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5th Asian Congress in Nursing Education

24-25 November 2023

ISTANBUL

Istanbul Marriott Hotel Asia

Cultivating Quality in Nursing Education for Global Health

PROCEEDINGS

TÜBİTAK

ICN International Council of Nurses
The global voice of nursing

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Asian and Pacific Alliance for Nursing Education

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CONGRESS PROGRAMME

24-25 NOVEMBER 2023

TÜBİTAK

ICN International Council of Nurses
The global voice of nursing

süerturizm

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WORKSHOP: SIMULATION PRACTICES IN NURSING EDUCATION

23th November, 2023

Aim:
The aim of this workshop is to share our knowledge and experience as one of the leading institutions in our country in the implementation of "simulation-based learning" as the active teaching strategy in line with INACSL best practice standards to provide safe patient care.

Course objectives:
At the end of the course participants will be able to…

1. Explain the INACSL simulation best practice standards,
2. Discuss the terminology related to simulation,
3. Explain the role and responsibilities of the educator in creating a safe learning environment,
4. Define the simulation design stages,
5. Define the scenario writing steps,
6. Create measurable learning outcomes in accordance with the scenario objectives

PROGRAMME

09.00-09.30	**Registration and pre-test**	
09.30-10.10	Designing Future of Simulation	Dilek Kitapçıoğlu
10.10-10.50	INACSL Simulation Best Practice Standards; From Concept to Practice	Esra Uğur
10.50-11.10	Coffee break	
11.10-11.50	Simulation design & practice example	Nermin Ocaktan
11.50-12.30	Step by Step Scenario Writing 5W1H	Ayşen Aksoy
12.30-13.30	Lunch	
13.30-13.50	Debriefing	Zehra Belhan
13.50-14.10	Evaluation of simulation	Zehra Belhan
14.10-14.40	CASE Introduction and Field Orientation Body Interact- Virtual Reality, Serious Game experience	Denizhan Yıldızbaş, Güzin Ünlü Dilara Sert Kasım
14.40-15.00	**Coffee break**	
15.00-16.00	Simulation Experience	Esra Uğur, Nermin Ocaktan Ayşen Aksoy, Zehra Belhan
16.00-16.30	**Final evaluation & Closing ceremony**	

5th ASIAN CONGRESS IN NURSING EDUCATION PROGRAM
24-25 November 2023

PRECONFERENCE WORKSHOP AND SITE TOUR*

NOVEMBER 23, 2023, THURSDAY		
ACIBADEM MEHMET ALI AYDINLAR UNIVERSITY - CENTER OF ADVANCED MEDICAL SIMULATION AND EDUCATION		
09.00-09.30	Registration and pre-test	Center of Advanced Medical Simulation and Education (Case) Site Tour
09.30-16.30	Workshop: Simulation Practices in Nursing Education	

*The language of the workshop is English and simultaneous translation will not be available.

NOVEMBER 24th, 2023, FRIDAY			
	MAIN HALL**	**HALL 1*****	**HALL 2*****
08.00-09.00	**Conference Registration**		
09.00-09.30	**Welcome Speeches** **Sergül Duygulu** *Hacettepe University, Türkiye* **Mei-Feng Lin** *National Cheng Kung University, Taiwan*		
09.30-10.00	**PLENARY LECTURE I** Responding the Global Threats Facing Nursing Education: The Opportunity of Digital Future **Miaofen Yen** *National Cheng Kung University, Taiwan*		
10.00-10.20	**COFFEE BREAK**		
10.20-10.50	**PLENARY LECTURE II** Global Perspectives on Nursing Education **Nai-Ying (Monica) Ko** *National Cheng Kung University, Taiwan*		
11.00-12.40	**CONCURRENT SESSIONS (I)**		
	Title of Session *Nurturing a culture of quality in nursing education* *Patient education issues in practice* *The role of nursing education in achieving the SDGs* *Closing the gap between theory and practice in nursing education* *Preparing nurse educators*	**Title of Session** *Patient education issues in practice*	**Title of Session** *Building the future of nursing education: Dealing with crises* *Quality and accreditation in nursing education*

Moderator: Seher Başaran Açıl *Hacettepe University, Türkiye*	Moderator: Mei Feng Lin *National Cheng Kung University, Taiwan*	Moderator: Miaofen Yen *National Cheng Kung University, Taiwan*
O-01 **Depression and Anxiety among Chinese International Students During the COVID-19 pandemic: A Meta-Analysis** Zhexi Ying, Akiko Kondo, Meihui Piao	**O-07** **RELASI Models as the Integrated Discharge Planning on the Stress of Mothers with Low-Birth-Weight Infants in Neonatal Intensive Care Unit** Lely Lusmilasari, Sri Hartini, Wenny Artanty Nisman, Siti Arifah, Rosalia Dian Arsyita Putri	**O-14** **Exploring the Experience of Direct Care of Patients among the New Graduated Nurse** Hui Chen Hsieh, Huan-Fang Lee
O-02 **Developing a Web-Based Educational Program to Support Women After Giving Birth: An Experience from Vietnam** Van Lan Hoang	**O-08** **Exploring Patient Perspectives: Embracing Complementary Therapies for Chronic Conditions within Public Health Centers** Hema Malini, Intan Yullya Kardila, Devia Putri Lenggogeni	**O-15** **Simulation-Based Design in Labor and Delivery Influencing Satisfaction, Self-Confidence, and Critical Thinking Among Nursing Students** Rungnapa Ruchob, Naiyana Khadking, Vasana Jitima, Gahnyarak Nguychareon, Ameporn Ratinthorn
O-03 **Determination of the Relationship Between Nursing Students' Career Future and Perceived Future Decent Work Securement** Öznur İspir Demir, Ayşe Karaman, Pelin Akoğlu	**O-09** **The Effect of Nursing Counselling on Anxiety and Depression in the Elderly Patients Undergoing Open Heart Surgery** Fariba Bolourchifard, Morasa Savadishafi, Marzieh Pazokian	**O-16** **Lessons Learned from the Implementation of Health and Safety Protocols in the University setting during the COVID-19 Pandemic** Efrelyn Iellamo, Jo Leah Flores, Alyssa Jenny Tupaz, Mary Joy Tiamzon
O-04 **Nursing Students' Perceptions of the Theory-Practice Gap in Nursing Education: A Qualitative Study** Şehriban Serbest, Esra Sezer	**O-10** **Cross-Cultural Adaptation of the Indonesia Version of the Self-Care of Heart Failure Index v7,2** Istianah Istianah, Eny Kusmiran, Tonika Tohri, M. Deri Ramadhan, Faridah Mohd Said, Nisha Nambiar, Sriyono Sriyono	**O-17** **Digital Competencies in Thai Version Among Graduate Nursing Students** Ruttanaporn Kongkar, Sirada Kesornsri, Yajai Sitthimongkol, Miaofen Yen

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	O-05 **Nursing Student Experiences of Active Learning During the Project of Strengthening Learning Environments for the New Normal After the COVID-19 Pandemic** Duong Thuy Tran, Van Lan Hoang	**O-11** **Exploring Care Needs for Diabetes Educators When Caring for Patients with Diabetes Comorbid Cognitive Impairment** Wan-Ching Shen, Jing-Jy Wang	**O-18** **Effectiveness of Mindfulness on Nursing Students' Anxiety during the Global Covid-19 Crisis: A Systematic Review and Meta-Analysis** Gst. Kade Adi Widyas Pranata, Ying-Ju Chang, Apryadno Jose Al Freadman Koa
	O-06 **Providing a Train-The-Trainer Online Workshop Series on Teaching Methods to Prepare Nurse Educators for the New Normal in Vietnam** Van Lan Hoang, Hien Thi Bui, Thuy Thi Le, Duong Thuy Tran, Hue Thi Hoang, Thi Hoa Huyen Nguyen	**O-12** **Non-Pharmacology Interventions of Sexual Problems Among Menopausal Women** Irna Nursanti, Dewi Anggraini, Aisyah Aisyah, Idriani Idriani, Nilawaty Uli, Wiwik Suryandartiwi, Nurul Aulia Irawan	**O-19** **Turkish Validity and Reliability Study of the Simulation Self-Report Cognitive Load Measurement Tool 2.0** Hilal Yıldız Çelik, Esra Uğur
		O-13 **Enhancing Diabetes Self-Management: The Impact of Structured Education on Knowledge and Self-Efficacy in Type 2 Diabetes Patients** Erlin Sayuti, Devia Putri Lenggogeni, Hema Malini	**O-20** **Nursing Students' Experiences in Facing Stress during the Completion of Final Assignments: A Phenomenological Study** Yasinta Betan, Elen Here Wila, Balbina Antonelda Marled Wawo, Erna Febriyanti
12.45-13.45	**LUNCH**		
13.10-13.40	**POSTER SESSIONS (I)**		
	P-01. Work-Related Musculoskeletal Discomforts among Nursing Assistants Working in a Nursing Home of Southern Taiwan Chang Ming Yi, Wang Jing Jy **P-02. Application of Flipped Classroom in Nursing Teaching ~Taking Physical Assessment Practical Course as an Example** Te-Fen Lee **P-03. A Mobile Application to Support Self-Management Among People with Chronic Kidney Disease in Vietnam: Study Protocol for a Codesign-Based Intervention** Lan Van Hoang, Minh Thi Le, Hong Anh Phan, Thi Nguyet Nguyen, Pranee Liamputtong **P-04.** **Exploring the Experience of the Primary Caregiver with Very Low Birth Weight Preterm Infant Learning Home Care** Wen-Pei Shih, Ying-Ju Chang		

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P-05. Exploring Cigarette Smokers' Experience of Receiving Smoking-Cessation Service
Esther Ching-Lan Lin, Lien-Ya Weng

P-06. Exploring Perceptions and Solutions to Social Stigma in Dementia from the Perspective of community stakeholders
Tzu-Ming Tai, Jing-Jy Wang, Yuh-Neu Chen, Ling-Hui Chang

P-07. Self-perception of the College Students with Autism Spectrum Disorder
Hsin-Chun Hung, Bih-Ching Shu

P-08. Correlation Between Outpatient Pregnancy Health Education and Delivery Satisfaction in Women
Min-Ling Lin, Chiu-Yen Chen, Kuei Hui Chu, Wei Chun Chang

P-09. Effectiveness of Using Virtual Reality in Childbirth Education on Anxiety of Pregnant Woman
Yu-Ting Tien, Hsiao-Ying Hung, Ying-Ju Chang

P-10. Case Report: Breastfeeding Education Provided to A Mother with Preterm Babies: An Experience of a Neonatal Intensive Care Nurse
Berrak Akcan

P-11. Improving the Accuracy of Physical Assessment of Critically Ill Patients by Nurses in Respiratory Care Center
Ying-Chieh Tsai

P-12. Improving First Aid-Related Cognition and Nursing Skills of Nurses in General Wards
Yu-Chun Huang, Yu-Qin Lin

P-13. Prediction of High-Risk Patients with Mood Thermometer Reduces Suicide Occurrence
Mei-Ling Weng

P-14. Correlation Between Risk Factors and Sarcopenia Among Patients with Liver Cirrhosis
Yu-Chiung Fang, Chen-Ru Chen, Huan-Fang Lee, Yi-Lin Chen

P-15. Effect of Pampering Essential Oil on Depression and Sleep Quality of Residents with Dementia in Long-term Care Institutions: A Pilot Study
An-En Lin, Yueh-Yuan Chang, Mei-Hsiu Shen, Jing-Jy Wang

P-16. Correlational Studies Between Emotions and Physical Parameters: An Example of Patients with Coronary Artery Disease at Cardiac Intensive Care Unit
Shu Chuan Chung

P-17. Effectiveness of a Pilot M-Health App to Improve the Appropriate Eating Behavior Among Pregnancy-Induced Hypertension Women
Tzu-Ling Chen, Chiau-Yu Shiu, Chia-Hsun Wu

P-18. Construction Care Model Simulation for the BPSD in Long-term Care Facilities – Multiple-Case Study
Yueh-Ying Yang, Wen-Chen Cheng, Jing-Jy Wang

P-19. Should We Hide the Death from Other Patients?: The Experience in Undergoing Other's Death During Hospitalization
Yu Jou Chang, Wei Shu Lai

	P-20. Evaluating the Learning effects of Nurses Practitioners in Point-of-Care Ultrasound Intervention on the Point-care Ultrasound Education Program Chen Ju Chen, Meng Hsun Ho, Ying Ju Chang		
13.45-14.45	**SYMPOSIUM I** Quality Assurance in Nursing Education: International Learning Experience **Moderator: Leyla Dinç** *Hacettepe University, Türkiye* **Speakers** Quality Assurance in Nursing Education in Taiwan **Wen-Yu Hu** *National Taiwan University, Taiwan* Quality Assurance of Nursing and Nursing Education in Indonesia **Agus Setiawan** *Association of Indonesian Nurse Education Center, Indonesia* Quality Assurance in Nursing Education: Experiences of Turkish National Accreditation Organizations **Medine Yılmaz** *İzmir Katip Çelebi University, Türkiye*		
14.45-15.20	**PLENARY LECTURE III** Integrating Cultural Competence into Nursing Education **Yajai Sitthimongkol** *Mahidol University, Thailand*		
15.20-15.40	**COFFEE BREAK**		

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15.40-18.00	CONCURRENT SESSIONS (II)		
	Title of Session *Readiness for the education of new-generation nursing students* *The role of nursing education in achieving the SDGs* *Continuing education in nursing practice* *Innovation and technology in nursing education*	**Title of Session** *Interprofessional nursing education* *Preparing nursing students for the high-technology healthcare environment* *Innovation and technology in nursing education* *Other*	**Title of Session** *Competency development and evaluation in nursing education*
	Moderator: Seher Başaran Açıl *Hacettepe University, Türkiye*	**Moderator: Esra Uğur** *Acıbadem University, Türkiye*	**Moderator: Mei-Chih Huang** *National Tainan Junior College of Nursing, Taiwan*
	O-21 **Undergraduate Thesis Experiences of Nursing Students: A Qualitative Study** Duygu Ceren Güngör, Fatma Orgun, Nilay Özkütük, Pelin Tetik, Hüsne Melisa Çubuk	**O-34** **Impact of Interprofessional Education on Interprofessional Attitudes of Nursing and Medical Students** Pelin Karaçay, Fahriye Oflaz, Mehmet Gökhan Gönenli, Murat Tanyıldız, Can Aktaş	**O-43** **Development and Validation of Flipped Classroom Exercise Module to Improve Knowledge and Skills on Low Back Pain Reduction in Nurses** Ni Luh Dwi Indrayani, Chi-Jane Wang, Mei-Feng Lin
	O-22 **Assessment of self-efficacy in palliative care of nursing students at University of Medicine and Pharmacy at Ho Chi Minh City** Thi My Duyen Tran, Thi Ngoc Phuong Nguyen, Dai Duong Le, Thuy Khanh Linh Tran	**O-35** **Breastfeeding Self-Efficacy and Barriers among Two Breastfeeding Mother Groups** Agrina Agrina, Sri wahyuni, Aidil Fitriansyah	**O-44** **Stress and Competency of Critical Thinking, Communication, and Decision-Making Among Undergraduate Nursing Students During Obstetrics Nursing Practicum** Yu-Yun Alice Hsu, Pei-Chi Liang
	O-23 **Development of the Student-Centered Objective Structured Clinical Examination Assessment Scale** Tuba Şengül, Remziye Semerci, Seda Güney, Seda Karakaya Çataldaş	**O-36** **The Effectiveness of Using Auditory Hallucination Simulation to Improve Senior High Students' Mental Health Literacy, Attitude toward Mental Illness, and Social** Esther Ching-Lan Lin	**O-45** **Omani Undergraduate Nursing Students Clinical Experience: Results from Focus Groups** Zeinab Alazri, Asma Al Yahyaey, Arwa Obeidat, Jahara Hayudini
	O-24 **A Group Study: Nursing Care Council** Serpil İsabetli, Buket Çakır	**O-37** **The Effectiveness of Virtual Reality Simulation as a Learning Strategy on Acquisition of Ventrogluteal Injection Skill and Anxiety Level** Samar Jallad, Burçin Işık	**O-46** **Assessing Nurse Educators' and Students' Views on Teaching Patient Care Plans with the Nursing Process Approach: A Qualitative Study** Meltem Özduyan Kılıç, Fatoş Korkmaz

	O-25 **Development of a School-Based Curriculum for Improving Youth's Positive Attitudes Toward Older People** Benjamat Olanratmanee, Yajai Sitthimongkol, Sasitara Nuampa, Thongsouy Sitanon, Burathep Chokthananukoon, RattanaDuaidee, Autchariya Poungkaew, Matthaneeya Kaykeaw, Napon Anuttarunggoon, Arunrat Srichantaranit, Pornthip Keangin, Sorada Suratavamit, Ratchanikorn Chonchaiya	**O-38** **Utilize "Notion" for Monitoring and Improving Nursing Students' Performance in Practicing Basic Nursing Skills: A Pilot Study** Nantakarn Maneejak	**O-47** **Satisfaction, Self-Confidence, and Critical Thinking Along with the Final Year Nursing Students' Experiences Practicing Clinical Simulation in Pre-Postnatal Care with Complicated and Infectious Patients: A Mixed Method Approach** Thiwarphorn Chalermpichai
	O-26 **Decision Conflict of Surrogates When Deciding on Invasive Treatments for Critical Care Patients: A Mixed Method** Wan-Na Sun, Su-Ying Fang	**O-39** **Heuristic Evaluation to Improve Digital Learning Media for Nursing Students** Ariani Arista Putri Pertiwi, Meyka Budi Rachmawati, Adhistya Erna Permanasari, Indah Jana Permana Devrin, Hatifah Ihsanda Tien Melati	**O-48** **A Mixed Methods Evaluation of Antenatal Simulation-Based Learning on Satisfaction, Self-Confidence, and Critical Thinking Among Nursing Students During the COVID-19 Pandemic.** Kornkanok Kuesakul, Ameporn Ratinthorn, Rudee Pungbangkadee, Sasitara Nuampa
	O-27 **A Nursing Voice Required to Negotiate Continued Professional Development for Nursing Practice at One Emergency Department in Vietnam** Hue Thi Hoang	**O-40** **Interdisciplinary Education: An Example of Koç University** Fahriye Oflaz, Pelin Karaçay, Coşkun Yorulmaz, İlker Kayı, Murat Önok	**O-49** **Development of Digital Competence Scale for Nursing Students** Shannastaniar Aisya Adif, Miaofen Yen, Dhea Natashia Natashia
	O-28 **Correlation Between Symptom Status, Health Perception, and Spiritual Well-Being in Heart Failure Patients: A Structural Equation Modelling Approach** Hacer Eroglu, Zehra Gök Metin	**O-41** **Simulation-Based Learning During COVID-19 Pandemic: A Study of Jordanian Nursing Students' Experiences** Ghada Abu Shosha, Mahmoud Al Kalaldeh	**O-50** **Proficiency Evaluation Scales in Nursing: A Comprehensive Review** Merve Yılmaz, Fatoş Korkmaz

	O-29 **Digital Skills Catalogue Enhances Self-Directed Learning Experience for Nursing Students** Ramona Bechthold, Ebru Akgün Çıtak, Azize Karahan, Sultan Kav, Anna Korvena-Kosakovska, Evita Grigoroviča, Jessica Silfver, Filip Levälahti, Gun-Britt Lejonqvist, Camilla Wikström-Grotell, Kirsten Brukamp	**O-42** **The effects of 5% Lidocaine Skin Patches on the Pain Control of Hepatocellular Carcinoma Patients Receiving Radiofrequency Ablation: A Double-Blind, Randomized Trial Study** Chen-Ju Chen, Ying-Ju Chang, Wei-Ying Chen, Chung-Ying Lin	
	O-30 **The Effect of Communication Skills Training in Nursing Students: Traditional Education Versus Simulated Patient** Yasemin Çekiç, Ayşe Gül Yavaş Ayhan, Gülsüm Ançel, Melike Kara		
	O-31 **The Effect of Two Different Learning Environments Used in ECG Education on Students' Knowledge, Skills and Motivation: A Randomized Controlled Trial** Meryem Yıldız Ayvaz, Hamiyet Kızıl		
	O-32 **Exploring the Perspectives of Nursing Students in Serious Game: A Qualitative Study** Afra Çalık, Sevgisun Kapucu		
	O-33 **Gender Equity Perception among Nursing Students: The Role of Self-efficacy and Leadership Orientations** Nur İzgü, Nesibe Şevma Er, Ayşenur Ak, Funda Kandil		
19.45-22.45	**Welcome Reception** Bosphorus - Boat Tour with Dinner		

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NOVEMBER 25th, 2023, SATURDAY			
	MAIN HALL* **	**HALL 1****	**HALL 2****
09.00-09.30	**PLENARY LECTURE IV** Program Evaluation Feeds Quality Education **Suzan Fetzer** *University of New Hampshire, USA*		
09.30-10.00	**PLENARY LECTURE V** Using Virtual Reality in Interprofessional Education **Sok Ying Liaw** *National University of Singapore, Singapore*		
10.00-10.20	**COFFEE BREAK**		
10.20-12.40	**CONCURRENT SESSIONS (III)**		
	Title of Session *Cross-border nursing education* *Building the future of nursing education: Dealing with crises* *Competency development and evaluation in nursing education*	**Title of Session** *Readiness for the education of new-generation nursing students* *The role of nursing education in achieving the SDGs* *Evidence-based teaching in nursing* *Faculty development challenges in nursing education* *Ethical and legal issues in nursing education*	**Title of Session** *Continuing education in nursing practice* *Competency development and evaluation in nursing education* *Preparing nurse educators*
	Moderator: Fatoş Korkmaz *Hacettepe University, Türkiye*	**Moderator: Leyla Dinç** *Hacettepe University, Türkiye*	**Moderator: Jing-Jy Wang** *APANE, Taiwan*
	O-51 **The Challenges Experienced by International Nursing Students in Nursing Education: A Qualitative Study** Hülya Elmalı Şimşek, Ece Karali, Günay Arslan	**O-63** **Strengthening Clinical Judgement for Public Health Readiness: Advances in Prelicensure Nursing Education** Anna Pirsch, Laura Beasely, Laura Ingalsbe, Lindsay Schipper, Heather Anderson	**O-70** **Evaluation of Training Programs in Nursing Management in Turkey** Çiğdem Torun Kılıç, Kadriye Özkol Kılınç, Havva Öztürk
	O-52 **Nursing Students' Spiritual Care Behaviours and Hedonism Levels: Turkey Example** Tuba Karabey, Venhar Onat	**O-64** **Investigation of Nursing Students' Perceptions of Information Literacy Self- Efficacy, and Lifelong Learning Tendencies** Merve Öztürk, Medine Yılmaz	**O-71** **The Effect of Training on Total Parenteral Nutrition Given to Newborn Intensive Care Nurses** Şükran Sarı, Senay Çetinkaya

O-53 **The Attitudes of Generation Z Nursing Students Toward Brain Drain** Serap Altuntaş, Ayşe Çiçek Korkmaz, Bahar Kuleyin	**O-65** **Together Facing TB: A Quasi-Experimental Study on the Impact of Peer Group Support on Patient Perceptions of Tuberculosis Treatment based on the Health Belief Model** Syamikar Baridwan Syamsir, Henny Permatasari, Utami Rachmawati, Agus Setiawan	**O-72** **Factor Predicting Satisfaction, Self-confidence, and Critical Thinking in Antenatal Simulation-Based Learning Among Nursing Students in Thailand.** Kornkanok Kuesakul, Sasitara Nuampa, Rudee Pungbangkadee, Lucie Ramjan, Ameporn Ratinthorn
O-54 **Fear of COVID-19, Self-Efficacy, and Well-Being of Nursing Students: A Multicenter, Web-Based, Correlational Study** Zehra Gök Metin, Nur İzgü, Merve Gülbahar Eren, Beyza Erdemsoy Karahan	**O-66** **Impact of Antenatal Education Programs (I) on Maternal Health Literacy (O) of Pregnant Women (P): A Systematic Review** Zama Mkhonta, Yu-Yun Hsu, Dumsile Innocentia Mshayisa, Tram Thi Bich Nguyen	**O-73** **Development of a Curriculum for Nurses Training Using Blended Learning in Early Stage of Chronic Kidney Disease Through A Modified Delphi Process** Melyza Perdana, Fiona Moffatt, Holly Blake
O-55 **Bibliometric Analysis of Nursing Doctoral Theses on Pain Management Conducted as a Randomized Controlled Study** Hülya Elmalı Şimşek, Gizem Öztürk	**O-67** **An Approach to Facilitate Learning in Nursing Education Escape Room Strategy: Scoping Review** Sema Kaymak, Fırat Açıkgöz, Cemile Şeyma Gümüş, Gizem Akbay	**O-74** **"A Fascinating Journey: Discover the Power of Dr. Red Nose ": A Narrative Analysis of Nursing Students' experiences via Self-Directed Learning (SDL) Project** Ko-Hsuan Tsai, Mei-Chih Huang
O-56 **Assessment of Nursing Competence of Pediatric Nurses After Orientation Course at Children's Hospital 1** Nương Trần, Nguyên Phùng	**O-68** **Time-Limited Trial for ICU Patients with Uncertainty Recovery-Ethical Consideration** Hui-Chen Hsieh, Wei-Shu Lai, Chih-Cheng Hsieh	**O-75** **Knowledge, Attitude, and Performance of Shared Decision Making Among Advanced Practice Nurses in Taiwan** Nai-Chen Lu, Su-Ying Fang
O-57 **Reliability and Validity Testing of the Vietnamese Version of the Critical Thinking Self-Assessment Scale** Trung Nguyen Van, Yeu-Hui Chuang	**O-69** **Caring Perceptions of Nurses Who Are Continuing Their Studies in Undergraduate Programs: Cross-Sectional Study** Eny Kusmiran, Tonika Tohri	**O-76** **Effectiveness of Smoking Prevention Programs on the Knowledge, Attitudes, and Self-Perception among Nursing Students in Thailand** Sathaka Pimroon, Walailak Pumpuang, Rudee Pungbangkradee

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	O-58 **The Relationship Between Anxiety and Self-Confidence Levels of Intern Nursing Students in Clinical Decision-Making and Their Malpractice Trends** Yasemin Çekiç, Tufan Aslı Sezer		
	O-59 **Workload and Generic Skills Among Vietnamese Nursing Students: A Cross-Sectional Study** Hien Thi Bui, Huyen Nguyen Thi Hoa, Van Lan Hoang		
	O-60 **A Qualitative Study on the Use of Think Aloud Method in Nursing Education** Tuğba Güneş, Sergül Duygulu		
	O-61 **The Content Validity Index (CVI) of Clinical Assessment Tool (CAT) Based on Competency Standards for Bachelor of Vietnamese Nurses** Lynh Ton Nu Diem		
	O-62 **The Importance of Self-Compassion in Nursing Education: A Pathway to Quality Care** Venhar Onat, Tuba Karabey, Şerife Karagözoğlu		
12.40-13.30	**LUNCH**		

13.00-13.30	**POSTER SESSIONS (II)** **P-21. Exploring Career Counseling Strategies for Nursing Students by Testing on UCAN Platform in Estern Taiwan** An-Chi O Yang, An-Chi O Yang **P-22. Effectiveness of Virtual Reality on Undergraduate Nursing Students' Learning: Systematic Review and Meta-Analysis** Chia-Hui Yeh, Hung Hsiao-Ying **P-23. Physical Assessment in Nursing Education: A Systematic Review** Wan-Ting Huang, Ai-Ling Chang **P-24. Exploring the Integration of Interactive E-Learning Resources in Teaching Medical English Terminology to Nursing Students in Southern Taiwan.** Shiow-Meei Tsai, Ya-Wen Chang **P-25. Using Multimedia Teaching and Dementia STE2P Formulas to Improve the Learning Effect of Long-Term Care Nurses on Dementia's Communication Skills** Hsu-Min Chien, Yu-Chen Lan, Yu-Ching Tseng, Tsai-Ying Shih, Chia-Wen Chen **P-26. Exploring the Teaching Effectiveness of 3D Model Situational Drill Teaching in Preparation for Da Vinci's Surgery** Yin Yu Chen, Jui Han, Tsen Lan Chen, Hsiao Mei Huang **P-27. An Exploratory Study of Professional English Learning Experience in Nursing Students in Taiwan** Pei-Chen Hsu, Hui-Lin Sun, Hung-Che Chen, Min-Ching Ko **P-28. Effectiveness of Scenario-Based Teaching in the Training of Delivery-Room Nurses: The Scenarios of High-Risk Pregnancy** Yu-Ting Tien, Hsuan-Ying Chen, Hsiao-Ying Hung, Po-Fen Chen, Ying-Ju Chang **P-29. The Effectiveness of Multidimensional Classroom Engagement in Learning Motivation and Outcomes for Nurses in a Medical English Course: A Pilot Study** Jong-Ni Lin **P-30. Distance Interactive Teaching on the Basic Instrument Recognition, Learning Motivation, And Satisfaction of New Surgical Nurses in the Operating Room.** Jui Han, Yin Yu Chen **P-31. Development and Evaluation the Usefulness and Learning Outcomes of an Immediate Newborn Care Virtual Reality on Undergraduate Nursing Students** Chang Ying-Ju, Hung Hsiao-Ying, Hsu Yu-Yun **P-32. Effects of Resilience and Personal Accomplishment on the Relationship Between Quality of Work-Life and Turnover Intention Among Newly Employed Nurses** Huan-Fang Lee **P-33. A PARO-Focused Group Therapy for Patients with Dementia at a Hospital-Based Day Care of Taiwan** Chun-O Chien, Mei-Feng Lin, Shu-Chuan Chen, Hong-Yu Qiu, Chia-Feng Hsu

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	P-34. Effects of a Novel Anti-Pruritus Ice Roller on Uremic Pruritus and Associated Symptoms in Hemodialysis Patients: A Pilot Randomized Controlled Trial Jong-Ni Lin **P-35. Multiple sensory interventions in NICU: A systematic review of effects on physiological and behavioural outcomes in premature infants** Chen-Hsiu Lin, Hsiao-Ying Hung, Ying-Ju Chang **P-36. Psychometric Properties of the Revised Taiwan Version of the Tilburg Frailty Indicator for Patients with Chronic Kidney Disease** Miaofen Yen, Fang-Ru Yueh **P-37. A Rare Case: Nursing Care of a Critical Patient Diagnosed with Insulinoma According to Henderson Nursing Model** Ecem Özdemir **P-38. Nursing Experience in Caring for a Living Donor Liver Transplant Patient** Chun Hua Kang		
13.30-14.30	**SYMPOSIUM II** Clinical Education in Nursing: Current Status and Future Direction **Moderator: Mei-Feng Lin** *National Cheng Kung University, Taiwan* **Speakers** Nursing Education from Theory to Practice **Esra Uğur** *Acıbadem University, Türkiye* The Position of Nursing Education Association (HEMED) in Clinical Education **Havva Arslan Yürümezoğlu** *Dokuz Eylül University, Türkiye* Fostering quality in clinical nursing education through Faculty Development, Research, and Innovation **Josefina A. Tuazon** *University of the Philippines Manila, Philippines*		
14.30-15.00	**PLENARY LECTURE VI** Professional Competence in Nursing — Outcome of Nursing Education **Satu Kajander-Unkuri**		

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	Diaconia University of Applied Sciences, Finland		
15.00-15.15	**COFFEE BREAK**		
15.15-15.45	**PLENARY LECTURE VII** Unleashing the Potential: Integrating Technology and Innovation in Nursing Education **Jennie De Gagne** *Duke University, USA*		
15.50-17.30	**CONCURRENT SESSIONS (IV)**		
	Title of Session *Other*	**Title of Session** *Other*	**Title of Session** *Closing the gap between theory and practice in nursing education* *Other*
	Moderator: Fatoş Korkmaz *Hacettepe University, Türkiye*	**Moderator: Leyla Dinç** *Hacettepe University, Türkiye*	**Moderator: Seher Başaran Açıl** *Hacettepe University, Türkiye*
	O-77 **Self-Management and Self Efficacy in Rheumatoid Arthritis: A Systematic Review** Kübra Çili, Zehra Gök Metin	**O-85** **Childbirth Projection in Philippine Health Facilities: Impact of COVID-19 Pandemic and Lockdown** Efrelyn Iellamo, Erickson Feliciano, Roderick Napulan	**O-90** **Systematic Review of Mortality Risk on Patients Requiring Hemodialysis Related to Obesity** Henni Kusuma, Le Trinh Lam, Huan-Fang Lee, Susan Fetzer, Miaofen Yen
	O-78 **Unmet Supportive Care Needs of Colorectal Cancer Patients based on Survival Stages: A Scoping Review** Dan Thi Nguyen, Su-Ying Fang	**O-86** **Intensive Care Nurses Experiences with Mucosal Membrane Pressure Injuries: A Mixed Method Study** Ecem Özdemir, Fatoş Korkmaz	**O-91** **Men's Motivations for Choosing the Nursing Profession: Examples from Two Different Cultures** Esra Ugur, Ela Yilmaz Coskun, Denizhan Yıldızbas, Ükke Karabacak, Diana Paskaleva, Nedyalka Boicheva
	O-79 **Reproductive Autonomy Scale: Turkish Validity and Reliability Study** Burcu Küçükkaya, Deniz Eren, Ecem Özdemir	**O-87** **Effectiveness of a Web-Based Application to Promote Psychological Well-Being and Prevent Mental Health Problems in University Students** Sirada Kesornsri, Wareerat Thanoi, Thanawin Rakthanmanon, Phuangphet Kaesornsamut, Nopporn Vongsirimas, Piyanee Klainin-Yobas	**O-92** **To Explore the Accuracy of Anger Recognition By Using Deep Learning Approach** Mei-Feng Lin, Chia-Feng Hsu

	O-80 **Analyzing the Transition Shock Experienced by a Novice Nurse According to Duchscher's Model: A Case Study** Ezgi Eyiler, Emine Kol	**O-88** **The Effect of Training Given to Nursing Students about the Importance of Game and about Toy Selection during 0-1 Years of Infancy** Kübra Kadah, Şenay Çetinkaya	**O-93** **Reflection of Compassion Fatigue Levels and Communication Skills of Generation Y and Z Nurses on Nursing Care Quality** Nurgül Özdemir, Burçin Işık, Burcu Çakı Döner, Zerrin Demirel
	O-81 **The Relationship Between Quality of Work Life and Intention to Stay of Nurses at Some Hospitals in Ho Chi Minh City, Vietnam** Anh Vo	**O-89** **Migration Intention and Associated Factors of Nursing Students in Türkiye, and the Philippines** Gülcan Bağcivan, Ruhat Tilki, Cemre Karatiken, Ayişe Karadağ	**O-94** **Exploring Patterns in Whole-Person Health of Public Health Nurses through MyStrengths+MyHealth Data** Anna Pirsch, Robin Austin, Lisa Martin, David Pieczkiewicz, Karen Monsen
	O-82 **Characteristics of Content Produced by Influencer / Social Media Phenomenon Nurses and Investigation of Their Effects on Nursing Image** Gamze Nazik, Esra Şahiner, İlkay Boz		**O-95** **Self-Leadership and Associated Factors in Nursing Students: An Explanatory Sequential Mixed-Methods Study** Canberk Akdeniz, Sergül Duygulu
	O-83 **Learning Care by Experience** Ezgi Eyiler, Emine Kol		**O-96** **Will Negative Expressiveness Worsen the Dyadic Adjustments Among Couples with Cancer?** Mei-Feng Lin, Yi-Chien Pan, Yi-Jen Lu, Yu-Ping Chen
	O-84 **The Effect of Mobilization Training Given to Women Before the Hysterectomy Operation on Post-Operational Bowel Functions and Pain: A Randomized Controlled Study** Burcu Küçükkaya, Zeynep Kızılcık Özkan		**O-97** **Transforming Nursing Curriculum through Mastery and Outcome Based Learning Model: Koç University School of Nursing** Gulcan Bagcivan, Memnun Seven, Ayişe Karadag

			O-98 **Resilience among Students Working on Their Final Projects** Erna Febriyanti, Yasinta Betan, Desy Rulia De Jesus Borges
			O-99 **Evaluate the Competency in Evidence - Based Practice (EBP) among Nursing Students** Bich Duong Thi Ngoc, Huong Nguyen Thi Thanh, Tien Nguyen Thuy, Mai Nguyen Le Nhat
17.30-17.35	**Invitation to the 6th ACiNE in Australia**		
17.35-18.00	**Closing Remarks** **Sergul Duygulu** *Hacettepe University, Turkey*		

**The concurrent sessions in the Main Hall will be presented by online and simultaneous translation will be available.

***Simultaneous translation will not be available.

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FOREWORD

The 5th Asian Congress in Nursing Education (ACINE) stands as the biennial congress of the Asia Pacific Alliance for Nursing Education (APANE). This alliance, comprised of educational institutions, is dedicated to advancing nursing education within the Asia and Pacific regions. The genesis of APANE can be traced back to the Asian Congress in Nursing Education (ACiNE) organized by Mahidol University, Thailand, in 2014. Negotiations between academics during congresses held in Taiwan in 2016 and Indonesia in 2018 resulted in the official establishment of the Alliance. The official inauguration took place on September 6, 2019, at National Cheng Kung University in Taiwan.

The Purposes of APANE are to:

1. Work towards enhancing nursing education standards in the Asia and Pacific regions.
2. Foster and promote partnerships and collaborations among nursing professionals in the Asia and Pacific regions.
3. Provide leadership in addressing health care challenges, issues, and opportunities in the Asia and Pacific regions.
4. Develop culturally sensitive education models for nursing education in the Asia and Pacific regions.

Currently, APANE comprises 48 members representing 11 different countries: Taiwan, Indonesia, Vietnam, Thailand, Japan, Myanmar, Australia, Turkey, The Philippines, Sri Lanka, and Singapore.

Special appreciation is extended to National Cheng Kung University for its consistent provision of financial, technical, and manpower support to the establishment and ongoing activities of APANE. Gratitude is also expressed to APANE's board of directors, administrative board, and subcommittees for their invaluable contributions.

This congress serves as an opportunity to encourage institutions and organizations not yet part of APANE to consider membership. We invite nursing schools and nursing education associations in the Asia and Pacific regions to join the Alliance through a structured application process to make a difference in nursing education.

The primary purpose of nursing education congresses is to raise awareness among nurse educators about the global health impacts of prevalent issues such as pandemics, migration, wars, and disasters. The aim is to ensure that nursing education curricula are continually reviewed to train competent nurses capable of addressing societal health needs in the face of these challenges. Furthermore, the congresses seek to facilitate international collaborations for the exchange of current scientific information related to nursing education.

Since its inception in 2014, the Asian Congress in Nursing Education has been organized four times under various themes and sub-themes. The inaugural congress took place in Thailand, followed by Taiwan, Indonesia, and Vietnam, respectively.

It has been nine years since the inception of the first Asia Congress in Nursing Education (ACINE) in Thailand in 2014. Over this period, our Congress has evolved into a pivotal gathering in the realm of nursing education on the global stage. The last three iterations of the Asian Congress in Nursing Education collectively hosted 1790 participants from 16 countries. These participants seized the opportunity to engage in collaborative efforts with their counterparts in nursing education, fostering cooperation and acquiring novel insights. As we celebrate the 5th occurrence of this esteemed event, we are honored to witness the realization of its goals and objectives over the years.

The fifth ACINE, hosted in Turkey in 2023, holds particular significance for us. The overarching aim of this congress was to contribute to the ongoing enhancement of the quality of nursing education, equipping it to meet the demands of delivering quality healthcare services and addressing global health challenges in the future. Simultaneously, the congress sought to facilitate the exchange of knowledge and experiences among nursing professionals from diverse countries. It aspired to raise awareness regarding contemporary and varied nursing education models, provide a platform for interaction with field-specialized scientists, and created opportunities to establish communication networks for collaborations.

The main theme of the 5th Asian Nursing Education Congress was defined as "Improving Quality in Nursing Education for Global Health." Recognizing the pivotal role of the health workforce in fortifying global health systems, the central emphasis of the congress was to underscore the significance of quality in nursing education for the advancement of global health. The congress further delved into four distinct sub-themes, encompassing 20 sub-headings, namely: student, faculty, curriculum, and practices within the contemporary landscape of nursing education.

The main theme and sub-themes of the Congress had been thoroughly explored through the presentation of papers by esteemed participants in both parallel oral presentation sessions and poster sessions. We extend our sincere appreciation to all speakers and participants who enriched our Congress with their valuable contributions.

The execution of our Congress demanded an immense amount of dedication, and, therefore, I extend my gratitude to everyone who has contributed to the success of our congresses, spanning from their inception to the present.

A multitude of papers addressing the main theme and pertinent topics of our Congress have been graciously submitted by academics, researchers, nurses, and nursing students from various countries. I am delighted to share that the selection of oral and poster papers presented at our Conference, along with those published in full, underwent an intense and blinded peer-review process. We firmly believe that the program of the 5th ACINE attested to the exceptional quality and international standing of the abstracts submitted.

The organization of our Congress demanded foresight, collaboration, and the dedicated efforts of numerous colleagues. We extend our heartfelt gratitude to all those who diligently contributed as members of the both local and international organizing committee, scientific committee members, speakers, abstract presenters, and audiences.

Sincerely,

Prof. Sergül Duygulu

Conference Chair

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*All names have been alphabetically ordered.

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*All names have been alphabetically ordered.

CONGRESS THEME AND TOPICS

THEME

- Cultivating quality in nursing education for global health.

