (CI-L)	<i>M</i>	Min	Max	<i>SD</i>	95% (CI-L)	<i>M</i>	Min	Max	95% (CI-L)
CCEI (23 items)	71.2	38.1	95.7	14.3	(68.0, 74.5)	79.9	63.6	95.7	8.81	(77.2, 82.6)	60.5	38.1	91.3	12.4 (56.2, 64.8)
CCEI Assessment (3 items)	71.0	0	100	30.0	(64.4, 77.7)	83.3	0	100	24.7	(75.6, 91.0)	55.9	0	100	26.9 (46.5, 65.3)
CCEI Communication	68.9	20	100	16.5	(65.2, 72.7)	72.9	60.0	100	11.5	(69.3, 80.5)	64.1	20	100	20.2 (57.1, 71.2)
CCEI Clinical Judgment (9 items)	77.2	37.5	100	18.6	(72.9, 81.4)	89.1	55.6	100	10.6	(85.8, 92.4)	62.5	37.5	88.9	15.7 (57.0, 68.0)
CCEI Patient Safety (6 items)	63.4	16.7	100	21.4	(58.5, 68.3)	69.8	33.3	100	20.9	(63.3, 80.4)	55.4	16.7	100	19.6 (48.6, 62.2)

Table 3 descriptive outcome group for PES

					Scores									
Whole Sample ($N = 80$)					Experimental ($n = 44$)					Control ($n = 36$)				
Instrument/Subscales	<i>M</i>	Min	Max	<i>SD</i>	95% (CI-L)	<i>M</i>	Min	Max	<i>SD</i>	95% (CI-L)	<i>M</i>	Min	Max	95% (CI-L)
PES (out of 100)	92.2	70.0	100	7.7	(90.4, 93.9)	95.7	83.0	100	4.5	(94.3, 97.1)	87.8	70.0	100	8.6 (84.8, 90.8)
PES-ATF (out of 20)	18.1	11.0	20.0	1.8	(17.7, 18.5)	18.9	17.0	20.0	1.0	(18.6, 19.2)	17.1	11.0	20.0	2.2 (16.4, 17.9)
PES-LC (out of 40)	36.4	25.0	40.0	3.6	(35.6, 37.3)	37.9	31.0	40.0	2.3	(37.2, 38.6)	36.6	25.0	40.0	4.1 (33.2, 36.0)
PES-FS (out of 25)	23.6	18.0	25.0	1.7	(23.2, 24.0)	24.3	21.0	25.0	1.3	(23.9, 24.7)	22.7	18.0	25.0	1.8 (22.1, 23.4)
PES-FG (out of 15)	14.1	9.0	15.0	1.5	(13.7, 14.4)	14.6	12.0	15.0	.82	(14.4, 14.9)	13.4	9.0	15.0	1.8 (12.8, 14.0)

PES-ATF: Analyzing Thoughts and Feelings subscale

PES-LC: Learning and Making Connections subscale

PES-FS: Facilitator Skill in Conducting the Prebriefing subscale

PES-FG: Appropriate Facilitator Guidance subscale

ANALYSIS

The second inquiry, "Is there a distinction in clinical judgment amid a clinical simulation situation between nursing students in a customary baccalaureate program who take an interest in an organized prebriefing mediation and the individuals who partake in conventional prebriefing exercises?" was investigated utilizing a Mann-Whitney U test to think about the circulation of scores on the Clinical Judgment subscale (CCEI-CJ) of the CCEI, between the trial bunch presented to organized prebriefing, and the control gather which got the customary prebriefing. A Mann-Whitney U test demonstrated that clinical judgment, as estimated by the CCEI-CJ scores, was fundamentally more prominent for the exploratory

group who got organized prebriefing ($Mdn = 88.9$) than for the control group ($Mdn = 64.6$), $U = 128.5$, $Z = -6.2$, $p < .001$, $r = -0.71$.