TOPICS

Student-related:

1. Competency development and evaluation in nursing education
2. Preparing nursing students for the high-technology healthcare environment
3. Readiness for the education of new-generation nursing students

Faculty-related:

1. Preparing nurse educators
2. Educational leadership in nursing
3. Faculty development challenges in nursing education

Curricula-related:

1. Nurturing a culture of quality in nursing education
2. Evidence-based teaching in nursing
3. Innovation and technology in nursing education
4. Closing the gap between theory and practice in nursing education
5. Interprofessional nursing education
6. The role of nursing education in achieving the SDGs
7. Ethical and legal issues in nursing education
8. Building the future of nursing education: Dealing with crises
9. Quality and accreditation in nursing education
10. Cross-border nursing education

Practice-related:

1. Orientation education in healthcare institutions
2. In-services education in healthcare institutions
3. Continuing education in nursing practice
4. Patient education issues in practice

5th ACiNE
5th Asian Congress in Nursing Education
ORAL PRENSENTATIONS
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Breastfeeding Self-Efficacy and Barriers among Two Breastfeeding Mother Groups

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Abstract:

Breastfeeding has several benefits for both mothers and their children. Despite strong evidence in support of the practice, its prevalence has remained low worldwide, particularly in Indonesia. Although various breastfeeding interventions have proven effective in increasing breastfeeding initiation and duration, there has been less study in watershed areas. Therefore, this study is aimed to compare breastfeeding intervention using a breastfeeding software and simple media of breastfeeding. This research was quantitative research with a quasi-experimental design using a two-group post-test design approach, was conducted during July 2023 until October 2023 at a watershed in Pekanbaru, Riau with samples of breastfeeding mothers at the early of labor with 46 mothers (22 intervention dan 24 control). Data were collected using questionnaires on self-efficacy and barriers to breastfeeding given after the intervention (breastfeeding multifaced interventions software). Bivariate analysis performed independent test T test. The results of the study found that the mean of self-efficacy of breastfeeding mothers who were given intervention using breastfeeding applications was higher than breastfeeding mothers who were only given simple breastfeeding media as a control group. Furthermore, breastfeeding barriers were experienced less in mothers who were given application educational media than in other groups. There were mean differences in of self-efficacy and barriers to breastfeeding in these 2 groups ($p<0.005$). Breastfeeding software can be a good media education that is quite effective in increasing the confidence of breastfeeding mothers and overcoming obstacles in breastfeeding.

Keywords : Barriers, breastfeeding, self-efficacy, software

I. INTRODUCTION

Breastfeeding is becoming less common worldwide, despite the World Health Organization's recommendation that babies should only be tended for the first six months of their lives and thereafter for a full 24 months to ensure the best possible development, health, and growth (Ughade S, 2017). A key risk factor for infant and childhood morbidity and mortality is inappropriate breastfeeding, particularly if it is not done exclusively during the first six months of life (Bakalemwa R.; Lamstein S et al, 2014). Significant evidence suggests that many kinds of infectious disorders are less common and less severe when humans are breastfed (Mohamed S, 2015). The primary determinants of a child's nutritional condition are maternal breastfeeding knowledge, attitude, and self-efficacy (Babel, 2017; USAID. IYCN, 2011; Chakraborty B et al, 2017). Because of perceptions of inadequate breast milk, the majority of mothers stop using exclusive breastfeeding (EBF) (Vygen et al., 2013; Balogun et al., 2015). Furthermore, a prior study conducted in the Indonesian city of Pekanbaru by Agrina et al. (2015) revealed that the majority of women give their newborns supplemental foods before the age of six months because they believe that breast milk is insufficient for their infant. Mothers who are not EBFs often believe that breastfeeding is insufficient to meet an infant's needs.

A study found that raw butter was the most often offered prelacteal meal (49.1%) (Derso at al., 2017). According to research done in a rural area of southwest Ethiopia, the most often cited reasons for stopping breastfeeding were being fatigued of breastfeeds (12.6%), not having enough breast milk (16.1%), and being pregnant (33.9%) (Babel, 2017). Although most pregnant women and women are medically capable of breastfeeding and want to do so, they encounter significant obstacles. Lack of prenatal knowledge, ease and comfort with formula feeding, the belief that there is not enough milk, misunderstandings about what constitutes a typical cry from a newborn, insufficient support, working as a mother, and the early introduction of meals are some of the obstacles to exclusive breastfeeding. Prenatal breastfeeding education is essential for educating expectant mothers on the health benefits of nursing for both the baby and the mother, fortifying their desire to breastfeed, eliciting and addressing identified hurdles, and identifying vital sources of support (Neifert and Bunik 2013). In order to lower breastfeeding barriers and boost mother self-efficacy, effective interventions were required.

This study compared breastfeeding interventions for breastfeeding self-efficacy and obstacles for two groups of mother's in rural Riau watershed areas utilizing breastfeeding software and simple breastfeeding media.

II. METHOD

This study made use of a quasi-experimental with two group post-test design. The research was conducted between between July to October 2023. Purposive sampling was used to select 46 mothers (22 from the intervention group and 24 from the control group) were collected with purposive sample techniques as sampling techniques in this study. The questionnare form used in the research for collecting data. The data was collected after giving intervention through breastfeeding multifaced intervention application as breastfeeding media since pregnant in last week for two weeks after delivery of the baby.

The Ethical Part of the Research

The ethical test was issued by the ethics committee with the number No.114/STIKES PN/KEPK/VII/2023.

Analysis of Data

Independent T-test was applied in this study to compare the difference between the mean of the 2 groups.

III. RESULTS

The study had most of the mothers aged above 20-35 years old (68%) for experiment group and 80% of mohers age on control groups were less than <20 years old. Futhermore, most of them had a low education (elementary school to senior high school) as a level education both two groups and as a housewives. Moreover, caesarian as majority the labour type both intervention and control groups as shown in the Table 1.

Table 1. Participant Characteristics

Respondent characteristic	Experiment		Control	
	(n)	(%)	(n)	(%)
Mother's Age				
a. < 20 y.o	1	4	19	80
b. 20-35 y.o	15	68	5	20
c. > 35 y.o	6	28		
Mother education				
a. No school				
b. Elementery	1	4	1	4
c. Junior High	10	40	1	4
d. Senior High	8	32	7	28
e. University	3	12	14	56
			1	4
Mother's Job				
a. Housewife	20	90	24	100
b. Part time	1	5		
c. Teacher	1	5		
Types of delivery				
a. Vaginal				
b. Cesarean	8	36	5	20
section	14	64	19	80

The study result also showed that the mean for breastfeeding Self efficacy for mothers of intervention group was 50.36 (SD5.761) while a mean of 44.38 (SD 3.118) was for control group after giving intervention. A mean difference with p value of 0.00 was discovered between the 2 groups after the intervention

Table 2 The Mean Differences for Breastfeeding Self Efficacy

Group	N	Mean	SD	t hitung	df	P value
Experiment	22	50,36	5,761	4,435	44	0,00
Control	24	44,38	3,118			

Futhermore, the study also found that the number of mothers that performed breastfeeding barriers were lower in experiment group compared to control group after the intervention procedures.

Table 3 The Mean Differences for Barriers of Breastfeeding

Group	N	Mean	SD	t hitung	df	P value
Experiment	22	20,36	1,590	23,764	44	0,00
Control	24	45,63	4,744			

IV. DISCUSSION

Maternal and infant benefits of breastfeeding are well documented. However, many parents experience obstacles to achieving their breastfeeding goals, leading to reduced rates of breastfeeding initiation and continuation. The result of this research shows that the use of breastfeeding aplication for breastfeeding multifaced intervention is an appropriate method of intervention that can be use in increasing breastfeeding self efficacy and decrease the breastfeeding barrier. A difference was also observed in the breastfeeding self efficacy and barriers category of the mothers in the two groups after the intervention procedure.

Mothers are encouraged to choose to breastfeed babies only for a variety of reasons, such as the social, psychological, and medical aspects of breastfeeding. The knowledge, attitudes, and perceptions of mothers who incorrectly view whether breast milk is sufficient for their infants, as well as community sociocultural factors, all contribute to the continued inappropriate assessment of breast milk as the primary food (Brown et al. 2014; Balogun et al. 2015).

The ability of practitioners to access resources is crucial for promoting breastfeeding. Health care providers need to be aware of the resources available in the community, such as home visiting practitioners, lactation consultants, prenatal lactation classes, and local and national support groups. Text messaging and web-based interactive support are two telehealth interventions that have demonstrated potential for extending breastfeeding (DeNicola N et al, 2020; Jiang H, Li M et al, 2014; Ahmed AH et al, 2016; Gallegos D et all, 2014). Learning about these resources during prenatal care is beneficial for mothers. Breastfeeding initiation and maintenance can be supported by all professionals, family members, and childcare providers who work with pregnant and postpartum patients and their babies. Throughout pregnancy and after childbirth, mothers should receive education, counseling, and support techniques in addition to the advantages of breastfeeding.

V. CONCLUSION

The combination of education and support interventions is very effective, especially when combined between prenatal and postnatal interventions. The used of breastfeeding interventions utilizing breastfeeding applications as breastfeeding media can increase the self-efficacy of breastfeeding mothers and overcome various barriers to breastfeeding.

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Childbirth Projection in Philippine Health Facilities: Impact of COVID-19 Pandemic and Lockdown

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***Abstract*:**

Background: COVID-19 and its ensuing quarantine have detrimental social and mental health effects, which in turn can influence fertility, conception, gestation, and birth.

Aim: This study aimed to determine the impact of the COVID-19 pandemic on the nationwide birthrate in healthcare facilities in the Philippines and its relation to the different variables affecting it.

Methods: A mixed-methods design utilizing records review and focus group discussions was utilized.

Results: Records review from the Philippine Statistics Authority and the Health Facility Development Bureau of the Department of Health revealed that (1) in the pre-pandemic period (2016–2019), there was a percentage increase in the number of deliveries in healthcare facilities; (2) during the pandemic (2019–2020), there was a decrease in the number of childbirths at all hospital levels; and that (3) there was an evident decrease in the trend of childbirth per hospital level during 2016–2020. Focus group discussions involving healthcare personnel from health facilities per region in the Philippines revealed that pregnant women had apprehension about going to the hospital for deliveries due to fear of contracting COVID-19. They availed of services in nearby lower-level health facilities because of transportation limitations, with these facilities also limiting the number of deliveries they attended to as a safety measure. Thus, there seemed to be an increased number of pregnancies in health facilities, including teenage pregnancies, because of increased consultations.

Conclusion: In conclusion, childbirth following lockdowns significantly decreased in hospitals, with greater declines observed the higher the level of the facility. This decline will continue for as long as the pandemic persists. Fears of contracting the virus and quarantine-imposed limitations on movement may be behind this decline. However, despite the decrease in deliveries, there is an increase in pregnancies, including teenage pregnancies.

Keywords: Childbirth, COVID-19, Philippines, pregnancy, quarantine

I. INTRODUCTION

Background of the Study

A recent public health emergency of global concern is the coronavirus disease-2019 (COVID- 19). It is an infectious disease caused by Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) which started in China and almost infected every country in the whole world, including the Philippines (Velavan, 2020). The World Health Organization (WHO) declared COVID-19 as a Public Health Emergency on January 30, 2020. By March 11, 2020, COVID-19 was declared as a global pandemic by the WHO and has since continued to spread at an accelerated rate. The virus generally spreads between persons during close contact, most often through small droplets produced by sneezing, coughing, and talking. It can also spread by touching contaminated surfaces followed by the touching of the face, nose, and eyes with unwashed hands (MacIntyre, 2020). As of writing, the spread of this disease has been extremely rapid throughout the world (Islam, 2020).

COVID-19's daily increasing cases and deaths have led to worldwide lockdown, quarantine and restrictions to prevent the spread of the virus and reduce the magnitude of the pandemic. On March 16, 2020, the government of the Philippines under President Rodrigo Duterte imposed a Luzon-wide "enhanced community quarantine" (ECQ) that aims to further combat the effect of the continuing and increasing spread of COVID-19 (Rappler, 2020) thereby affecting family and social lives, as well as imposing a substantial burden on mental health (Pfefferbaum, 2020).

Thus, in addition to the physical health effects of the virus in those persons infected, the pandemic is also causing detrimental social and mental health effects, which in turn can influence fertility, conception, gestation, and birth. Furthermore, different propagation patterns of the COVID-19 pandemic as occurring in different countries and even in regions within countries may also in turn lead to other consequences, the latter related to different socio- economic conditions, healthcare facilities and access, and financial stability (Pfefferbaum, 2020).

The purpose of this study is to investigate the effects of COVID-19 to nationwide birthrate. Gathering data is significant in public policy and budgeting for education and health systems and has major impacts on the well-being of a country's population.

Statement of the Problem

Lockdown measures across the world following the outbreak of Coronavirus (COVID-19) have prompted speculation of a prospective baby boom, given the necessity of home seclusion and the temporary cessation of other conventional forms of entertainment. The pandemic and subsequent lockdowns disrupted access to family planning, there is an estimated increased unintended pregnancy among females ages 15 to 49 by more than 40% to 2.5 million (Regala, 2020). However, the prospect of a global economic recession, expected to be the worst since the Great Depression, makes the prospect of a baby boom considerably less likely.

At present, there is only limited evidence to predict whether and how COVID-19 will affect birth rates. However, considering factors such as changes in socio-economic conditions, mental health, mortality rates, and direct effects of the virus on fertility, and incorporating lessons learned from the previous pandemics, it would be reasonable to postulate that the COVID-19 pandemic may significantly affect future birth rates with long-term effects. Knowing the contextual effects of COVID-19 on birth rates is important for the business strategies of companies operating in child-related areas, as well as for governments and economies across the globe, given the impact that population growth has on the rate of population ageing and economic growth potential.

Objectives

General Objective

This study aims to determine the relationship of COVID-19 Pandemic and Nationwide Birthrate and its relation to the different variables affecting it.

Specific Objectives

1. To determine the projected number of Filipino women who gave birth nine (9) months following the COVID-19 lockdown.
2. To come up with time series and delphi estimates on the projected childbirth increase following lockdown.
3. To determine the demographic data of Filipino women who gave birth nine (9) months following the COVID-19 lockdown.
4. To determine factors affecting birth rate following the COVID-19 lockdown

Significance of the Study

The significance of the study lies mostly on its concerned population, its societal benefits, and impacts on health. The findings of the study can be used in determining the

proper planning and allocation of resources for mothers and their babies.

Scope and Delimitations of the Study

The study covers childbirth data from 2016-2020 in selected healthcare facilities obtained from the Health Facility Statistical Reports from the Department of Health. Focus Group Discussion participants purposively selected to represent hospitals, primary care facilities, and civil registrar.

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II. METHOD

Study Design

The study design is descriptive, and cross-sectional. Data from each source will be overlapped with other sources to avoid duplications, ensure veracity of information, and supplement/fill the gaps wherein the information is missing.

The study will use a Mixed Method Design which is characterized by the combination of at least one qualitative and one quantitative research component for the broad purposes of breadth and depth of understanding and corroboration. Mixed methods research is about heightened knowledge and validity. The design as a product should be of sufficient quality to achieve multiple validities legitimation (Johnson and Christensen 2017; Onwuegbuzie and Johnson 2006), which refers to the mixed methods research study meeting the relevant combination or set of quantitative, qualitative, and mixed methods validities in each research study.

Study Duration

- Start date: January 13, 2021
- End date: March 31, 2021
- Duration: Approximately 3 months

Data for Collection

Number of childbirth and related data in health facilities in the Philippines from 2018- 2020 disaggregated per region (from DOH-Health Facility Development Bureau and PSA)

Data Collection Methods/Sources

As there is no single database that can capture all the number of childbirth and related data in health facilities from 2018-2020 in the Philippines and the data required for this study, data will be collected from various sources simultaneously to ensure inclusivity and completeness. Data from each source will be overlapped with the other sources to avoid duplications, ensure veracity of information, and supplement/fill the gaps where information is missing. Using this process, data that is difficult to capture (e.g. factors affecting birth rate) can be extracted as well.

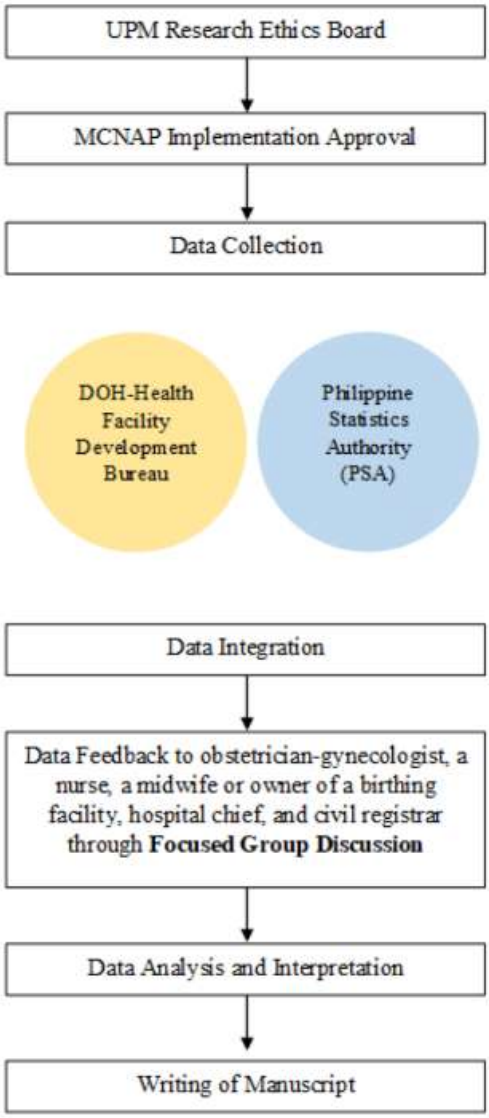
- Department of Health – Health Facility Development Bureau
  - Number of childbirth and related data in health facilities from 2018-2020
- Philippine Statistics Authority
  - Number of childbirth and related data in health facilities from 2018-2020
- Focused Group Discussion
  - After an initial list of childbirth data in health facilities per region in the Philippines, results will be assessed for data accuracy. A focused group discussion involving an obstetrician-gynecologist, a nurse, a midwife or owner of a birthing facility, hospital chief, and civil registrar will provide supplemental data from their personal knowledge on the projected childbirth increase following lockdown.

Data Management

A statistician will be hired to sort and organize the data from various sources. Resource personnel from key agencies that will serve as data sources (DOH, PSA) will be identified to help with data extraction from the agencies' databases. Data will be entered into a Microsoft Excel database and appropriate tables generated. Data generated will be used for generating a time series graph for the projected childbirth increase following lockdown. Data gathered from the Focused Group Discussion will provide the delphi estimates.

Methodologic Framework

Figure 1. Methodological Framework (See next column.)



Ethical Considerations

Ethical Approval

Ethical clearance from the agency's Institutional Ethics Review Committee (IERC) is required for research involving the use of human subjects. This will be obtained through the UP-Manila Ethics Review Board.

Conflict of Interest

There is no conflict of interest whether financial or non-financial.

Privacy and Confidentiality

All study data shall be recorded, and investigators are responsible for the integrity of the data i.e. accuracy, completeness, legibility, etc. The manner of disseminating and communicating the study results shall guarantee the protection of the confidentiality of patient's data. All processes and protocols data retrieval will be validated in accordance with the Data Privacy Act of 2012 Chapter 5, SEC. 20. Security of Personal Information. Wherein, the personal information controller must implement reasonable and appropriate organizational, physical, and technical measures intended for the protection of personal information against any accidental or unlawful destruction, alteration and disclosure, as well as against any other unlawful processing.

Informed Consent

The informed consent will be obtained by the research assistant prior to the focused group discussion. The research assistant will explain to them carefully the objectives and the nature of the study.

Representatives who qualify as participants in the study will be oriented to the nature, objective, and procedures of the research. Their voluntary participation will be emphasized, and that they may withdraw their participation anytime without any consequence.

Vulnerability of Research Participants

The research participants are not vulnerable, however, they are free to withdraw from the project any time.

Risk of the Study

There is no serious foreseeable risk/s of this study. This is a non-interventional study thus, there are not exposed to any foreseeable additional risks.

Recruitment and Compensation

Participants of the focused group discussion will be recruited through convenience sampling. A token of appreciation for their time and participation will be provided.

Benefits of the Study

The study will potentially benefit the Filipino population for accurate data collection and analysis of childbirth projection will contribute to well-functioning health systems in the country.

Collaborative Terms

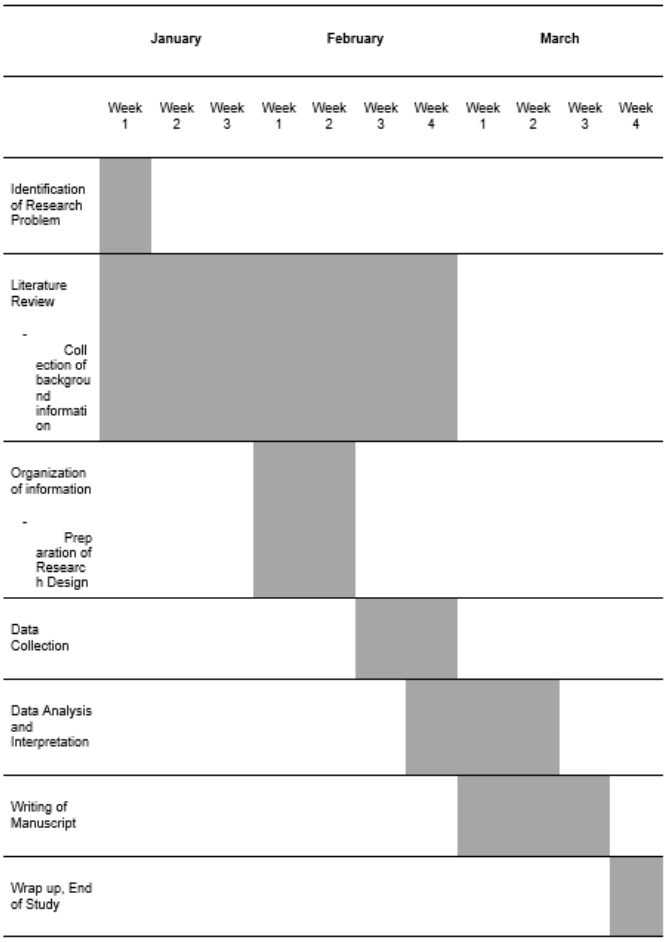
This research is funded by Procter and Gamble Philippines, Inc. in collaboration with Mother and Child Nurses Association of the Philippines, Inc. The collaborator agrees that it will acknowledge MCNAP's publications, as academically and scientifically appropriate, in its publications, which may refer to the results of the Research Plan. Intellectual properties derived from the Research Plan/Protocol shall be duly acknowledged.

Gantt Chart

Gantt Chart will be utilized in the study to help aid the whole process from identification of the problem up until the end of the study.

- Start date: January 13, 2021
- End date: March 31, 2021
- Duration: 2 months, 2 weeks, and 5 days

Figure 2. Gantt Chart



III. RESULTS

Table 1. Average Annual % Change in Birth Rate during Pre-Pandemic Years (2016-2019) shows that in the pre-pandemic period from 2016-2019, there is a percentage increase in the number of deliveries in the health care facilities.

Table 1. Average Annual % Change in Birth Rate during Pre-Pandemic Years (2016-2019)

Hospital Level	2016-2017	2017-2018	2018-2019
1	4.77%	12.71%	4.91%
2	9.20%	16.40%	17.80%
3	19.62%	16.27%	10.13%

Table 2. Average Annual % Change in Birth Rate during Pandemic Year (2019-2020) shows that in all hospital levels,

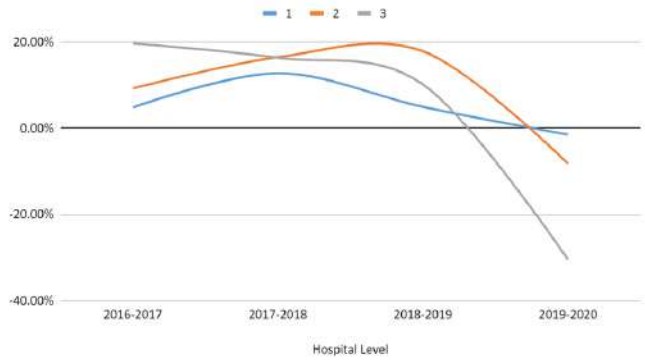
there is a decrease in the number of childbirth during the lockdown period. The higher the hospital level, the greater the decrease in the deliveries of babies in the facility.

Table 2. Average Annual % Change in Birth Rate during Pandemic Year (2019-2020)

Hospital Level	2019-2020
1	-1.52%
2	-8.25%
3	-30.48%

Figure 3. Average % Change in Birth Rate per Hospital Level from 2016-2020 shows that in all hospital levels during the period of 2016-2020, there is an evident decrease in the trend of childbirth, more specifically during 2019-2020 which was the height of the pandemic. Moreover, the higher the hospital level, the greater decrease in the deliveries of babies.

Figure 3. Average % Change in Birth Rate per Hospital Level from 2016-2020



IV. DISCUSSION

Pregnant women have apprehension going into the hospital for deliveries due to fear of contacting COVID-19.

1. The lockdown had brought limitations in the movement of pregnant women from home to the tertiary hospitals such as limited transportation which made them avail nearby lower-level health facilities.
2. There seems to be an increasing number of pregnancies because of increasing consultations in the clinics, including an increase in teenage pregnancies.
3. Health facilities have implemented measures to protect pregnant women and their children from the virus including limiting the number of deliveries being attended in the facilities.

V. CONCLUSION

The following section will detail the conclusion and recommendations drawn from the study.

Conclusion

1. Childbirth following lockdowns have significantly decreased in the hospitals.
2. The higher the level of the health facility, the greater the decline in the rate of deliveries of babies.
3. It is projected that there will be continuous declines in births in higher-level facilities as the pandemic persists.
4. Factors such as fear of contacting the virus and limitations in movement of the people are key factors for decreased childbirth in hospitals.
5. Despite the decrease in deliveries in the hospitals, there seems to be an increase in the number of pregnancies including those of teenage year.

Recommendations

1. Strengthen the capacity of lower-level health facilities such as level 1 hospitals and primary care facilities in terms of childbirth care services.
2. Provide training and capacity-building activities related to childbirth care for healthcare staff in lower facilities.
3. Enhance the primary care provider network and ensure an efficient referral system.
4. Healthcare goods and services for childbirth shall be made available in lower health facilities.

5. Ensure that standards in childbirth services are being implemented with opportunities for the conduct of evidence-based researches for improvement.

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Exploring the Experience of Direct Care of Patients among the Newly Graduated Nurse

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Abstract:

The study aims to explore the experience of direct patient care among newly graduated nurses. A qualitative design, descriptive approach with in-depth, audio-taped, semi-structured interviews was applied with eight newly graduated nurses who have experience in direct patient care in an acute setting in a hospital located in South Taiwan who participated in individual.

Data collection was from March to December 2022. Content analysis and coding with a conceptual map were used for data analysis until the data reached saturation. Two investigators independently analyzed the eight interviews.

Results: Three themes and seven sub-themes are generated from data analysis: (1) Insufficiencies of professional direct care, (2) Work overload, and (3) Social impact and challenges.

Conclusion: Three major themes are similar to two decades ago which illustrate that new graduate nurses not only need more time to build up competence of direct patient care but also construct effective strategies of time management.

Keywords: Content analysis, experience, newly graduated nurses, patient direct care, qualitative research

I. INTRODUCTION

During the COVID-19 pandemic, registered nurses are difficult to recruit and the turnover rate is higher from 10 to 11.73%. The rate of practicing nurses accounted for 58.6% only. The average practicing age is 35.97-37.64 years old in Taiwan (Nursing Principality Federation of the Republic of China, 2023). The new nurses must possess the knowledge and basic skills to meet the minimum practical requirements (Masso, et al., 2022). Patient assessment and clinical handover both are important indicators of patient outcomes; however, the nursing workforce has been worsening for decades. The problem of comprehensive patient assessment and appropriate clinical handover among newly graduated nurses remains unclear and more evidence is inconclusive.

The aim of this study was to explore the experience of direct patient care among newly graduated nurses.

II. METHOD

Eight newly graduated nurses who have experience in direct patient care for at least 3 months in an acute ward care setting in one hospital located in South Taiwan. Participants are invited individually.

This study applied a qualitative design via a semi-structured qualitative, descriptive approach with in-depth, audio-taped, semi-structured interviews was used for the experience of direct patient care in the first year in South Taiwan from March to December 2022. Content analysis was used to analyze interview transcripts and coding with a conceptual map was used for data analysis until the data reached saturation. The COREQ checklist for qualitative study has been used in reporting study. Each interview process was about 40-60 minutes. Two investigators independently analyzed the eight interviews. The remaining interviews were analyzed by the authors.

The Ethical Part of the Research

This study was approved by the Human Research and Ethics Committee of National Cheng Kung University Hospital (IRB no.: AER-110107). All the participants provided written informed consent.

III. RESULTS

The study reported that "Exploring the challenges of adaptation on newly graduated nurses perspective ", which is divided into three themes and seven sub-themes in sequence. Three themes are (1) Insufficiencies of professional direct care, (2) Work overload, and (3) Social impact and challenges. (Table 1)

Table 1. Three main themes and seven sub-themes

Themes	Sub-theme
1. Insufficiencies of professional competence of direct care.	1-1. Poor communication skills
	1-2. Lack of experience of direct care
	1-3. Difficult to handover
2. Physical and mental workload	2-1. Physical workload
	2-2. Mental workload
3. Social impact and challenges on nursing career.	3-1. Peer judgement
	3-2. Family misunderstanding

IV. DISCUSSION

Newly graduated nurses entering the clinical setting not only need to provide direct care of patients but also need to learn interpersonal relationships in the workplace and use environmental equipment and facilities. After one month of job training, newly graduated nurses should be independent in a Medical Center in Southern Taiwan. However, they were not ready to understand professional terminology and manage critical cases. As a consequence, they are unable to manage patients with critical conditions or deteriorating conditions. Therefore, the new graduate nurse felt stressed while they met clinical handover. The reason is that the illogical thinking of disease trajectory, incomprehensive medical order, or poor clinical judgment may slow down their paths. Particularly in newly hospitalized patients, the new graduate nurses may take time to review a new patient. They also need to look for solutions such as consulting senior nurses and confirming the medical order with physicians, when they do not know how to deal with it. They are willing to double-check to keep patient safety and to avoid medical error. It is common to see the newly graduated nurses who were prolonging working hours in the first three months. Poor time control makes them exhausted. They are more criticized by colleagues and have less peer support or family understanding of nursing jobs. The negative effects could not contribute to cultivating nursing competence.

V. CONCLUSION

The three themes include (1) Insufficiencies of professional direct care, (2) Work overload, and (3) Social impact and challenges, which are similar to two decades ago. However, the new graduate nurses encountered more complicated patients with multiple mobility and elderly populations. Besides, the high-tech revolution of medical care and advanced medical treatment for cancer therapy. It illustrated that newly graduated nurses not only need more time to build up competence in direct patient care but also construct effective strategies for time management.

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Self-Management and Self-Efficacy in Rheumatoid Arthritis: A Systematic Review

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Abstract:

Background: Due to systemic inflammation, side effects related to medical treatments, and worsening of functional status in rheumatoid arthritis (RA), individuals' perception of self-management and self-efficacy decreases and effective participation in the treatment and care process may be prevented. Considering the research conducted to date, exacerbations can be minimized, and high morbidity and mortality can be reduced with effective management of the process by ensuring that individuals gain and develop the perception of self-management and self-efficacy.

Aim: This study aims to analyze the results of randomized controlled studies covering the training programs for self-management and self-efficacy in RA, published between 2010 and 2022 years.

Material and Methods: Studies from PubMed, Medline, Cochrane, ScienceDirect, and ULAKBİM databases; with the keywords "rheumatoid arthritis", "education", "program", "self-management", "self-efficacy", "randomized controlled study" was searched.

Results: A total of 19 articles aimed at improving self-management (n=11) and self-efficacy (n=8) behaviors were included in this review. Arthritis Self-Efficacy Scale (ASES), Arthritis Impact Scale (AIMS-2), Self-Management Behaviors Scale, Rheumatoid Arthritis Task-Specific Self-Efficacy (RATE) and Self-Management Ability Scale were used to measure self-management and self-efficacy parameters. In the randomized controlled studies examined, the sample size ranged between 33-228 participants, and the age range was between 38-69 years. The intervention periods were a minimum of 6 weeks and a maximum of 24 months. The training or education programs were delivered by trained researchers or health professionals in less than half of the studies (n=6). The self-management and self-efficacy behaviors of individuals with rheumatoid arthritis improved in most of the studies (n=11).

Conclusion: This review showed that education and program-based studies on self-management and self-efficacy in individuals with rheumatoid arthritis may be effective in acquiring, developing, and maintaining targeted behaviors. More randomized controlled studies are needed to improve self-management and self-efficacy behaviors in this context.

Keywords: Education, rheumatoid arthritis, self-efficacy, self-management, systematic review

I. INTRODUCTION

Rheumatoid arthritis (RA) is a systemic autoimmune disease that occurs bilaterally in joints or less frequently, in extra-articular regions (Scherer et al., 2020; Lin et al., 2020). The disease is seen at all ages and is 2-3 times more common in females (Aletaha & Smolen, 2018; Otón & Carmona, 2019). Considering the literature, genetic, epigenetic factors, obesity, smoking, exposure to dust and ultraviolet rays, hormone treatments, nutritional habits, viral infections and the changes in the immune system response may play role in the etiology of RA (Scherer et al., 2020; Lin et al., 2020; Aletaha & Smolen, 2018).

Although the incidence of RA varies in different geographies and populations, it affects 0.1-2% of the population worldwide (Silva-Fernández et al., 2020; Almutairi et al., 2021). In an epidemiological study conducted by Kaçar et al. (2005) in Antalya, the prevalence of RA was found to be 0.38%.

According to Global Burden of Disease studies, the total disability-adjusted life years (DALY) of RA, standardized per 100,000 population, was reported to be 43.3 in 2017 (Safiri et al., 2019).

People diagnosed with RA become vulnerable due to factors such as impaired immune response, presence of systemic inflammation, side effects of anti-rheumatic drugs and corticosteroids, development of physical deformities, and the increased risk of morbidity and mortality (Otón & Carmona., 2019; Gwinnett et al., 2020). RA causes common symptoms including pain in the muscles, swelling, tenderness, and warmth in the joints, morning stiffness lasting more than 30 minutes, and decreased joint range of motion (Aletaha & Smolen, 2018; Gwinnutt et al., 2020). Due to these symptoms, individuals with RA experience a loss of motivation throughout the treatment process and cannot participate effectively in their care (Michaud et al., 2021; Engelbrecht et al., 2019). This situation causes individuals to not cope effectively with their symptoms, leads to repeated hospitalizations and higher morbidity and they experience self-care problems and become more dependent (Gwinnutt et al., 2020; Macovei et al., 2019). In this aspect, the use of both pharmacological treatments and nonpharmacological treatments in RA is frequently emphasized (Bullock et al., 2019; Conigliaro et al., 2019).

Nonpharmacological management of RA covers improving diet, reducing/quitting smoking, regular joint-protective exercises, participation, and continuity in rehabilitation, independence in self-care, coping with stress, as well as joining in disease-related training programs (Conigliaro et al., 2019; Küçükdeveci, 2019).

At this point, individuals with RA may be supported with structured training programs, which are one of the non-pharmacological approaches. Following these training programs, perceived self-efficacy and self-management levels of individuals may be improved during the acute and remission periods of RA. In addition, these training programs may contribute to better symptom management, reduce exacerbations, and physiological parameters, and improve compliance with treatment, functional ability, and use of healthcare resources more effectively (Shanmukhan et al., 2018; Miller and al., 2014; Mollard & Michaud, 2021). Therefore, the aim of this systematic review is to present the effects of training programs applied to individuals with RA on self-management and self-efficacy variables with a holistic approach.

II. METHOD

Study Type

This systematic review was conducted based on the Cochrane Guide to Systematic Reviews (2011) (Higgins et al., 2011).

Literature Review

For the literature review, Rheumatoid arthritis/RA", "Training/program", "Control group", and "Randomized controlled study/controlled clinical studies" keywords were chosen, and PubMed, Medline, Cochrane, ScienceDirect, and ULAKBİM databases were searched.

Inclusion Criteria

This systematic review included studies that a) were conducted on individuals diagnosed with RA over the age of 18, b) applied training programs to gain or improve self-management and self-efficacy perceptions and behaviors, c) had a randomized controlled design, d) were written in Turkish or English, and e) published between 2010 and 2022.

Study Selection

A detailed literature review was done by the authors through the databases using the keywords mentioned above and filtering the year options, respectively, the studies were separated according to their titles, and the abstracts that were most relevant were carefully examined by the authors. A total of 19 articles were included based on the inclusion and exclusion criteria. It was decided to include.

III. RESULTS

Within the scope of the review, 19 studies aiming to develop self-management (n=11) and self-efficacy (n=8) behaviors were analyzed. Arthritis Self-Efficacy Scale (ASES), Arthritis Impact Scale (AIMS-2), Self-Management Behaviors Scale, Rheumatoid Arthritis Task-Specific Self-Efficacy (RATE) and Self-Management Ability Scale were used to measure self-management and self-efficacy among the RA individuals. Six of the studies were in the USA, four studies were in the Netherlands, three studies were in England, two studies were in Iran, and the other studies were conducted in Switzerland, Sweden, Spain, New Zealand, China, and Taiwan. The sample size varied between 33-228 participants and the age was between 38-69 years. The intervention period was a minimum of 6 weeks and a maximum of 24 months. In less than half of the studies (n=6, 31.57%), trained researchers or health professionals performed interventions. Although there was an improvement in parameters such as aerobic capacity in which physical functionality was evaluated (n=7, 36.84%), upper extremity and hand functions (n=2, 10.52%), no change was reported in muscle strength (n=3, 15.78%), and morning stiffness (n=1, 5.26%). And no significant change was found in pain intensity (n=7, 36.84%) however, some studies (n=3, 15.7%) reported improvements in coping with pain. Besides, anxiety and depression were reduced (n=2, 10.52%) and quality of life (n=2, 10.52%) was improved. Regarding disease activity score (n=3, 15.78%), drug compliance (n=5, 26.31%), and general health status (n=2, 10.52%), no significant improvements were reported in the studies. Most of the studies highlighted an increase in self-efficacy (n=111, 57.89%) and self-management behaviors in individuals with RA, following the training programs. Studies (n=6, 31.57%) also emphasized that individuals with RA were satisfied with the training programs and thought that these interventions were beneficial.

IV. DISCUSSION

In addition to self-efficacy and self-management in training programs among patients with RA, pain, general health status, disease activity score, hand grip strength, physical activity status, medication adherence, anxiety, depression, and quality of life parameters were also examined. Significant improvements were reported in self-efficacy and self-management behaviors among RA patients following training programs. However, studies analyzed in this review, were mostly not blinded, were small sample sized, were lack of models and theories, did not evaluate individuals with a holistic approach in terms of physical, mental, and psychosocial aspects, the intervention period, data collection procedures, data analysis approaches and used scales varied, and delivered the interventions in various methods such as face-to-face, over the phone or on the internet. Moreover, most of the studies did not utilize multidisciplinary team approach, and the competencies of people who administered the interventions (training programs) were not mentioned. Considering these limitations, it should be kept in mind that the findings obtained from these studies may not be generalizable to all individuals with RA. In this context, since RA progresses with exacerbations, developing self-efficacy and self-management behaviors is critical.

V. CONCLUSION

In summary, this systematic review showed that self-management and self-efficacy behaviors in RA may be improved by structured training programs. However, the absence of a professional or multidisciplinary team in all interventions, the variations in the duration periods of the interventions and assessment intervals, including 1st month, 3rd month, 6th month, 12th month, and 24th month are important factors that limit the generalizability of findings. Nurses take important roles in the management of RA, which progresses with exacerbations, has multiple negative effects on quality of life and functional capacity, and causes high morbidity. Further

clinical studies, that are well-structured, reduce sources of bias, have larger sample sizes, and include long-term follow-up results are still warranted, especially for variables such as pain, treatment compliance, medication compliance, and disease activity score in the RA population (Aletaha & Smolen, 2018; Mohamed et al., 2017).

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Assessment of Nursing Competence of Pediatric Nurses After Orientation Course at Children's Hospital 1

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Abstract:

Objectives: Assessment of nursing competency of pediatric nurses after orientation course at Children's Hospital 1.

Subjects and methods: A cross-sectional description of 86 nurses at Children's Hospital 1 from June 1,2021 to June 1, 2022.

Results: 5.8% of the nurses met all competency criteria. Competency in "clinical practice" has 13.95% of nurses; competency in "professional development" has 29.07% of nurses; Competence in "legal compliance" has 82.56% of nurses. The mean score of competency standards of the nursing group in 2020 before the course was raised from (28.43 ± 12.67) to (44.56 ± 6.47) after completing the training course, with $p < 0,01$. The nurse competency self-assessment score in 2020 (44.56 ± 6.47) was lower than the assessment score of the manager nurse (42.22 ± 7.23), but not statistically significant with p=0.13.

Conclusion: The pediatric nursing orientation training at Children's Hospital 1 has improved nursing competency. Maintaining and developing this necessary training program.

Keywords: Competency, nurse, orientation course

I. INTRODUCTION

Competency is a set of measurable characteristics and skills that improve job performance. In the health sector, competence is a key attribute for delivering safe, ethical, and high-quality care[3]. According to the World Health Organization (WHO), nursing is one of the four pillars of the health service system. In 2012, the Vietnam Nursing Association issued a set of the Basic Competency Standard for Vietnamese Nurses for training institutions and practice facilities to build and develop the competence of nurses to meet the 3 domains, 25 standards (TCH) and 110 criteria (TC)[1]. Children's Hospital 1 (BVND1) organized a 9-month Pediatric Nursing Orientation course and granted practice certificates to registered subjects and new nurses to work at the hospital[2]. With the urgent need for nurse training, especially pediatric nurses after training courses have an important role. From the assessment results, the nurse managers will have follow-up training plans and nurses will build their own next goals to improve low-level competencies as well as strengthen and promote those strengths.

The aim of this study was to identify the percentage of nurses who have attained nursing competence after the 9-month pediatric orientation course at Children's Hospital 1.

II. METHOD

Sample Selection Criteria

All nurses have completed orientation courses in 2017, 2018, 2019, and 2020 at Children's Hospital 1 from June 1, 2021, to June 1, 2022.

Exclusion Criteria: The nurse quit their job or did not complete the assessment tool.

Study Design: Descriptive study.

Sample Size: Took the whole sample.

Assessment Tool: The Basic Competency Standard for Vietnamese Nurses was modified by Horri[4].

The Ethical Part of the Research

The study was approved by the Ethics Committee of Children's Hospital 1 and the University of Medicine and Pharmacy Ho Chi Minh City

Analysis of Data

Collected data processed by SPSS 26th. Qualitative variables: percentage. Quantitative variables: Calculate mean score (MS) and standard deviation (std) with normally distributed quantitative variables; median, highest, and lowest limits for non-normally distributed quantitative variables. The comparisons were statistically significant when $p < 0.05$.

III. RESULTS

Have 86 nurses met the study criteria. The median age is 26 years old; females were 94.2%; Nurse training in public schools was 22.1%, and Nurse bachelor's degrees 69.8%. Nurses with less than 3 years of seniority were 38.4%; 3-5 years of experience were 34.9%; and >5 years of experience were 26.7 %.

Table 1: The percentage of nurses who have attained nursing competence after the 9-month pediatric orientation course at Children's Hospital 1 (N=86).

Domains	Can not do (%)	Can do with support (%)	Can do independently (%)
Clinical pratice	1,8%	16,1%	82,1%
Professional development	3,8%	26,5 %	69,7%
Legal compliance	0,7%	11,5 %	87,8%

Diagram: the mean score of nurses in 2020 followed by Standards competency before and after the 9-month pediatric orientation course at Children's Hospital 1. (N=33)

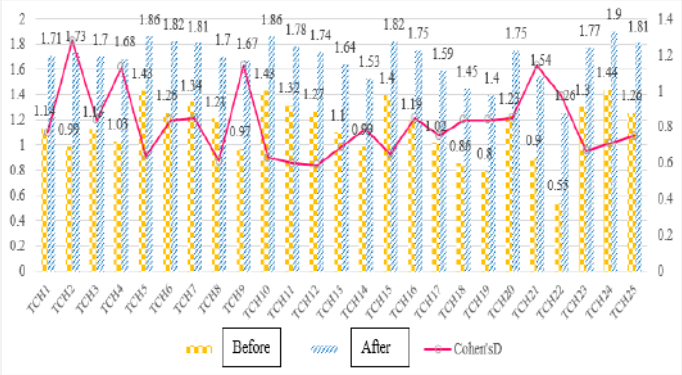

Table 2: The comparison mean score of nurses in 2020 and nurse's managers followed by Standards competency after the course.

	Nurses 2020 MS ± STD	***Nurses' managers*** MS ± STD	P value
Total score of standards competencies	44,56 ± 6,47	42,22 ± 7,23	0,13
Mann-Whitney test; $p < 0,05$			

Table 3: The comparison mean score of nurses in different seniority followed by Standards competency after the course.

Domains	***Nurses < 3 years*** (N=33) MS ± STD	***Nurses 3-5 years*** (N=30) MS ± STD	***Nurses > 5 years*** (N=23) MS ± STD	*Giá trị p*
Clinical pratice	26,12 ± 4,42	26,93 ± 3,35	26,11 ± 3,65	0,69
Professional development	14,33 ± 2,38	14,9 ± 1,81	14,42 ± 2,5	0,67
Legal compliance	3,79 ± 0,45	3,83 ± 0,44	3,91 ± 0,42	0,17
Total score of standards competencies	44,2 ± 6,19	44,56 ± 6,47	44,44 ± 5,55	0,71
Kruskal Wallis test; $p < 0,05$				

IV. DISCUSSION

The percentage of nurses who have attained nursing competence after the 9-month pediatric orientation course at Children's Hospital 1: In the domain of clinical practice, the percentage of qualified nurses is still low. If only 1 criterion out of 78 competency criteria does not meet the requirements, then that nurse is counted as having not reached the competence of clinical practice. In the domain of professional development, it is the same, as long as 1 criterion out of 46 competency criteria does not meet the requirements, the nurse is considered to have not reached the required competency.

The results of the competency assessment of nurses in 2020 are like the research results of author Horii[4], consistent with the study of nurses working at a pediatric hospital. Some of our competency standards were higher than the results of Horri's study because the self-assessment of our study had a score higher than that of the author's study[5]. Almost all new nurses develop competencies within the first 6 months of employment[6].

For the study, we expect the average score of competencies to be from 1.5 to 2 because this is the level of nurses able to do it under guidance until the level of self-reliance. However, the manager's evaluation score is lower than the expected level. This also depends on, and each nurse has a lot of experience, experience in different clinical settings, or has time to work in a clinical place to get an overview. The importance of achieving clinical competence through support and cooperation with experienced colleagues. Nurses need to discuss and reflect with instructors or managers to ensure self-awareness[5]. However, nursing confidence in the ability to see is also a good advantage for career development.

The total competency standard score did not have a statistically significant difference between the nursing groups by seniority. Evidence-based practice nurses remain unchanged in the first 5 years of their careers. Newly graduated nurses self-assess their clinical competence and need further training in nursing interventions combined with direct patient care[8]. New nurses have lower competency than nurses who have longer seniority, although the difference is not statistically significant. This can be explained that factors that prevent new nurses from having access to their more experienced colleagues are that they are anxious with a feeling of burden, feel their confidence is threatened, and have concerns about acceptance. Our study results are also consistent with Taskase's research shows that nurses with more than 5 years of work experience are more competent than those without experience[10]. Therefore, the new nurse is considered ignorant or inexperienced[7]. Therefore, the new nurse needs support from experienced nurses to be able to perform the techniques proficiently and effectively. Our nursing competency is appropriate competency development according to Benner's competency ladder[9].

Pediatric nursing orientation training in Children's Hospital 1 has good results in improving nursing competency after the course. This necessary training program should be replicated. The competency of nursing clinical practice and professional development is still at a low level. It should be needed to strengthen training and evaluation.

Develop and standardize a set of competency standards specifically for pediatric nurses.

V. CONCLUSION

5.8% of nurses met all competency criteria according to the competency. Including Clinical practice: 13.95%. Professional development: 29.07%. Legal compliance: 82.56%. The mean score of competency standards of the nursing group in 2020 before the course was raised from (28.43 ± 12.67) to (44.56 ± 6.47) after completing the training course, with $p < 0,01$. The nurse competency self-assessment score in 2020 (44.56 ± 6.47) was lower than the assessment score of the manager nurse (42.22 ± 7.23), but not statistically significant with p=0.13. The pediatric nursing orientation training at Children's Hospital 1 has improved nursing competency. Maintaining and developing this necessary training program.

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Time Limited Trial in ICU-Case Review

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Abstract:

The critically ill patients suffered from threatening diseases in the intensive care unit (ICU). As ICU survivors, they face physical challenges, such as functional decline and ventilator dependence. While they undergo recurrent respiratory failure, they may decide on re-intubation or tracheotomy creation to maintain their lives. If left untreated, recurring respiratory failure may lead to a fatal death. Therefore, four domains of ethics should be considered in the decision-making of a Time-Limited Trial (TLT), including disease trajectory, patient preference, quality of life, and other contextual features.

Aim: Case review for the ethical analysis of endotracheal tube re-intubation in the ICU.

Case/Review: A TLT is "an agreement between a clinician and a patient/family to use certain medications for a limited period, to monitor the patient's clinical outcomes for improvement or deterioration. The AMBER bundle care includes five core elements, (Assessment, Management, Best practice, Engagement, and Recovery uncertain). As a patient or family member, advocating for yourself, sharing your preferences, and communicating with physicians is crucial. The physician can weigh up the patient's best interest and accordingly adjust the medical plan whether toward aggressive or supportive care. Three cases were reviewed in the ICU. The Four basic ethical principles: respect for autonomy, beneficence, maleficence, and justice should be analyzed. Beneficence is not only to avoid harm but also to benefit patients and thus to promote their welfare. The ICU patient's best interest is decision-making for body and life autonomy. It is imperative to provide sufficient information for the patients and families to respond to the questions.

Conclusion: To assist the ICU patient and family members in making difficult decisions in a short periods of time. The role of TLT must be balanced with the care of patients, family members, and medical teams.

Keywords: Beneficence and maleficence, ethical consideration, intensive care unit, time-limited trial

I. INTRODUCTION

The critically ill patients suffered from threatening diseases in the intensive care unit (ICU). As ICU survivors, they might undergo extubation failure and recurrent respiratory failure. They may decide on re-intubation or tracheotomy creation to maintain their lives. On the other hand, they may decide hospice care or do not resuscitate, withdraw, or terminate life support. Therefore, four domains of ethics should be considered in the decision-making of a Time-Limited Trial (TLT), including disease trajectory, patient preference, quality of life, and other contextual features.

II. TIME-LIMITED TRIAL IN ICU

A TLT is "an agreement between a clinician and a patient/family to use certain medications for a limited period of time, to monitor the patient's clinical outcomes for improvement or deterioration, and to maintain ongoing treatment of the disease if progress improves. TLT is applied for uncertainty

recovery or diagnosis. The AMBER bundle care includes five core elements,(Assessment 、 Management, Best practice, Engagement, and Recovery uncertain). Through repeated evaluation of the patient's medical condition, continuous dialogue, and communication with patients/ family members, the physician can weigh up the best interest of the patient and accordingly adjust the medical plan whether it is toward aggressive or supportive care. The Four basic ethical principles: respect for autonomy, beneficence, nonmaleficence, and justice should be analyzed. The principles of beneficence and maleficence are determined by whether the treatment helps particularly for patients with uncertain recovery or not. Beneficence is not only to avoid harm but also to benefit patients and thus to promote their welfare. The ICU patient's best interest is decision-making for body and life autonomy. it is imperative to provide sufficient information for the patients and families to discuss and respond to the questions.

Case 1. A 86-year-old woman was a case of Covid-19 survivor, who had complications with laryngeal edema and vocal cord paralysis. Upon arrival at the ICU, the patient refused all invasive procedures and aggressive treatment because of old age. During ICU stay, she had an acute stroke. The ICU physician persuaded her to take tracheotomy creation for recurrent respiratory failure. A family meeting was held. The agreement among the patient, family, and ICU physician was respected for patient autonomy. No re-intubation despite recurrent impending respiratory failure. After the patient's respiratory failure stabilized gradually, she was stepped down to a nursing home.

Case 2. A 79-year-old woman has advanced right breast cancer post multiple lines of treatment with progressive disease. Right mandible medication-related osteonecrosis of jaw status post operation with recurrence and submental space cellulitis with abscess. Transferred to the ICU for acute hypoxic respiratory failure. After intensive treatment for 19 days, a "Time-Limited Trial" was initiated due to a deteriorating condition. The patient received the terminal sedation. A family meeting was held and the agreement between the family, and physician was reached, and DNR/Do-Not-intubation was confirmed. The intensive care was switched to hospice care. The patient's tracheal tube was extubated (day 28). Two days later, the patient passed away with family accompanying her.

III. CONCLUSION

To assist the ICU patient and family members in making difficult decisions in a short period of time. The role of TLT must be balanced with the care of patients, family members, and medical teams.

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The Effectiveness of Virtual Reality Simulation as a Learning Strategy on Acquisition of Ventrogluteal Injection Skill and Anxiety Level

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Abstract:

Background: The acquisition of clinical psychomotor skills is an central part of an undergraduate nursing program which inextricably linked with cognitive and motor skills, that involves the application of theoretical knowledge to psychomotor skills, and integration of clinical ability, performance, essential knowledge, and attitude in the nursing situation which taught in traditionally or in simulated clinical practice. In nursing education, nursing students should be ready to know, understand, remember and competently perform various procedures, to reduce the risk of harm when they learn and practice on an actual patient.

Aim: Aim of the study is to design and develop virtual reality simulation software related to ventrogluteal injection skills in nursing education and determine the effectiveness of virtual reality simulation as a learning strategy on the acquisition ventrogluteal injection skill and anxiety level.

Method: The study was used a quasi-experimental design. The universe of the study consisted of the first-year students (220 students) who enrolled "Fundamentals of Nursing" course first time at the Near East University Faculty of Nursing in the summer semester in 2019-2020 academic years, and the study sample included 66 students who met inclusion criteria of the study (Control group=33, Experimental group=33).

Results: There is a significant difference between both groups in pre-test and before practice on a voluntary individual in performance psychomotor skills scores, and in a pre-test in state anxiety level, and significantly long period time in a minute that mean was higher in the experimental group.

Conclusion: The results showed that virtual reality simulation is an effective method in nursing education, in the teaching of psychomotor skills that require sequencing of the procedure steps, such as intramuscular injection, and that its use with traditional laboratory practices increases the efficiency of the teaching and learning process and reduces the level of anxiety.

Keywords: Intramuscular injection, learning strategy, nursing education, psychomotor skill, virtual reality simulation

I. INTRODUCTION

A transformation of nursing education is necessary to prepare nursing students for develop and complex healthcare environments (Juraschek et al., 2019). The essential aim of nursing education is to enhance the integration of theoretical knowledge in clinical practice (Shin et al., 2015), through using modern various innovation strategies that are appropriate for the evolution of technology necessities of the digital age (Khraim et al., 2015).

Virtual reality (VR) that is one of the most common methods of simulation and an effective supplemental tool for instruction (Smith & Hamilton, 2015) based on computer technology to form a cooperating three-dimensional (3D) world in which handlers have a sense of immersion (Lioce et al., 2020).

The aim of this study was design and develop virtual reality simulation software related to ventrogluteal injection skills in nursing education and determine the effectiveness of

virtual reality simulation as a learning strategy on the acquisition ventrogluteal injection skill and anxiety level.

II. METHOD

A quasi-experimental design was conducted (Pre-Posttest). the sample of this study was 1st year nursing students (N=66) (control group=33 hip model injection; experimental group =33 VR simulation intramuscular injection) who enrolled in "Fundamentals of Nursing" course first time at the Near East University Faculty of Nursing in the summer semester of the 2019-2020 academic year.

The Ethical Part of the Research

The study data were collected from nursing students who volunteered to take part in the study after written permission from the Near East University Institutional Review Board (IRB) was obtained (Approval #YUD/2020/76-985). An informed consent form was signed by the nursing students who agreed to participate in the study.

Analysis of Data

Data were analyzed by using SPSS Statistics version 25. Frequency percentages, arithmetic means, and standard deviation values were used to analyze the descriptive statistical evaluation of the data. Mann-Whitney U test was used to assess the difference between groups performance psychomotor skills, and state-trait anxiety scale. In addition, ANOVA; the Bonferroni test was used to assess time performance that was spent between groups in the pre-test, post-test, and on a voluntary individual.

III. RESULTS

Table 1. Comparison of Control and Experimental Group Students' Performance Psychomotor Skill

Group		Experimental Group (n=33)	Control Group (n=33)	Z	P-value
Performance psychomotor skill	**Test**	**Mean**	**Mean**		
	Pre	34.08± 3.90	31.17± 3.46	Z=-3.130	P=**0.002***
	Post	31.73± 2.81	30.15± 3.86	Z=-1.420	P=0.15
	Before Practice on Voluntary Individual	32.84± 2.78	31.01± 3.51	Z=-2.208	P=**0.020****

*** Z=Mann-Witnny U **p≤0.05 *** p≤0.01 ****p≤0.001**

Table 2. Comparison of Control and Experimental Group Students' Performance Time.

	Group	Experimental Group (n=33)	Control Group (n=33)	P-value
Performance time (Min.)	**Test**	**Mean**	**Mean**	
	Pre	38.67± 11.13	11.79± 3.68	**<0.001*** **
	Post	22.24± 7.62	8.82± 2.07	**<0.001*** **
	Before Practice on Voluntary Individual	9.273± 2.09	9.00± 2.95	0.990

*****p≤0.001**

Table 3. Comparison of State and Trait Anxiety Levels of Students in Control and Experimental Groups by Group

	Group	Experimental Group (n=33)	Control Group (n=33)	Z*	Statistical Analysis p
State Anxiety	**Test**	**Mean**	**Mean**		
	Pre	52.76±8.19	47.39±5.83	-5.36	**0.036****
	Post	50.24±6.51	48.79±6.62	-1.46	0.90
	Before Practice on Voluntary Individual	51.42± 7.22	47.76±6.55	-3.67	0.28
Trait Anxiety	Pre	49.48±5.62	46.12±6.62	-3.36	0.168
	Post	48.58±4.87	47.15±7.009	-1.42	0.914
	Before Practice on Voluntary Individual	48.09±5.33	45.49±7.167	-2.15	0.772

*** Mann-Witnny U-test, ** p≤0.05**

IV. DISCUSSION

In this study, noted that there was significant different in the mean score of pre- test for the skill of administrating intramuscular injection in ventrogluteal site in in the experimental group, which it is agree with study of Bayram et al. (2019) (inner cannula cleaning (p=0.000) and peristomal skin care (p=0.033) skills of the students in the experimental group were higher than those of the control group at a statistically significant level, are a mechanical procedure that is rather easier than other skills, and can be learned by watching the demonstration and repeating the procedural steps only once (Bayram & Caliskan, 2019). So, the administered of intramuscular injection based on VRS in this study can be

learned through observation and presentation. In addition, this study agreed with the study of Ismailoglu & Zaybak (2018), who participated and practiced VIS had higher scores in the experimental group than those in the control group which practiced on the plastic arm model, this reason related to enable VIS provides various case scenarios and realistic complications, and thus allows students to develop cognitive and psychomotor skills necessary for IV interventions (Ismailoglu & Zaybak, 2018), as well this study agree with (Jung et al., 2012; Wilfong et al., 2011). Regarding to application on actual human, the study of Vidal et al. (2013) that indicated for those trained on the simulated limbs performed better had significantly produced less few hematomas when they attempted phlebotomy skills on actual patients. These results showed that VRS are an efficient teaching-learning method and environment because they are accurate models of reality, allow practicing without harming the patient/individual, and give a free learning environment that allows for individual in-depth learning with these areas. As well as, they are beneficial in performing psychomotor skills exactly for the purposes of nursing education (Işık & Kaya, 2014).

This study showed there was a statistically significant difference between the groups in terms of pre-application and post-application (p<,001), to complete the performance of all steps of intramuscular procedure in the experimental group took longer time on mean scores of pre and post-test than the control group, that agree with the results of Bayram et al. (2019), Vidal et al. (2013), that showed there is a gap between completing virtual cases and real practice in nursing skills on account of the immaturity of VR technology which student nurses had used for it first time and they didn't have any experience of virtual simulation systems before (Succar et al., 2013). In addition, may be related to technical issues that are not found in traditional hip model injection such as network disconnect, and limit device charging. Furthermore, students didn't try to perform intramuscular injection procedure before requiring maintain knowledge and several steps to complete, deep understanding, critical thinking, decision making, reflective thinking, and competency in psychomotor skills.

Thus, that does not mean that learning outcomes with VRS decreased, but it may be that the use of a VR-based system as a supplement to the traditional method is the optimal program for training nurses (Foronda et al., 2020).

This study showed there is a significant difference in a pre-test in state anxiety level in which the mean was higher in the experimental group than control group, which related to unfamiliarity with the intramuscular injection VR simulator skill during initial experiences. Whereas, the state anxiety levels of students after practice on the VR simulator in the experimental group were lower than those before practice on the simulator and on individual volunteers, which agreed with the literature that indicates that VR simulation decreases anxiety levels by enhancing active participation in the teaching-learning process and providing an effective and productive learning experience (Jallad & Işık, 2021; Işık & Kaya, 2014).

V. CONCLUSION

This study showed the might use of VR as an supplemental tool to traditional learning/teaching methods, it is a useful teaching-learning strategy for training in clinical and psychomotor skills requiring the ordering of skill steps in teaching, in which may have a positive impact on performance level, and a decrease in anxiety levels for nursing students and reduce their errors. In addition, providing realistic injection experiences that instead of the unavailability of actual patients in clinical settings that encourage the safe nursing practice

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The Relationship Between Quality of Work Life and Intention to Stay of Nurses at Some Hospitals in Ho Chi Minh City

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Abstract:

Background: Nurses comprise the largest proportion of the healthcare workforce and directly affect the patient treatment process. However, the nursing shortage is increasing and is difficulty that medical facilities are currently facing. The quality of nursing work life (QNWL) is a factor that affects the intention to quit or stay.

Objectives: To survey the relationship between QNWL and intention to stay of nurses at some hospitals in Ho Chi Minh City, Vietnam.

Methodology: A descriptive cross-sectional study was conducted on nurses working at Ho Chi Minh City Hospital from March to July of 2023. Spearman's Correlation was utilized to analyze the data by SPSS 25.0 software.

Results: The mean score of QNWL in this study was 184.9 ± 25.9 which was high. The mean score of nurses's intention to stay was at the level of high. QNWL has a positive correlation with nurses's intention to stay within 1 month ($r=0.31$, $p<0.001$), 6 months ($r=0.35$, $p<0.001$) and 1 year ($r=0.4$, $p<0.001$).

Conclusions: QNWL has a positive correlation with nurses' intention to stay, so hospital administrators need to have intervention measures to improve QNWL, and retain nurses to continue working long-term at medical facilities.

Keywords: Intention to stay, nursing, quality of work life

I. INTRODUCTION

The largest workforce in the healthcare system is nurses, with an estimated 20.7 million nurses out of a total of 43.5 million health workers worldwide (World Health Organization, 2020) [1]. However, the rate of leaving the nursing profession was increasing such as in New Zealand is 44.3%, the US (26.8%), Canada (19.9%), and Australia (15.1%) [2]. Vietnam belongs to the group of countries with a lower number of nurses than the average (1.1 nurses/1000 people) [3]. Another study showed that high QNWL has a positive effect on nurses' commitment and intention to maintain employment [4]. The survey in Ghana showed that 69.5% of nurses participating in the study had low QNWL and nearly 50% of nurses intended to leave their job [5]. High medical staff turnover affects patient health such as increased rates of hospital-acquired infections and hospitalizations, medical errors, and fall incidents [6].

In the nursing literature, Brooks defined the QNWL as "the degree to which registered nurses are able to satisfy important personal needs through their experiences in their work organization while achieving the organization's goals" [7].

The aim of this study was to evaluate QNWL and nurses' job retention intention to determine the relationship between them. From there, the health managers have more solutions to improve QNWL, impacting on intentions to stay of nurses in Ho Chi Minh City.

II. METHOD

Study design

A descriptive cross-sectional design of nurses working at hospitals in Ho Chi Minh City.

Participants and sample size

The questionnaire consists of three sections. The first part collects demographic data. The second part is a questionnaire developed by Brooks (2001) to measure QNWL that includes 42 items and is divided into four subscales:

The work life/home life dimension is defined as the interface between the life experiences of nurses in their place of work and in the home (7 items).

The work design dimension is defined as the composition of nursing work and describes the actual work nurses do (10 items).

The work context dimension is defined as the practice settings in which nurses work and explores the impact of the work environment on both nurse and patient systems (20 items).

The work world dimension is defined as the effects of broad societal influences and changes on the practice of nursing (5 items).

QNWL was assessed on a 6-point Likert scale ranging from 1 = strongly disagree to 6 = strongly agree. The questionnaire was converted into Vietnamese with Cronbach's alpha of 0.81, I-CVI = 0.75 [8]. To indicate the levels of QNWL, Brooks set a cut-off point for the total score as follows:

Subscale	QNWL	Work life/home life	Work design	Work context	Work world
Range	42-252	7-42	10-60	20-120	5-30
Low	42-112	7-18	10-26	20-38	5-12
Moderate	113-182	19-29	27-44	39-77	13-20
High	183-252	30-42	45-60	78-120	21-30

The third section is a scale measuring nurses' intention to stay according to the Theory of Planned Behavior with Cronbach's alpha of 0.87 (3 items). The questionnaire was rated on a 5-point Likert scale (1→5) from strongly disagree to strongly agree.

Analysis of Data

To address the research questions, SPSS version 25 was used to analyze the data. Descriptive statistics (means, frequencies, standard deviations, and percentages) were analyzed for all variables and demographic data. Spearman's Correlation was used to test the relationship between QNWL and the intention to stay of nurses participating in the study.

The Ethical Part of the Research

The study was carried out through the Medical Ethics Council University of Medicine and Pharmacy at Ho Chi Minh City No. 310/HDDD-DHYD.

III. RESULTS

Respondent's demographic characteristics

The study results showed that the majority of participants were female (80%), between the ages of 31-40 (52.1%), married (70.9%), with children (68.7%), and responsible for elderly parents (83.3%). About 63% of nurses hold bachelor's degrees and 70% are care nurses. There are still 39 nurses who receive less than 5,000,000 VND.

Table 1 - Respondent's Demographic Characteristics

Characteristics (n=795)	N	%
Gender		
Male	161	20.3
Female	634	79.7
Age in years		
≤30	173	21.8
31-40	414	52.1
>40	208	26.2
Marital status		
Single	197	24.8
Married	564	70.9
Divorced	28	3.5
Widowed	6	0.8
Responsible for the care of your elderly parents		
Yes	662	83.3
No	133	16.7
Having children		
Yes	546	68.7
No	249	31.3
Level of healthcare facility		
Level 1	535	67.3
Level 2	260	32.7
Education level		
Elementary/ Intermediate degree	28	3.5
Associate degree	253	31.8

Bachelor	502	63.1
Master	12	1.5
Working time		
≤8 hours	716	90.1
>8 hours	79	9.9
Years of experiences		
<5 years	188	23.7
6-10 years	153	19.2
11-15 years	223	28.1
>16 years	231	29
Monthly income		
<5 000 000 VND	39	4.9
5 000 000 - 10 000 000 VND	381	47.9
11 000 000 - 15 000 000 VND	260	32.7
≥15 000 000 VND	115	14.4

Total scores of the quality of nursing work life scale and its four dimensions

In this study, the total mean score of QNWL was 184.9 (SD = 25.9) which indicates a high QNWL. According to the total QNWL scores for specific dimensions, the score for the "work life/home life" and "work context" dimensions was high compared to the other two dimensions which received moderate scores.

Table 2 - Total scores of the quality of nursing work life scale and its four dimensions

Subscale	Mean ± SD	Actual range	Level
Work life/home life	29.4 ± 4.5	12 - 42	High
Work design	42.6 ± 6.6	14 - 60	Moderate
Work context	93.9 ± 14.4	20 - 120	High
Work world	19.0 ± 3.6	6 - 30	Moderate
QNWL	**184.9 ± 25.9**	**63 - 244**	**High**

In work life-home life subscale, more than half of the respondents reported that rotating schedules negatively affect their life (62%) and they need to have support for taking care of elderly parents and sick children (70%).

Regarding the work design dimension, the majority of nurses found that their workload was heavy (70%). Furthermore, nurses performed many non-nursing tasks (48%) and their daily work was interrupted (45%).

In the analysis of the work context subscale, nurses were in need for a private break area (93%).

In the work world subscale, most of nurses believed that society has the correct image of nurses (62%). They can find the same job in another organization with about the same salary and benefits (70%).

Intention to stay of nurses

With respect to intent to stay, nurses who intend to stay their jobs within the next 1 month, 6 months, and 1 year were nearly 90%, while about 5% did not intend to stay, and 6-8% were neutral.

Table 3 - Intention to stay of the study sample

	Intention to stay (%)				
	Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
Next month	3.4	1.6	5.7	34.0	55.3
Next 6 months	2.9	2.1	6.5	34.5	54.0
Next year	2.3	2.1	8.1	33.1	54.5

The relationship between quality of work life and intention to stay nurses:

The results showed that QNWL has a statistically significant positive correlation with the intention to stay of nurses in the next 1 month, 6 months, and 1 year. Correlation coefficients are presented in Table 4.

Table 4 - The relationship between quality of work life and intention to stay nurses

Intention to stay	Correlation coefficients (R)				
	Work life/ home life	**Work design**	**Work context**	**Work world**	**QNWL**
Next month	0.26**	0.30**	0.33**	0.18**	**0.31****
Next 6 months	0.31**	0.34**	0.37**	0.23**	**0.35****
Next year	0.32**	0.39**	0.39**	0.29**	**0.40****

Spearman's Correlation ***p<0.001*

IV. DISCUSSION

Quality of nursing work life

According to Brooks's scale, the QNWL of nurses participating was high with a score of 184.9 ± 25.9. The nurses' QNWL in a private hospital in India was low (92.2 ± 15.9) [9],

in Saudi Arabic was moderate (174.5 ± 30.3) [10]. However, the QNWL score from the results of this study is still lower than the study in China (191.6 ± 27.1) [11]. In Vietnam, the results of study at Thu Duc City Hospital had lower scores than this study (160.7 ± 30.7) [12]. The time of collecting research data from June to September 2021 was during the stressful period of the COVID-19 epidemic in Ho Chi Minh City Some hospitals are overloaded with patients which leads to high workloads and inadequate facilities to meet the needs of nurses. Consequently, the QNWL score is related to characteristics of each hospital, medical needs of each country, and time of research.

In work life/home life dimension, similarly, as in other countries, the majority of nurses in Vietnam are females and married. Females are responsible for housekeeping as well as other families' activities. Therefore, their biggest pressure is balancing work and family.

In work design dimension, Khani concluded that nurses' workload was heavy, and difficult to complete their work in the time available [13]. Almalki et al also confirmed that the most influential factor in work design dimension was the shortage in nursing staff resulting in them having to perform non-nursing tasks and being interrupted in their daily work [14].

In work context dimension, the majority of nurses can communicate well with nurse managers, work within a team, and be recognized for accomplishments by nurse managers. These results are consistent with studies in Vietnam as well as the world [8, 10, 12, 14, 15].

In work world dimension, the results show that nurses currently have a good attitude towards their profession as well as respect for their self-image. Additionally, similar another study was mentioned that the majority of nurses said they were dissatisfied with their salary compared to the nature of the work they performed [16].

Intention to stay of nurses

Nurses' responses about their intention to maintain employment in this study were very high. This result was consistent with two studies by Gizaw and Li that concluded most nurses said they are planning to maintain their current job for at least five years or more [17, 18]. In contrast, In Sweden, a study of 1,417 nurses found that every fifth nurse intended to leave the profession after 5 years [19]. In Korea, more than one-third of registered nurses left their first job within three years of employment [20]. Through previous studies, the intention to stay of nurses in this study can be considered a good sign in the health system to help improve the current nursing shortage. However, in this study, there were still about 40 nurses who did not agree to continue working.

The relationship between quality of work life and intention to stay nurses.

The results in this study are similar to the research of Kassem ($r = 0,91$, $p < 0,001$) [21]. This means that the higher QNWL, the higher the intention to maintain the job. Furthermore, another research has shown that QNWL affects a range of outcomes such as job satisfaction, work motivation, work engagement, and especially positive attitudes towards nurses' intention to stay [22]. High QNWL will lead to higher job satisfaction and this will ultimately lead to employees' intention to stay.

Family has an important role in a person's life. When an employee faces major conflicts between work and family demands, their intention to quit becomes apparent. Evidence was found about the items of the ‘work design’ that impact nurses’ turnover intention. These variables include workload, lack of workforce, lack of autonomy, non-nursing tasks, interruptions, limited time to do jobs [23]. Studies have shown that the leadership of nurse management or relationships with colleagues are the main factors determining nurses' intention to remain employed [24]. Besides, the more nurses are recognized for their achievements, the stronger their motivation to work becomes. Nurses' salary expectations will increase with years of work experience, and professional skills. The study conducted in 7 European countries reported that nurses feel disappointed about rewards so higher job turnover intentions

[25]. Therefore, when the salary is not satisfactory with their efforts, nurses to start looking for jobs elsewhere with high salaries and perks to leave their current workplace. Also, as the role of nursing becomes more recognized in society, nurses gain more motivation to stay at work. All of these can affect the health and spirit of nurses, leading to them having to quit the profession.

V. Conclusion

With regard to the above-mentioned correlation, it can be noted that QNWL is a positive impact element in increasing the intention to stay of nurses in Ho Chi Minh City, Vietnam. The findings confirm the importance of QNWL for nurses' retention in their organization. The QNWL of nurses working in Ho Chi Minh City, Vietnam is high. However, the score is not significantly higher than moderate level, hospital managers should make solutions for promotion of QNWL. The intention to stay has important impact on working efficiency of medical facilities.

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Correlation Between Symptom Status, Health Perception, and Spiritual Well-Being in Heart Failure Patients: A Structural Equation Modeling Approach

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Abstract:

Background: Previous studies on chronic diseases have noted the direct effect of several modifiable clinical variables such as physical symptoms, functional disability, anxiety, depression, hope, treatment adherence, and health perception on spiritual well-being and provided some preliminary results.

Aim: To explore predictors of spiritual well-being behaviors among heart failure patients based on Wilson and Cleary's theory of health-related quality of life, and to clarify the interrelationship among these variables.

Methods: A descriptive, and correlational study design was adopted. The study was performed with 202 patients with heart failure between October 2020 and July 2021. Data were collected using the Symptom Status Questionnaire-Heart Failure, Perception of Health Scale, and Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale. Descriptive analysis, correlation, and structural equation models were performed.

Results: Characteristic factors positively affected spiritual well-being, directly and indirectly. The direct path between health perception and spiritual well-being was significant. Symptom status acted as an essential mediator between model variables and spiritual well-being. Comorbidity and symptom status also influenced spiritual well-being through health perception. These variables explained 77% of the variance in spiritual well-being.

Conclusion: The modified model based on Wilson and Cleary's theory fits well in predicting spiritual well-being among patients with heart failure. Spiritual well-being was reported poor and changes in spiritual well-being were predicted by age, education level, marital status, comorbidity, symptom status, and health perception in this study. This study reduces the knowledge gap on how symptom status and health perception are associated with spiritual well-being in people with heart failure. The results suggest that these factors together predicted the spiritual well-being of this population. This contribution is relevant to researchers when designing interventions or predicting spiritual well-being. Enhancing symptom status, health perception, and spiritual well-being positively impacts health-related clinical outcomes in the heart failure population.

Keywords: Health perception, heart failure, nurse, spirituality, structural equation modeling

I. INTRODUCTION

Wilson and Cleary's (1995) model for HRQOL has integrated clinical and psychosocial approaches to healthcare. According to this model, biological function, symptoms, functional status, and general health perceptions are the four essential determinants of the overall HRQOL (1). Moreover, HRQOL is affected by individual and environmental characteristics. This conceptual model may link objective and subjective health variables in HF; thus, causal relationships among the components can be investigated and clarified All of these concepts ultimately affect HRQOL, which is the patient's

well-being that originates from happiness or unhappiness with the areas of life (2). Due to the subjective structure of many of the precursors, the HRQOL may be conceptualized as complicated and multidimensional (3). Many studies have reported that spiritual well-being (SWB) explains a significant portion of the variance in HRQOL and is an essential determinant of global HRQOL (4-6).

This study aimed to elucidate the direct and indirect effects of symptom status and health perceptions on SWB in patients with HF.

II. METHOD

Participants who satisfied the following inclusion criteria were included: (a) older than 18 years, (b) literate, (c) diagnosed with stage I-IV HF according to the NYHA, (d) volunteered for the study, (e) had neither psychiatric disorder nor any communication problems, (f) had no cognitive problems (Dementia, Alzheimer's disease, etc.), and (g) were not hospitalized during the study. This study included 202 participants, using convenience sampling.

This descriptive, correlational study was conducted in the cardiology outpatient and inpatient units of a training and research hospital in Turkey. Data were then gathered using the personal information questionnaire, Symptom Status Questionnaire-Heart Failure (SSQ-HF), Perception of Health Status Scale, and Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being Scale (FACIT-Sp) in face-to-face interviews. Clinical data were collected from the medical records.

The Ethical Part of the Research

The study protocol, informed consent form, and all other recruitment documents were thoroughly reviewed and duly approved by the Non-interventional Clinical Trials Ethics Committee of Hacettepe University (decision number: GO 20/932 and decision date: 20.10.2020). The principal investigator explained the study's aim and obtained verbal and written informed consent from all the participants.

Analysis of Data

Data analysis was conducted using SPSS software, version 28. (IBM Corp, Chicago, Illinois). The normal distribution of the data was checked using the Shapiro-Wilk test. Structural Equation Modeling (SEM) is a multivariate statistical analysis that authorizes a hypothetical model approach for testing theoretically linked pathways between constructs within a definite phenomenon (7). Based on Wilson and Cleary's HRQOL model, we proposed a hypothesized model. This analysis was conducted using Analysis of Moment Structures (AMOS) software, version 29. The standardized regression coefficient (β) shows the effect of an independent variable on a dependent variable using the SEM model. The level of statistical significance was set at $p < 0.05$.

III. RESULTS

Descriptive characteristics

The mean age was 61.5±11.9 years, 60.9% were male, and 75.7% were married. Physicians classified the enrolled participants as NYHA class II, III, or IV at the time of recruitment, and most of them had moderate-to-severe HF (NYHA class II/III; 85.6%). Moreover, 83.2% of the patients had comorbid conditions, including HT (71.3%), HL (41.6%), and DM (37.1%).

Structural Equation Modeling

To test the hypothesized model, symptom status, health perception, and SWB were input as latent variables, as in Wilson and Cleary's model. Age, education, marital status, comorbidity, LVEF, and NYHA class were used as observed variables. The final model revealed good overall fit ($\chi2 = 231.876$, $p = 0.000$, $df = 151$, $\chi2/df = 1.53$, RMSEA = 0.05, GFI = 0.90, AGFI = 0.86, IFI = 0.92, NFI = 0.90, CFI = 0.92).

Direct, indirect, and total effects

Characteristic factors, comorbidity, and LVEF were predictors of HF-related symptom status ($\beta = -0.30$, $p = 0.042$; $\beta = 0.16$, $p = 0.045$; $\beta = -0.29$, $p = 0.018$). A positive and significant standardized direct effect of symptom status on functional status was observed ($\beta=0.31$; $p<0.001$). Characteristic factors ($\beta = 0.24$) and symptom status ($\beta = -0.33$, $p = 0.016$) were predictors of health perception. However, functional status did not directly or indirectly affect health perception (Table 1). Characteristic factors ($\beta = 0.19$) and

health perception (β = 0.81) also had positive direct effects on SWB. Symptom status acts as a mediator in this relationship. Moreover, the relationship between symptom status and SWB was mediated by health perception (β= -0.28; CI (-0.449; -0.133)). The relationship between comorbidities and health perception was fully mediated by symptom or functional status (β= -0.06; CI (-0.126; -0.001)), which also partially mediated the association between comorbidity and SWB. According to the SEM, all variables explained 77% of the variance in SWB. The hypothesized model estimated 40% symptom status and 15% health perception.

IV. DISCUSSION

Spiritual well-being can be meaningfully understood as an outcome, as well as a process variable. Therefore, it is crucial to identify the factors that lead to changes in SWB. To the best of our knowledge, this study is the first to investigate both the direct and indirect paths predicting SWB among HF patients using theory-guided exploration with SEM. Our findings shed light on the identification of SWB predictors and the interrelationship mechanism and provide a specific framework for developing comprehensive spiritual care interventions in the HF population.

One of the striking findings of our study was that LVEF does not directly or indirectly affect SWB. This finding is supported by the study by Bekelman et al. (2009), who reported similar SWB scores among patients with HF with LVEF ≤30 or >30 (8). Consistent with the literature, the LVEF value directly affects symptoms and functional status. This situation may pose a significant threat to HF management, well-being, and HRQOL. Therefore, future studies are needed to better understand the effects of changes in EF values on SWB.

Similar to LVEF, comorbidities may negatively affect symptom burden, recognition, and interpretation of HF (9, 10). As expected, the presence of comorbidities directly affected symptom status. In contrast, comorbidities were found to have only indirect effects on individuals' functional status, health perception, and SWB. The association between comorbidity and health perception was fully mediated by symptom or functional status in our hypothetical model. A possible reason for these results may be increasing physical and psychosocial problems affecting spirituality in HF and reducing the patient's confidence in coping mechanisms with these problems (6, 11).

Well-being is associated with physical and psychological symptoms and health-related factors in HF (4). The severity of physical symptoms such as shortness of breath is inversely proportional to health status (12, 13). Our analysis also confirmed this finding, although symptom scores were moderate to high and SWB scores were low. Therefore, the authors anticipated that deteriorating physical health with an increased symptom burden would negatively affect SWB. Consistent with our findings, previous reports also stated that with the progression of HF, fatigue increases, energy level and physical functioning decrease, and HRQOL diminishes (14), most HF patients report feelings of isolation, meaninglessness, and worry about the value of their lives (9, 15). Increasing physical and psychosocial problems affect spirituality in HF and reduce the patient's confidence in coping mechanisms with the problems they may experience; therefore, the patient experiences spiritual distress and lower SWB.

In our hypothetical model, the 81% direct effect of health perception on SWB seems reasonable because symptoms have an indirect effect on SWB by causing negative direct effects on health perception. Contrary to the literature, symptom status did not have a direct effect on SWB, which may be linked to our study sample including all stages of HF and having a moderate symptom burden. Moreover, sociodemographic characteristics, different measurement methods, assessments at a single time point, and ongoing treatments may affect outcomes. Therefore, considering the HF stage and perceived symptom burden and examining different predictive factors in future models may provide more insights into SWB in patients with HF.

Similar to previous reports, our study highlights the direct negative effects of symptoms on health perception (12, 13, 16). Moreover, health perception predicted 81% of the changes in SWB in our hypothetical model. Several studies have also revealed that health perception predicted the FACIT-Sp meaning and peace sub-dimensions (17, 18). Health perception affects overall health behaviors, responsibility, and disease management and is directly connected to the health promotion process. The authors concluded that patients with HF

who perceived better health status may have better coping mechanisms, are eager to find meaning in life, give value to better health and remaining life, and show a greater tendency for SWB practices. Hence, interventions aimed at increasing SWB could be crucial for HF patients to promote better-perceived health and successful coping mechanisms.

V. CONCLUSION

The path model analyzed in this study appears to explain the direct and indirect effects of symptom status and health perception on SWB. Accordingly, SWB is affected by the symptom status and health perception. The study also ascertained that SWB was lower in patients with comorbidities causing aggravation of symptoms, decrease in functional status, and deterioration in health status. Hence, promoting self-perceived health and SWB in patients with HF, especially among those who are symptomatic, and providing individually competent spiritual care is essential.