To additionally investigate this distinction, given the non-typicality of the CCEI-CJ scores, a strong bootstrapped two-followed t-test was led, to 2000 examples; break even with fluctuations were not accepted $F(74) = 5.4$, $p = .023$, and $t(55.9) = -8.4$, $p < .001$ created comparative outcomes for hugeness. The real BCa 95% CI for the exploratory group implies [85.7, 92.2] and the control bunch implies [57.3, 67.8], showed contrast and no cover. This showed organized prebriefing may influence clinical judgment.

A balanced examination, utilizing ANCOVA, analyzed the CCEI-CJ scores between the test and control groups, controlling for the covariate of term. Levene's test for homogeneity of fluctuation in this ANCOVA was $F(1,74) = 5.5$, $p = .022$, showing huge contrasts in gather changes. The difference proportion was 2.2, which is more noteworthy than 2; this infringement could be risky (Polit, 2010), so bootstrapping was utilized to change for this fluctuation. In this manner, a hearty, bootstrapped ANCOVA to 2000 examples demonstrated that the that the covariate of term was not essentially identified with contrasts in CCEI-CJ scores, $F(1,73) = .002$, $p = .97$, however that this relationship was feeble, halfway $n^2 < .001$. There was a huge impact of group participation on the CCEI-CJ scores, $F(1,73) = 74.0$, $p < .001$, incomplete $q^2 = .50$, while controlling for the impact of term. The expansive impact estimate was noted (halfway $q^2 = .50$). Watched control was 1.0 ($a = .05$).

In this balanced investigation, in any case, homogeneity of relapse was abused, since a huge communication between term as a conceivable covariate, and group participation (exploratory, control) as an indicator of CCEI-CJ scores, existed $F(1,75) = 4.62$, $p = .04$, incomplete $q^2 = .06$, with a medium impact over the groups. Thusly, where the preparatory outcomes showed measurably irrelevant contrasts between terms on mean clinical judgment scores, and keeping in mind that a vast factual distinction was apparent in clinical judgment between the exploratory and the control groups, term may have medium affected the members' clinical judgment, in this examination. In this example, contrasts between groups' clinical judgment may have been affected by organized prebriefing or by the term variable.

CONCLUSION

Fundamentally higher scores in clinical judgment for BScN students were noted in the test assemble that got an organized prebriefing, when contrasted with the control group. Be that as it may, these discoveries are thought about circumspectly, as a result of the potential communications amongst term and group enrollment. This present examination's discoveries for clinical judgment are like those for competency performance, where a solitary, display based,

organized prebriefing mediation affected the showing of this expertise in nursing students. Parts of clinical judgment, recognized by Leather treater (2006) were likewise reflected in the organized prebriefing worksheet.

Clinical judgment, as a more unpredictable ability and result of simulation, has been assessed in the writing in considers that have included different methodologies for planning students for recreation; once more, notwithstanding, a particular relationship amongst prebriefing and clinical judgment had not been analyzed. Those recreation thinks about that have shown enhanced clinical judgment have consolidated diverse ways to deal with prebriefing, for example, verbally articulating manners of thinking, master displaying, and composed preliminary materials.

The recommended relationship between aggregate participation and term, for clinical judgment scores, may additionally show the many-sided quality of such ability advancement; clinical judgment is known to create after some time and over the direction of a nursing program. More data is required on how clinical judgment might be expanded through simulation, since it is basic for how proficient medical attendants perform, and for how students ought to be readied. This current examination's outcomes add to the comprehension of this concept by depicting a conditional, noteworthy relationship amongst prebriefing and improved clinical judgment.