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Table 1. Total effects, indirect effects, and direct effects of causal variables on influenced variables of the modified hypothesized model (N =202)

			Standardized direct effect				Standardized indirect effect		Standardized total effect	
Paths to SWB			**β**	**S.E.**	**C.R.**	***p***	**β**	**%95 CI**	**β**	**%95 CI**
LVEF	→	Symptom Status	-0.29	0.036	-2.358	**0.018***	-	-	-0.29	-0.526, -0.008
	→	Functional Status	-0.52	0.007	-8.091	**<0.001***	-0.09	-0.191, 0.002	-0.61	-0.722, -0.452
	→	Health Perception	-	-	-	-	0.14	-0.007, 0.263	0.14	-0.007, -0.263
	→	SWB	-	-	-	-	0.12	-0.006, 0.214	0.12	-0.006, -0.214
Comorbidity	→	Symptom Status	0.16	0.380	1.958	**0.045***	-	-	0.16	0.001, 0.310
	→	Functional Status	-	-	-	-	0.05	0.001, 0.112	0.05	0.001, 0.112
	→	Health Perception	-	-	-	-	-0.06	-0.126, -0.001	-0.06	-0.126, -0.001
	→	SWB	-	-	-	-	-0.05	-0.102, -0.010	-0.05	-0.102, -0.012
Symptom Status	→	Functional Status	0.31	0.034	3.545	**<0.001***	-	-	0.31	0.150, 0.486
	→	Health Perception	-0.33	0.097	-2.415	**0.016***	-0.02	-0.099, 0.049	-0.35	-0.551, -0.165
	→	SWB	-	-	-	-	-0.28	-0.449, -0.133	-0.28	-0.449, -0.133
Functional Status • *NYHA Class*	→	Health Perception	-0.08	0.178	-0.808	0.419	-	-	-0.08	-0.285, -0.144
	→	SWB	-	-	-	-	-0.06	-0.230, 0.115	-0.06	-0.230, -0.115
Health Perception	→	SWB	0.81	0.220	3.063	**0.002***	-	-	0.81	0.711, 0.894
Characteristics Factors • *Age* • *Education* • *Marital Status*	→	LVEF	0.72	2.243	7.418	**<0.001***	-	-	0.72	0.626, 0.817
	→	Comorbidity	-0.45	0.126	-5.196	**<0.001***	-	-	-0.45	-0.581, -0.323
	→	Symptom Status	-0.30	0.977	-2.038	**0.042***	-0.29	-0.470, -0.048	-0.59	-0.755, -0.412
	→	Functional Status	-	-	-	-	-0.56	-0.660, -0.457	-0.56	-0.660, -0.457
	→	Health Perception	-	-	-	-	0.24	0.127, 0.384	0.24	0.127, 0.384
	→	SWB	0.19	0.281	2.681	**0.007***	0.19	0.106, 0.311	0.38	0.256, 0.524

"A Fascinating Journey: Discover the Power of Dr. Red Nose": A Narrative Analysis of Nursing Students' Experiences via Self-Directed Learning (SDL) Project

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Abstract:
Background: Nursing students engage in self-directed learning (SDL) to explore interdisciplinary subjects, aligning with the core competence of child-friendly healthcare. The emergence of medical clowning, exemplified by Doctor Red Nose, offers emotional support in pediatric care. In Taiwan, the Dr. Red Nose Association has served children in hospitals since 2015. Students' narratives unveil clinical curiosity and insights into clown doctors.

Purpose: This study aims to explore nursing students' perspectives and elucidate narrative significance through the SDL project on pediatric clown care.

Methods: Employing a narrative approach, data from four third-year nursing students who participated in an SDL project were meticulously analyzed. Encounters with clown interventions and interactions with medical clowns were meticulously recorded through field notes, reflective records, and narrative interviews.

Results: The narrative analysis of nursing students' SDL experiences, aptly titled "A Fascinating Journey: Discover the Power of Dr. Red Nose" illuminates five prominent themes within the study: "Lifting the Curious Curtain" signifies the initial surprise and curiosity evoked by clowns in medical contexts. "Echoes of Laughter" underscored the crafting of personalized performances that uplifted the spirits of sick children. "Whispers of Miracle" unveiled the humorous and compassionate nature of communication. "Mirrors of Reflection" emphasizes perception and reflection shifts by exploring the clowns' commitment; "Empowering Engagement Transformation" signifies a paradigm shift in understanding healthcare roles, portraying Red Nose Doctors as skilled professionals reshaping both hospital spaces and human hearts.

Conclusion: This study highlights the clown doctor's role as a vital partner in child-friendly healthcare. Their engagement in pediatric contexts fosters emotional connections and accelerates healing. Additionally, it highlights how self-directed learning-driven exploration can help nursing students understand holistic healthcare roles and drive rapid paradigm shifts. This research contributes to the advancement of nursing education.

Keywords: Child-Friendly healthcare, medical clown, narrative analysis, nursing education. , self-directed learning

I. INTRODUCTION

Self-directed learning (SDL) pedagogy, is crucial in nursing education (Nolan & Nolan, 1997), Students delve into Pediatrics Nursing complement interventions through the SDL project and visit practical contexts to discover interdisciplinary clinical phenomena, and medical clowning (MC) represents an emerging complementary approach. Clown doctors, using humor, play, and acting, work alongside pediatric patients to alleviate anxieties often associated with medical procedures (Barkmann,Siem, Wessolowski, & SchulteMarkwort,. 2013; Lopes-Júnior,Bomfim, Olson, et,.al.2020). Extensive research has consistently demonstrated the profoundly positive impact of Clown Doctors on children's healthcare experiences, enhancing their emotional well-being and overall health outcomes (Dionigi, Flangini, & Gremigni, 2014; Finlay, Baverstock, & Lenton, 2014)

The Taiwan Professional Doctor Red Nose Association has entered hospital-provided services since 2015. Nursing students are interested in and curious about the clinical phenomenon of clown doctors Through the SDL project, they participate and interact with the clown doctor and visit the MC process. They are motivated by self-awareness and independent learning,

All of these are indispensable for their nursing roles transition into the realm of nursing professionals. Under the inquiry, students discover the role of the clown doctor and they use narrative to present their experience and perspective as learning results (Karnieli-Miller, Holtman, Clyman,& Inui, 2010b).

The aim of this study was to explore nursing students' perspectives and narrative meaning via the SDL project on pediatric clown care.

II. METHOD

Data were collected from narrative interviews with students after the end of the SDL program, and qualitative research and narrative analysis were used based on their learning reflections and interview content. Four third-year nursing students participated in this 36-hour SDL program. They formed a team and under the guidance of the teacher, they established the independent special topic learning objectives and activities and reviewed the literature. The students also conducted in-depth clinical field observations and explorations of the professional intervention of red-nosed doctors, and then through Reflection activities integrated their own impressions and perceptions into the field. Finally, students compare red-nosed doctors with medical staff through reflection, focusing on the role of red-nosed doctors in pediatric care, thereby deepening their understanding of various professional roles in pediatric care.

The Ethical Part of the Research

In the context of this teaching practice research plan, Student participation in the research is entirely voluntary and follows the provision of detailed written information and consent research's objectives before the project begins. Importantly, students are assured that their decision to participate or not will not impact the course's conduct or evaluation. Strict anonymity is in place, to ensure that ethical standards of privacy and confidentiality are upheld.

III. RESULTS

The research results subject titled "A Fascinating Journey: Discover the Power of Dr. Red Nose" is categorized into five prominent themes. (see Table 1)

Table1 Themes, Definitions and Quotations

themes	Definitions & quotations
Lifting the Curious Curtain	The initial surprise and curiosity evoked by clowns in medical contexts. *"We were attracted by their multi-layered clothing and exaggerated makeup and hair from the beginning. The strong contrasting colors are more attractive in hospitals that are almost all monotonous colors. children's attention"*(quoted by SN2)
Echoes of Laughter	The crafting of personalized performances that uplifted the spirits of sick children. *"During injections or invasive treatments for children who are blocked, the red-nosed doctor will be nearby to attract attention with joyful singing, change the tense atmosphere, and allow the children to relax while undergoing treatment; or they will sing happily together in the hospital corridor to hinder the children. And invite them to sing, dance, etc.*" (quoted by SN4)
Whispers of Miracle	Unveiled the humorous and compassionate nature of communication. *"Clown kept changing roles and even thought of wearing a wig， according to the character the little girl said, This on-the-spot reaction really surprised and amazed me! (quoted by SN2)* *"Everything is designed to give the sick child a sense of expression and control (quoted by SN1)* *"The clowns seem to be holding a magic wand, changing the experience of the sick children in the hospital" "*(quoted by SN3)

Mirrors of Reflection"	emphasizes perception and reflection shifts by exploring the clowns' commitment; Empowering *"I just realized that clown therapy is so professional. They have to have acting skills, take the time to learn your talent, and invest in yourself. And need to be constantly improved. "*(quoted by SN1) *"Whether it's musical instruments, singing, etc., the most important thing is psychological preparation."*(quoted by SN4)
Engagement Transformation	This signifies a paradigm shift in understanding healthcare roles, portraying Red Nose Doctors as skilled professionals reshaping both hospital spaces and human hearts. *It is important to maintain a respectful and culturally sensitive attitude and make choices that are both entertaining appropriate and safe in a medical context of interventions to avoid any potential misunderstandings or discomfort between patients, families, or healthcare providers.* (quoted by SN3)

IV. DISCUSSION

Edwards (2016) explores the use of narrative methods to aid nursing students in grasping practice-based learning and how they derive insights from practice stories. Self-directed learning (SDL) is emphasized for its role in enhancing nursing students' self-confidence and their ability to adapt to new situations. It is considered vital for fostering independent learning skills and a commitment to lifelong learning. However, successful SDL implementation necessitates careful planning to strike a balance between pedagogical goals and students' learning realities. Furthermore, it should cater to the specific needs and learning preferences of nursing students, as highlighted by Wong, Tang, and Cheng (2021), to fully unlock its potential in nursing education.

V. CONCLUSION

This study highlights the clown doctor's role as a vital partner in child-friendly healthcare, they engage in pediatric contexts foster emotional connections, and accelerate healing. The narrative analysis of the student's learning journey with Red-Nose Doctors AD and Wawa highlights a profound shift in perception. The visit unveiled the meticulous preparation, creativity, and professionalism that underlie their performances. Students experienced transformative learning, discovering that the realm of Red-Nose Doctors encompasses much more than the casual image they initially held.

This research contributes to the advancement of nursing education. To prove that self-directed learning-driven exploration can help nursing students understand holistic healthcare roles and drive rapid paradigm shifts.

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The Effect of Nursing Counseling on Anxiety and Depression in the Elderly Patients Undergoing Open Heart Surgery

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Abstract:
Anxiety and depression are of the most common psychological responses of the old patients who experience open heart surgery. Nursing counseling based on complete training on the nature of the disease is among the most effective nursing interventions to control anxiety and depression in the elderly.

Keywords: Aging, anxiety, depression

I. INTRODUCTION

The elderly population in the world is growing that is known as the most important anthropological phenomenon of the 21st century (1). Recent scientific progress has increased life expectancy, which has led the population towards aging, and according to the estimates of the World Health Organization (WHO) the aging growth will increase to about 10% in 2025 and 25% in 2050 (2).

The aim of this study was to determine the effect of nursing counseling on anxiety and depression in elderly patients who have open heart surgery.

II. METHOD

In this clinical trial study, 50 elderly patients were selected according to the inclusion criteria and were randomly divided into two groups: intervention and control. Six sessions were performed for the elderly in the nursing counseling intervention group.

The Ethical Part of the Research

The paper is taken from the master's thesis in elderly nursing with the ethics code IR.SBMU.PHNM.1396.791 in Shahid Beheshti School of Midwifery and Nursing, registered in the Iranian Clinical Examination Registration Center as N120190226042853.

Analysis of Data

Data was collected using Hospital Anxiety and Depression Scale (HADS) and analyzed using statistical methods.

III. RESULTS

Table 1: Comparison of Anxiety Before and After The Intervention

Variables		Intervention group		
Anxiety	Prior to intervention	13.88 ±3.07	13.52±3.65	0.708
	After intervention	10.76±2.66	13.08±3.41	0.010
	P-value	0.001	0.086	

Table 2: Comparison of Depression Before and After The Intervention

Variables		Intervention group		
Depression	Prior to intervention	12.48 ±3.26	11.482 ±3.44	0.297
	After intervention	9.28 ±2.83	11.32 ±3.50	0.028
P-value		0.001	0.538	

The mean age of the participants in the intervention group was 67.8 ± 4.97 and 66.8 ± 4.26 years in the control group, which was not statistically significant (P = 0.449). Examining the individuals in terms of other demographic characteristics did not show statistically significant differences either. The results showed that the reduction in anxiety and depression levels after the intervention was significantly different in the intervention compared to the control group (P<0.005)

IV. DISCUSSION

The purpose of the study was to determine the effect of nursing counseling on the level of anxiety and depression in elderly patients undergoing open heart surgery. The results of the study indicated that heart surgery is anxiety-inducing and stressful for most the elderly and causes some degrees of depression in them, and nursing counseling can have a significant role in reducing it according to the needs of each person. In the present study, the researcher has tried to find the problems of elderly patients by crating the possibility of communication and talk with them and timely counseling and follow-up and providing the necessary training to patients in the intervention group using counseling sessions. The differences seen in the control and intervention groups might be due to the positive effects of the interventions in the intervention group.

V. CONCLUSION

According to the results, nursing counseling based on complete training on the nature of the disease has reduced anxiety and depression in the elderly patients who undergo open heart surgery; thus, one can use it as a non-pharmacological intervention to reduce anxiety and depression in the elderly patients.

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The Effect of Training Given to Nursing Students about the Importance of Game and about Toy Selection during 0-1 Years of Infancy

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Abstract:
The research, which was prepared in a semi-experimental type, was carried out in Adana-Turkey between February 10 and May 30, 2020 in order to examine the effect of education given to nursing students about the importance of play and about toy selection during 0-1 Years of infancy. The study, which was applied with the voluntary participation of 56 senior nursing students from Çukurova University Faculty of Health Sciences, was applied online through a questionnaire prepared in a test-style in the form of pre-test (pre-training) and final test (post-training), questioning the sociodemographic data of the students and their knowledge about the importance of game and the choice of toys during the 0-1 age infancy period. The training prepared was about the importance of game during 0-1 age infancy, the benefits of game in developmental areas, games/toys according to age groups, toy hygiene, toy selection and toy safety and standards.

A statistically significant difference was found in favor of the post-test in terms of students' pre-test/post-test knowledge scores (Z=-3.175; p=0.001). Pre-training (pre-test) knowledge score (pre-test) 62.29±17.80, median 64) was good, and post-training scores increased (post-test:72.07±19.84 median 74). The study has an effect on the knowledge scores of the training given to nursing students about the importance of game and toy selection during the 0-1 age infancy period. The H1 hypothesis was accepted.

Keywords: Benefits of game, child, child development, child health and pediatric nursing, game, toys

I. INTRODUCTION

The child's world is based on games. The child grows, learns and develops through games in this world that he has created. Playing the game in a safe environment with appropriate game materials contributes greatly to the development of the child. For this reason, the importance of game materials as well as games in the child's life is undeniable (Çalışandemir, 2014; Özhan, 2005).

The child can use all kinds of objects as a game tool. But some objects are designed to be used in the game. Toys are generally defined as materials that can be played alone or in groups, that support the imagination of the child, give pleasure to the child, and contribute to the education of the child, and that are made by the relatives of the children or themselves, with various materials (Özhan, 2005). Toys are important to children as they form a genuine and intense relationship with their toys. (Altınköprü, 2015). Although the selection of toy materials, which are so important for the child, is a very difficult responsibility, it is necessary to support children to play with games and game materials according to their abilities acquired during their developmental period (Şenol, 2002).

Foreign body aspirations (FBAs) are a common problem in pediatrics with serious consequences as they can cause acute and chronic health problems (Lluna et al., 2017). Toys account for more than 10% of FCA (Ambrose, 2017). The

reason for the high prevalence of FBA in young children is the absence of molars, poor swallowing of food, tendency to put objects in the mouth, playing with objects in the mouth, talking while eating, having weak protective laryngeal reflexes, and a desire to explore the world (Mansour & Elias, 2015; Safari & Manesh, 2016). In addition to being a basic necessity for children, toys cause infections, injuries and even death.

The aim of the research is to examine the effect of the education given to nursing students about the importance of play and toy selection during the 0-1 year-old infancy period.

II. METHOD

The research was carried out in a quasi-experimental design in Adana-Turkey, to investigate the effect of the education given to the senior nursing students of Çukurova University Faculty of Health Sciences on the importance of games and toy selection in the 0-1 year-old infancy period, between 10 February and 30 May 2020. The number of 4th grade students constituting the target population of the research is 300.

Sample size was determined by power analysis. As a result of the power analysis using the available data using the G*power 3.0.10 program, at least 50 samples were found to be sufficient with 90% power, 5% margin of error and d=0.47139 effect size. According to this result, it was determined that the sample size was sufficient. The research was completed with the voluntary participation of 56 students.

Inclusion Criteria for Research

The 4th year students who took the Child Health and Diseases Nursing course at Çukurova University and participated voluntarily at the same time were included in the study.

Independent Variable: Sociodemographic characteristics of nursing students and their families.

Dependent Variable: Education, students' pretest knowledge scores, students' posttest knowledge scores.

Data Collection Tools

The "Information Form about the Importance of Games and Toy Selection in 0-1 Years Old Infancy", which was prepared by scanning the literature, and the "Personal Information Form", which is thought to affect the Pre-Test Knowledge Score/Post-Test Knowledge Score of nursing students, were used in the collection of data.

Nursing Students' Personal Information Form

These are the questions that are thought to affect the Pre-Test Knowledge Score/Post-Test Knowledge Score of the students while preparing the part (first 18 questions) that includes the socio-demographic characteristics of students and their families. There are twelve questions about the personal information of nursing students such as age, employment status, gender, marital status, number of children, classes, education type, number of siblings, mother's education level, mother's job, father's education level, father's age and six questions about students' thoughts on writing, signs and symbols on toys" in the Personal Information Form".

Information Form on the Importance of Games and Toy Selection in 0-1 Years Old Infancy

Twenty questions (nine questions about toy safety and standards, two questions about toy hygiene, three questions about the benefits of play for the child, six questions about the choice of games and toys according to the age of the child) were created to measure the Pre-Test Knowledge Score/Post-Test Knowledge Score of nursing students. This form, which was created by making use of the relevant literature, was prepared by the researchers

The Ethical Part of the Research

Ethics committee approval dated 10.03.2020 and Official Permission Letter from the Institution where the Research was Carried Out were obtained from the Non-Interventional Clinical Research Ethics Committee of Çukurova University Faculty of Medicine.

Analysis of Data

Statistical analyzes were performed using a package program called SPSS (IBM SPSS Statistics 24). Percentage and frequency tests were used to evaluate the data.

RESULTS

Table 1. Comparison of Students' Pretest/Post-Test Knowledge Scores

Measurements (N=56)	Knowledge scores $\bar{X} \pm S.S.$	Median [IQR]	Statistical analysis * Probability
Pretest	62.29±17.80	64.0 [28.0]	Z=-3.175
Posttest	72.07±19.84	74.0 [24.0]	**p=0.001****

* "Wilcoxon" test for non-normal distribution analysis
**p<0.05

Tablo 2. The Distribution of the Findings Regarding the Knowledge Test on Toy Hygiene of the Students

Variable (N=56)	Pretest		Posttest	
	n	%	n	%
How should the toys that can only be washed by hand be cleaned?				
Only with very hot water				
Only with lukewarm water	1	1.8	2	3.6
Only with hot water	7	12.4	4	7.1
Only with cold water	1	1.8	-	
With soap and water	2	3.6	2	3.6
	45	**80.4**	**48**	**85.7**
Which of the following statements about disinfecting toys is correct?				
It should first be washed with very hot water, then disinfected.				
It should first be washed with warm water and then disinfected.	2	3.6	1	1.8
It should first be hot water and then disinfected.	7	12.5	6	10.7
It should first be washed with cold water and then disinfected.	2	3.6	2	3.6
It should first be cleaned with soap and water, then disinfected.	5	8.9	1	1.8
	40	**71.4**	**46**	**82.1**

III. DISCUSSION

The pretest knowledge score of the students was 62.29±17.80, and the posttest knowledge score was 72.07±19.84. It was determined that the knowledge scores of the students in the posttest were statistically significantly higher than in the pretest. It was found that the education given to nursing students about the importance of play and toy selection in the 0-1 age infancy period had an effect (Table 1). Students' knowledge scores are at a good level. This is a positive finding for research. These knowledge scores may have been obtained at a good level because they took the Child Health and Disease Nursing course. At the same time, it is seen that there is an increase in the Post-Test Knowledge Score with the education given to nursing students. H_0 hypothesis was rejected and H_1 hypothesis was accepted in the study.

IV. CONCLUSION

H_0 hypothesis was rejected in the study. The H_1 hypothesis as "Education about the importance of play and toy selection in 0-1 year-old infancy has an effect on the knowledge scores of nursing students" was accepted.

The pretest knowledge score of the students was found as 62.29±17.80, and the posttest knowledge score was found as 72.07±19.84. Students' knowledge scores are at a good level. 28.6% of the students in the pretest and 51.8% in the posttest stated that they searched the writings, signs and symbols on the toys.

Within the scope of this research, undergraduate level educational materials were developed on the importance of play and toy selection in the 0-1 year old infancy. An information form about the importance of play and toy selection in 0-1 year old infancy was developed and used in the research.

Families and individuals responsible for taking care of the child should communicate with children by taking into account the understanding of children, and should be informed about their holistic approach to the child in a way that supports all developmental areas of the child.

When choosing toys, families should choose according to the development of the healthy and / or sick child, according to the age factor, according to his/her desire and interest, according to his/her skill, need and safety of the toy. In addition, nurses who have completed their undergraduate education should guide and counsel the families of children/infants with weak immune system about toy hygiene.

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Holistic Integrative Mental Health Services Bridging the Development of Age-Friendly Universities: A Mental Health Perspective in Indonesia

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Abstract:
Background: Depression in older adults in Indonesia has a prevalence of 7.7%, higher than the younger age group, which is 6.1%. Developing a mental health integrative holistic intervention model is an effort to reduce depression in older adults by achieving psychosocial developmental tasks and happiness through elderly school, which is one of the age-friendly university programs.

Purpose: This study aimed to examine the holistic integrative mental health intervention model on psychosocial developmental tasks and happiness in elderly depression.

Methods: This study used a true experiment method with a control group conducted on 122 older adults for 35 weeks in Indonesia. The measurement tools are a holistic assessment of geriatric patients, SRQ-20, happiness index and an Inventory Psychosocial Balance embedded in the Tindakan Holistik Integratif Kesehatan Jiwa (THIKA) model.

Results: the THIKA Model was effective in increasing the achievement of psychosocial development of the older adults after the model implementation (MD = 67,02), increasing the happiness index of the older adults (MD = 30.21), significantly reducing the level of depression (p-value 0.001), decreased salivary cortisol levels in depressed older adults (p-value <0.005).

Conclusion: The implementation of the THIKA model in the curriculum of elderly schools, which are informal schools managed by universities, is a necessity that helps the elderly, the university academic community and the family to better understand the development of mental health in older adults

Keywords: Depression, happiness, older adults, psychosocial, THIKA model

I. INTRODUCTION

Indonesia will become a country with a very high acceleration of elderly growth in the period 1990 – 2020, and an increase in life expectancy from 66.7 years to 70.5 years. This is indicated by an increase in the percentage of older people reaching 10% in 2020 so that Indonesia will be included in the category of aging population. A large number of elderly people in Indonesia should be a challenge that has a positive meaning in moving towards an active aging process for physical, mental and social prosperity as expressed by WHO (2012).

The global situation in the world over the last three decades has influenced Indonesia to respond to the demographic bonus it is facing. The current global issue places mental health as a central issue for health development, where health must be complete physically, mentally and socially

(WHO, 2012). The Institute for Health Metrics and Evaluation (IHME) revealed that mental health is in sixth place out of twenty types of diseases that cause disability based on years lost due to disability (YLD) data (WHO, 2021a). In 2019, mental health problems contributed 10% of the global burden of disease, and YLD increased by 25% (WHO, 2020).

Depression is a mental disorder that is common throughout the world. Around 280 million people (3.8%) in the world experience depression, 5.0% of whom are adults and 5.7% are elderly (WHO, 2021b). The meta-analysis conducted by Abdoli et al. (2022) shows that of 18,953 elderly people, 13.3% experienced depression in various countries. The prevalence of depression in several countries in the elderly is higher than in younger age groups, including the United Kingdom (17.6%), the United States (22%), Nigeria (49.5%), and Japan (33.5%) (Zhang, 2018). Meanwhile, the prevalence of depression in the Indonesian population is 7.7% (Riskesdas, 2018).

Age is an independent and important variable that can influence the emergence of depressive symptoms (Deshpande et al., 2014). Changes that occur during the aging process, namely biological, psychological and social aspects, can influence depression in the elderly (Stuart, 2013; Aihara et al., 2011; Jiang, 2020, Huang et al, 2021; Clignet et al, 2012; Basta et al. al, 2021). Special attention needs to be given to depressed elderly people. Mental health care plays an important role in active aging which must be integrated into long-term care for the elderly (WHO, 2002; de Guzman, 2015; Zhang, 2021; Marliana et al., 2019). There are quite a lot of health services for the elderly in Indonesia, but until now there has been no program that accommodates the mental health problems of the elderly such as depression involving the university academic community. Community activities at integrated service posts are still dominated by meeting physical health needs (Marliana et al., 2021). Given shifting demographics, the need to improve aging literacy and reduce ageism, lifelong learning and work trends, and other issues impacted by aging populations, the time has come for higher education to be more age-friendly. The need for more age-friendly campuses is plain and clear.

The international network of Elderly Friendly Universities (AFU) was launched in 2012 by Dublin City University (DCU) in Ireland to help address the challenges and opportunities related to the world's aging population by promoting and supporting an inclusive approach to healthy and active older people (DCU, 2023; Institute for Research on Aging, 2017). The AFU principles advocate that older adults have access to educational, career, cultural, and wellness activities at institutions and that institutions extend aging education to younger students and promote age integration by bringing younger and older learners together in educational exchange. Age-friendly institutions support aging research by developing agendas informed by older adults' diverse needs and look to develop partnerships beyond their campuses with the local aging community.

Respati Indonesia University, as a member of the Age-Friendly University (AFU) Global Network, has an innovative program to identify institutional age-friendliness and discuss insights they discovered about educational programming, accessibility, and inclusivity through elderly schools. This program is designed to explore factors that attract older adults to feel happy and achieve the psychosocial developmental task, as well as barriers to participation to consider in building age-friendly campuses that serve a diversity of older adults. Mental health measures to overcome depression in the elderly include holistic and integrated mental nursing practices (Stuart et al., 2016). Basic-level services involving specialist mental health nurses are one of the contents of the elderly school program which empowers the potential of depressed elderly to feel holistically empowered and valuable.

The development of a Holistic Integrative Mental Health Action Model is needed in efforts to integrate mental health services for the elderly in age-friendly university programs. THIKA model was developed based on previous research which showed an overview of elderly mental health

problems, namely GME 67.5% and 58.7% of that experienced depression, exploring the risk factors for depression in older adults (empty nest syndrome, social approval addiction, cabin fever and developmental failure during school age) and the protective factors for happiness in older adults (the ability to express love language and self-healing capabilities) (Marliana et al, 2023). This study aimed to test the effectiveness of the THIKA model in achieving psychosocial development in older adults and the happiness index which can be used as one of the elderly school programs in AFU.

II. METHOD

Design

This research used a true experimental design with a pre-posttest with a control group approach. The results of experimental research are converted into numbers, for the analysis used is statistical analysis (Sugiyono, 2009). The experiments in this research were carried out to see the effects of the THIKA model treatment. The research was conducted for 35 weeks from September 4 2021 to March 2 2022.

Population and Sample

The population in this study were elderly people with depression in Indonesia. The samples used for the intervention group and the control group were taken randomly. The research sample was elderly people who met the inclusion criteria, namely Detected GME score > 6, Indication of Depression based on GDS, aged 60 years or more, Having a device with internet access or a family member who has a device with internet access. Samples were excluded if they were psychotic or had significant cognitive impairment.

Screening for elderly depression was carried out on 305 elderly people who experienced emotional mental disorders, then 179 of them were found to have depression. After calculating the sample formula, it was obtained that the number of depressed elderly people involved was 122 people, consisting of 61 people in the intervention group and 61 people in the control group.

Instrument

The questionnaire in this study is part of a plenary assessment of geriatric patients (P3G) who regularly walk at the elderly integrated services post which consists of 1) the Barthel Index to measure functional status, 2) Fall Risk Assessment: 3) MNA to measure nutritional status; 4) Mini-Cog and CDT-4 to measure cognitive status; 5) History of past illnesses to identify comorbidities; and 6) Geriatric Depression Scale (GDS) to assess depression. For mental status, researchers used the SRQ-20, measuring the Happiness Index using the ladder of life scale from the BPS Happiness Index instrument (2017). Apart from that, to measure the achievement of self-integrity using the Psychosocial Balance (IPB) Inventory (developed by Domino & Afonso, 1990 in Chen et al., 2022).

The holistic assessment of geriatric patients (P3G) instrument is a standard measuring tool prepared by the Indonesian Ministry of Health as a health screening tool for the elderly in Indonesia. Researchers only carried out validity tests on elderly psychosocial development instruments derived from the Inventory of Psychosocial Balance (IPB). The results of the content validity test on the IPB questionnaire obtained an i-CVI value of 0.87, criterion validity with an r table coefficient (0.361 compared to 0.195) with α = 5%, and reliability test with Cronbach alpha 0.82.

Implementation and Intervention Procedures

The procedure for implementing research to test the effectiveness of the model starts from preparation, collecting initial data/pre-test, providing nursing care (intervention) and collecting final data (post-test). The intervention group received the THIKA model using blended learning (online training and offline home visits, as well as face-to-face mentoring and consultation accessibility via the Teman Curhat@ application), while the control group received the THIKA model with an asynchronous learning approach. Intervention stages are:

(1) Training for Health Workers in Primary Care

Offline training was carried out 4 times with a duration of 3 hours each meeting. Training activities include providing material through lectures, discussions, practicums and practice with the guidance of a facilitator. Additional training material provided is the use of Soul Friends and Confide Friends.

(2) Training for Mental Health Cadres and Families

Training activities include providing material through lectures, discussions, practicums and practice with the guidance of a facilitator. Meanwhile, training for families is carried out for 1 day face to face directly accompanied by health workers and cadres who listen via Zoom.

(3) Implementation of the THIKA Model in Depressed Elderly

Training for the elderly was carried out first by researchers. The total time required for elderly training is 35 weeks (9 months) with a break between modules of 1 week, and post-test measurements in the sixth week.

(4) Assistance activities for the implementation of the THIKA model through elderly schools

Before the intervention began, the researchers had created 3 types of Whatsapp groups, namely a group between nurses and researchers, a group with members of private/elderly cadres, nurses and researchers, as well as a group between elderly and families, private/elderly cadres, nurses and researchers. Elderly people whose levels of depression have decreased are involved in elderly schools to be able to maintain social interaction skills.

(5) Application of Sahabat Jiwa and Teman Curhat in Implementing the THIKA Model. Researchers designed a web-based Sahabat Jiwa application to make it easier for elderly people who are unable to access mental health services at the elderly school program.

Data Analysis

Variant tests used the Chi-Squre and Mann Whitney tests, bivariate analysis used the independent t test with a=0.05, and multivariate analysis used the general linear model-univariate. Normal distribution was tested using Kolmogorov-Smirnov. The data is normally distributed so that parametric statistical methods are used with a significance level of 0.05.

Ethical Clearance

This research received ethical approval from the Research Ethics Committee of the Faculty of Medicine, University of Indonesia with letter number 419/UN2.F1/ETIK/PPM/00.02/2021.

III. RESULTS

Depressed Older Adults Characteristic

The characteristics of gender, educational level, residential status, marital status, mental status, cognitive status, functional status, nutritional status, risk of falls, and comorbidities have equality test results with p Value > 0.05, meaning that all characteristics in the intervention group and control group equivalent (Table 1).

Table 1 Characteristics of Depressed Older Adults in the Intervention Group and Control Group

Variable	Depression		Bivariat		Multivariat	
	Yes (n=179)	No (n=126)	OR	pV	OR	pValue
Gender			0,919	0,778		
Men	72	62				
Women	107	64				
Home living			0,951	0,744		
Son/Son-in-law/Brother	96	52				
Three Generation	42	40				
Living alone/Nursing home	41	34				
Marital status			0,798	0,587		
Marry	121	66				
Widow/Widower	90	59				
Not marry	6	1				
Educational background			0,978	0,851		
Low-Sencdary Edu	103	100				
Higher Edu	7	6				
No School	69	20				
Status Kognitif (Mini Cog-CDT4)			0,998	0,784		
Possibility of no cognitive imparimenrt	169	116				
Possible disorders or delirium	10	10				
Functional Status (ADL-Barthel index)			1,098	**0,011***		
Self-sufficient	77	17				
Light dependence	45	37				
Moderate dependance	37	41				

Variable	Depression		Bivariat		Multivariat	
	Yes (n=179)	No (n=126)	OR	pV	OR	pValue
Heavy dependence	13	11				
Total deprendency	7	20				
Nutritional Status (MNA)						
Not at risk of malnutrition	169	124	1,058	**0,005 ***		
Malnutrisi	10	2				
Status Mental (SRQ-20)			2,621	**0,001 ***		
Mental Emotional Disorders < 6	0	126			21.265 (18.46-5.61)	**0,014**
Mental Emotional Disorders ≥ 6	179	0				
Frailty (*Fall of Risk*)						
Low risk of falling	170	86				
High risk of falling	9	40				
Physical Medical History			1,835	0,068		
Komorbid	159	73			3,51 (1,386-7.887)	**0,043**
No Komorbid	20	53			6,62(1,486-8,660)	0,096

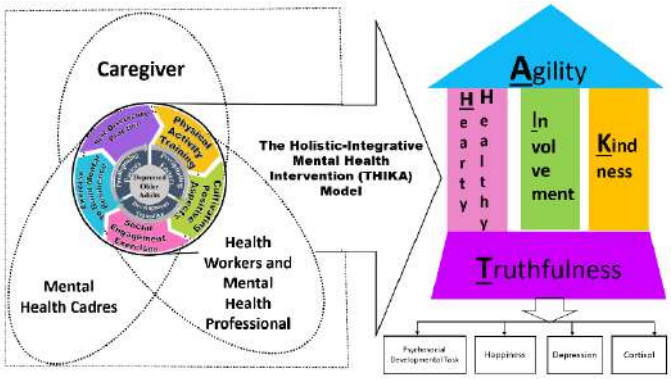

Figure 1. THIKA Model (Marliana, Keliat, Daulima, Rahardjo, 2023)

THIKA Model

The focus of this model is to foster the ability of depressed elderly to achieve psychosocial development and find happiness in 5 (five) ways, namely practising an open attitude towards oneself, training in managing physical activity, training in social skills, training in cultivating positive things, and training in mental resilience. The outcomes of these 5 exercises are 1) An honest attitude of openness to oneself and others (Truthful); 2) Healthy activity habits for body and soul (Hearty-healthy); 3) Desire for involvement in activities outside oneself (Involvement); 4) Positive habits of doing good (Kindness); and 5) The mental resilience of the elderly in facing any unpredictable changes (Agility). Thus, the Holistic Integrative Mental Health Action Model (THIKA) is expected to be effective in increasing the psychosocial development and happiness of depressed elderly people with the output of depression levels, cortisol levels, the ability to achieve psychosocial development, and the ability to achieve happiness with the outcome indicators Truthful, Hearty-healthy, Involvement, Kindness, Agility (THIKA).

The Ability of Depressed Elderly to Achieve Psychosocial Development

The results showed that the average value of the elderly's ability to achieve psychosocial development before the intervention was 12.86, meaning that psychosocial development of self-integrity in the elderly had not been met before the model intervention. Changes in the ability of the elderly to achieve psychosocial development based on statistical tests are known to have the average value in the elderly given the implementation of the THIKA model with the blended learning method after being given the THIKA model increased from 13.73 to 80.75 with an average value difference of 67.02. Based on the results of the analysis, it can be concluded that the average value of the elderly's ability to achieve psychosocial development increased higher in the intervention group than in the control group with a difference of 68.76. The difference in the increase in the ability of depressed elderly to achieve psychosocial development in both groups was significant (p-value 0.001) (Table 2).

Table 2 Ability of Depressed Older Adults to Achieve Psychosocial Development (n=122)

Variable	Groups		n	Mean	SD	*Mean Different*	*pValue*
Ability Pre Intervention							
The Ability to Achieve Psychosocial Development	Intervention		61	13,73	0,520	1,75	0,512
	Control		61	11,98	1,131		
	Total		122	12,86			
Changes Ability Pre-Post Intervention							
The Ability to Achieve Psychosocial Development	Intervention	Pre	61	13,73	0,520	67,02	0,000
		Post	61	80,75	0,002		
	Intervention	Pre	61	11,98	1,131	0,01	0,055
		Post	61	11,99	0,007		
Differences Ability Post-Post Intervention							
The Ability to Achieve Psychosocial Development	Intervention		61	80,75	0,251	68,76	0,001
	Control		61	11,99	0,435		

Table 3 Ability of Depressed Older Adults to Achieve Happiness (n=122)

Variable	Groups		n	Mean	SD	*Mean Different*	*pValue*
Ability Pre Intervention							
Ability to Achieve Happiness	Intervention		61	59,77	0,090	0,58	0,912
	Control		61	60,35	0,151		
	Total		**122**	**60,06**			
Changes Ability Pre-Post Intervention							
Ability to Achieve Happiness	Intervention	Pre	61	59,77	0,090	30,21	0,001
		Post	61	89,98	0,032		
	Intervention	Pre	61	60,35	0,151	17,40	0,027
		Post	61	77,75	0,077		
Differences Ability Post-Post Intervention							
Ability to Achieve Happiness	Intervention		61	89,98	0,101	12.23	0,015
	Control		61	77,75	0,111		

The Ability of Depressed Elderly to Achieve Happiness

The results show the average value of the elderly's ability to achieve happiness before the intervention (Mean=60.06). Equality analysis using the homogeneity test showed that there was no significant difference between the intervention group and the control group with a p-value of 0.912 (pValue > 0.05). The average value of the elderly's ability to achieve happiness in the intervention group after being given the THIKA Model increased by 30.21 with a p-value of 0.001. As for the control group, an increase was also obtained with an average value of 17.40 with a p-value of 0.027. The difference in the average ability value of elderly people in the two groups is 12.23. The difference in the increase in the ability of depressed elderly to achieve happiness in the two groups was significant (p-value 0.015) (Table 3).

Older Adults Depression Levels

The average depression level in the intervention group before the implementation of the THIKA Model was higher than the average depression level in the control group. Changes in the level of depression in the elderly based on statistical tests showed that the average value in the intervention group after being given the THIKA model decreased from 14.05 to 1.05 with a difference in average value of 13.00. The difference in the average value of elderly depression levels in the intervention group was 1.05, while the average value in the control group was 2.00. The difference in decreasing levels of depression in the elderly in the two groups was significant (p-value 0.000) (Table 4).

Table 4 Depression Levels (n=122)

Variable	Groups		n	Mean	SD	*Mean Different*	*pValue*
Ability Pre Intervention							
Level of Depression	Intervention		61	14,05	0,987	0,20	1,007
	Control		61	13,85	1,001		
	Total		**122**	**13,95**			
Changes Ability Pre-Post Intervention							
Level of Depression	Intervention	Pre	61	14,05	0,987	13,00	0,001
		Post	61	1,05	0,137		
	Intervention	Pre	61	13,85	1,001	11,85	0,001
		Post	61	2,00	0,500		
Differences Ability Post-Post Intervention							
	Intervention		61	1,05		0,95	0,000

Variable	Groups	n	Mean	SD	*Mean Different*	*pValue*
Level of Depression	Control	61	2,00			

Cortisol Levels

The results of the homogeneity test showed that there was no significant difference between the intervention group and the control group with a p-value of 0.101 where pValue > 0.05. Based on the results of the analysis, it was found that there was a significant decrease in the cortisol levels of the elderly after being given holistic integrative mental health measures (THIKA) with a p-value of 0.000. The results of statistical tests in the control group also showed a decrease with an average value of 13.03 with a p-value of 0.010. After being given the THIKA model to depressed elderly people, it was able to reduce cortisol levels in both groups. The difference in the average value of cortisol levels in elderly people was lower in the intervention group than in the control group with a difference of 0.40 (p-value 0.001). The difference in the average value of cortisol levels in the control group was higher (13.03) than the average value of cortisol levels in the intervention group (8.25) (Table 5).

Table 5 Cortisol Levels (n=122)

Variable	Groups		n	Mean	SD	*Mean Different*	*pValue*
Ability Pre Intervention							
Cortisol Levels	Intervention		61	9,05	0,171	5,18	0,101
	Control		61	14,23	0,901		
	Total		**122**	**11,64**			
Changes Ability Pre-Post Intervention							
Cortisol Levels	Intervention	Pre	61	9,05	0,171	8,25	0,000
		Post	61	0,80	0,067		
	Intervention	Pre	61	14,23	0,901	13,03	0,010
		Post	61	1,20	0,080		
Differences Ability Post-Post Intervention							
Cortisol Levels	Intervention		61	0,80	0,123	0,40	0,001
	Control		61	1,20	0,086		

IV. DISCUSSION

The THIKA model in the elderly significantly increases happiness in both the control and intervention groups. Happiness in the THIKA model is achieved through life study therapy exercises which emphasize increasing gratitude so that happiness can exist within oneself. Life review therapy will reduce depression and increase life satisfaction so that mental resilience is formed for the elderly to overcome the symptoms of depression they are experiencing.

The intervention in this research is to provide training to achieve psychosocial development and happiness through 5 pillars, namely: Truthfulness, Hearty-healthy, Involvement, Kindness, and Agility which is abbreviated as THIKA. The intervention model provided has been proven to increase the happiness of elderly people with depression. Previous studies show the effect of community-based interventions on increasing the happiness of the elderly (Anuruang, 2015; Eaglehouse et al., 2016; Lima et al., 2015). This research indicates the benefits of program interventions on happiness and shows improvements in the health of a community or society when programs or interventions are provided in community settings. A study by Farrington (2020) from Duke University shows that the depression that accompanies aging does not prevent happiness and a high level of meaning in life. Even the lowest condition in depression will not deprive an individual of the opportunity to be happy. Mishel (1988) in Alligood (2017) mentions this as a probability. There is always the possibility of an opportunity to form adaptive coping in the uncertainty of illness.

The study findings show that the female elderly intervention group has higher happiness than the male elderly group, in line with previous studies which reveal that the female group has higher happiness because in general, the female group has higher social involvement than the male group (Trevisol et al., 2012). The happiness of elderly people with depression after intervention is influenced by model intervention factors, mental status, functional status, and nutritional status. Other research shows that economic factors, gender (Wang et al., 2017) and stigma on mental health (Trevisol et al., 2012), influence happiness in depressed elderly people.

This research also shows that salivary cortisol levels in depressed elderly people are in the low range. The average score

in the intervention group after being given the THIKA Model decreased. The findings of this research are supported by theory which shows that the intervention provided is associated with an increase in Gamma Amino Butyric Acid (GABA) to reduce symptoms of anxiety, stress and depression (Streeter et al., 2010). GABA's main function is to reduce cortisol and reduce aggression, anxiety and stress (Subu, 2015).

Glucocorticoids such as cortisol are a class of steroid hormones that play an important role in coordinating the body's response to stress. Elevated cortisol levels and increased inflammation are frequently reported in patients with depression. Physiologically and in stress-free situations, healthy seniors excrete between 10 and 20 mg of cortisol in a daily rhythm. This changes significantly in depressive situations and when the body's circadian rhythm is disturbed, for example when the sleep-wake rhythm is disturbed, nutritional intake is disturbed, and bed rest is long enough (Zheng et al, 2021; Yang et al., 2020). Recovery of cortisol secretion is relatively slow, moreover, glucocorticosteroids alter the expression of biological clock genes in the kidneys, lungs and muscles, which can further slow down the resynchronization of the circadian clock. So nutritional status and functional status are important for the elderly to pay attention to.

Holistic nursing care is based on the nursing philosophy established at the first workshop on the establishment of nursing as a profession in 1983 in Indonesia, where the concept of health and illness as one of the paradigms of the body of knowledge of the nursing profession states that nursing care is provided from the range of health to illness in a completely holistic manner. Holistic action means providing support that looks at the elderly as a whole, not just their mental health needs alone, or conversely not just meeting their physical needs. Holistic actions must also consider the physical, emotional, social and spiritual well-being of the elderly (Sandoval, 2016).

The integrative services referred to in this research are horizontal integrative services where integrated services are the key between health services, social services and other care providers which are usually based on the development of interdisciplinary teams (Goodwin, 2016). Integrative services need to be supported by cross-programs and cross-sectors so that integrated service posts for the elderly can provide holistic actions in one service encounter. This is in line with research by Lappalainen (2019) which states that integrative service support can cut the length of visits to primary health services, in addition to increasing family capacity because they receive comprehensive care, thereby streamlining public expenditure related to funding health costs.

The elderly school developed by Respati Indonesia University is one of the non-credit programs that aims to give older adults a chance to socialize with like-minded individuals and learn about topics that interest them. Elderly people who have been trained at home are gradually involved in non-formal activities on campus so that intergenerational education can be established. Most older adults are working past the age of 65 and due to the rapidly changing technological world, they are realizing the importance of staying up-to-date. It also gives them a chance to learn new skills and trades, as well as socialize with people in their community. The tiered training provided to health workers, cadres and elderly families also addresses the increasing need for trained professionals who can work with this demographic.

V. CONCLUSION

This study highlights that the THIKA model is effective in increasing psychosocial development achievements and happiness indices as well as reducing depression levels and salivary cortisol levels in depressed elderly people. The Holistic Integrative Mental Health Action Model (THIKA) training and its accessories (curriculum, modules, workbooks) can be used as an intervention guide in establishing mental health services for the elderly as one of the AFU program innovations. The THIKA model needs to be evaluated for its influence on mental nursing care for the elderly on the incidence of comorbid mental

and physical health problems. In addition, research in community settings needs to be expanded with research on back-and-forth referrals from hospitals to health centres and vice versa for depressed elderly people with severe depression scores and comorbidities.

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Cross-Cultural Adaptation of the Indonesian Version of the Self-Care of Heart Failure Index v7,2

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Abstract:

Providing care for heart failure patients is a lengthy process, making it crucial for patients and their families to be self-sufficient in managing their treatment. Self-care is a key part of treatment for patients with heart failure. **S**elf-care evaluation tools and measurement scales were developed to evaluate the efficacy of self-care recommendations given to patients and to assess their compliance with self-care after hospital discharge. The Self Care of Heart Failure Index (SCHFI) version 7,2 scale developed in The United States.

Aim. To adapt and evaluate validity and reliability of the Indonesian Version of the Self Care of Heart Failure Index version 7,2. **Methods**. With approval of the author original, we conducted complate cross-cultural adaptation (traslation, synthesis, back translation, synthesis of back translation, expert committee review, and pretesting). The psychometri properties assessed ware face validity and content validity (by expert committee review), construct validity (with EFA/exploratory factors analysis), and reliability test. Participants consisted of 100 heart failure patients treated at Hasan Sadikin General Hospital Bandung Indonesia from November to December 2021.

Results. Translated into Indonesian by a Sworn Translater, Indonesian Version of SCHFI v7,2 is considered to have sufficient content validity with coefficient value ranges from 0-1. Correlation analysis between factors assessed using the Bartlett's test of sphericity (significant at < 0.05) and the Kaiser-Meyer-Olkin (KMO) measure adequacy of sampling (>0.4), this study fund p-value 0.001 and KMO 0.883. EFA was performed to evaluate if the 39 items of the Indonesian version SCHFI v7.2 appropriately defined 39 item constructs when adapted to the Indonesian population. **Conclution**. Testing of the Indonesian version of SCHFI v7,2 indicating that the instrument can be use in clinical practice and research to evaluate to the Self-Care of patient with HF in Indonesian.

Keywords: Cross-cultur adaptation, self-care heart failure indext

I. INTRODUCTION

Heart failure is one of cardiovascular disease and mortality rate is high to around the world (Groenewegen et al., 2020). Heart failure (HF) remains a rising global epidemic with a lack of population-based data, especially in Indonesia (Irnizarifka & Habibie Arifianto, 2021). Providing care for heart failure patients is a lengthy process, making it crucial for patients and their families to be self-sufficient in managing their treatment. Successful management of heart failure relies on effective self-care (Savarese et al., 2023). Self-care behavior is essential for achieving good outcomes among patient with heart failure. Reliable and valid measures on self-care heart failure index are essential to identificasion of patient's self-care needs and evaluation of health cervises (Jönsson et al., 2020).

The Self Care of Heart Failure Index (SCHFI) version 7,2 scale developed in The United States (Riegel et al., 2019). Language and culture have an impact on the way self-care actions are practiced. Hence, it is crucial to undertake the translation, cultural customization, and evaluation of the SCHFI's psychometric attributes in various nations and linguistic contexts (Son & Won, 2020). **S**elf-care evaluation tools and measurement scales were developed to evaluate the efficacy of self-care recommendations given to patients and to assess their compliance with self-care after hospital discharge (Luciani et al., 2022).

Modifying a tool from one language to another is a standard procedure, but following this adaptation, researchers need to reevaluate the psychometric qualities to ensure their comparability (Osokpo & Riegel, 2021).

The aim of this study was adapted and evaluated validity and reliability of the Indonesian Version of the Self Care of Heart Failure Index version 7,2.

II. METHOD

With approval of the author original, we conducted complate cross-cultural adaptation (traslation, synthesis, back translation, synthesis of back translation, expert committee review, and pretesting). The psychometri properties assessed ware face validity and content validity by expert committee review, construct validity with EFA/exploratory factors analysis, and reliability test. Participants consisted of 100 heart failure patients treated at Hasan Sadikin General Hospital Bandung Indonesia from November to December 2021.

The Ethical Part of the Research

This research was supported and approved by International Review Board Hasan Sadikin Hospital with number LB.02/01/X.6.5/197/2021 on 27 July 2021.

Analysis of Data

The Self Care Heart Failure Index (SCHFI) v7,2 has been translated into Indonesian by a Sworn Translater, then the content validity test was carried out by 3 expert judgment. From the test results, the three experts are calculated using the Aiken's V Content Validity Coeficient.. The Indonesian version of SCHFI v7,2 evaluation through exploratory factor analysis (EFA). Domains were associated using principal component analysis and Promax tilt rotation. The cutoff point for factor loading was set at 0.4. Test-retest reliability was tested with the Intraclass Correlation (ICC).

III. RESULTS

Tabel 1 Content validity index calculated based on Aiken's V formula

Item	Examiner 1		Examiner 2		Examiner 3		Σs	V	
	Value (R)	S=R-Lo	Value (R)	S=R-Lo	Value (R)	S=R-Lo			
1	3	2	4	3	4	3	8	0.89	Valid
2	4	3	4	3	4	3	9	1.00	Valid
3	4	3	4	3	4	3	9	1.00	Valid
4	3	2	4	3	4	3	8	0.89	Valid
5	3	2	3	2	3	2	6	0.67	Valid
6	4	3	4	3	4	3	9	1.00	Valid
7	3	2	4	3	4	3	8	0.89	Valid
8	4	3	4	3	4	3	9	1.00	Valid
9	4	3	4	3	4	3	9	1.00	Valid
10	3	2	4	3	4	3	8	0.89	Valid

Tabel 2 Reliability of the seven sub scales of The Indonesian version of Self Care Heart Failure Index v7,2

	Sub scales	Cronbach alpha	Intra-class correlation
1.	Consulting behaviors	0.876	0.702
2.	Dietary behaviors	0.409	0.852
3.	Symptom perception	0.595	0.830
4.	Symptom recognition the last time you had symptoms	0.746	0.820
5.	Self-care management	0.369	0.762
6.	Problem solving behaviors	0.117	0.750
7.	Self efficacy	0.409	0.803

Test-retest reliability of The Indonesian SCHFI v7,2 with The domain's Cronbach's alpha values ranged from 0.117 to 0.876. The ICC of the Indonesian SCHFI v7,2 demonstrated

moderate to good correlation (ICC = 0.702–0.852) when tested and retested.

IV. DISCUSSION

To test the psychometric characteristics (content and construct validity, internal consistency and test–retest reliability) of the SCHFI v.7.2 in an Indonesian population of patients with HF. We found that this instrument is valid and reliable to measure HF self-care in the Indonesian population. The cross culture adaptasion of Indonesia version of SCHFI v7.2 the first one conducted in a Indonesian population. Our findings provide additional support for validity and reliability of the SCHFI v.7.2.

The Self Care Heart Failure Index (SCHFI) v7,2 has been translated into Indonesian by a Sworn Translater, then the content validity test was carried out by 3 expert judgment, namely nurses specializing in care management as expert-1, nurses specializing in Medical Surgical Nursing as expert-2 and academics in the field of nursing management as expert-3 by assessing each question from the clarity of words and sentences, the suitability of the item with the concept and the suitability of the item with the target population. Conclusion from the results of the assessments of the three experts according to The SCHFI V7,2 is considered to have sufficient content validity because the Aiken's V coefficient value ranges from 0-1. shows the CVI calculated based on Aiken's V formula for the Indonesian SCHFI v7,2.The CVI ranged between 0.67 to 1.00. Based on this, it is concluded that the instrument used has met the requirements for the content validity test.

Indonesian version SCHFI v7,2 was determined to be an 7-factor model, as proposed by EFA. Factor analysis was performed with Promax oblique rotation of the SCHFI v7,2 items. Promax oblique rotation revealed that the 39 general health items encompassed the seven factors/sub-scales initially proposed by the instrument's developers. The number of factors represented the number of substantively meaningful independent patterns of item relationships. Promax rotation resulted in more significant factor loadings than the unrotated factor method. Consulting behaviors, Dietary behaviors, Symptom perception, Symptom recognition the last time you had symptoms, Self-care management, problem solving behaviors, and self efficasi in particular, demonstrated a stronger relationship between items and subscales (>0.7). Factor loadings ranged from 0.001 to 0.873 (on a scale of 0 to 1).

The SCHFI (v7,2) consists of 39 items divided into 5 scales measuring self-care maintenance (with consulting behavior and dietary behavior dimension), symptom perception (with monitoring behavior and symptom recognition dimension), and self-care management (with recommended behaviour and problem-solving behavior dimension), and self efficacy. Self-care in heart failure remains a challenge for healthcare providers and patients, yet it is a crucial element of disease management**.** Testing of the Indonesian version of SCHFI v7,2 indicating that the instrument can be use in clinical practice and research to evaluate to the Self-Care of patient with HF in Indonesian**.**

V. CONCLUSION

The SCHFI v7,2 was successfully adapted for use in Indonesia. Nevertheless further studies should be carried out to improve psychometric properties.

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The Content Validity Index (CVI) of Clinical Assessment Tool (CAT) Based on Competency Standards for Bachelor of Vietnamese Nurses

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Abstract:

Background: The clinical assessment tool (CAT) was developed according to the "Basic competency standards for Vietnamese nurses" (1) in 2012 and has been applied at Ho Chi Minh City University of Medicine and Pharmacy since 2015 to evaluating the clinical practice capacity of bachelor of nursing students. However, currently, the Vietnam Ministry of Health has developed, updated, reviewed and issued the "Competency standards for Bachelor of Vietnamese Nurses"(2)in 2022 based on the common core competencies of ASEAN nurses as well as of countries around the world. This requires testing, reviewing and rebuilding the CAT.

Aim: Evaluating content validity index: I-CVI, S-CVI/UA, S-CVI/Ave, Modified Kappa.

Methods: Each content of CAT is reviewed and edited according to corresponding standards and criteria as well as basic level requirements suitable to the knowledge and skills students need to achieve. After that, the CAT was sent to 6 experts with the important criteria: at least 10 years of experience teaching a bachelor's degree in nursing, in charge of guiding students in clinical practice. After collecting CVIs data, they are processed and analyzed using Excel. Expert input is used to edit the CAT, then the CVIs assessment process is performed as above again to double check, ensure that CAT meets content validity standards.

Results: Round 1: In 2 evaluation contents: "Clear" and "Easy to understand", I-CVI = 1 in all items, S-CVI/UA = 1 S-CVI/Ave = 1. However, in "Appropriate applicability" content: I-CVI: 3/19 items are equal to 0.67, the remaining are above 0.83, S-CVI/UA = 0.84 and S-CVI/Ave is 0.91, Modified Kappa in 4/19 items = 0,81, 3/19 items = 0,57. Round 2: all assessment contents have I-CVI, S-CVI/UA and S-CVI/Ave, Modified Kappa = 1 in all item.

Conclusion: The clinical practice assessment tool CAT evaluates the clinical practice capacity of bachelor of nursing students with content consistent with the "Competency standards for Bachelor of Vietnamese Nurses" in 2022 and have content validity. Future studies can further evaluate reliability and internal reliability to most comprehensively evaluate the tool

Keywords: CAT, clinical assessment tool, student, nursing competency standards

I. INTRODUCTION

According to WHO, nurses play a very important role in the health system.

Therefore, the goal of nursing education is to train and develop practitioners who are capable of providing high quality nursing care, meet the patient's care needs as well as the employer's selection criteria.

Understanding the role of nursing, as well as the need to standardize nursing competencies to be recognized by ASEAN countries and around the world, in 2012, the Ministry of Health issued "Basic Competency Standards for Vietnamese Nurses" with 3 areas, 25 standards, 110 criteria. From there, CAT was also built and has been applied at Ho Chi Minh City

University of Medicine and Pharmacy since 2015 to evaluate the clinical practice capacity of nursing students.

However, today, the roles and tasks of nurses are increasingly defined more clearly and specifically, as well as mutual recognition in the care system among countries around the world and in the region. In 2022, the Ministry of Health has developed, updated, reviewed and issued "Competency standards for Bachelor of Vietnamese Nurses". This requires examining, reviewing and rebuilding the CAT.

The aim of this study was evaluate the content validity including: I-CVI, S-CVI/UA, S-CVI/Ave, Modified Kappa of the CAT for bachelor of nursing students has been developed and edited.

II. METHOD

The research team contrasted and compared the differences and similarities between the contents of "Basic Competency Standards for Vietnamese Nurses 2012" and "Competency standards for Bachelor of Vietnamese Nurses 2022". After reviewing and identifying the advantages and revised contents of the " Competency standards for Bachelor of Vietnamese Nurses 2022", the research team proceeded to build and edit the content of CAT based on 5 core areas of this set of competency standards. A group of 6 experts were selected and invited to participate in evaluating the CAT with the following selection criteria: voluntarily agree to participate in the research, have at least 10 years of experience teaching bachelor's degrees in nursing, in charge of guiding students in clinical practice and have been trained in CVIs assessment methods according to Lynn et al. [3]

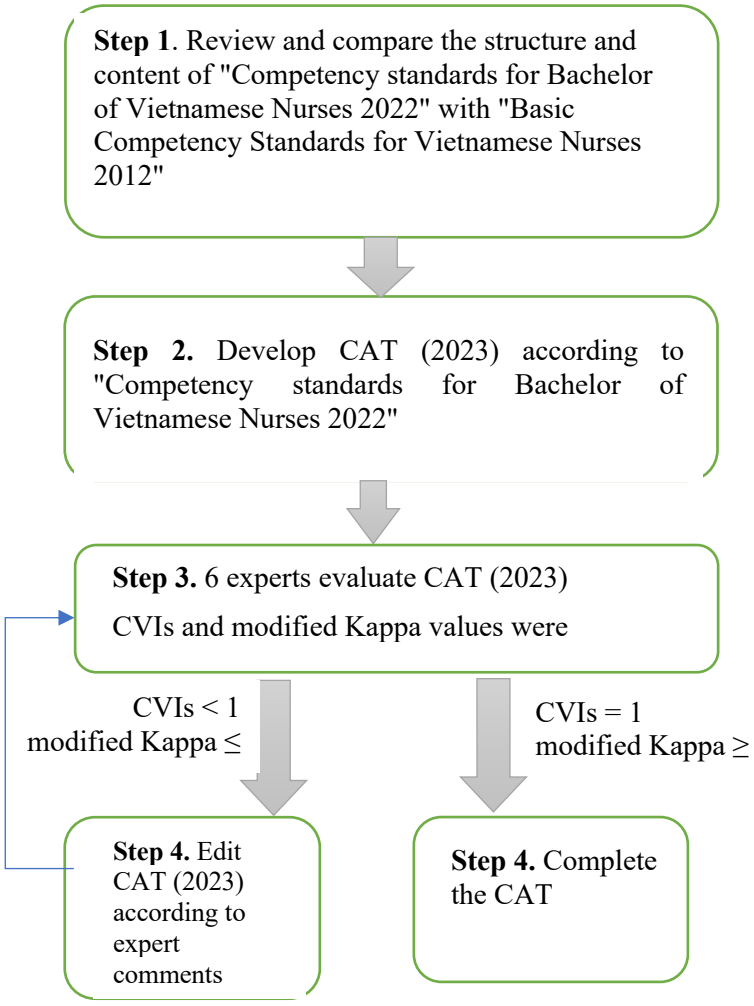
The set of documents to evaluate CVIs for CAT includes: a table comparing the similarities and improvements of the set of "Basic Competency Standards for Vietnamese Nurses 2012" and "Competency standards for Bachelor of Vietnamese Nurses 2022", revised CAT and expert assessment survey. Experts evaluate “Clear”, “Easy to understand”, and “Appropriate applicability” based on a 4-point Likert scale, including 1 (Strongly Disagree), 2 (Disagree agree), 3 (Agree), 4 (Strongly agree). Experts were also asked to comment on the entries, all comments were recorded.

After being collected, the survey results were processed and analyzed using Excel to calculate the values: I-CVI, S-CVI/UA, S-CVI/Ave, Modified Kappa (Round 1). However, the values on I-CVI, S-CVI/UA, S-CVI/Ave < 1, modified Kappa ≤ 0.6, so the entire above process is done again after CAT is edited according to experts' comments (Round 2). The content of CAT after editing is sent to experts for re-evaluation according to the above process again. CVIs and modified Kappa a were also rechecked, ensuring CAT met standards for content validity. (Figure 1)

Analysis of Data

All content validity measures include the item content validity index (I-CVI), overall consistency of the instrument content validity index (S-CVI/UA), the average of the instrumental content validity index (S-CVI/Ave) and Modified Kappa (K) was calculated according to Denise F. Polit.[5,6,7] K ≥ 0.6 was chosen as a sign of agreement between experts. [4.8]

Figure 1. Process of reviewing, building and validating the content of CAT (2023)



III. RESULTS

After round 1 evaluation, some experts suggested editing the text as follows: in section 1.1. “department” is replaced with “hospital/department”, “teacher” is replaced with “lecturer”. In section 2.8, the meaning of “group” should be clarified by “care group”. An expert is concerned that section 1.2, professional ethics is a very broad category for students, should be clarified by being more specific about the aspects of professional ethics that are more suitable for students. In particular, 3 out of 6 experts said that standard 3: "Demonstrating management and leadership capacity" for students is not appropriate, because resources are very diverse, including resources such as personnel, funding is beyond students' ability. At the same time, also in standard 3, risk management should also be considered whether it should be included in CAT to evaluate students, because risk issues are difficult to recognize even for medical staff.

After two discussions, all members of the evaluation council agreed with the edits, and recommended that all standards and criteria need to be explained, specified, and revised, meets the nursing competency standards that need to be achieved while still being consistent with students' practical abilities and actual practice conditions.

Table 1. Review and compare the structure and content of "Competency standards for Bachelor of Vietnamese Nurses 2022" with "Basic Competency Standards for Vietnamese Nurses 2012"

Competency standards for Bachelor of Vietnamese Nurses 2022	Content corresponds to Basic Competency Standards for Vietnamese Nurses 2012
Including 5 areas, 19 standards, 73 criteria.	Including 3 areas, 25 standards, 110 criteria.
Area 1: Practicing according to law and professional ethics. (2 standards) Clear regulations on the use of legally valid practice certificates and practice within the scope of expertise.	Area 3: Ability to practice according to law and professional ethics. (2 standards)
Area 2: Professional care practice. (9 standards) It does not stop at demonstrating understanding but emphasizes applying knowledge to care	Area 1: Competence to practice care. (15 standards)
Area 3: Management and leadership (4 standards) Management and leadership standards are separated from professional development standards. Analyze specifically how to manage and apply resources to care.	Area 2: Competence of management and career (8 standards)
Area 4: Training, scientific research and evidence-based practice (4 standards) Criteria and standards for scientific research and evidence-based practice are separated into a separate field. In which, additional content stipulates training tasks and instructions for learners and colleagues on knowledge and skills in the field of care.	Area 2: Competence of management and career (8 standards)
Area 5: Personal and professional development. (2 standards) Promote self-assessment and initiative in personal and professional development activities. There are clear regulations on the tasks of using foreign languages and information technology.	Area 2: Competence of management and career (8 standards)

Table 2. Calculate the content validity and Modified Kappa of the CAT

Round	Clear				
	A	I-CVI	S-CVI/UA	S-CVI/ave	Modified Kappa
1	5/5 experts choose at 3.4 in all items	19/19 items =1	1	1	19/19 items =1
2	5/5 experts choose at 3.4 in all items	19/19 items =1	1	1	19/19 items =1
Round	**Easy to understand**				
	A	I-CVI	S-CVI/UA	S-CVI/ave	Modified Kappa
1	5/5 experts choose at 3.4 in all items	19/19 items =1	1	1	19/19 items =1
2	5/5 experts choose at 3.4 in all items	19/19 items =1	1	1	19/19 items =1
Round	**Appropriate applicability**				
	A	I-CVI	S-CVI/UA	S-CVI/ave	Modified Kappa
1	1/ experts choose at 2 in 4 items: 1.2,	4/19 items = 0,83	0,84	0,91	4/19 items = 0,81

	3.3, 4.1, 5.1. 2/5 experts choose at 2 in items: 3.2, 3.4, 3.5	3/19 items = 0,67 12/19 items = 1			3/19 items = 0,57 12/19 items = 1
2	5/5 experts choose at 3.4 in all items	19/19 items =1	1	1	19/19 items =1

IV. DISCUSSION

The results in Table 1 in this study show that the validity of the scale is very high. The I-CVI value of all items in the scale is equal to 1. The average value of all I-CVI is S-CVI/Ave of this study = 1 in "Clear", "Easy to understand" and "Appropriate applicability". Similarly, the proportion of items of the tool rated at level 3 or 4 by the Expert Panel is S-CVI/UA= 1 in all 3 assessment criteria. According to Landis and Koch, inter-rater reliability is accepted if $K \geq 0.6$, in this study the revised Kappa index for all items is = 1. This shows that the consensus level of experts is almost completely unanimous.[4] One of the successes of this study was that participants had no difficulty reading and understanding the questionnaire, following the guidance of Julian and colleagues.[3]

V. CONCLUSION

The current study shows that the CAT revised according to the "Competency standards for Bachelor of Vietnamese Nurses" has high content validity, can be applied to evaluate the clinical practice capacity of bachelor of nursing students

Future studies could further assess reliability and internal reliability to most comprehensively evaluate the instrument.

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Evaluation of Training Programs in Nursing Management in Turkey

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Abstract:

Background: Management in nursing is important for ensuring effective and efficient management of nursing services to meet the needs of today's health institutions, meeting the need for nurse managers, and meeting the need for academicians in the field of management in nursing.

Aim: The purpose of this review is to examine the teaching of management courses in nursing at undergraduate and graduate levels in Turkey.

Review: Management in nursing is a subspecialty of the core field of nursing. It is a compulsive course, generally involving four-hour theoretical and four-hour practical training, at nursing schools affiliated with universities in Turkey. Providing graduates in this field in undergraduate and graduate programs meets the need for a qualified workforce who produces and uses knowledge in the field and searches for and finds solutions to problems. However, it is observed that there are differences in the curriculum content, course hours and faculty members' expertise regarding the management course in nursing.

Conclusion: Undergraduate and graduate education programs in management in nursing should be supported, these departments should be strengthened in terms of equipment and workforce in nursing faculties/departments, and courses should be given by academic nurses who are experts in the field.

Keywords*:* Education, management in nursing, nursing

I. INTRODUCTION

As the rapid and significant changes in the healthcare industry and nursing continue, the demand for visionary leaders and effective manager nurses is rising, and nurses need to improve their skills in leadership and management functions (Marguis and Huston, 2017). This also increased the need for a qualified workforce in this field and underlined once again the importance of undergraduate and graduate education programs that will provide access to such a workforce.

Undergraduate Education in Nursing Management

The nursing workforce in Turkey is made up of nurses performing the same function with the same title who may have graduated from health vocational high schools or from programs that grant associate, bachelor's, master's and doctoral degrees. Of these nurses with different levels of education, especially those with undergraduate education receive management-related training and gain management skills during their basic vocational training.

The history of undergraduate education in nursing dates back to 1955, and postgraduate education started with master's degree programs in 1968 and doctoral programs in 1972 (Ergöl 2011). While the nursing schools in Turkish universities began offering four-year undergraduate education in

1955, the title of nurse was given only to those who graduated from nursing schools/faculties of universities, with the "Law on Amendments to the Nursing Law" published in 2007 in Turkey. The title of specialist nurse is given to nurses who graduate from postgraduate education programs of nursing departments. In the first years after undergraduate programs were introduced in Turkey, management training in nursing was initially given as general management courses under the name "Management and Administration" (28 hours). Later, as more undergraduate programs emerged, the "Management in Nursing" course was introduced to nursing undergraduate programs. Since 1988, the "Management in Nursing" course, covering 56 hours of theoretical and 224 hours (reduced to 56 hours in 1994) of practical training, began to be given in undergraduate programs. The master's degree program in nursing management was first opened in 1982 at Hacettepe University Faculty of Health Sciences and was later followed by Istanbul University and Ege University (Şen et al. 2019). Department of Management in Nursing was established in 1990 at Istanbul University Florence Nightingale (IUFN) School of Nursing, and the doctorate program in nursing management was first launched in 2000 at Istanbul University Florence Nightingale (IUFN) Faculty of Nursing. Currently, "Management in Nursing" doctoral programs are offered by Istanbul, Hacettepe, Dokuz Eylül, Akdeniz, Bandırma Onyedi Eylül, Ege and Health Sciences universities in our country. In addition, many universities are training master's and doctorate graduates in "Nursing Management" under "Nursing" programs today. On the other hand, the "Nursing Management Certificate Program" protocol was organised at the Ministry of Health level but was not implemented and is pending approval for implementation.

The structure of the Ministry of Health has changed with the Decree Law No. 663 in public hospitals affiliated with the Ministry of Health, whereby nurses' administrative position in public hospitals was removed from provincial organisational charts. Nurses were now under health care services managers who graduated from four-year nursing or non-nursing degrees. This limited the progress of the activities that should be carried out to develop nurses and nurse managers. In addition, the managerial positions in the Ministry of Health were changed with the Decree Law No. 694 but lacked the necessary changes for nursing. However, the International Council of Nurses (ICN, 2010) stated that nursing services should be managed directly by nurses and that nurses should have equal opportunities and preparedness as other health professionals to manage a wide range of health services. This demonstrates how important it is to provide nursing management skills to students in undergraduate nursing education programs. The necessity of teaching management skills in nursing undergraduate education programs is also seen within the scope of the European Union's 2005/36/EC directive, in which one of the basic subjects that should be included in nursing education programs was set as "Management Principles" under Social Sciences. In the Nursing National Core Education Program (HUCEP), published in 2003 and updated in 2014, and finally in 2022, "Nursing Services Management" is defined as a topic that must be taught in the undergraduate education program.

Throughout history, there have been differences in the content of management course programs in nursing. In an analysis by Duygulu (2015), thirty different universities offering undergraduate nursing education in Turkey were randomly selected, and their educational programs published on their websites were examined. In the universities, nursing management was taught under different course headings in 29 of the thirty programs. In one program, there was no management or related course in nursing. Management courses in nursing were compulsory in 28 programs and elective in one. In eight of these programs, the nursing management course was given as 4 hours of theory and 4 hours of practice per week. In others, the course hours mainly were 2-3 hours theoretical and 2-4 hours practical. Seven programs had no management courses. A university had a course called "Management Internship in Nursing". There were, however, differences in the practical content of the nursing services management course.

The management-related courses had an AKTS of between 4 and 8 and were given in different periods in the programs. In 13 programs, the Nursing Management course was offered as an eighth-semester course, while in the fourth, fifth, sixth, or seventh semester in others. Also, 13 programs included two-hour-a-week theoretical elective courses such as "Patient Safety and Quality", "Nursing and Leadership Process", "Leadership in Nursing", "Leadership", "Quality Management", etc., which may be related to management. İspir et al. (2017) examined the institutions that provide nursing education in undergraduate programs in 78 public universities in Turkey. In 94.8% of the universities, there was a course on management in nursing, and in 91% of them, the exact name of the course was "Management in Nursing". The course was conducted as a compulsory course in 8.2% of the cases. The average of institutional and practical course hours was 3.13 and 2.91 hours/week, respectively. In the examined training programs and studies, almost half of the management-related courses were given by people who are not experts in their field, and although the majority of nursing programs offered "Management in Nursing" courses, the content was insufficient in terms of hours and content. Besides, there were substantial differences regarding the course programs between institutions providing education at the same level. It was recommended that national workshops be held regularly, attended by academicians and nurse managers who are experts in the field of management in nursing, to minimise these differences and improve the scope of the course. For this purpose, with the start of accreditation studies and considering the Nursing National Core Education Program (HUCEP), the Workshop on the Development of the Nursing Management Curriculum was held in 2021 with the collective participation of the faculty members of the nursing management department in our country. Based on the workshop reports, a consensus on theoretical and practical considerations in the nursing management curriculum was reached. The content of the nursing management textbook was edited, and a clinical practice guide was created. After this workshop, the Nursing Management Workshop was held in 2022 to share experiences. Despite all these outcomes, it is known that there are a very limited number of faculty members in nursing services management, an essential component of education, in our country. This makes teaching non-standard nursing services management even more disadvantageous.

Postgraduate Education Program in Management in Nursing

Today, one of the postgraduate nursing programs is the nursing management field. Master's and doctoral programs in nursing management affiliated with the health sciences institutes of many universities in Turkey are carried out in the field of management in nursing under the names "Management in Nursing" and "Nursing". The reason for providing education in the field of nursing management under the Department of Nursing was a revision of the principles required to open a postgraduate education program in Turkey. With the amendment of the "Principles on the Opening and Implementing Postgraduate Education and Training Programs" (2015), three faculty members, at least 2 of whom are associate professors, are required for the master's program. For the doctoral program, six faculty members are needed, including two professors or one professor and two associate professors. However, when there are not enough faculty members in each department, the departments may need to be discontinued. So, some universities gathered all departments under the Department of Nursing and introduced Nursing Master's and Doctorate programs. Thus, students continue to be trained in "Management in Nursing" as a branch of science under the "Department of Nursing".

It is aimed at students who are accepted to nursing management programs and start master's programs to gain in-depth knowledge in the field of management in nursing, to transfer management knowledge in nursing to the field of practice, to access and use information in the field, to evaluate the information critically, and to contribute to the field by conducting scientific research. The ongoing advances in science and technology, diagnosis, treatment, and care services, the

emphasis on basic and preventive health services, the increase in the number of chronic, elderly, and disabled individuals, higher awareness of health services' consumers, widespread use of quality and cost-effective service concepts, risk and crisis management in healthcare services, patient satisfaction, and patient and employee safety gaining importance have made practical, efficient and quality management of nursing services that are in continuous direct contact with the society important (Öztürk 2015) Additionally, as per Article 9 of the Law on Amendments to the Nursing Law (2007) and the Nursing Regulation (2010), it is deemed necessary to appoint nurses with postgraduate education to nursing-related training and management positions and to specialist nurse positions or to recognise the priority right and the necessity of appointing nurse managers who carry out the Health Care Services Directorates of the Ministry of Health and nursing services managements/ directorships / coordinatorships/ head nurses in university hospitals and private hospitals, among nurses with these qualifications, has revealed the need for nursing workforce specialised in the field of management in nursing.

II. CONCLUSION

Training nurse managers, who significantly impact patient care outcomes, is a responsibility every educational institution should undertake during basic nursing education. Today, rapid changes in healthcare institutions, focusing on issues such as quality management and accreditation, lean management, cost-effectiveness, efficiency, patient and employee safety, performance evaluation and improvement, affect nurses, who constitute the majority of healthcare personnel, and impose essential responsibilities on nurse managers who are responsible for their management. Therefore, it is recommended that the "Management in Nursing" course be compulsory in nursing undergraduate programs, with a minimum of 4 hours of theoretical and 8 hours of practical training, to train the necessary workforce. In addition, given that managerial positions are a motive for preferring postgraduate education, and nurses should possess in-depth knowledge by making training in the field of management in nursing through postgraduate education available to them, it is important for them to contribute to the field by using the information they have obtained in the field of application and doing research. In this respect, the implementation and continuity of postgraduate education programs in nursing management should be supported to meet the need for manager nurses for effective and efficient management of nursing services and to meet the need for academicians in the nursing management field.

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Investigation of Nursing Students' Perceptions of Information Literacy Self- Efficacy, and Lifelong Learning Tendencies

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Abstract:

Introduction: In the study, it was aimed to investigate nursing undergraduate students' levels of information literacy self-efficacy perceptions and their lifelong learning tendency levels.

Method: This descriptive and relational study was carried out between December 2021 and May 2022 with 728 students in all the grades of the nursing department of a state university who comprised the population of the study. Of the students in the population, 621 who volunteered to participate in the study, and who had a smart phone or could access computer / internet were included in the sample. Independent variables of the study were students' age, sex, and year at school. Dependent variables were lifelong learning tendencies and perception of information literacy self-efficacy. The data were collected with the Student Information Form, Perception of Information Literacy Self-Efficacy Scale and Lifelong Learning Tendency Scale. While the data were collected, the one-to-one paper-pencil method was used.

The participating students gave their written consent after they were informed about the purpose of the study. Ethical approval from the Non-Interventional Clinical Research Board (November 18, 2021-0500) and permission from the head of the nursing department of a state university where the study was to be conducted were obtained. The SPSS (Statistical Package for the Social Sciences) (25.0) was used to analyze the data.

Results: Of the participating students, 70.9% were men, 24% were first graders, 31.1% were second graders, 25.1% were third graders, and 19.8% were fourth graders. According to their statements, of them, 54.8% spoke English at a moderate level, and 35.3% spoke poor English. Of them, 58.5% had been using computers for more than six years, 61.5% had moderate computer use skills, 18.8% used computers very frequently, 47.9% used the internet moderately, 61.5% used the internet frequently, 17.4% could access the computer at the university and 35.1% could access the internet both at home and at the university. The mean scores they obtained from the Perception of Information Literacy Self-Efficacy Scale and Lifelong Learning Tendency Scale were 138.63±26.29 and 89.80 ±19.42, respectively. Of the participating students, those who had basic computer, internet and smart phone usage skills, and who could only access computers at university obtained lower scores from the Perception of Information Literacy Self-Efficacy Scale than did those who had intermediate and advanced usage skills. Of the variables, computer / internet and smart phone usage skills, frequency of computer / internet and smart phone use, and computer / internet access opportunities did not affect the scores the participating students obtained from the Lifelong Learning Tendency Scale ($p>0.05$).

Conclusion: The results of the study revealed that the participating students' computer / internet / smartphone usage skills affected their information literacy self-efficacy levels, but did not lead to any changes in their lifelong learning tendencies. These results indicated the importance of updating nursing curricula and developing learning-teaching support systems by determining nursing students' information literacy self-efficacy perceptions levels and their lifelong learning tendency levels

Keywords: Information literacy, lifelong learning tendency self- efficacy

I. INTRODUCTION

The very fast and multidirectional flow of information in today's world makes it inevitable for students to gain information literacy skills in terms of both professional and personal development in university education to keep up with this speed. Contemporary learning approaches aim to provide individuals with thinking knowledge and skills, namely, "learning to learn", "continuing education and training in every period of life" competencies, and using information and information resources efficiently and effectively (Iannuzzi, Mangrum II ve Strichart, 1999). The characteristics of information literate individuals include features such as learning to learn, being engaged in learning, using information effectively, using different sources of information, having dynamics encouraging the use of information, continuing education and training throughout life, seeing information critically, and having knowledge (Iannuzzi, Mangrum II ve Strichart, 1999; Lenox & Walker, 1993).

Information-literate people have the potential to change themselves continuously, to learn new resources, and to benefit from and use new technologies. The age we live in is characterized as the information age, so ethical and legal problems develop due to the rapid increase in the amount of information, the acceleration of development and change due to this increase, the difficulty in distinguishing quality information, and the easy retrieval and theft of information in the technological environment. This condition increases the importance of information literacy (Demiralay & Karadeniz, 2008). Information literacy is based on lifelong learning and it enables to increase competitiveness, cope with changes, facilitate employment, contribute to individuals' all kinds of development, improve existing knowledge, and discover and learn new information (Kurbanoğlu, 2010).

Bandura's Social Learning Theory posits that self-efficacy perception determines the individual's goals in life, lifestyles, struggling with difficulties encountered, positive or negative thoughts, and outcomes of efforts (Bandura, 1997). Therefore, self-efficacy perception is one of the important variables affecting the learning process. An individual's self-efficacy belief is affected by direct experiences, indirect experiences, social persuasion, and physiological and emotional state (psychological state). Of these, the most effective one is direct experiences, which are individuals' inferences as a result of his/her life experiences (Demirdağ, 2015).

Lifelong learning, which emphasizes the spread of learning opportunities throughout life, aims to enable individuals to increase their level of knowledge, develop their skills and abilities, follow current developments (Boyer, et al., 2014; Teke, 2020), learn to learn (Soykut Gündoğar, 2019), continue education in academic and non-academic environments (Denat, et al., 2016; Şenyuva, 2013), plan, implement and evaluate self-learning, and discover interests. The realization of lifelong learning requires individuals to have lifelong learning skills. In this regard, all education institutions should endeavor to raise individuals who are aware of the dynamic nature of learning in cooperation. Lifelong learning has the characteristics of holism, flexibility, integration, democratization, and self-actualization (Cropley and Dave, 1978; cited in Gunuc, Odabasi & Kuzu, 2012). Information literacy and lifelong learning are recognized as two important competencies among the 21st century competencies (Odabaş & Polat, 2008). Individuals should develop a positive self-efficacy perception about information skills to have these two competencies (Kurbanoğlu & Akkoyunlu, 2006).

Carrying out their roles more effectively, implementing evidence-based practices, and improving the quality of patient care requires nurses to be equipped (Yılmaz 2018). Adopting lifelong learning as a principle and having sufficient perceptions of information literacy can realize this equipment. The presence of qualified nurses with lifelong learning skills in health care services is considered to increase the understanding and quality of the solution to health problems (Aspin & Chapman, 2000). Based on all these, the importance of the concepts of information literacy and lifelong learning is increasing among nursing students. There is a need for courses, activities, and interventions to increase information literacy skills in nursing undergraduate programs. In addition, increasing students' awareness about the importance of lifelong learning is inevitable to ensure development in professional life. Determining the current situation to meet students' needs and to increase their awareness is believed to guide future planning. The literature seems to include a very limited number of studies

on the determination of nursing students' lifelong learning and information literacy.

The aim of this descriptive and correlational study is to examine undergraduate nursing students' information literacy self-efficacy perceptions and lifelong learning tendencies.