REFERENCES

- Adamson, K. A., Parsons, M. E., Hawkins, K., Manz, J. A., Todd, M., and Hercinger, M. (2011). Unwavering quality and interior consistency discoveries from the C-SEI. *Diary of Nursing Education*, 50(10), ppp. 583-586. doi: <http://dx.doi.org.authenticate.library.duq.edu/10.3928/01484836-20110715-02>
- Arafeh, J. M. R., Snyder Hansen, S., and Nichols, A. (2010). Questioning in reenacted based picking up: Encouraging an intelligent dialog. *Diary of Perinatal and Neonatal Nursing*, 24(4), pp. 302-311. doi:10.1097/JPN.0b013e3181f6b5ec
- Cates, L. A. (2014). Depiction of the establishments of C.A.T.E.S.: An instrument being developed. *Clinical Recreation in Nursing*, 10(10), pp. 494-502. doi:<http://dx.doi.org/10.1016/j.ecns.2014.07.009>
- Dreifuerst, K. T. (2012). Utilizing questioning for significant figuring out how to cultivate advancement of clinical thinking in simulation. *Diary of Nursing Instruction*, 51(6), pp. 326-33. doi:10.3928/01484836-20120409-02
- Eggenberger, T., Keller, K., and Locsin, R. C. (2010). Esteeming minding practices inside reenacted rising nursing circumstances. *Global Diary for Human Minding*, 14(2), pp. 23-29.
- Faul, F., Buchner, An., Erdfelder, E., and Lang, A. (2009). Factual power examinations utilizing G*Power 3.1: Tests for relationship and relapse examinations. *Conduct Exploration Strategies*, 41, pp. 1149-1160. doi:10.3758/BRM.41.4.1149
- Garrett, B. M., MacPhee, M., and Jackson, C. (2011). Actualizing high-loyalty recreation in Canada: Reflections on 3 years of training. *Medical attendant Instruction Today*, 31(7), p. 671.
- Hyland, J. R., and Hawkins, M. C. (2009). High-devotion human reproduction in nursing training: A survey of writing and guide for performance. *Showing and Learning in Nursing*, 4(1), pp. 14-21.
- Irby, B. J., Darker, G., Lara-Alecio, R., and Jackson, S. (Eds.). (2013). *The handbook of instructive hypotheses*. Charlotte, NC: Data Age.
- Leather expert, C. A. (2006). Adopting the thought process of a medical caretaker: An examination based model of clinical judgment in nursing. *Diary of Nursing Training*, 45(6), pp. 204-211.
- National Committee of State Sheets of Nursing. (2009). *The impact of high devotion reproduction on nursing students' information and performance: A pilot contemplate*. Chicago, IL: Creator. Recovered from https://www.ncsbn.org/09_SimulationStudy_Vol40_web_with_cover.pdf
- Page-Cuttrara, K. (2014). Utilization of prebriefing in nursing recreation: A writing audit. *Diary of Nursing Training*, 53(3), pp. 136-141. doi:10.3928/01484836-20140211-07
- Rourke, L., Schmidt, M., and Garga, N. (2010). Hypothesis based research of high devotion simulation use in nursing training: A survey of the writing. *Global Diary of Nursing Training Grant*, 7(1), 14p. doi:10.2202/1548-923X.1965
- Sportsman, S., Bolton, C., Bradshaw, P., Close, D., Lee, M., Townley, N., and Watson, M. N. (2009). A territorial recreation focus association: Joint effort to enhance staff and

understudy competency. *Diary of Proceeding with Training in Nursing*, 40(2), pp. 67-73.

Tabachnick, B. G., and Fidell, L. S. (2013). *Utilizing multivariate insights* (sixth ed.). Upper Seat Waterway, NJ: Pearson Training.

Wahl, S. E., and Thompson, A. M. (2013). Concept mapping in a basic care introduction program: A pilot concentrate to create basic reasoning and basic leadership aptitudes in learner medical attendants. *The Diary of Proceeding with Instruction in Nursing*, 44(10), pp. 455-60. doi:<http://dx.doi.org.authenticate.library.duq.edu/10.3928/00220124-20130916-79>

Waxman, K. T. (2010). The advancement of proof based clinical simulation situations: Rules for nurture teachers. *Diary of Nursing Training*, 49(1), pp. 29-35.

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