II. METHOD

The setting of the study is the faculty of health sciences at a university. Data were collected between 15 December 2021 and 15 May 2022. The target population of the study was all students (728 students) enrolled in the 1st, 2nd, 3rd, and 4th years of the nursing department of the faculty of health sciences. The study utilized the complete census method, and all students enrolled in all four-year levels were planned to be included in the study. The sample group consisted of 621 students who could be reached during the data collection process (participation rate: 85.3%). The study included only one group consisting of 1st, 2nd, 3rd, and 4th year nursing students. Inclusion criterias were being enrolled in 1st, 2nd, 3rd, and 4th years in the department of nursing, agreeing to participate in the study, having a smartphone or computer and internet access.

Data Collection Tools

The Student Information Form: The Student Information Form was prepared by the researchers in line with the relevant literature and similar studies. The form consists of seven questions that aim to determine nursing students' views.

Information Literacy Self-Efficacy Perception Scale (PILSE): The 28-item scale is responded on a 7-point Likert scale (Kurbanoğlu, Akkoyunlu & Umay; 2006). Cronbach's alpha value of the scale was found 0.92. The mean scores obtained from the Information Literacy Self-Efficacy Perception Scale are classified as high if they are between 5 and 7, medium if they are between 3 and 4,99, and low if they are less than 2,99. Permission to use the scale was obtained from the authors via e-mail.

Lifelong Learning Tendency Scale (LLTS): The first two dimensions of the 27-item scale consist of items with statements indicating motivation and perseverance for lifelong learning, and the last two dimensions consist of items with statements indicating inability to organize lifelong learning and lack of curiosity about the reasons for this (Diker Coşkun; 2009). Scores to be obtained from the scale range between 27 and 162. Cronbach's alpha internal consistency coefficient was found 0.89. Permission to use the scale was obtained from the authors via e-mail.

Data Collection

A total of 728 students enrolled in the nursing department (1st, 2nd, 3rd, and 4th-year students) of a state university were aimed to be reached between 15 December 2021 and 15 June 2022. Students who suspended education between semesters due to the pandemic, who were diagnosed with or received treatment for COVID, and who were absent could not be reached. The students who could not be reached were tried to be reached twice. Data collection tools were administered to the students face-to-face in the sample group by an undergraduate student using the paper-and-pencil method. Before the data collection process, the students were informed about the purpose of the study, and their written consent was obtained. Filling in one data collection form took about 10 minutes.

The Ethical Part of the Research

Ethics approval for the study was obtained from the Non-Interventional Clinical Research Board (18/11/2021-0500). Permission for data collection was obtained from the Head of Department in the nursing department, where the study was conducted. Written consent was obtained from the students, and they were explained that the data they provided would not be shared with anyone and that the results of the study would be presented as a paper in a scientific meeting. Students' computer and internet use skills were based on their self-reports.

Analysis of Data

Descriptive statistics (numbers, percentages, arithmetic means, medians, standard deviations, minimum-maximum values) were analyzed in SPSS statistical software (25.0). Since the quantitative data were distributed normally (Kolmogorov-Smirnov value $p>0.05$), quantitative data were analyzed using t-test and one-way analysis of variance; nominal data were analyzed using chi-square test. The statistical significance level was accepted as $p<0.05$ at a 95% confidence interval.

III. RESULTS

Of all the participating students, 70.9% were males, 24% were enrolled in the first year, 31.1% were enrolled in the second year, 25.1% were enrolled in the third year, and 19.8% were enrolled in the fourth year. While 54.8% of the students reportedly had a moderate level of English, 35.3% had a poor level of English. While 58.5% reportedly had been using computers for more than six years, 61.5% had moderate computer use skills, 18.8% used computers very often, 47.9% used the internet moderately, 61.5% used the internet often, 17.4% could access the computer at the university, and 35.1% could access the internet both at home and at the university (Table 1).

Table 2 demonstrates participating students' computer, internet, and smartphone use skills, frequency of use and access opportunities.

Table 1: Sociodemographic and Some Characteristics of Students

Characteristics	n	%
Gender		
Female	180	29,1
Male	440	70,9
Grade		
First graders	149	24
Second graders	193	31,1
Third graders	156	25,1
Fourth graders	123	19,8
Level of English		
Poor	219	35,3
Moderate	340	54,8
Good	39	6,3
Very good	22	3,5
Computer Usage		
<1 year	57	9,2
1-3 years	123	19,8
4-6 years	78	12,6
>6 years	363	58,5
Access	621	100,0
Home	327	52,7
Home, university, social areas	58	9,3
Home, university	71	11,4
Home, social areas	7	1,1
Social areas	39	6,3
Total	621	100

Table 2: Distribution of students' computer, internet, and smartphone use skills, frequency of use and access opportunities

Computer/Internet/ Smart Phone	n	%
Computer		
Using Skills		
Basic	122	19,7
Moderate	382	61,5
Advance	116	18,7
Frequency of using		
None	33	5,4
Rarely	270	43,5
Often	201	32,4
Very often	117	18,8
Internet		
Using Skills		
Basic	33	5,1
Moderate	297	47,9
Advance	293	47,2
Frequency of using		
None	21	3,4
Rarely	31	5
Often	187	30,1
Very often	382	61,5
Smart Phone		
Using Skills		
Basic	20	3,2
Moderate	232	37,4
Advance	369	59
Frequency of using		
None	22	3,8
Rarely	25	4,0
Often	151	24,3
Very often	423	68,1

Total	621	100,0

Table 3 shows the distribution of students' purposes for using information and communication technologies. Of all the participating students, 68,2% followed the developments with information technologies; 75,5% could access health-related resources; 69,4% used information technologies to conduct scientific research; 31,7% could develop materials using information technologies; 34,8% analyzed data using information technologies; 85.8% used information and communication technologies to find pictures/photos; 84.9% did not use information and communication technologies for other purposes; 95.2% used information and communication technologies to surf the internet; 95.8% used information and communication technologies to watch films and listen to music; 82.3% used information and communication technologies to chat; 72.3% could send and receive e-mails using information technologies; 72.6% used information technologies for playing games; 92.9% could do homework or prepare presentations using information technologies (Table 3).

Students' Information Literacy Self-Efficacy Perception Scale and Lifelong Learning Tendency Scale mean scores were found 138.63±26.29 and 89.80 ±19.42, respectively (Table 4). Of all the students, those who had basic computer, internet, and smartphone use skills and who could access computers only at university received higher scores on the Information Literacy Self-Efficacy Perception Scale in comparison to those who had moderate and advanced skills. Of the variables, computer/internet and smartphone use skills, frequency of computer/internet and smartphone use, and computer/internet access opportunities did not affect participating students' Lifelong Learning Tendency Scale scores (p>0.05) (Table 5, Table 6).

Table 3: Distribution of Purposes of Using Information and Communication Technologies

Purpose of Using	n	%	Purpose of Using	n	%
Following Developments Regarding Information Technologies			**Accessing Health Related Resources**		
Yes	417	68,2	Yes	469	75,5
No	204	32,9	No	152	24,5
Doing Scientific Research			**Homework-Preparation of Presentation**		
Yes	431	69,4	Yes	577	92,9
No	190	30,6	No	44	7,1
Using in Material Development			**Surfing in the Internet**		
Yes	197	31,7	Yes	591	95,2
No	424	68,3	No	30	4,8
Data Analysis			**Chatting**		
Yes	216	34,8	Yes	511	82,3
No	405	65,2	No	110	17,7
Receive/send email			**Watching movie/ Listening music**		
Yes	449	72,3	Yes	595	95,8
No	171	27,5	No	26	4,2
Finding pictures/photos			**Game playing**		
Yes	533	85,8	Yes	451	72,6
No	88	14,2	No	170	27,4
Total	621	100,0	Total	621	100,0

Table 4: Descriptive Analysis of Scales

SCALES	Mean	± SD	Min	Maks
PILSE*	138,63	± 26,29	37	198
LLTS**	89,80	±19,42	27	162

**Perception of Information Literacy Self-Efficacy Scale*

***Lifelong Learning Tendency Scale*

Table 5: PILSE Scores According to Using Skills of Students

Using Skills	PILSE Total Scores		
	Mean	± SD	Analysis
Computer			
Basic[1]	125,10	±24,64	23,669
Moderate[2]	140,55	±24,48	p=0,000
Advance[3]	146,39	±29,01	1<2,3
Internet			
Basic[1]	121,65	±31,84	12,616
Moderate[2]	135,81	±25,72	p=0,000
Advance[3]	143,21	±25,34	1<2,3; 2<3

Smartphone			
Basic[1]	127,09	±27,56	8,519
Moderate[2]	134,09	±27,70	p=0,001
Advance[3]	142,12	±24,83	2<3
Access Opportunities			
Home[1]	141,14	±25,14	9,804
University[2]	128,63	±28,16	p=0,000
Social Areas	134,65	±25,32	2<1

Table 6: PILSE Scores According to Using Skills of Students

Using Skills	LLTS Total Scores		
	Mean	± SD	Analysis
Computer			
Basic[1]	89,58	±17,46	1,224 p=0,300
Moderate[2]	90,14	±18,84	
Advance[3]	88,67	±23,12	
Internet			
Basic[1]	93,85	±16,20	1,504 p=0,223
Moderate[2]	90,54	±18,19	
Advance[3]	88,50	±20,80	
Smartphone			
Basic[1]	92,42	±18,80	1,995 p=,137
Moderate[2]	91,55	±17,21	
Advance[3]	88,44	±20,66	
Access Opportunities			
Home[1]	90,06	±19,41	0,363 p=,696
University[2]	89,87	±18,80	
Social Areas	87,28	±20,33	

IV. DISCUSSION

Nearly half of the students (43.5%) rarely used computers, which is a large proportion. Only one-fifth of participating students used computers very often. The time students spend on computers and smartphones is increasing with the developing technology in our country (Karaahmetoğlu,Softa, & Demirarslan, 2017; Korkmaz & Korkmaz, 2018). However, using this time efficiently depends on the individual. For this reason, awareness-raising initiatives are of great importance for the use of technological devices such as computers or phones.

With the developing technology, internet use has an important place in terms of enabling students to acquire new information and activities and to improve themselves. Around half of the students stated that they had a moderate level of internet use, and more than half of them used the internet very often. According to TÜİK (2020) data, 16 to 24-year-old individuals had the most intensive internet use. Nursing students, who are also in this age group, are also at risk of using the internet intensively. A study conducted with nursing students at Tehran University reported students' internet addiction rate as 17.7%; almost 20 out of 100 students were addicted to the internet, which is a significant number. Another study conducted with nursing and midwifery students found that students were moderately (11.3%) addicted to the Internet (Kiany et al., 2014; Najafi et al., 2018). The easy access to the internet today enables students to use the internet from their smartphones and computers whenever and wherever they want. However, the level of addiction tends to increase with the increase in the hours of internet use during the day.

The number of people using smartphones and the level of addiction to the phone is known to increase day by day. In this study, approximately 2/3 of the students used mobile phones very frequently. A study reported that the highest level of mobile phone use among the students enrolled in the field of health was in dentistry students while the lowest level of use was in pharmacy students. The same study reported that nursing students' average duration of mobile phone use was 5.8 hours per day (Al-Hadidi et al. 2019). Jung et al. (2016) investigated the reasons why students used mobile phones and found that most of the students (69.4%) used mobile phones for taking photos and videos, and the lowest reason for access to news and information (45%). The use of mobile phones, including access to information and lifelong learning purposes, has many conveniences in daily life.

The students' purposes of using information and communication technologies mainly included doing homework, watching films/listening to music, playing games, sending e-mails, and surfing the internet. These purposes are similar to the ones reported in other studies (Ching, et al., 2018; Gunay, et al.

2018; Kırağ, et al., 2016). Students were found to have lower rates of following scientific developments/research, developing materials, and analyzing data. The use of information communication technologies by nurses improves patient-centered care, reduces care costs, and increases the quality of care provided. In addition, nurses need to use information technologies to share their feelings, thoughts, and experiences and to increase their professional knowledge and skills (Stroehlein & Bayer, 2016). It is important to develop materials to improve students' creativity in terms of increasing their self-confidence and motivation to work. For this reason, nursing students should be encouraged to develop materials and provided with access to resources. In addition, the establishment of a culture of research and knowledge in nursing should start with undergraduate education. Nurses should be encouraged to conduct research related to their professional processes, their knowledge and skills should be increased, and they should be encouraged to conduct research starting from undergraduate education (Erkin et al., 2017; Leach et al., 2016; Karadaş & Özdemir, 2015; Halabi & Hamdan-Mansour, 2012). For this reason, it is important for nursing students to have sufficient knowledge and equipment about nursing research and to gain positive skills in the process of transition from student to professional level. Therefore, nursing students should be encouraged to do research.

Students' Information Literacy Self-Efficacy Perception Scale total scores distribution differs according to their computer, internet and smartphone use skills. ILSEPS scores were found to be lower in those who had basic-level use skills. Having an advanced level of computer/smartphone and internet use increases nursing students' information literacy self-efficacy. With the developing technology, the use of the internet has an important place for students to acquire new information and activities and to improve themselves.

Lifelong learning includes integrative learning activities carried out continuously to develop knowledge, skills, and competencies in individual and social life (Commission of the European Communities, 2000). Students' lifelong learning scale scores were found not to change according to their socio-demographic and information and communication technologies use practices. It seems that students are not enthusiastic about continuous learning for lifelong learning, they do not participate in lifelong learning activities sufficiently, and the level of inquisitiveness required for lifelong learning is not at the desired level. Lifelong education serves the purposes of ensuring individuals' personal development, realizing social integration, and ensuring economic growth by creating opportunities for lifelong learning (Mlambo, Silén, & McGrath, 2021). Carrying out studies to provide university students with lifelong learning skills and awareness seems to be a priority area for universities to serve these three objectives. For universities to fulfill these roles in lifelong learning, academics should have lifelong learning skills and be diligent about their students' learning by taking some responsibilities to ensure lifelong learning and prepare learning environments to realize learning.

V. CONCLUSION

The results of this study revealed that the participating students' computer/internet/smartphone use skills affected their information literacy self-efficacy perception levels, but did not lead to any changes in their lifelong learning tendency. These results indicate the importance of updating nursing curricula and developing learning-teaching support systems by determining nursing students' information literacy self-efficacy perceptions levels and their lifelong learning tendency levels.

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Therapeutic Communication on Patient Orientation and Patient Satisfaction at the Hospital

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Abstract:

Background: The nursing process is achieved through an interpersonal environment. Each interaction is based on the principle of promoting well-being and increasing satisfaction. According to Peplaus' theory, nursing is a therapeutic process that involves a therapeutic relationship between the nurse and the patient. Therapeutic communication is communication carried out by nurses to create a relationship of mutual trust and plan implementation of nursing care that is appropriate to the client's needs and to achieve patient satisfaction. New patient orientation is an agreement between the nurse and the patient or the patient's family in providing appropriate nursing care planning procedure. In this case, therapeutic communication plays an important role in improving the therapeutic relationship between nurse and patient and the patient's expected outcomes. Patient satisfaction is a very important indicator for improving the quality of hospital services.

Aim: The aim of this study was to analyse the relationship between therapeutic communication on new patient orientation and patient satisfaction.

Methods: The study used a quantitative, descriptive and comparative approach. The population was hospitalised for more than 24 hours. Ethical approval was obtained prior to the start of the study. Data were collected using a 20-item patient satisfaction questionnaire with a 4-point Likert scale and a 12-item therapeutic communication questionnaire with a yes-no Guttman scale. Data were analysed using frequency distribution of descriptive statistics and chi-square.

Results: Almost half of the respondents, a total of 23 respondents (28%), reported that there was no therapeutic communication in the new patient orientation., almost half of the respondents, a total of 26 respondents (31.7%), were dissatisfied. There is a significant relationship between therapeutic communication in new patient orientation and patient satisfaction p-value < 0.001.

Conclusion: Therapeutic communication is part of nursing assessment and care. Therapeutic communication influences patient choices. The finding is also important in strengthening the concept included in Hildegard E. Peplau's theory of interpersonal relationships.

Keywords: New patient orientation, patient satisfaction, therapeutic communication

I. INTRODUCTION

The quality of nursing services is an indicator to determine the quality of the services provided and as a determinant of the institution's image in the eyes of the community (Nursalam, 2016). Hospital services are an effort to meet the needs of the public, where their function is to provide integrated services in improving health, disease prevention, healing, and recovery. Service itself is the way of serving, helping, preparing, managing, and fulfilling the needs of an individual or a group of people (Calundu, 2018). The healthcare environment involves prevention, primary, secondary, tertiary, recovery, and sustainable service environments (Potter & Perry, 2010). In the services provided, patient dissatisfaction often arises in nursing care. Good healthcare services are the desire of every individual; patients, of course, want to be valued and served properly. Patients are bio-psycho-socio-economic-cultural beings, where their needs, desires, and hopes must be fulfilled.

Satisfaction occurs when the needs, desires, and hopes of the customer can be met; thus, the customer will be satisfied. Satisfaction is the perception of a product or service that has met their expectations. Therefore, customer satisfaction is the result of the accumulation of consumers or customers in using a product or service (Irawan, 2003, as cited in Nursallam, 2016). Patient satisfaction is crucial as it is one of the indicators of the quality of service we provide, and it is an asset to gain loyal patients. Loyal patients will reuse the same healthcare services when they need them again. It is even known that loyal patients will encourage others to use the same service facilities.

Patient satisfaction surveys should consider various aspects evaluated by patients. There are four aspects that should be measured, including healthcare service attributes (clinical competence, empathy, willingness to address complaints, responsiveness, safety, caring, communication, among others) (Nursalam, 2016).

Communication is fundamentally a lifelong learning process for nurses. Nurses consistently engage with clients and their families from birth to death. Nurses function as supporters of clients and as members of multidisciplinary teams that sometimes have different priorities for care. Despite advancing technology and numerous demands on nurses, communication remains a critical factor affecting service quality and holds significant value for both clients and nurses. With improved communication skills and confidence, nurses will professionally advance to become experts (Balzer Riley, 2004, as cited in Potter & Perry, 2010). Hence, the formation of therapeutic communication is essential.

Therapeutic communication is a social relationship process among individuals that leads to interaction and mutual influence. One of the actions nurses take to establish good cooperation is through communication. Nurses' communication aims to listen to patients' complaints and explain planned nursing procedures. Healthcare professionals' medical action skills are required to communicate effectively with patients.

Therapeutic communication can influence behavior, fostering patient trust, preventing legal issues, providing professional satisfaction in nursing care, and enhancing the image of the nursing profession and hospitals. Effective therapeutic communication can be assessed through the level of satisfaction achieved.

Patient satisfaction levels based on a scale are linked to efficiency, effectiveness, costs, and behaviors, consisting of completeness and certainty of information. Information is considered complete when patients are provided with details about: Orientation involving staff, rooms, and facilities, Patient rights and obligations, Validation, clarification, disease facilities, and treatment, Nursing care plans. Orientation is a crucial activity to ensure a trustworthy relationship between nurses and patients can be established.

New patient orientation is a contract between the nurse and the patient/family, involving an agreement in providing nursing care (Sitorus, 2006). The orientation program is conducted by providing information about the ward, the surrounding environment, applicable regulations, available facilities, their usage, healthcare professionals and staff, and patient activities explained to both the patient and family (Potter & Perry, 2010). New patient orientation is the patient's right to obtain information about the rules and regulations in the hospital, information about patient rights and obligations according to Law No. 44 of 2019 concerning Hospitals. New patient orientation is a critical activity to establish trust between nurses and patients. The purpose of this orientation is to ensure that patients or their families know and adhere to the rules in the ward or inpatient care and follow them correctly (Sitorus, 2010). Effective communication and working professionally will provide comfort and satisfaction for patients.

Various research results show data on patient satisfaction levels in different countries. According to Ndambuki in Kenya in 2013, patient satisfaction was 40.4%, while in Bhaktapur, India, Twayana reported a patient satisfaction rate of 34.4%. Data from a hospital in one of the ASEAN countries in 2016.

The patient satisfaction was found to be 79%, while the standard set for patient satisfaction is >80% with 4-5 complaints per month. According to the Regulation of the

Republic of Indonesia's Ministry of Health in 2016 on Minimum Service Standards for patient satisfaction, it should be above 95%. If a healthcare service has a patient satisfaction rate below 95%, the service is considered substandard or of low quality (Kemenkes, 2016). Patient satisfaction data from a regional hospital in Indonesia, obtained through a community satisfaction survey, were conducted to understand the comparison between expectations and needs with the services provided. In Indonesia, it was found that 70% of patients were dissatisfied with nursing services (Widiasari, 2019), and the patient satisfaction rate was 42.8% in Central Maluku and 44.4% in West Sumatra.

Cikalong Wetan Regional General Hospital has conducted an assessment of the Community Satisfaction Index (CSI), with a satisfaction value in 2021 after conversion at 75%, categorized as subpar, and in 2022 after conversion = 78%, categorized as good. Cikalong Wetan Regional General Hospital is a government-owned hospital in West Bandung Regency established in 2015, beginning operations on August 5, 2017, categorized as a Type C Hospital. The facilities in the hospital include inpatient rooms, ICU, NICU, PICU, basic/general medical services, dental services, maternal and child health services, 24/7 Emergency Services, internal medicine, pediatric care, surgery, obstetrics and gynecology, radiology, pathology, medical rehabilitation, ophthalmology, dermatology, mental health/psychiatry/geriatric psychiatry/substance abuse, orthopedics, ENT, neurology, oral diseases, CT scan, pharmacy services, sterilization/CSSD, medical records and health information, and maintenance of healthcare facilities and infrastructure.

The initial study conducted by researchers in May 2023 with 10 respondents in the Burangrang Class III inpatient room at Cikalong Wetan Regional General Hospital, West Bandung Regency, gathered data from 10 respondents. Out of the 10 respondents, 5 expressed dissatisfaction, 3 stated satisfaction, and 2 patients said they were very satisfied. As for the preliminary study on therapeutic communication during new patient orientation, 7 respondents reported that they had not received new patient orientation by nurses, while 3 respondents said they had already undergone this orientation. From these findings, the researcher aims to further examine the relationship between therapeutic communication during new patient orientation and the level of patient satisfaction in the inpatient ward

The aim of this study was to analyse the relationship between therapeutic communication on new patient orientation and patient satisfaction.

II. METHOD

This study is a quantitative, cross-sectional design. Data collection was conducted from June to July 2023. The population of this study is inpatients who stay more than 24 hours. Purposive sampling. The number of sample respondents obtained is 82 patients. The inclusion criteria of this research are: Adult patients aged 20-60 years, Conscious patients, Class III patients, First time patients, Inpatients staying more than 24 hours, and patients willing to participate as respondents. The independent variable in this study is therapeutic communication during new patient orientation, while the dependent variable is patient satisfaction in the inpatient ward.The type of instrument used is the PSQ (Patient Satisfaction Questionnaire) III, which is used to measure the level of patient satisfaction. This questionnaire was adapted and translated into Indonesian by Vella Imaninda & Saifuddin Azwar. It consists of five dimensions of patient satisfaction: RATER (Reliability, Assurance, Tangibles, Empathy, and Responsiveness), with 20 questionnaire items.

The Ethical Part of the Research

Ethical approval was obtained from the Research Ethics Committee of the Ministry of Health (KEPPKN Kemenkes). Patients were informed of the purpose of the study and that completion of the questionnaire would be considered consent to participate in the research.

Analysis of Data

Univariate analysis provides the distribution and percentage of each variable, such as therapeutic communication in new patient orientation and patient

satisfaction. Bivariate analysis is examined using the chi-squared test

III. RESULTS

Table 1.1 Frequency Distribution of Therapeutic Communication in New Patient Orientation

Therapeutic Communication in New Patient Orientation	n	%
No	22	26.8
Yes	60	73.2
Total	82	100

The distribution of therapeutic communication in the new patient orientation shows that almost half of the respondents, a total of 23 respondents (28%), reported that there was no therapeutic communication in the new patient orientation.

Table 1.2 Frequency distribution of patient satisfaction scores

Patient Satisfaction	n	%
No	22	26.8
Yes	60	73.2
Total	82	100

The distribution of patient satisfaction levels showed that almost half of the respondents, a total of 26 respondents (31.7%), were dissatisfied".

Table 1.3. The Relationship between Therapeutic Communication during New Patient Orientation and Patient Satisfaction Level

Therapeutic Communication in New Patient Orientation	Patient satisfaction				Total		p
	dissatisfied		Satisafied				
	n	%	n	%	n	%	
No	19	23.2	3	3.7	22	26.8	<0.001
Yes	7	8.5	53	64.6	60	73.2	
Total	26	31.7	56	68.3	82	100.0	

Based on the table above, it can be seen that there is a significant relationship between therapeutic communication during new patient orientation and the level of patient satisfaction in the inpatient ward of Cikalongwetan Regional Public Hospital with p-value < 0.001.

IV. DISCUSSION

Characteristics of respondents: Therapeutic Communication in New Patient Orientation Table 4.1 shows that almost half of the respondents answered 'not' regarding therapeutic communication in new patient orientation, a total of 23 respondents (28%).

The concept of therapeutic communication is an interpersonal relationship between patients and nurses that aims to promote the collaborative healing of patients, characterised by the exchange of behaviours, feelings, thoughts and experiences (Kozier & Erb's, 2012).

Communication is one of the factors influencing patient satisfaction, which includes the method of information provided by health services and the rapid reception of patient complaints by service providers to provide prompt assistance to patients (Nursalam, 2016). One of the first procedures in the admission of patients to nursing rooms is new patient orientation (Potter & Perry, 2010 in Handayani IT (2018)). New patient orientation is a contract between the nurse and the patient or family where there is an agreement in the provision of nursing care (Sitorus, 2010). The orientation programme includes providing information about the ward, the surrounding environment, applicable regulations, available facilities, usage guidelines, health professionals and staff, and patient activities that are explained to the patient and family (Potter & Perry, 2010). At this stage, nurses introduce themselves and other healthcare staff, with the intention that mutual introductions will promote patient trust in the nurses and reduce patient anxiety.

The findings of this study are supported by Chan's 2012 research, which showed that a new patient orientation programme for cancer patients can increase family members' knowledge and understanding of the patient's condition, reduce stress, decrease depressive symptoms and improve coping. In addition, the new patient orientation programme is beneficial in improving patient satisfaction (Hastuti, 2008 in Handayani, 2018). This study is consistent with the research conducted by IT Handayani, who found that 57 individuals (69.5%) responded 'yes' while 25 individuals (30.5%) responded 'no' to new patient orientation.

According to the researcher, there are still nurses who haven't fully implemented the new patient orientation. This is because one of the roles of a nurse is to be a

communicator: to effectively provide information, manage and listen to patient complaints. Potter & Perry (2010) show that one of the roles of a nurse is as a communicator, allowing nurses to interact deeply with patients, understanding their weaknesses, strengths, needs and the fears they experience while in hospital.

Patient Satisfaction Table 1.2 shows that almost half of the respondents were dissatisfied, with 26 respondents (31.7%) being dissatisfied. The majority of respondents in this study were first-time inpatients. According to Nursalam's theory (2016), satisfaction is the perception of a product or service that meets expectations. Patient satisfaction is the accumulation of consumer or client experiences when using a product or service. It is the level of contentment that results from comparing the perceived performance with one's expectations (Wijono, 1994 in Sari WK et al., 2017).

Patient satisfaction represents the level of satisfaction of patients and their families with healthcare services, and is a key performance indicator in a hospital. It is a central financial aspect of an institution where the service provided focuses on improving the quality of service and meeting desired expectations (Feldman et al., 2008). According to Nursalam (2016), factors that can influence patient satisfaction include product or service quality, price, emotions, performance, aesthetics, product features, service, location, facilities, communication, ambience and visual design.

Based on the research findings, the majority of respondents, 53 respondents (64.6%), expressed satisfaction. This is consistent with a study conducted by Purnama Sari Nita et al. (2021), which showed that the patient satisfaction rate in the inpatient wards of class II and III at the Regional General Hospital in Wonosari, Yogyakarta, was in the satisfied category at 74.07%. In contrast, a study conducted by Simanjuntak YT (2019) found a lower satisfaction level of 45.7%. Satisfaction is associated with good communication practised by nurses. According to Pohan (2007), categories that can influence the level of patient satisfaction, especially among inpatients, include nursing actions such as allowing time for patients to ask about their complaints, providing polite, friendly and responsive service, and ensuring timely and procedurally correct medication administration.

This is consistent with the study conducted by Sembiring IM and Munthe NBG in 2019, which showed that the assessment of inpatient satisfaction is consistent with the care received by patients. In addition, various journals have reported patients' complaints about health care services in three hospitals in Central Java, where out of 300 respondents, 68.6% expressed dissatisfaction and complaints about hospital care and delays in receiving care, while 31.4% expressed satisfaction with health care services.

Thus, the researcher obtained results similar to Dharmanto's findings, with 22 patients (61.1%) expressing dissatisfaction, 2 patients (5.6%) very satisfied, 6 patients (16.7%) satisfied, and 6 patients (16.7%) very dissatisfied. Patients expressed concerns about the provision of care and delays in receiving care.

In this study, the questionnaire results indicated that most of the respondents were satisfied with the nursing services based on the satisfaction parameters related to the dimensions of quality: Reliability, Assurance, Tangibility, Empathy and Responsiveness. Through observations made during the research, it was evident that patients and their families felt satisfied, but almost half of the respondents expressed dissatisfaction with the care they received in the inpatient ward. This was observed through their expressions when asked about their reactions to the services provided. According to theory, communication and service can influence satisfaction, for example, speed of response and friendliness in the provision of care.

According to the researcher's assumption, respondents' satisfaction is influenced by the care provided directly by the attending nurses. Their satisfaction stems from receiving the best service they expected from the nurses. Satisfaction stems from the reliability and accountability of the nurses, such as dealing with problems appropriately and professionally, providing information about compliance with care, staff offering help when patients have difficulties, and nurses dealing quickly with patients' problems on arrival at the ward.

The importance of therapeutic communication in new patient orientation has benefits in improving the image of the nurse, the quality of nursing care and the health service, one of which is patient satisfaction. Satisfaction is a level of contentment experienced by the patient as a result of the healthcare process that is aligned with the patient's expectations. Patients will feel more valued and secure in sharing their feelings and experiences (Switoa F et al, 2022).

The importance of therapeutic communication, especially in new patient orientation, has several benefits: building a trusting relationship between nurses and patients, ensuring that patients and their families understand hospital regulations, all available facilities, and how to use them (Switoa F et al, 2022). According to Nursalam (2016), the factors influencing satisfaction include service product quality, price, performance, aesthetics, emotions, communication, location, facilities, ambiance, and visual design. Nurses, as healthcare providers who regularly interact with patients, need various skills, one of which is the ability to communicate with patients, as communication is the process of implementing nursing care.

This study is supported by a study conducted by Handayani IT et al, 2018, which suggests that the majority of patients perceive therapeutic communication, especially in the orientation of new patients, as good, resulting in high patient satisfaction with the hospital. Therapeutic communication, especially in new patient orientation by nurses, can improve the quality of service and have a positive impact on the hospital. Therefore, the results of the study, with a p-value of 0.024 ($p<0.05$), indicate a relationship between new patient orientation and patient satisfaction. Previous research showed that 57 people (69.5%) responded 'yes' to new patient orientation. This occurred in patients who were treated at the inpatient ward of the Anton Soedjarwo Bhayangkara Hospital in Pontianak. After observing the relationship between therapeutic communication during new patient orientation and patient satisfaction in the inpatient ward of the Anton Soedjarwo Bhayangkara Hospital in Pontianak, the researchers concluded that the better the therapeutic communication during new patient orientation, the higher the level of patient satisfaction. The review of several journals also indicates a significant relationship between therapeutic communication in new patient orientation and patient satisfaction in reusing services.

The researcher's analysis of this study shows that therapeutic communication has an impact on patient satisfaction. When nurses use therapeutic communication effectively, patients feel satisfied. However, in this study, although nurses used therapeutic communication effectively, some patients still felt dissatisfied. This dissatisfaction was found in the area of therapeutic communication, especially in new patient orientation. However, this dissatisfaction was not only due to nurses' communication, but also to hospital service factors, such as "less prompt or responsive".

The unsatisfactory security of the hospital, the lack of special attention to the care of patients and the completeness of the hospital facilities determine the assessment of the level of patient satisfaction. For example, healthcare facilities such as infrastructure, waiting areas and inpatient rooms. Therefore, in order to improve patient satisfaction, it is necessary to improve the implementation of therapeutic communication, especially in the orientation of new patients by nurses in the inpatient ward. In order to achieve patient satisfaction, nurses need to improve therapeutic communication, especially during new patient orientation, to foster a good relationship between nurses and patients, withthe aim of speeding up patient recovery.

V. CONCLUSION

It was found that it was not carried out by 23 respondents (28%) and it was carried out by 59 respondents (72%). Overview of patient satisfaction in the inpatient ward. The results showed very dissatisfied and dissatisfied categories with 26 respondents (31.7%) and satisfied and very satisfied categories with 68 respondents (68.3%). There is a significant relationship between therapeutic communication during new patient orientation and patient satisfaction in the inpatient ward p-value < 0.001.

Based on the research findings presented above, the researcher makes the following recommendations: It is recommended to develop a basic guideline on therapeutic communication, especially during new patient orientation.

Provide training for nurses to develop their character or personality and specifically on therapeutic communication during new patient orientation. In this way, the hospital can act as a facilitator for service improvement, particularly in communication with patients. In addition, the hospital should conduct regular patient satisfaction surveys to evaluate its services.the nursing management of the inpatient ward should pay attention to and maintain the activities or services provided by the nurses, especially during the orientation of new patients in the inpatient ward, in order to improve patient satisfaction and enhance the quality of services in the hospital. future researchers can investigate other factors associated with patient satisfaction in the inpatient ward of the hospital.

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Knowledge, Attitude, and Performance of Shared Decision Making among Advanced Practice Nurses in Taiwan

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Abstract:

Introduction: Shared decision-making (SDM) is a patient-centered care model in which health-care professionals employ evidence-based medicine to analyze the potential benefits and risks of treatment options for patients, assisting them in deciding between these options. Clinical advanced practice nurses (APNs) possess specialized knowledge and participate in SDM. The process of implementing SDM requires adequate knowledge, a positive attitude, motivation, and. Participation. Having SDM knowledge enables healthcare providers to provide patients with accurate decision-making information and assist them in making informed decisions.

Understanding the relationships between their SDM knowledge, attitude, and behavior can improve their ability to facilitate SDM among patients.

Purpose: This study aimed to investigate the relationships between the SDM knowledge, attitude, and *performance* of APNs in Taiwan.

We employed a cross-sectional correlational research design and collected data through an online survey. Individuals were eligible for inclusion if they were APNs (including nurse practitioners, case managers, and health educators), aged ≥18 years, and had experience with SDM. The recruitment of participants was conducted between November 1, 2022, and March 31, 2023. A questionnaire was administered to collect data on demographics, SDM-related experiences, SDM knowledge scores, Nursing SDM Attitude Scale scores, and SDM performance scores (obtained using the OPTION 5 scale, which measures the level of effort exerted by APNs during SDM, and the Shared decision-making Questionnaire-physician version (SDM-Q-Doc) questionnaire, which assesses the quality of the SDM facilitated by APNs).

Simple linear regression was performed to discern the relationships between demographic information, SDM knowledge, SDM attitude, and SDM Performance. Subsequently, significant results were further analyzed using multiple linear regression analysis to identify the factors that can predict SDM Performance.

Results: In total, 112 participants were recruited. The results revealed that the participants' SDM behavior was not significantly correlated with their SDM knowledge ($p = 1.000$); their full engagement in the SDM process ($\beta = 0.196$, $p = 0.022$) increased the level of effort they exerted in SDM; and their proactive attitude toward SDM increased the level of effort they exerted in SDM ($\beta = 0.375$, $p = 0.000$) and the quality of SDM implementation ($\beta = 0.563$, $p = 0.000$).

Conclusion: The SDM knowledge of the surveyed APNs did not influence their SDM behavior. However, having a proactive attitude towards SDM increased the level of effort that the APNs exerted in SDM and improved the quality of SDM implementation. These results can serve as a basis for further SDM education and promotion among APNs.

Keywords: Advanced practice nurses, SDM attitude, SDM knowledge, SDM performance, shared decision-making

I. INTRODUCTION

Shared decision-making (SDM) is a patient-centered care model in which health-care professionals employ evidence-based medicine to analyze the potential benefits and risks of treatment options for patients, assisting them in deciding between these options (Mathijssen, van den Bemt, Wielsma, van den Hoogen, & Vriezekolk, 2020).

Clinical advanced practice nurses (APNs) possess specialized knowledge and participate in SDM (ICN 2008a). The care model of advanced practice nurses is comprehensive, involving spending time listening to and talking with patients, understanding their physical condition, and frequently incorporating Shared Decision-Making (SDM) into care, considering what patients consider as 'most important influencing factors' and taking into account other potential factors affecting their medical condition.

The process of implementing SDM requires adequate knowledge, a positive attitude, motivation, and participation. Having SDM knowledge enables healthcare providers to provide patients with accurate decision-making information and assist them in making informed decisions.

This study aimed to investigate the relationships between the SDM knowledge, attitude, and performance of APNs in Taiwan.

II. METHOD

We employed a cross-sectional correlational research design and collected data through an online survey. Individuals were eligible for inclusion if they were APNs (including nurse practitioners, case managers, and health educators), aged ≥18 years, and had experience with SDM. The recruitment of participants was conducted between November 1, 2022, and March 31, 2023. A questionnaire was administered to collect data on demographics, SDM-related experiences, SDM knowledge scores, Nursing SDM Attitude Scale scores, and SDM performance scores (obtained using the OPTION 5 scale, which measures the level of effort exerted by APNs during SDM, and the Shared decision-making Questionnaire-physician version (SDM-Q-Doc) questionnaire, which assesses the quality of the SDM facilitated by APNs).

The Ethical Part of the Research

This study commenced after obtaining approval from the Institutional Review Board (IRB: TMANH111-REC016) of a regional hospital in Tainan, Taiwan. The research purpose was explained on the first page of the questionnaire, and consent was sought from the participants before they began filling out the questionnaire. If a participant declined to become part of the study, they were immediately directed to the end of the survey. All information provided by participants in this research is kept anonymous and confidential. Participants are not compelled to complete the study and can choose to withdraw at any point. Data collected through the online survey does not include participants' names, phone numbers, or email addresses to ensure anonymity and confidentiality.

Analysis of Data

Simple linear regression was performed to discern the relationships between demographic information, SDM knowledge, SDM attitude, and SDM Performance. Subsequently, significant results were further analyzed using multiple linear regression analysis to identify the factors that can predict SDM Performance.

III. RESULTS

In total, 112 participants were recruited. Demographic analysis (Table1). Using simple line regression analysis the factors influencing the level of effort and the quality of execution in shared decision-making (Table2).The results revealed that the participants' SDM performance was not significantly correlated with their SDM knowledge ($p = 1.000$); their full engagement in the SDM process ($\beta = 0.196$, $p = 0.022$) increased the level of effort they exerted in SDM; and their proactive attitude toward SDM increased the level of effort they exerted in SDM ($\beta = 0.375$, $p = 0.000$) and the quality of SDM implementation ($\beta = 0.563$, $p = 0.000$).

Table 1. Demographic Analysis

Characteristics	N=112
Gender	
Male	8 (7.1%)
Female	103 (92.0%)
Age (years old) (Mean ± SD)	40.4±7.1
Nursing experience (years) (Mean ± SD)	17.5±8.1
Years of experience in current job title (Mean ± SD)	8.1±6.1
SDM experience	
2 years and below	37 (33.0%)
2-5years	39 (34.8%)
5 years and above	36 (32.1%)
Previous SDM training	
No	16 (14.3%)
Yes	96 (85.7%)
Execute the SDM process	
Partial process	59 (52.7%)
full process	53 (47.3%)

DISCUSSION

As 85.7%of participants in the current study reported previous formal SDM training, that prior exposure to SDM training may have enhanced SDM attitude and the level of effort in engaging in SDM despite low to moderate knowledge retention (Forcino et al., 2018) .Despite limited knowledge, attitude in performing SDM was high, which demonstrated a positive attitude towards SDM.

IV. CONCLUSION

Proactive attitude towards SDM increased the level of effort that the APNs exerted in SDM and improved the quality of SDM implementation.

These results can serve as a basis for further SDM education and promotion among APNs.

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Table 2. The factors influencing the level of effort and the quality of execution in shared decision-making

	The level of effort				The quality of SDM			
	β	SE	t	P-valu	β	SE	t	P-valu
Gender								
Male *refer	0.000				0.000			
Female	-0.740	1.372	-0.780	0.437	0.040	2.087	0.423	0.673
Age	0.226	0.050	2.437	0.016*	0.116	0.075	1.223	0.224
Nursing experience	0.205	0.043	2.199	0.030*	0.131	0.066	1.388	0.168
Years of experience in current job title	0.072	0.059	0.753	0.453	-0.048	0.088	-0.051	0.617
SDM experience								
2 years and below *refer	0.000				0.000			
2-5years	-0.090	0.150	-0.952	0.343	0.505	0.125	0.346	0.702
5 years and above	-0.041	0.155	0.671	0.305	0.022	0.129	-0.004	0.880
Previous SDM training								
No *refer	0.000				0.000			
Yes	0.203	0.201	2.175	0.032*	0.081	1.525	0.854	0.395
Execute the SDM process								
Partial process *refer	0.000				0.000			
full process	0.330	0.680	3.666	0.000*	0.217	1.407	2.327	0.022*
SDM knowledge	0.000	0.345	0.000	1.000	0.039	0.514	0.408	0.684
SDM attitude	0.485	0.056	5.813	0.000*	0.579	0.078	7.454	0.000*

#simple line regression analysis

Lessons Learned from the Implementation of Health and Safety Protocols in the University Setting During the COVID-19 Pandemic

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Abstract:

Background: COVID-19 has brought disruptions in university operations that required the institution of health and safety protocols.

Aim: The purpose of this study is to examine the experience of a college of nursing in developing and implementing these protocols.

Methods: A multi-method design was employed using an online survey of 114 respondents and 6 key informant interviews from faculty, staff, and students.

Results: Results of the study suggest that the personnel and students rated their satisfaction on the college health and safety protocols towards higher scores in the areas of symptom monitoring, testing, contact tracing, isolation, referral, ventilation, disinfection, handwashing, limiting in-person activities, vaccination and health insurance requirement. Challenges reported were on their compliance to symptom monitoring and funds needed to the courses of action should they require testing elsewhere or test positive. Participants suggested more reminders on the compliance to health and safety protocols.

Conclusion: The COVID-19 pandemic has provided important lessons learned to better respond to a future pandemic. Key areas of action have been identified which requires adequate planning of the university and all major stakeholders.

Keywords: COVID-19, health and safety, nursing education, pandemic, university

I. INTRODUCTION

As higher education institutions in the Philippines transitioned back to face-to-face classes, health and safety protocols were needed to minimize the risk of acquiring COVID- 19 in the university and clinical settings. It was recognized that the reopening of schools during the pandemic caused anxiety among faculty, staff and students due to the possibility of being exposed and infected (Asaoka, Susaki, Imamuram Kuroda, Tsuno, & Kawakami, 2021). From their experience in sustaining university operations during the pandemic, Ryan and colleagues (2021) suggested a framework which includes governance, communication, support services, facilities management on top of these health protocols.

The UP College of Nursing (UPCN) developed its protocols anchored in the UP Manila COVID-19 Response and in compliance with the policies promulgated by the Inter-Agency Task Force against COVID-19, the Commission on Higher Education, the Department of Labor and Employment, and the City of Manila. The protocols included policies on symptom monitoring, testing, isolation and referral, and environmental (i.e. ventilation, disinfection) and administrative (i.e. work from home, shift to online learning) interventions. These protocols need continuous evaluation considering the

constantly changing circumstances of the pandemic to ensure the safety of the college constituents. Hence, this study aims to: 1) describe the development and implementation of the current health and safety protocols of UPCN during the COVID-19 pandemic; 2) examine the satisfaction of faculty, staff and students with the protocols; 3) identify current challenges being faced by the constituents with the current protocols during face-to-face learning; and 4) identify proposed solutions to mitigate the challenges being faced during face-to face learning amid the pandemic.

II. METHOD

Research Design

The study is part of a routine quality improvement activity on the health and safety protocols of the college. This multi-method study followed elements of process evaluation involving a cross-sectional online survey and key informant interviews. Faculty, students, and staff were surveyed on their satisfaction with the existing protocols.

Sampling and Recruitment

For the online survey, all currently-enrolled students, faculty (tenured, non-tenured, lecturer status), and administrative staff are eligible to participate in the study. There was no exclusion criteria set. A total of 114 respondents composed of students, faculty and staff were surveyed. For the interviews, faculty, staff and students were purposefully selected to elicit information on the challenges they experienced in complying with the protocols as well as their suggestions for improvement. Similar to the online survey, all currently-enrolled students, faculty (tenured, nontenured, lecturer status), administrative staff were interviewed. Student leaders were also interviewed for the study. For the faculty and staff, this may include those that are not members of the Health and Safety Committee. A total of 6 participants were interviewed.

Research Instruments

The study utilized an online questionnaire developed by the researchers that examined their satisfaction with the existing protocols. The health safety protocols included symptom monitoring, testing, isolation, referral, and environmental and administrative interventions. They were asked to rate their level of satisfaction in each area of the health and safety protocols of the UP College of Nursing, with 1 as the lowest and 4 as the highest. Options for not applicable were also provided if the respondent feels that the protocol is not relevant to the present circumstances or not aware if one does not know of its existence. An interview guide was used to explore further their level of satisfaction by asking challenges experienced in complying with the safety protocols as well as their proposed solutions.

Data Collection

To describe the development and implementation of the current health and safety protocols of UPCN during the COVID-19 pandemic, a records review was conducted on the existing protocols (i.e. rationale, provisions).

To examine the satisfaction of faculty, staff and students with the protocols, an online survey was conducted. A letter was submitted to the Dean of the UP College of Nursing at the inception of the study. After the approval of the Dean, a link to the online survey form was provided to be disseminated by the batch advisers of the students. For the administrative staff, dissemination was through the administrative officer, and for the faculty, through the Health and Safety Committee Chair who is also the principal investigator of the study. The process of recruitment of respondents is based on the usual procedures for quality improvement activities (i.e. client satisfaction surveys) and information dissemination of the college. Data were collected for at least 2 weeks from the point of ethics approval.

Once the client satisfaction data has been summarized, interviews were conducted with the students, faculty, and administrative staff to identify challenges and ways to mitigate these. These interviews were conducted either face to face or through Zoom, depending on the preference of the interviewee (faculty, staff, or student).

Data Analysis

For the online survey, descriptive statistics were used to summarize the profile of the respondents and their satisfaction with the protocols. Interviews were transcribed and content analysis was done. Results of the records review were reported as contained in the respective record.

As the study follows elements of a quality improvement project, an exemption of ethics review was applied and approved by the UP Manila Research Ethics Board.

III. RESULTS

Development and Implementation of Protocols

Towards the 3rd quarter of 2020, national government agencies developed guidelines for gradual reopening and resumption of face-to-face operations during the COVID-19 pandemic. The goal is to prevent and mitigate the effects of COVID-19 and provide a safe environment while sustaining the continuity of delivery of instruction and learning. At the University of the Philippines Manila, the College of Nursing constituted its Health and Safety Committee, with its pre-pandemic Health and Safety Representative to the university as the Chair. Members included sector representatives who served as focal persons for their subgroups and will coordinate and liaise with the UP Manila COVID team for assessment, monitoring, contact tracing and management of all COVID associated cases. The skills laboratory coordinator was also invited to be a member of the committee. These key persons were selected for inputs involving human, process, support, and structural preparations needed to ensure the safe conduct of classes. The assistant to the Dean served as the adviser of the committee.

The committee reviewed existing guidelines and protocols of the university, concerned government agencies, and international health organizations. A review of health and safety guidelines of other higher educational institutions, here and abroad, and other UP Manila units was done. The guidelines and protocols had to be in line with that of the government health and administrative authorities, university, and recommendations of health experts. Recommendations from the Hospital Infection Control Unit of the Philippine General Hospital were also periodically reviewed. It was adapted to address the unique needs of the college considering the pedagogy of delivering a health care academic program which involves skills laboratory and clinical instruction, and in consideration of the existing infrastructure, resources, settings for student clinical placement (i.e. Philippine General Hospital, Manila Health Department, and academic support processes.

Several university offices were involved in the implementation of health and safety protocols. The UP Health Service was the main coordinating office in the testing, monitoring, and management of cases involving students and personnel. UPM Campus Planning, Development, and Maintenance Office (CPDMO) dealt with the re-engineering of classrooms to improve ventilation.

Symptom Monitoring

An online platform, called UPM BESTS was developed to monitor symptoms of the personnel and students. After filling up the online form, the system automatically sends advice to the patient on the next steps depending on the presenting symptoms. Students were also encouraged to report symptoms to their respective faculty in-charge for appropriate action. Health declaration form (online or hard copy) at the UPCN lobby had to be presented or submitted to the lobby guard prior to entering the college.

Testing

Personnel and students who showed symptoms, regardless of known exposure to a COVID-19 case, are advised to undergo testing. Testing coordination is through unit focal persons/safety officer and UP Manila COVID-19 Coordinator. Testing is facilitated through a referral by the UPHS. RT-PCR testing at the UP-PGH is free of charge. Testing in other accredited laboratories was allowed.

Contract Tracing

Any UPCN faculty, staff or student who has symptoms consistent with COVID-19 or is identified as a close contact of a patient who turned out to be positive for COVID-19 should submit themselves for contact tracing to UPHS or Local Government Unit Health Office.

Isolation

Home isolation is the first option when someone from UPCN develops symptoms associated with COVID-19. If there is no capacity for home isolation, referral to a designated isolation facility was done. Should symptoms occur while in the college, a temporary isolation room was made available in the Nursing Clinics until transfer to home or designated isolation facility.

Referral

When hospital admission is warranted, coordination and referral to the UP-PGH command or UP Health Service center was made. LGU coordination for contact tracing and referral to an isolation or health facility near the afflicted individual's residence was also an option.

Wearing of Masks

All persons entering the college were required to wear a properly-fitted face mask. Faculty and students undergoing clinicals were required to wear a KN95 mask, at the minimum.

Maintenance, Cleaning, Sanitation, and Disinfection Protocol

Regular cleaning and disinfection of laboratory and lecture rooms, including its fixtures and equipment, at least daily. Frequently touched surfaces were cleaned and disinfected at least thrice daily. Handwashing and sanitation facilities were provided in all rooms and major hallways. Students and faculty were asked to perform handwashing before and after use of laboratory equipment.

Social Distancing

Personnel and students were required to maintain 2 meters, then modified to 1.5 meters physical distancing inside rooms and hallways. Information on the maximum occupancy per room was also provided. Unidirectional foot traffic was implemented for ingress and egress of everyone in the college, including use of rooms or facilities, to prevent crowding.

Vaccination

UP-PGH extended vaccination services to UP Manila faculty and senior employees.

Over time, the vaccines were more accessible and available coming from different agencies such as the local government units and the Philippine Red Cross. UPCN personnel and students were able to receive immunizations through their LGUs or other agencies in accordance with priority group schedules set by the national government. The vaccination status of personnel and students was regularly monitored by the college. Faculty and students going on clinicals were required to be current with their COVID-19 vaccinations.

Health Insurance Requirement

All students were required to have health insurance coverage prior to their clinical duty.

Table 1: Satisfaction with Protocols

Area	Rating					Other Responses
	1	2	3	4	Ave	Not aware
Symptom Monitoring (Use of UPM BESTS)	4 (3.51%)	14 (12.28%)	28 (24.56%)	64 (56.14%)	3.38	4 (3.51%)
Symptom Reporting through Focal Persons, Faculty-in-charge, or Immediate Supervisor	4 (3.51%)	7 (6.14%)	21 (18.42%)	78 (68.42%)	3.57	4 (3.51%)
Symptom Monitoring by UPHS Telemonitoring	4 (3.51%)	14 (12.28%)	36 (31.58%)	48 (42.11%)	3.24	12 (10.53%)
Testing	5 (4.39%)	9 (7.89%)	25 (21.93%)	61 (53.51%)	3.41	14 (12.29%)
Contact Tracing	6 (5.26%)	12 (10.53%)	37 (32.46%)	53 (46.49%)	3.28	6 (5.26%)
Isolation	9 (7.89%)	10 (8.77%)	39 (34.21%)	47 (41.23%)	3.19	9 (7.89%)
Referral	5 (4.39%)	7 (6.14%)	34 (29.82%)	59 (51.75%)	3.41	9 (7.89%)
Ventilation	5 (4.39%)	11 (9.65%)	29 (25.44%)	65 (57.02%)	3.41	4 (3.51%)
Disinfection	4 (3.51%)	6 (5.26%)	24 (21.05%)	75 (65.79%)	3.56	5 (4.39%)
Wearing of Masks	4 (3.51%)	2 (1.75%)	14 (12.28%)	92 (80.70%)	3.73	2 (1.75%)
Limiting of In-person Activities i.e., Work from Home/Online Classes	4 (3.51%)	7 (6.14%)	23 (20.18%)	78 (68.42%)	3.57	2 (1.75%)
Social Distancing	6 (5.26%)	12 (10.53%)	37 (32.46%)	56 (49.12%)	3.29	3 (2.63%)
Handwashing/Hygiene Facilities and Supplies	4 (3.51%)	3 (2.63%)	28 (24.56%)	76 (66.67%)	3.59	3 (2.63%)
Vaccination Requirement	4 (3.51%)	1 (0.88%)	14 (12.28%)	93 (81.58%)	3.75	2 (1.75%)
Health Insurance Requirement	7 (6.14%)	5 (4.39%)	19 (16.67%)	74 (64.91%)	3.53	9 (7.89%)

With 4 as the highest rating, the respondents scored the different aspects of the health and safety protocol ranging from 3.19 to 3.75. They were most satisfied with the vaccination requirement, followed by the wearing of masks and the handwashing / hygiene facilities and supplies. They were least satisfied with isolation and symptom monitoring.

Challenges in Complying with Health and Safety Protocols

In terms of symptom monitoring, participants report that they forget to answer the online form. Others said that compliance to reporting in the UPM BESTS needs to be closely monitored. Non-regular employees also do not have access to the online platform. Students were also hesitant to report their symptoms because they do not want to miss their clinical duty. Participants also reported concerns on data privacy and security of the printed contact tracing forms. The recent electronic case investigation form was not intuitive and required information that is difficult to understand. In terms of testing, financial concerns were common since free testing is only available for regular employees and students and only at the Philippine General Hospital. If they are far from PGH, they have to do it out of pocket elsewhere. There were also reported delays in the release of test results. There were no funds for non-regular

employees in case they needed to be isolated. Referrals were challenging during weekend because that is beyond office hours of the UP Health Service. Participants reported that others are not mindful of physical distancing, correct wearing of masks, and following foot traffic.

Proposed Solutions and Recommendations

Participants suggested that more reminders be done regarding symptom monitoring and reporting. These can be done through periodic health and safety protocol orientation and more signages. Others suggest that alternatives be given to students who missed classes due to COVID19 infection. In terms of the complicated electronic case investigation form, participants suggest to simplify it especially for those answering it that are not health workers. They also suggested more reminders on physical distancing, correct wearing of masks, and following foot traffic.

IV. DISCUSSION

Results of the study suggest that the personnel and students rated their satisfaction on the college health and safety protocols towards higher scores in the areas of symptom monitoring, testing, contact tracing, isolation, referral, ventilation, disinfection, handwashing, limiting in-person activities, vaccination and health insurance requirement. Challenges reported were on their compliance to symptom monitoring and funds needed to the courses of action should they require testing elsewhere or test positive. Participants suggested more reminders on the compliance to health and safety protocols.

The methods implemented in the development and implementation of health and safety protocols are similar to those reported in literature (Pollock et al., 2021;Ryan et al., 2021). It is critical to learn from the experiences of several institutions to share practices given different resources and circumstances. The lessons learned from the current pandemic are also essential in preparation for the next. In the early part of the pandemic in 2020, institutions of higher education had limited guidance on how best to respond given the limited experience in dealing with a pandemic of this magnitude.

Our study supports the need to constantly evaluate health and safety protocols to find better ways of responding during pandemics in the university setting. As of December 2022, the COVID19-related conditions have improved with more available and accessible vaccines, easing of social distancing, stay at home protocols, and mandatory wearing of masks. However, we have learned from the experience on which key areas to work on when faced with a similar situation in the future. Currently, the most common concern is the reporting of symptoms so that testing can be done and the timely release of test results so they can be advised appropriately to prevent the spread of the disease. This is also related to the improvement of vaccination rates that have consequently reduced severe cases. From our recent experience, the huge majority of the cases have been with mild symptoms who have been required to stay at home. Though an online platform is helpful in symptom monitoring, ensuring that everyone is compliant to it remains critical. This requires the development of an online platform that is simple and user-friendly, both in terms of interface and text used. A periodic report on the compliance to symptom monitoring will enable administrators to reinforce behaviors towards compliance.

The issue of funds for testing and financial support during isolation or disease management remains to be a challenging area for solutions. This would require more planning by the university, the local government units, and other major stakeholders on how to best support them given the limited financial resources.

V. CONCLUSION

The COVID19 pandemic has provided important lessons learned to better respond to a future pandemic. Key areas of action have been identified which requires adequate planning of the university and all major stakeholders. The fluidity of the situation and increasing level of knowledge about the disease require constant adjustment in strategies and approaches. Continuous review of systems and evaluation parameters to improve sensitivity to outcomes desired is necessary.

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The Effect of Training on Total Parenteral Nutrition Given to Newborn Intensive Care Nurses

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Abstract:

The fact that total parenteral nutrition (TPN) is a widely used treatment method in neonatal intensive care units (NICU) increases the responsibility of newborn intensive care nurses. It is important for nurses to apply their knowledge of total parenteral nutrition in the clinic, as it is a life-saving nutrition method.

The quasi-experimental study was conducted in Adana-Turkey, between February 1 and May 3, 2021 to examine the effect of training given to Newborn Intensive Care Nurses on total parenteral nutrition. The socio-demographic data of the nurses and an information form about TPN were used in the study, which was applied with the voluntary participation of 40 nurses working in the neonatal intensive care 1 and neonatal intensive care 2 units of Çukurova University Medical Faculty Balcalı Hospital. The research was applied as face-to-face pre-test and post-test by explaining the purpose, indications, complications, and what to do before, during and after the application of TPN. The prepared training was given interactively with a 30-minute power point presentation on TPN indications, complications, application steps, and nurses' responsibilities.

A statistically significant difference was found in favor of the post-test in terms of nurses' pre-test/post-test knowledge scores ($p<0.05$). As a result of the research, H1 hypothesis as "total parenteral nutrition education given to nurses has an effect on knowledge score" was accepted. The positive effect of the training given to nurses draws attention to the importance of in-service training.

Keywords: Child health and diseases nursing, newborn, total parenteral nutrition

I. INTRODUCTION

Nutrition; It is the intake and use of bioactive components in the body in various ways for growth, development, maintenance of life, improvement and protection of health, that is, improvement of living standards (Şanlıer, 2006). The organism can maintain its functions and vital functions thanks to energy. In the human body, tissue construction and destruction occur simultaneously and this process proceeds in a balanced manner. There are substrates such as proteins, vitamins and carbohydrates that ensure the continuation of important metabolism that ensures this balance (Yılmaz, Kılıç, Gürsel, & Tiryaki, 2016). In order for cells to function adequately, sufficient amounts of carbohydrates, proteins, fats, vitamins, minerals and water must enter the body (Karaağaoğlu & Samur, 2019). The adaptation of the heart-lung system to normal life after birth is related to the baby's successful enteral nutrition at birth, which she received through the placenta in the womb (Hawkes &Paterson, 2012). 90% of babies with developmental delays are premature. Postnatal growth retardation still continues to be a problem. Adequate nutritional support is a must immediately after birth (Terrin G, Coscia A, Boscarino G, & Faccioli F,. et al, 2020). Growth and developmental delay due to inadequate nutritional intake may cause impairment in cognitive functions later in life (Ziegler, 2008).

Enteral nutrition; It refers to the administration of nutrients through oral, orogastric, nasogastric and transpyloric tubes. One of these methods is preferred by evaluating the newborn's gestational age, clinical condition, and oral feeding status (Çay & Geylani, 2015; Köksal, & Gökmen, 2000). In premature babies, the immaturity of the respiratory and digestive systems in the first days or weeks of life may cause problems for enteral nutrition (Hawkes &Paterson, 2012). Every neonatal nurse should be equipped about baby nutrition.

II. METHOD

The quasi-experimental study was conducted in Adana-Turkey, between February 1 and May 3, 2021 to examine the effect of training given to Newborn Intensive Care Nurses on total parenteral nutrition. The socio-demographic data of the nurses and an information form about TPN were used in the study, which was applied with the voluntary participation of 40 nurses working in the neonatal intensive care 1 and neonatal intensive care 2 units of Çukurova University Medical Faculty Balcalı Hospital. The research was applied as face-to-face pre-test and post-test by explaining the purpose, indications, complications, and what to do before, during and after the application of TPN. The prepared training was given interactively with a 30-minute power point presentation on TPN indications, complications, application steps, and nurses' responsibilities.

The Ethical Part of the Research

Ethics committee approval dated 10.01.2020 and Official Permission Letter from the Institution where the Research was Carried Out were obtained from the Non-Interventional Clinical Research Ethics Committee of Çukurova University Faculty of Medicine.

Analysis of Data

Statistical analyzes were performed using a package program called SPSS (IBM SPSS Statistics 24). Percentage and frequency tests were used to evaluate the data. Pearson-$\chi 2$ cross-tabulations were used to examine the relationships of two qualitative variables. In all tests, the significance level was accepted as $p<0.05$.

III. RESULTS

Table 1. Comparison of nurses' TPN knowledge scores according to pre-test and post-test values

Variable	Pretest (n=40)		Posttest (n=40)		Statistical analysis* Possibility
	$\bar{X} \pm S.S.$	Medyan [Min-Max]	$\bar{X} \pm S.S.$	Medyan [Min-Max]	
Knowledge score	32.60±7.56	34.0 [8.0-45.0]	43.40±5.14	44.5 [27.0-50.0]	Z=-5.397 **p=0.000**

**Wilcoxon test (Z-table value) statistics were used to compare the measurement values of two dependent groups that did not have a normal distribution.*

IV. DISCUSSION

The pre-test knowledge score of nurses working in the neonatal intensive care unit was found to be 32.60±7.56 and the post-test knowledge score was 43.40±5.14. (Table 1). It has been supported by similar studies that the knowledge scores of nurses working in the neonatal intensive care unit are at a good level. In Ertav (2018)'s study, the total knowledge level mean score was 49.95±8.93, and this result showed that the knowledge level of nurses was above the average. Coskun et al. (2021) stated in their study that the knowledge level of nurses regarding TPN is not at the desired level, and that the level of knowledge of nurses about TPN can be increased with training. Similar to our research results, it was found that the level of knowledge about TPN increased after the training given to nurses. H_0 hypothesis was rejected and H_1 hypothesis was accepted in the study.

V. CONCLUSION

According to the pretest-posttest values of nurses' TPN knowledge scores, a statistically significant difference was detected ($p<0.05$). Post-test knowledge scores were found to be significantly higher than pre-test. According to the results of the research, the H1 hypothesis, "The training given to Neonatal Intensive Care Nurses about TPN has an effect" was accepted. It is recommended that nurses working in the neonatal intensive care unit receive training at regular intervals in accordance with institutional policies to ensure patient safety regarding TPN, reduce medical errors, and apply correct treatment principles.

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Satisfaction, Self-Confidence, and Critical Thinking Along with the Final Year Nursing Students' Experiences Practicing Clinical Simulation in Pre-Postnatal Care with Complicated and Infectious Patients: A Mixed Method Approach

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Abstract:

Background: The simulation was a part of the clinical teaching process with pre-postnatal care in complicated and infectious patients for the final-year undergraduate students. Changing the university's education philosophy focuses on learners' achievements using a learning-centered approach. The reduction in pregnant women number and the COVID-19 pandemic were driving factors. We needed to know the factors that influence students' satisfaction, self-confidence, and critical thinking and explored students' experiences with simulation-based education to promote active learning methods.

Methods: Descriptive study and focus group interviews were used for data collection between 28 February and 27 May 2022. One hundred students were simple random sampling and 20 of all were selected for 4 focus groups. The predictors of satisfaction, self-confidence, and critical thinking were identified through linear regression analysis. Content analysis of the transcriptions was conducted.

Results: This study showed associations among independent variables, satisfaction, self-confidence, and critical thinking. From the stepwise linear regression analysis, perceived stimulation design and attitude towards simulation-based education as the independent variable could explain 48.7% of the variance ($p < .05$). Those two variables together with professional identity could predict self-confidence 56.9% ($p < .05$). Finally, perceived stimulation design and professional identity could predict critical thinking 30% ($p < .05$). Three qualitative themes were identified: perceived advantages by preparedness for real situation ("I'm ready") and reduced risk to patients; expectation in the best to do ("please tell me what is better in next step") and better than if simulations familiar with real situation and; preferred well-designed scenarios to increase alertness in actual practice.

Conclusion: The initiation of simulation-based teaching still has various development opportunities. Adding situations relevant to common in real-life and complex problem patients to promote practical skills and achieve learning outcomes. Moreover, the continuing study has an opportunity for monitoring the students to implement and apply simulation in clinical settings.

Keywords: Critical thinking, midwifery, nursing education, satisfaction, simulation,

The Effects of 5% Lidocaine Skin Patches on the Pain Control of Hepatocellular Carcinoma Patients Receiving Radiofrequency Ablation: A Double-Blind, Randomized Trial Study

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Abstract:

Background: In the early stages of hepatocellular carcinoma (HCC), when surgery is not recommended, local ablation is commonly used as a standard treatment for patients. In order to relieve the postoperative pain caused by local ablation, clinical healthcare providers often use opioids. However, due to the potential adverse effects of opioids, the lidocaine patch is currently considered an alternative to opioid pain medication in multimodal treatment plans for acute pain. Therefore, the study aims to explore the effect of the lidocaine patch on postoperative pain control in percutaneous radiofrequency ablation (RFA) treatment for HCC patients.

Method: 180 patients treated by RFA were enrolled, and a randomized, controlled, double-blind trial was conducted. With the block random allocation, patients were divided into two groups, an intervention group that received lidocaine skin patches (LP group), and the control group that received placebo patches (PP group). Each patient in the intervention group received lidocaine patches containing 175 mg of lidocaine applied to the RFA site. Pain levels were assessed using the visual analog scale every four hours for twenty-four hours. What's more, the researchers made a calculation about the residual analgesic drug based on the amount of does applied

Results: A total of 154 patients completed the study with 86 patients in the LP group and 68 patients in the PP group. Most participants were diagnosed with BCLC stage A (60.4%), and the majority of tumors were less than 3 cm (77.9%). The RFA procedures were mostly performed under general anesthesia (64.3%). Regarding VAS Pain scores, there were no significant differences between the two groups at any time after RFA ($p > .05$). Generalized estimating equation analyses showed a significant interaction between groups and time points ($p = 0.002$). However, the VAS Pain scores in the LP at T1, T2, T3, T4, and T5 were significantly lower than those of the PP group ($p < 0.001$). There was no interaction between groups and time ($p = .851$). Additionally, there was a statistically significant difference in the number of patients using oral form analgesic drugs ($\chi 2 = 3.950$; $p = .047$). The dose of analgesics in the LP group was consistently lower than in the PP group at every measurement, and there were statistically significant differences at T4, T5, and T6 time points after RFA ($p = .032$, $p = .018$, and $p = .032$, respectively). Simple linear regression was used to analyze the rescue analgesic drug residues in the two groups, and it showed a statistically significant difference in the residual rescue analgesic drug at T4, T5, and T6 ($p = .026$, $p = .011$, and $p = .033$, respectively).

Conclusions: The results of this study suggest that the application of the lidocaine patch to the postoperative site after RFA has a positive effect on the management of postoperative pain. It can also decrease the need for rescue analgesics and eliminate analgesic drug residues for further postoperative pain control.

Keywords: Lidocaine patch, post-operative pain, radiofrequency ablation

I. INTRODUCTION

Hepatocellular carcinoma (HCC) is one of the deadliest cancers affecting the digestive tract and ranks among the top five (Xiao et al., 2023). Local ablation is commonly used as a standard treatment for patients in the very early or early stages of HCC when surgery is not recommended (EASL, 2018; Heimbach, 2018). After RFA procedure, most of patients may experience mild to moderate postoperative pain underneath the puncture site within 24-48 hours, and the pain peaks in the first 24 hours (Wah et al., 2005). Lidocaine skin patch (Lidoderm , Endo Pharmaceuticals, Chadds Ford, PA) is topical administered and generally safe with relatively minor side effects. This study aims to evaluate the effects of Lidocaine patches on pain level, the dose of analgesic drugs, and the dose of analgesic drugs residual in HCC patients after receiving RFA treatment.

II. METHOD

This study was conducted in a real-world, block-randomized, clinical trial from December 2016 to December 2017 in a medical center in southern Taiwan. The study adhered to the reporting guidelines of the Consolidated Standards of Reporting Trials (CONSORT) (Moher et al., 2012).

A randomized controlled trial was applied. The permeated block randomization with block size 4 was performed using Random allocation Software 2.0. The experimental group received Lidocaine skin patches (LP), while the control group received placebo patches (PP) that had the same appearance as the Lidocaine patches but lacked the active ingredient(vehicle patch (without lidocaine)). Outcome measurement was Pain level assessment, and the dose of analgesic drugs and the dose of analgesic drugs residual.

The Ethical Part of the Research

This study obtained approval from the Institutional Review Board of the National Cheng Kung University Hospital (IRB Ref. No.: B-ER-106-060). The study has been registered in the Clinical Trials platform (Registration No.: NCT05732181).

Analysis of Data

The data were analyzed using IBM/SPSS version 22.0 software. Before the analysis of data, we use Kolmogorov–Smirnov test to test normal distribution. Descriptive statistics were used to summarize the subject's demographics and disease characteristics. Moreover, the differences in demographics and disease characteristics between the two groups were compared using the chi-square test for categorical variables and the independent t-test for continuous variables. The effects of lidocaine skin patch on pain relieving were examined using the generalized estimating equations (GEE) with the autocorrelation function of a first-order autoregressive model (i.e., AR).

III. RESULTS

Potential participants (n=180) were first assessed for their eligibility. During the follow-up procedure, four participants in the LP group and 22 participants in the PP group requested to terminate their participation and not to use their data for analyses. Finally, 86 patients in the LP group and 68 patients in the PP group provided their data for statistical analyses. The attrition rate of the entire sample was 14.4% (26/180) (Figure 1).

Table 1 The Characteristics of Subjects

Note: LP group: Lidocaine patches group; PP group: placebo patches group

		Mean± SD or n (%)			*t* or $\chi 2$(*p*-value)
		Total (n=154)	LP group (n=86)	PP group (n=68)	
Age		71.78±9.66 (47-89)	71.42±9.43	72.24±9.99	0.516(.606)
Sex					0.247(.619)
	Male	94(61%)	51(59.3%)	43(63.2%)	
	Female	60(39%)	35(40.7%)	25(36.8%)	
Tumor size					1.910(.385)
	<3cm	120(77.9%)	64(74.4%)	56(82.4%)	
	3-5cm	33(21.4%)	21(24.4%)	12(17.6%)	
	>5cm	1(0.6%)	1(1.2%)	0(0.0%)	
BCLC stage					1.587(.452)
	A	93(60.4%)	49(57.0%)	44(64.7%)	

	B	60(39%)	36(41.9%)	24(35.3%)	
	C	1(0.6%)	1(1.2%)	0(0.0%)	
Hepatitis					1.983(.576)
	No	20(13.0%)	11(12.8%)	9(13.2%)	
	B	59(38.3%)	33(38.4%)	26(38.2%)	
	C	69(44.8%)	37(43.0%)	32(47.1%)	
	Alcohol	6(3.9%)	5(5.7%)	1(1.5%)	
Tumor Number					2.092(.351)
	One	105(68.2%)	60(69.0%)	45(66.2%)	
	Two	41(26.6%)	20(23.3%)	21(30.9%)	
	≥ Three	8(5.2%)	6(7.0%)	2(2.9%)	
Liver cirrhosis					0.24(.878)
	No	44(28.6%)	25(29.1%)	19(27.9%)	
	Yes	110(74.1%)	61(70.9%)	49(72.1%)	
Child-Pugh Score(CPS)					0.079(.961)
	No	44(28.6%)	25(29.1%)	19(27.9%)	
	A	91(59.1%)	50(58.1%)	41(60.3%)	
	B	19(12.3%)	11(12.8%)	8(11.8%)	
Ascites					0.110(.740)
	No	132(85.7%)	73(84.9%)	59(86.8%)	
	Yes	22(14.3%)	13(15.1%)	9(13.2%)	
General Anesthesia					0.190(.663)
	No	55(35.7%)	33(37.2%)	23(33.8%)	
	Yes	99(64.3%)	54(62.8%)	45(66.2%)	

Comparison of rescue analgesic drug residual dose between subjects with Lidocaine and without lidocaine patch.

The dose of analgesics in the LP group was lower than in the PP group every measurement, and there were statistically significant differences at T4, T5 and T6 time point after RFA (p=.032, p=.018, and p=.032, respectively). The findings of using less analgesics in the LP group as compared with the PP group were verified by the multiple regression results. Specifically, as result: All independent variables can explain the variance of all time points of rescue analgesic drug residual, respectively 8.5%, 25.2%, 25.2%, 25.3% and 23.3%. Only 2 cm of liver tumor and rescue analgesic drug residual at T2 after RFA were statistically significant (*P*=.006).

The other hand, the only the group had a statistically significant difference between the rescue analgesic drug residual at T4, T5, and T6 (p=.026, p=.011, and p=.033, respectively). The all of tests regression mode was not significant difference (p >.05).

IV. DISCUSSION

Our study applied subcutaneous infiltration of a local anesthetic to examine its effects on pain relief after patients received RFA treatment. The results of our study showed that the LP group, as compared with the PP group, did not have a significant effect on pain relief. These nonsignificant results are inconsistent with those of previous studies (Ruetzler et al., 2012; de Queiroz, 2021). However, our findings further indicated that the dosage of rescue analgesic drugs showed reduced usage and fewer residual medications in the body.

In our study, the anatomic layers of puncture path caused by RFA procedure contain liver, visceral peritoneum, parietal peritoneum, subcutaneous, dermis and epidermis. And pain from deep anatomic layers of visceral or parietal peritoneum could not be covered by Lidocaine patch, which might overcome pain from skin layer. Therefore, it is important to know if the two groups took different amounts of medications for pain relief.

Implications for practice: Regarding the use of lidocaine patches for pain relief after RFA, the initial analgesic effect may be poor. It is recommended to apply the lidocaine patch two hours before RFA to achieve optimal drug release. However, it can still be used for pain after the acute phase, and patients have a high acceptance of using lidocaine patches for pain relief. Therefore, it is recommended for use in liver cancer patients undergoing radiofrequency ablation to enhance pain management in cancer treatment and promote active participation in painless medical care, thereby improving the quality of cancer care.

V. CONCLUSION

This study indicated (evidence) that the use of lidocaine skin patches is an effective pain management strategy for patients with post-procedure of RFA-related pain. Additionally, in our study, patients with lidocaine skin patches

for pain control also got (it has received) high satisfaction ratings from patients regarding pain management. One-day usage of a 5 % lidocaine skin patch is suggested for relieving pain in HCC patients receiving radiofrequency ablation treatment, notably the first day after RFA.

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Attitude and Practice of Nursing Care for Peripheral Intravenous Catheters Affect the Rate of Peripheral Phlebitis in a Military Hospital in Vietnam

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Abstract:

Background: To evaluate the rate of phlebitis in patients with peripheral venous catheterization, the association between adherence to the technical procedure for catheterization, and the attitude of nurses in compliance with preventive measures. bacteremia with the incidence of phlebitis at a Military Hospital in Vietnam.

Methods: The study was a cross-sectional descriptive design. Observations were done on 32 nurses practicing infusion techniques, and intravenous line care on 32 patients with peripheral venous catheters from February to April 2021.

Results: Patients with level 1 phlebitis accounted for the highest percentage (50%), 28.13% of patients had level 2, and 18.75% of cases had no abnormal signs. There is a association between the proportion of patients with phlebitis and the retention time of the catheter ($p = 0.0076$). There is a association between the scores of the attitude scale, the nursing practice of peripheral venous line care, and the seniority of work ($p = 0.045$).

Conclusion: Peripheral intravenous phlebitis grade 1 was the highest rate. Intravenous catheter retention time increases the risk of peripheral intravenous phlebitis inpatients. Adherence to peripheral intravenous procedures reduces the incidence of peripheral intravenous phlebitis and delivery safety and quality nursing care to patients.

Keywords: Intravenous catheter, nursing attitude, nursing procedure, phlebitis, procedure compliance

I. INTRODUCTION

Peripheral intravenous catheter therapy is an invasive technique in which a nurse inserts a catheter into a patient's vein to deliver drugs, fluids, and blood into the body. Serious complications from catheterization include sepsis, severe phlebitis, or pain due to unexpected medical problems (Garcia-Gasalla etal, 2019; Ghali etal, 2019; Lv & Zhang, 2020; Marsh, 2017; Rosenthal etal, 2020). ***For*** every 100 peripheral venous catheters, there were 30.7% of phlebitis cases (Aghassi, 2019; Fernández-Ruiz etal, 2014; Pérez-Granda, 2014). In tropical countries every 1,000 days with intravenous catheterization 45.96% have a medical incident related to the tube mechanically, 27.52% clinically, infection 1.53%, vein inflammation - embolism 43.57% (Apisarnthanarak, 2017). Factors that increase the risk of phlebitis identified: long retention time, infusion of antibiotics, female sex, compression of the forearm, infectious diseases and Teflon catheter (Lv & Zhang, 2020). In addition, nurses who do not follow the correct technical procedures can pose risks to patients, reducing the quality of care (Graveto, Costa, de Almeida Osório, Cosme, & Parreira, 2019). The Ministry of Health of Vietnam has made general recommendations to guide nurses in practicing this technique. However, these are not standard solutions or tools to make strong recommendations for nurses to follow. The study "Attitude and practice of nursing care for peripheral intravenous catheters affect the rate of peripheral phlebitis in a military hospital " was conducted to provide the status quo of compliance with the protocol. Intravenous catheterization techniques of nurses, initially help them have the right awareness to change their self-care behavior.

The aim of this study was:

1. Describe the distribution of patients with/without phlebitis in this study.
2. Describe the distribution of demographic data of nurses in this study.
3. Examine the relationship between the demographic data of patients and patients with phlebitis.
4. Examine the differences between the demographic data of nurses and the scores of peripheral catheter-related bloodstream prevention attitudes.
5. Examine the relationship between the peripheral catheter-related bloodstream prevention attitudes of nurses and patients with/without phlebitis.
6. Examine the relationship between the peripheral intravenous infusion procedure compliance of nurses and patients with/without phlebitis.
7. Examine the differences between demographic data of nurses and peripheral intravenous infusion procedure compliance of nurses.

II. METHOD

Study design: A cross-sectional descriptive study

Variables: Group of variables about patient & nursing information. Group of variables on the rate of phlebitis, the rate of compliance with the intravenous catheterization procedure and the nursing care attitude.

Research methods and data collection:

Process compliance: Observers evaluate the intravenous catheterization process and nursing care. The number of observations of nurses was equal.

Rate of phlebitis: Observers assess inflammation at the injection site after intubation, 24 hours, 48 hours, and 72 hours depending on phlebitis.

Attitudes: Nurses carry out a 14-item survey questionnaire about nurses' attitudes and practices

Collecting information based on direct observation, consensus and discussion on each case, observational nursing information, and appropriate results for research objectives.

Data management and data analysis strategy: Cleaning and data entry: Epidata 13.1. Data analysis: SPSS 22.0

The Ethical Part of the Research

Nurses and patients were informed of the research purposes prior to data collection. The study participants were explained and the research process and voluntarily participate in the study.

Analysis of Data

Cleaning and data entry: Epidata 13.1. Data analysis: SPSS 22.0

III. RESULTS

3.1. Demographic information of patients and nurses

Table 3.1: Demographic information of patients (N=32)

haracteristic	*N*	%
Age	46,67 ± 17,58	
Department		
Internal Medicine	10	31,25
Surgical Medicine	22	68,75
Gender		
Male	25	78,13
Female	7	21,87
Numbers of Intravenous catheterization		
1	29	90,63
2	1	3,13
3	1	3,13
N/A	1	3,13
Number of infusion line check		
0h	1	3,12
24h	5	15,63
48h	19	59,38
72h	7	21,87

Table 3.2: Demographic information of nurses (N=32)

Characteristic	*N*	%)
Age		
20 - 25	7	21,88
26 - 30	8	25,00
>31	17	53.12
Seniority		
1- 5 years	15	46,88
6 – 10 years	3	9.38
11 – 15 years	12	37,5
> 15 years	2	6,25
Level of education		
University	12	37,50
College	15	46,88
Intermediate	5	15,62
Safe injection training course		
Yes	23	71,88
No	9	28.12

3.2. Phlebitis rate

Phlebitis level 1 accounted for the highest rate (50%), level 2 (28.13%), level 3 (3.12%), no cases in level 4 was

recorded. There were 18.75% of patients. no clinical symptoms (level 0).

Table 3.3: Rate of the Stage of Phlebitis (N=32)

Elements	Content	*N*	(%)
0	No clinical symptoms	6	18,75
1	Erythema at access site with or without pain	16	50,00
2	Pain at the access site erythema, and/or edema	9	28,13
3	Pain at the access site erythema, and/or edema, streak formation, palpable venous cord	1	3,12
4	Pain at the access site erythema, and/or edema, palpable venous cord > 2.5 cm, purulent drainage.	0	0,00

3.3. Nursing compliance rate with peripheral intravenous infusion

There were numbers of items that had 100% of compliance (item 1, 14, 15, 23, 24, 25.1, 25.2, 27, 29, 32, 34). However, there were over 60% of nurses skip some steps such as hand sanitizer (item 2); assessing the patient's pulse, temperature, blood pressure, related diseases (sections 5.1 and 5.3), record records (section 43).

Table 3.4: Nursing compliance rate with intravenous infusion technique

Content (Detail in the reference)	Correct compliance rate		Content (Detail in the reference)	Correct compliance rate	
	N	%		N	%
No 1	32	100,00	No 22	17	53,13
No 2	9	28,13	No 23	32	100,00
No 3	15	46,88	No 24	32	100,00
No 4	25	78,13	No 25.1	32	100,00
No 5.1	11	34,38	No 25,2	32	100,00
No 5.2	13	40,63	No 26	31	96,88
No 5.3	12	37,50	No 27	32	100,00
No 5,4	30	93,75	No 28	14	43,75
No 6	8	25,00	No 29	32	100,00
No 7	21	65,63	No 30	18	56,25
No 8	16	50,00	No 31	11	34,38
No 9	11	34,38	No 32	32	100,00
No 10	18	56,25	No 33	29	90,63
No 11	31	96,88	No 34	32	100,00
No 12	31	96,88	No 35	29	90,63
No 13	31	96,88	No 36	31	96,88
No 14	32	100,00	No 37	26	81,25
No 15	32	100,00	No 38	16	50,00
No 16	31	96,88	No 39	28	87,50
No 17	7	21,88	No 40	23	71,88
No 18	9	28,13	No 41	13	40,63
No 19	29	90,63	No 42	15	46,88
No 20	24	75,00	No 43	6	18,75
No 21.1	16	50,00			
No 21.2	9	28,13			
No 21.3	20	62,50			

3.4. Attitudes and practices of nursing care for peripheral venous catheters

Table 3.5: Scale scores of nurses' attitude and practice of venous catheter care (N=32)

Content	*Mean ± SD*	*Content*	*Mean ± SD*
Factor 1. General precaution		**Factor 2. Catheter care**	
1.I always wash my hands before and after insertion or I use hand antiseptics	3,65 ± 1,54	will replace the IV line every 72-96 hours if there is no any problems	3,94 ± 0,98
2.I usually prefer upper extremities while inserting Peripheral Venous Catheter (PVC)	3,65 ± 1,33	do not change PVC routinely in children unless there are complications	3,03 ± 1,09
3.I always wear gloves before I perform PVC insertion	3,47 ± 0,72	change the sets that are used for blood and blood products infusion within 24h	3,78 ± 1,24
4.Before I perform PVC insertion, I wait for the antiseptic solution applied to the entrance to dry	3,72 ± 1,28	.If gauze bandage is used for the Central Venous Catheter (CVC) dressing, I change it every two days	3,16 ± 1,32
5.I write down the date on PVC after I perform PVC insertion	3,94 ± 1,44	.If transparent cover is used in the CVC dressing, I change it every 7 days.	3,03 ± 1,28
6.I check the catheter entrance area every day.	3,69 ± 1,42	.I clean each lumen from outwards to the top with antiseptic solution when I perform CVC care	4,09 ± 0,93
13.I keep the CVC lumens that are not used closed	3,88 ± 1,04	.I do not wash inside the lumens with glucose water solutions when I perform CVC care	3,75 ± 1,14
Total of Factor 1	**26,00 ± 6,81**	**Total of Factor 2**	**24,78 ± 4,55**
Total of Scale		**50,78 ± 10,12**	

General Precaution factor's mean score was M=26.00, SD=6.81; the Catheter Care factor's mean score was M=24.78, SD=4.55. Particularly, item 8 and item 11 had the highest mean score with M=3.03, SD=1.09; the lowest score belonged to item 12 with M=4.09, SD=0.93. The average score of the scale in this study was M=50.78, SD= 10.12.

3.5. The association between the rate of phlebitis and demographic factors of patients

Table 3.6: Association between phlebitis prevalence and demographic data (N = 32)

	Phlebitis		p-value
	With (%)	Without (%)	
Dwell time of peripheral intravenous catheter	62,77 ± 22,59	36 ±13.15	**0,00 76** [m]

m: Mann-Whitney U test

Among the patient demographics, there was a association between the rate of phlebitis and the dwell time of the peripheral venous catheter (p = 0.0076).

3.6. The association between scores on the attitude scale, the practice of peripheral venous catheter care and demographic factors of nursing

Table 3.7: Association between scores of attitude scale, practice of venous catheter care with nursing seniority (N = 32)

Seniority	N	Mean ± SD	
5 years	15	50,27 ± 11,71	
- 10 years	3	60,00 ± 0,00	**0, 045** [k]
– 15 years	12	50,67 ± 8,19	
15 years	2	41,50 ± 9,19	

[k]: Kruskal-Wallis test

Among the demographic factors of nurses, there is a association between the score of the scale on attitude, the practice of peripheral venous catheter care and nursing seniority (p = 0.045).

IV. DISCUSSION

4.1. The incidence of phlebitis in a Vietnamese military hospital

Compared with the results of Lee (2019) with the same group of patients > 19 years old (n = 270) 35.9% developed phlebitis (grade 1 accounts for 18.2%, grade 2 is 5.9%, grade 3 is 1.1%). 3 cases), no grade 4), then this study has a higher result than 50% in grade 1 group, 28.13% grade 2 and 3.12% grade 3 (1 case), no grade 4. On the other hand, the study Lee's research also divided into groups 0+, 1+, 2+ to clarify the values when evaluating clinically. The study is difficult to distinguish between symptomatic pain and asymptomatic pain, only distinguishing to monitor the patient's condition due to phlebitis. The nurse asks about the patient's pain level to identify level 1. However, because each person's pain threshold is different, the results will depend on the type of drug injected as well as the patient's history with an infusion. On the other hand, the evaluation did not clearly show the direction for the nurse to make the clinical decision of whether they should continue to save or withdraw the needle. Therefore, this decision not only depends on the patient's feelings but also the experience of the nurse.

4.2. The factors affecting the incidence of phlebitis of patients

There was a statistically significant association between the rate of phlebitis and the dwell time of the peripheral venous catheter (p = 0.0076). This result is similar to a study by Nickel (2020), maintaining the needle for a long time without good care creates conditions for bacteria to enter causing phlebitis (Nickel, 2020), a significant association between phlebitis and catheter retention time (Lv & Zhang, 2020), and infusion-associated phlebitis is caused by physical, chemical, and bacterial factors (Di Pumpo, Benedetto, & Agrò, 2013). However, the results from the study of Singh R et al., the rate of phlebitis increases when the patient is male, the catheter size is small (20 gauge), placed in the forearm, intravenous drug infusion and when transfusion of blood products (Singh, Bhandary, & Pun, 2008). Ozger's 2020 study found no statistically significant association between needle retention time and peripheral phlebitis. These studies have different results due to differences in study subjects as well as locations.

Checking the catheter within 24-48 hours is a very important factor in detecting early signs of infection. Training for nurses in skills and knowledge to recognize signs of infection is essential. This conclusion is based on the results that there is a association between the score of the attitude scale for the prevention of peripheral venous catheter infections and the seniority of nurses (p = 0.045). Recognizing the signs of

phlebitis to make timely care decisions improves the quality of intravenous line care and increases patient safety.

4.3. The association between the rate of phlebitis and the attitude, and compliance of nurses in the placement and care of venous catheters

The study did not find a statistically significant association between the rate of phlebitis and the nursing procedure compliance score ($p > 0.05$). In Tertuliano's guidelines for safe injection practice, infection control by disinfecting hands before and after performing the technique is both a guarantee and an important factor (Tertuliano, Borges, Fortunato, Oliveira, & Poveda, 2014). Recommendations in the safe injection of the World Health Organization, when inserting catheters, medical staff must adhere to hand hygiene both when handling and disinfecting related tools. It is not necessary to use sterile gloves, a pair of clean gloves can be used along with "non-contact" techniques to insert peripheral venous catheters into the patient. However, the Vietnamese Ministry of Health requires nurses to use gloves as a precaution against exposure to blood-borne pathogens (O'Grady et al., 2011).

4.4. Nurses follow standard operating procedures for venous catheter placement and care.

Compliance with infection control procedures: In 32 cases, 53.12% - 78.12% of nurses neglected hand hygiene during catheterization procedures, higher than Graveto's study (18.4% - 84.2%) (Graveto et al., 2019). However, after the procedure, the rate of skipping the hand hygiene step was even higher. Accordingly, the average hand hygiene time is only > 50%. More training and reminding nurses about this procedure are needed. Besides, direct observation can also affect the research results. Nurses may be more cautious during the procedure when they know someone is watching them; Small sample sizes may not be representative of the entire study population. However, the results have somewhat suggested the necessity of targeting subjects for hand hygiene training, which may help reduce the incidence of phlebitis for patients (Neopane, 2013).

Infection control compliance: In 32 observations, the rate of violation of infection control was: touching and disinfecting skin at 28.13% (n=9), not disinfecting the skin twice was 50% (n=16) . Phlebitis often develops at the percutaneous puncture site due to bacteria, and fungi on the patient's skin surface, on the hands of healthcare workers and due to non-compliance with infection control measures when performing injection procedures. (Kumar, Kethireddy, & Darovic, 2013).

Following the "5 Right": 53.12% of nurses did not comply with the correct identification of the patient. Nurses often try to remember the patient's face during care. According to Harkanen et al., this is a dangerous practice, leading to cases of medical failure or inadequate patient identification procedures (Härkänen, Tiainen, & Haatainen, 2018). In addition, nurses did not comply well with taking the patient's medical history, allergies, chronic diseases, etc., According to Fathi et al., drug-related incidents accounted for 17% (95% CI, 13). ,7 - 20.3%), the most common types of incidents were taking medicine at the wrong time (24.0%), wrong dose (16.8%) and using the wrong medicine for the wrong patient (13.8%) (Fathi et al., 2017). To prevent unwanted medical events, strict adherence to the "5 Trues" is a must. Although the study has a small sample size, up to 50% of the observed cases do not adhere to the "5 True" rule, so it is necessary to survey with a larger sample size to find the main problems to get the results. intervention plan. improve the quality of patient care.

Communication: In this study, it also found that communication compliance of nurses with patients was still limited, only 53.13% of nurses informed their patients that they were about to make an injection, 40.63% informed the patient and family of how to care take care of the catheter and help the patient for lying on bed with comfortable positions.

Document medical record: Only 18.75% of records are written immediately after a practice done, the rest are documented once after all patients were visited, which is completely inappropriate because it is easy to confuse one patient to another.

V. CONCLUSION

The rate of phlebitis level 1 accounted for the highest rate (50%), level 2 accounted for 28.13%, and level 3 accounted for a negligible rate. No patients with phlebitis level 4 were recorded. There were 18.75% of cases without clinical symptoms.

There was a statistically significant association between the rate of phlebitis and the dwell time of the peripheral venous catheter (p = 0.008). There was a statistically significant association between the score of the peripheral catheter-based sepsis prevention attitude scale and the seniority of the nursing demographic data (p = 0.045).

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Influencer/Social Media Phenomena Investigation of the Properties of the Content Produced by Nurses and Their Effects on Nursing Image

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Abstract:

Background: It is not clearly understood to what extent the behaviors and content shared by nurses on social media affect the shaping of the image of nursing.

Aim: This study was conducted to examine the characteristics of content produced by influencers and social media phenomena nurses and its impact on the nursing image.

Method: The sample of study included 551 person, 690 nurses, and 468 student nurses living in Turkey and using at least one of the social media tools. The data were collected in May-June 2023 with the "Personal Information Form", "Social Media Data Form" and "The Opinion Leadership Scale of Social Media Phenomena Before Followers". In the evaluation of the data, descriptive statistics, the Shapiro-Wilk test, Independent Sample t Test, the one-Way ANOVA test were applied.

Results: Participants in the study 57.1% are between the ages of 21 and 30, 90.2% are women, 64% are single, and 56.3% are not working. 41.1% of the participants are nurses, 25.4% are student nurses, and 32.9% are other individuals in the community. The average total score of the opinion leadership scale of social media phenomena in the eyes of the followers is 2.72. It has been found that the content produced by influencers and social media nurses positively influences the nursing image for 57.1% of the participants, increases confidence and belief in nursing care for 55.5% of them, and positively impacts nursing practices for 46.5% of them.

Conclusion: Nurses' image and nursing practices are affected by the content created by influencers and social media phenomenon's. Conscious use of social media by nurses will help shape and guide e-professionalism in nursing in the future.

Keywords: Influencer phenomenon nurses, nursing image, opinion leadership scale, social media, social media phenomenon nurses

I. INTRODUCTION

Social media has added a new dimension to virtual communication, and applications are becoming widespread as a result of users informing each other (Grobler and Dhai, 2016). According to the Digital 2022 report, there are 4.62 billion active social media users worldwide, and the number of social media users in the world has approximately doubled in the last five years (Kemp, 2022). Social media, which has become one of the most used communication tools today, has become one of the most effective tools used by individuals and institutions in the field of health, thanks to its structure that enables both interpersonal and mass communication. In this context, health posts have started to be shared through social media platforms (Öğretmen, 2020). In a recent review of eighty-eight articles, it was determined that social media has three main benefits regarding e-professionalism: (1) professional networking and collaboration; (2) professional education and training; and (3) patient education and health promotion. However, it has been determined that social media has five dangers regarding e-professionalism: (1) reducing accountability; (2) compromising

confidentiality; (3) unclear professional boundaries; (4) unprofessional behavior; and (5) legal problems and disciplinary offenses (Vukušić Rukavina et al., 2021).

It is known that many nurses have adopted social media, actively use the potential of social media to improve nursing practices and improve health, and even become influencers or social media phenomena (Ross and Cross, 2019; Kerr et al., 2020). Studies conducted in Australia have found that nurses are cautious about the use of social media, and it has been concluded that there is a perception of blurred boundaries regarding e-professionalism, abuse of power, and erosion of trust (Griffin et al., 2021; Green et al., 2022). In a study examining the social media posts of student nurses in China, 13.8% of the students attacked others or posted inappropriate photos on the internet, 22.9% complained about schoolmates or teachers (22.2%), swearing (11.1%), violence (3.9%), obscene photos (2.6%), and violations of patient confidentiality (0.7%) (Zhu et al., 2021). In our country, no study has been found on the effects of nurses' social media use on their nursing image.

The possibility that nurses' entertainment or metaphorical posts on social media platforms, which are accessible to people and where comments can influence each other, can be used for malicious purposes and damage professional reputation should be taken into consideration, and the damage of this possibility to professional reputation should be investigated. The main hypothesis of this study is that social media content produced by influencer nurses may affect the image of nursing. Nurses who produce content on social media; To the best of our knowledge, no study has been found in the literature examining the impact of society's perspective on the nursing profession.

The aim of this study is to examine the characteristics of the content produced by influencer/social media phenomenon nurses and whether it has an impact on nursing image.

II. METHOD

The research was conducted in a descriptive design on online social media platforms which were Instagram, Twitter, and WhatsApp between May 2 and June 8, 2023. The sample for the research selected by purposeful sampling among individuals living in Turkey and using at least one of the social media tools. The sample consists of 462 individuals from society, 462 nurses, and 462 student nurses. Inclusion criteria of the study include being 18 years of age or older, using at least one of the social media tools, and being literate. Exclusion criteria of the study include not being able to speak or understand Turkish. Individuals who do not complete the surveys and do not wish to continue the research were excluded from the study.

Data were collected online via a Google Form by identifying social media platforms by the researchers and obtaining permission from their managers. A personal information form, a social media data form, and Opinion Leadership Scale of Social Media Phenomenons Among Followers were used in data collection.

The Ethical Part of the Research

Ethical permission for the research was received from the Akdeniz University Clinical Research Ethics Committee (No. KAEK-295, Date: 05.04.2023).

Analysis of Data

The SPSS v23 program was used for statistical analysis in the study. In the evaluation of the data, descriptive statistics, the Shapiro-Wilk test, Independent Sample t Test, the one-Way ANOVA test were applied. Statistical significance was determined at the $p<0.05$ level.

III. RESULTS

In this study, of the 1667 participants, 41.3% of whom were nurses, 25.6% of whom were students, and 33.1% of whom were the general public. 90.6% of the participants are women, and 56.4% have a postgraduate education. Among student nurses, 27.5% are first-years, 30.5% are second-years, 26.8% are third-years, and 15.3% are fourth-years. While 86.9% of the participants had received nursing services at some point in their lives, 13.1% had not.

The social media content shared by influencer nurses positively affected the image of nursing by 57.3%. It is known that 97.1% of the participants encountered appropriate content in the posts of influencer nurses they follow, and 71.2% encountered inappropriate content. In the first three rows of appropriate content, 75.5% are about humor, 58.2% are about professional development and professional empowerment, 46.1% are about patient education and health promotion, and 20.2% of inappropriate content is about patients, colleagues, or

There are complaints about the work environment; 15.2% are derogatory and mocking posts; and 11.2% are posts that cause privacy violations. According to the participants, the average score on the Social Media Influencers' Leadership Perception Scale is 60.00±18.96. The sub-dimension scores for the scale are as follows: for the knowledge sub-dimension, the mean score is 13.03±5.01; for the proximity sub-dimension, it is 12.16±4.43; for the mimicry sub-dimension, it is 8.35±3.95; for the trust sub-dimension, it is 9.12±3.29; for the communication sub-dimension, it is 7.40±3.15; and for the entertainment sub-dimension, it is 9.91±3.70 (Table 1).

Table 1. The scale and sub dimensions averages of the participants (n=1667)

	The sub dimensions of the scale						Scale
	Knowledge	Intimacy	Imitation	Trust	Communication	Entertainment	Total
Mean±SD	13,03±5,01	12,16±4,43	8,35±3,95	9,12±3,29	7,40±3,15	9,91±3,70	60,00±18,96

IV. DISCUSSION

It is known from the studies in the literature that social media is used for purposes such as academic information sharing, job search, education, communication, leisure time, and relaxation (Wang et al., 2019). According to the results of this study, participants follow influencer nurses for various reasons, such as entertainment and humor, creating a professional environment, free time, creating knowledge and awareness, education, and professional collaboration.

Social media content shared by influencer nurses positively affects trust and belief in nursing care and the image of nursing both positively and negatively in this study. Studies in the literature report that nurses share both appropriate and inappropriate content on social media (Fox, 2018; De Gagne et al., 2019; Wang et al., 2019). While appropriate contents affects the image of nurses positively, inappropriate content affects it negatively (Wang et al., 2019). It is reported that nurses dancing on the Tik Tok social media platform during the COVID-19 epidemic may harm the professional image of the profession (Lancester et al., 2022). While there has been a negative image of nursing in the news, advertisements, and movies from the past to the present (Gonzalez et al., 2023), today there are studies showing that negative nursing image can be changed with the power of social media (Mohammed et al., 2021; Şahan et al., 2021).

We need to reposition public understanding of nursing's accomplishments in clinical, academic, and leadership roles (Dhandapani and Gopichandran, 2019; Bennett et al., 2020). As a result of the studies, paying attention to e-professionalism on social media affects many aspects related to the profession, such as nursing image, professional success, quality of health care, and quality of nursing education (Salvage and Stilwell, 2018). Including the subject of e-professionalism in nursing education content on social media and training academics and nurses on this subject will be an important step to reduce negative nursing images on social media.

V. CONCLUSION

It was determined that social media contents by influencer nurses affected trust and belief in nursing care and the image of nursing, both positively and negatively. In order for the nursing profession to take the place it deserves in the future, we need to reshape the image and public perception of nursing by using the power of social media. In addition, nurses should be informed about the effects of social media use on the image and professionalism of the nursing profession, and training should be provided in terms of social media usage guidelines.

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Caring Perceptions of Nurses Who are Continuing Their Studies in Undergraduate Programs: Cross-Sectional Study

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Abstract:

Background: The development of continuing education (CPD) for nurses in hospitals, further education from nurses with diploma III nursing to Bachelor's degree is a requirement of the profession. The length of time working in a hospital and then continuing to study causes nurses' feelings of caring may significancy impact their caring perception. Caring is the essence of professional nursing, grounded in a set of universal humanistic and altruistic values. Humanistic-altruistic feelings and actions provide the basis for humanistic caring and promote professional care. Individuals with high caring ability provide effective clinical practice and offer high quality care in hospitals, which contributes to important metrics such as high patient satisfaction, less work pressure, and more harmonious nurse-patient relationship.

Aim: This study aimed to explore the differences in caring perception of nurses who are continuing in undergraduate programs

Methods: The sample comprised 120 nursing student who had continuing in undergraduate programs during 2022. Caring Nurse-Patient Interactions Scale was used to measured nursing caring perception. And 120 patient perception of nursing caring was measured to described caring nurses. Descriptive statistic and analysis item factor of caring.

Results: 39.2% Students' perceptions of caring as moderate caring. The mean scores ranged from 3.08 -4,37, indicating as moderate of caring (table 2) . The highest mean score was for Needs (m = 4.28, SD = 0.62). Items with the lowest mean scores were 'Teaching' (m = 3.08, SD = 0.43), 'Helping Relationship' (M = 3.36, SD = 0.27) and 'Humanism' (M = 3.83, SD = 0.51).

Conclusion: Nurses' caring perceptions are still in the medium category, while many patients' perceptions of nurses' caring are still dissatisfied. what needs to be improved is related to nurses' free time, patience, and increased communication skills

Keywords: Caring perception , nurse patien relathionship

I. INTRODUCTION

Nursing is a profession that requires a unique body of knowledge, as well as a great deal of concern and attentiveness. Nursing entails performing specific tasks and duties, combined with skills in caring for patients, Caring for patients can be defined as 'nursing activities that create a compassionate, supportive and therapeutic environment for patients and staff, to promote comfort and healing and prevent unnecessary suffering. That is, caring is a combination of nurses' attitudes and the tasks they perform. It has a favourable impact on the quality of care provided by nurses; which is positively inflected on patients' satisfaction (Allari et all, 2022).

According to Watson's caring theory, caring occurs whenever an interpersonal correlation develops between the nurse and the clients, and holistic nursing care focuses on caring for and healing patients physically and emotionally (Watson, 1979). Effective communication between the nurse, patient and

other related actions, such as supporting patients, listening to them and allowing them to express themselves, are essential elements in caring for and increasing the quality of nursing care and patients' satisfaction, as well as reducing patients' anxiety (Allari et all, 2022).

Caring has been considered as the essence of nursing. It is believed that caring enhances patients' health and well-being and facilitates health promotion. Nursing education has an important role in educating the nurses with adequate caring abilities (4)

Patient dissatisfaction is primarily due to poor nurse–patient communication. As such, it is crucial to develop caring during nursing education. Nursing students develop caring behaviours, such as intimacy and support, during their studies. Caring is a vital competency and an essential part of nursing education. Given the importance of nurses' perceptions of caring and its impact on the quality of care, as well as the importance of caring among nursing students during their studies and identifying nursing students' perceptions of caring(Allari et all, 2022).

The process of learning the professional values is started from the student's entering to the university and to the workplace. A systematic review revealed that many nursing students and nurses reported a knowledge gap between the Code of Ethics and its application in practice. This knowledge gap has some potential consequences for nurses, patients, and society. Therefore, in order to develop the profession, it is essential to purposefully integrate the professional values in nursing education through value-based behaviors that guarantees the future of nursing and is rooted in the care concept.

Nurse will need to view professionalism and activism equally important to have justice and provide care. Moreover, continuous education and managers' support can improve the professional nurses' ability and motivation for applying the professional values comprehensively; especially, values related to the social and political issues. Finally, the nursing education should be designed so that it can enhance the professional values and value-based behaviors. Promotion of the comprehensive professional values must be considered as an important part of the nursing profession's socialization in the future research and educational planning.

The aim of this study was to explore the differences in caring perception of nurses who are continuing in undergraduate programs.

II. METHOD

This study used a cross-sectional, descriptive, comparative design. A convenience sampling technique was used to invite 120 nursing student who had continuing in undergraduate programs during 2022. The nursing students included in the study were full-time,males and females, who were thoroughly informed about the study and gave their written consent. The sample included nursing students enrolled in three different municipaly in early program. The curricula consisted of both theoretical and clinical training components. Caring Nurse-Patient Interactions Scale (CNPI) was used to measured nursing caring perception. The summary labels for the 10 subscales are humanism (6 items), hope (7 items), sensitivity (6 items), helping relationship (7 items), expression of emotions (6 items), problem solving (6 items), teaching (11 items), environment (7 items), needs (10 items), and spirituality (6 items) . Descriptive statistic and analysis item factor of caring.

The Ethical Part of the Research

Ethical approvals were obtained from Research Ethics Committee Ministry of Health (KEPPKN Kemenkes). Nursing students were informed about the study's purpose and that completing the questionnaire would be deemed consent to participate in the research. Permission was obtained from the developers of the CNPI (The Caring Nurse-Patient Interaction Scale) questionnaire to adapt and use it in the study. The confidentiality and anonymity of the data were ensured throughout the study. Participants were not required to give their names, and data were secured correctly and saved on the researcher's password-protected computer.

Analysis of Data

Data were analysed using the Statistical Package for Social Science (SPSS) version 21 (IBM Corporation, 2012). A descriptive analysis of data was performed, including frequencies and percentages for categorical of caring. Interpretation of percentage can be used : less than 53% = low caring; between 54%-80% = moderate caring; and over 80% =

high caring. For each Item scores for CNPI were calculated and described in terms of mean scores. Interpretation of mean can be used : less than 2.26= low caring; between 2.26-4.43 = moderate caring; and over 4.43 = high caring.

III. RESULTS

Demographic characteristics

The study included 120 participants from three different municipaly. Students' ages ranged between 22 and 43 years, and the average age was 29 years (*SD* = 2.6 years). The majority of students were females (*n* = 73, 60,8%). Length of work ranged between 1 and 21 years, and the average was 6,3 years (*SD* = 4.2 years).

Table 1 Distribution of Students' perceptions of caring (*n* = 120)

Caring	n	%
Moderate caring	47	39.2
High caring	73	60.8
Total	120	100

The table 1 shows that 39.2% Students' perceptions of caring as moderate caring.

Table 2 Students' perceptions of caring to the CNPI (*n* = 120)

item	Mean	Std. Deviation
1 - Humanism: Formation of a Humanistic-Altruistic System of values	3.83	0.51
2 – Hope: Instillation of faith-hope	4.21	0.70
3 – Sensibility: Cultivation of sensitivity to one's self and to others	4.24	0.58
4 – Helping Relationship: Development of a helping-trusting, human caring relationship	3.36	0.27
5 – Expression of Emotions: Promotion and acceptance of the expression of positive and negative feelings	4.12	0.73
6 – Problem-Solving: Systematic use of a Creative Problem-Solving Caring Process	4.18	0.57
7 – Teaching: Promotion of Transpersonal Teaching-Learning	3.08	0.43
8 – Environment: Provision for a Supportive, Protective and/or Corrective Mental, Physical, Societal and Spiritual Environment	4.28	0.62
9 – Needs: Assistance with the gratification of human needs	4.37	0.59
10 – Spirituality: Allowance for Existential-Phenomenological-Spiritual Forces	4.07	0.63

The mean scores ranged from 3.08 -4,37, indicating as moderate of caring (table 2) . The highest mean score was for Needs (*m* = 4.28, *SD* = 0.62). Items with the lowest mean scores were 'Teaching' (*m* = 3.08, *SD* = 0.43), 'Helping Relationship' (*M* = 3.36, *SD* = 0.27) and 'Humanism' (*M* = 3.83, *SD* = 0.51).

IV. DISCUSSION

The purpose of this study was to explore the differences in caring perception of nurses who are continuing in undergraduate programs. As many as 36.7% of nurses had moderate caring. The meaning of moderate is avoiding extremes of behavior or expression or observing reasonable limits. Caring has been considered as the essence of nursing. It is believed that caring enhances patients' health and well-being and facilitates health promotion. Nursing education has an important role in educating the nurses with adequate caring abilities.

Nurses' Perception of Importance of Caring Nurse–Patient Interactions

The results of this study show that the overall mean of nurses' perceptions of the importance of caring nurse–patient interactions according to the CNPI-70 scale was 3,97 (response range 1–5), indicating that nurses attach importance to caring nurse–patient interactions. However, although the results of this study and other relevant studies show relatively high scores of the total value according to the CNPI-70 scale The results of the Philippine study where the overall mean of CNPI-70 was 4.20, The results of other studies are similar. the analysis of differences in their perceptions by subscales show significant dissimilarities. Correspondingly, the mean of nurses' perception in this study for the "needs" subscale was the highest of all. The results of the study by Vujanić et al. also show that nurses in clinical practice most often apply procedures and behaviors from the subscale "needs", which can be explained by the fact that attitudes have an important influence on behavior .

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"needs", which can be explained by the fact that attitudes have an important influence on behavior.

This study showed that nurses consider the subscale "Teaching, which belongs to humane caring together with the subscales "humanism" and "'Helping Relationship'"—to be the least important. This finding is opposed to the results of the study by Youssef et al. which show the subscales "humanism, "hope", and "sensibility" to be the most important subscales to nurses. Respondents in this study described caring as a process that includes not only professional knowledge, competence, skills, and care, but also feelings and emotions.

Nurses perception of teaching

Study finding results show that the subscale of caring (CNPI), as teaching, has the lowest mean scores $m = 3.08$, $SD = 0.43$). whereas, patient education is essential for better patient outcomes. Nurses play an important role in patient education by increasing a patient's knowledge and confidence in skills they will need after being released from the hospital. These skills can prepare a patient at discharge. One study found that patient education was influenced by economic barriers. The data also suggested managers should offer more support for educational development. The study of Yuh-shiow Li's & Fang Liu Chin (2016) showed that the most important caring behavior is 'knowing the patient' , while the least is "advocating for the patient' , which including caring behavior to respect the patient and the family's best interest , and voicing for them .

Nurses perception of "Helping Relationship'

The second lowest of mean score of CNPI subscale was **"**Helping Relationship' ($M = 3.36$, $SD = 0.27$), as we know, nurse as a helping relationship in A therapeutic nurse-patient . relationship is defined that's based on mutual trust and respect, the nurturing of faith and hope, being sensitive to self and others, and assisting with the gratification of your patient's physical, emotional, and spiritual needs through your knowledge and skill. That nursing involves a specialized human helping relationship cannot be denied. This relationship has as its core a number of fundamental principles closely a kind to the notion of psychotherapy.

Nursing experience in itself can bring about a cool efficiency, an overt indifference and animpersonal attitude and environment for the patient. The distant behavior that may result when thenurse is not rewarded by the work system for demonstrating helping characteristics seems to be anoccupational hazard of nursing. Yet, in an increasingly mechanical world, we have to remain humanand treat our patients as human (Pollak 1976).

Nurses perception of "Humanism''

Third lowest of the mean score was "humanisme". Humanism in Nursing, can be simply understood as the act of understanding and treating the human being as a person, in other words, "to treat the other as you want to be treated". From this perspective, we must remember that when we decide to be nurses, we thought to help, care and support others. Valuing human beings is the basis of the nursing profession and the essence of care. Therefore, humanism in care is a basic necessity and a global priority to improve care quality. Clear and practical definition and identification of humanistic care in nursing can be helpful in the further development of existing knowledge, instrumentation, designing guidelines, clinical interventions, knowledge translation, and correction of concept misuse. (Taghinezhad , F, et al, 2022)

V. CONCLUSION

The results of this research can be used as an evaluation to improve caring behavior, to high caring, especially for subscales of "Teaching," Helping Relationship" and "humanism". Nursing Programme favours the development in students of both relational and technical components of caring behaviors. We hope that in future students' self-assessment of caring behaviors could be considered an educational outcome for Nursing Programme. Evaluation studies of innovations in curriculum and teaching methods to improve learning in relation to caring concepts.

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Together Facing TB: A Quasi-Experimental Study on the Impact of Peer Group Support on Patient Perceptions of Tuberculosis Treatment based on the Health Belief Model

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Abstract:

Tuberculosis (TB) is a public health problem in many countries, including Indonesia. The United Nations has established 17 Sustainable Development Goals (SDGs) as a framework for global sustainable development, with one of the targets being to end tuberculosis by 2030. To enhance the treatment of TB patients, improving patients' perceptions of the disease and treatment is essential. This study aims to evaluate the effects of a peer support group program on the Perceived Severity, Perceived Benefits, Perceived Barriers, and Self-Efficacy of TB patients undergoing treatment. This study used a quasi-experimental with a one-group pre-test-post-test design. The study was conducted at Cimanggis Community Health Centre in Depok City. The study sample consisted of 32 TB patients selected by total sampling technique. The intervention included seven peer support group sessions covering participant selection, psychoeducation, cognitive restructuring, breathing exercises, activity planning, problem-solving, and health behavior maintenance. The instruments used were the Health Belief Model and Sociodemographic Profile Questionnaires. Data were analyzed using a paired sample t-test. Most participants are male (66%), with young adult ages (18-40 years) accounting for 50%. The majority have a high school education level (78%). This study showed a significant difference between pre-test and post-test scores in each domain of Perceived Severity (p=0.000), Perceived Benefits (p=0.000), Perceived Barriers (p=0.000), and Self-Efficacy (p=0.000). This study shows that a peer support group program improves TB patients' perceptions and confidence in their treatment. The role of community nurses in facilitating the formation of peer support groups, providing TB education, and monitoring participation and the program's impact is critical. Nursing education institutions can also play a role in integrating education on peer support group interventions into the learning curriculum so that future nurses can understand and implement their function in a holistic and effective TB response.

Keywords: Community health nurse, health belief model, support group, perception, tuberculosis

I. INTRODUCTION

Tuberculosis, or TB, is an infectious disease caused by Mycobacterium tuberculosis and often affects the lungs, although it can also impact other organs such as the kidneys, spine, and brain (WHO, 2021). To date, TB remains a significant issue in global health, contributing significantly to the worldwide disease burden and continuing to pose a substantial threat to global public health (Haileamlak, 2018;

WHO, 2023). Although TB is treatable, the high rates of mortality and morbidity still present a challenging and unresolved issue.

According to the Global TB Report 2022, Indonesia currently ranks second in the world in the highest number of tuberculosis (TB) cases after India, moving up one position from 2020 (WHO, 2022). The report estimates that in 2021, approximately 969,000 people in Indonesia were affected by TB, and out of that number, only 443,235 cases were successfully detected (WHO, 2022). It means there are around 525,765 TB cases in Indonesia that remain undetected or unreported. This situation can serve as a source of transmission to others, especially if someone with active TB does not receive prompt and appropriate treatment. TB bacteria can spread through the air and infect others through respiratory transmission (WHO, 2021).

However, it is essential to note that the Sustainable Development Goals (SDGs) established by the United Nations (UN) in 2015 are a collective effort to address various global challenges, including health issues like TB. SDG Goal 3, "Good Health and Well-being," includes targets relevant to TB control, including the goal to end the TB epidemic and address other communicable diseases (United Nations, 2015).

Patient adherence to TB treatment and prevention measures highly influences recovery rates and the ability to control disease spread and prevent drug resistance (Vernon A et al., 2019). Behaviors such as knowledge, attitudes, and skills are crucial in improving TB patient adherence to treatment and prevention measures (Wulandari, 2015). Additionally, patients with a positive view of TB treatment are more likely to be compliant and have a higher chance of recovery (Parwati et al., 2021).

Social support refers to assistance or encouragement provided by others, such as family, friends, neighbors, coworkers, or individuals facing similar challenges (Miller & DiMatteo, 2013). The World Health Organization (WHO) has recommended measures to enhance the support system for TB patients as part of TB control efforts and the new End TB strategy (WHO, 2014). Various interventions, including health education, psychological therapy, and support from family and the community, have been implemented to strengthen social support for TB patients and improve their treatment adherence (Li et al., 2018). Therefore, this study aims to assess the impact of the Peer Group Support program on the perceptions of patients suffering from Tuberculosis (TB) regarding their treatment, as viewed through the Health Belief Model theory, which consists of Perceived Severity, Perceived Benefits, Perceived Barriers, and Self-Efficacy in undergoing treatment.

II. METHOD

This quantitative study employed a quasi-experimental approach with a pre-test-post-test one-group design, utilizing the peer group support program as an intervention. This approach was chosen to allow the researchers to observe the impact of the peer group support program intervention on TB patients' perceptions of treatment based on the Health Belief Model (HBM) theory. The HBM is a conceptual framework for understanding individual behavior with health and disease prevention (Allender et al., 2014).

A total of 32 TB patients undergoing treatment were selected as the research sample using a comprehensive sampling method. The instrument used was based on the Health Belief Model framework, consisting of Perceived Severity, Perceived Benefits, Perceived Barriers, and Self-Efficacy. This questionnaire was adapted from a study conducted by (Kueh et al., 2022) and subsequently modified by the researcher. The instrument's reliability test results showed a Cronbach's alpha value of 0.8.

The intervention used in this study was peer group support, in which individuals with similar experiences use their personal experiences to support each other. The peer group support intervention consisted of 7 sessions aimed at providing holistic support to participants in dealing with Tuberculosis (TB). Each session was designed to help participants

understand the disease, boost motivation, and develop the necessary skills to manage TB more effectively. Furthermore, the intervention aimed to create an environment where participants felt accepted and understood by fellow group members. These sessions covered various aspects, including participant selection, psychological education, restructuring of thought patterns, breathing exercises, activity scheduling, problem-solving, and promotion of good health behavior. Therefore, this intervention was expected to support participants in overcoming TB and encourage positive changes in their understanding and behavior. Parametric statistical data analysis was conducted through paired t-tests.

This research was approved by the Ethics Committee of the Faculty of Nursing, University of Indonesia (Number: KET-128/UN2.F12.D1.2.1/PPM.00.02/2022). Before collecting data, the researcher also obtained written consent from each participant after explaining the research objectives and ensuring their privacy and confidentiality of responses would be well maintained. Participants were also informed that they had the right to withdraw from the study without facing any negative consequences.

III. RESULTS

The results of the analysis of sociodemographic characteristics data from 32 participants who participated in the Peer Group Support program indicate that the majority of them were male (66%) and aged between 18 and 40 years (50%). In terms of religion, most participants were Muslim (91%), while the majority of them were of Javanese ethnicity (62%). The majority of participants also had a high school education level (78%), and approximately 16% of participants had other accompanying illnesses (Table 1).

Table 1. Frequency Distribution of Participant Demographics (n=32)

Variable	Frequency (n)	Presentation (%)
Gender		
Male	21	66%
Female	11	43%
Age		
Early Adult (18 - 40)	16	50%
Middle Adult (41 -59)	16	50%
Religion		
Islam	29	91%
Christianity	3	9%
Tribe		
Javanese	20	62%
Sundanese	6	19%
Betawi	6	19%
Pendidikan		
Junior High School	1	3%
Senior High School	25	78%
University	6	19%
Comorbidities		
Ada	5	16%
Tidak ada	27	84%

The results of the analysis using a paired sample t-test indicate a significant difference in the perception of Tuberculosis (TB) treatment, including Perceived Severity, Perceived Benefits, Perceived Barriers, and Self-Efficacy before (pre-test) and after (post-test) respondents participated in the Peer Group Support program. Each variable showed a significance value (p) 0.000 (Table 2).

Table 2. Results of Pre- and Post-Implementation Data Analysis of the Peer Group Support Program

Variabel	Mean	Std. Deviation	t	df	p-value
Perceived Severity (pre-and post-test data)	9.031	2.559	19.966	31	0.000*
Perceived Benefits (pre-and post-test data)	5.406	3.004	10.181	31	0.000*
Perceived Barriers (pre-and post-test data)	6.688	2.132	17.746	31	0.000*
Self-efficacy (pre-and post-test data)	10.344	3.189	18.350	31	0.000*

* Significant if $\alpha<0.05$ with paired t-test

IV. DISCUSSION

This study aims to evaluate the positive impact of the Peer Group Support program on the perceptions and beliefs of patients undergoing Tuberculosis (TB) treatment. These perceptions and beliefs were measured through variables such as Perceived Severity, Perceived Benefits, Perceived Barriers, and Self-Efficacy, with statistical results showing a p-value less than 0.05, indicating significant changes.

The findings of this research are consistent with previous studies that also highlight the crucial role of the Peer Group Support program in improving patient's understanding of their illness, motivation to adhere to treatment diligently, and patient's ability to make better decisions regarding their care (Matakanye et al., 2021; Octavia & Utami, 2020; Thomas & Summers, 2022). The results of this study show a significant improvement in Perceived Severity, which helps patients better understand the severity of TB and serves as motivation to adhere to treatment. Additionally, Perceived Benefits also increased significantly, indicating that patients are beginning to recognize more significant benefits in following TB treatment, such as improved quality of life and disease prevention.

Furthermore, this study is also consistent with the Health Belief Model (HBM) concept, which emphasizes the importance of individuals' perceptions of susceptibility to disease, the severity of the disease, the benefits of preventive actions, barriers to taking preventive actions, self-efficacy, and cues to action in making health decisions (Stanhope & Lancaster, 2016). Social support through the Peer Group Support program is a crucial factor in improving patients' understanding of their illness, providing motivation to adhere to treatment, and facilitating better decision-making processes (Horne et al., 2013).

V. CONCLUSION

This study reveals that the peer support group program improves TB patients' perceptions and beliefs about their treatment. The role of community nurses in facilitating the formation of peer support groups, providing TB education, and monitoring participation and the impact of this program is crucial. Additionally, nursing education institutions can also play a role in integrating education about peer support group interventions into their learning curriculum so that future nurses can understand and fulfill their roles in a holistic and effective TB response.

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The Relationship of Spiritual Level With Self-Coping Patterns to Pain in Post Caesarean Section Clients

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Abstract:
Spiritual is the personal dimension of all changes that occur withing a person. Post Caesarean Section (*PCS*) pain is one of the changes due to the surgical incision. Self-coping against *PCS* pain is a way to adapt oneself to dealing with pain. This study aims to analyze the relationship between spiritual level and self-coping patterns for *PCS* pain. This study with a cross-sectional design measured 60 *PCS* patients using the conseputive sampling method. The Daily Spiritual Experience Scale (*DSES*) questionnaire is used to measure spiritual level and the Pain Catastophizing Scale to measure self-coping patterns for *PCS* pain. Measurements were taken 4 hours after the patient received Caesarean Section (*CS*). The Spearman Rank test is an analytical test to answer the research hypothesis. The results of study showed that the average value of the spiritual level of *PCS* clients was 55.35 in the quite good category and the average value of self-coping patterns for *PCS* pain was 40.92 in the quite good category. There is a significant relationship between spiritual level and self-coping patterns for *PCS* pain (*p-value* = 0.014, α = 0.05). Spirituality forms positive perceptions within oneself and increases the range of relaxation. Your ability to adapt to biological and psychological changes will increase.

Keywords: Spiritual level, self-coping pattern to pain, post caesarean section

I. INTRODUCTION

The average *CS* action has increased every year in Indonesia. The rich community groups tend to be more likely to plan a *CS* delivery (19%) than poor community groups, and this is 9.5% higher in urban areas compared to rural areas. This phenomenon is inversely proportional to the impact that must be felt after *CS.* Postoperative pain remains the main problem faced by clients. Tissue injury due to incision increases the pain response (Zahroh et al., 2020).

The period of *PCS* pain varies greatly, depending on the type of incision, type of anesthesia, duration of surgery, premedication received, and pain coping patterns. Pharmacological and non-pharmacological management can be applied in managing client pain. Non-pharmacological approaches are often overlooked, even though they have the same level of effectiveness as pharmacological techniques in reducing pain. Self-management in adapting to changing situations is more capable of having a positive impact on the human body than surrender. Good *PCS* pain management will improve the quality of life of *PCS* clients (Azanu et al., 2022; Pranata & Ekaprasetia, 2021).

The spiritual self is an important part of quality of life (*QoL*). Spiritual management is an effort to increase personal adaptation and be able to improve the *QoL*. The ability to manage post-operative pain affects the *QoL* of *PCS* patients

relatively decreases due to physiological changes after surgery. *PCS* pain disrupts the body's balance system and requires effective coping mechanism patterns (Moussa et al., 2023; Weerasinghe et al., 2023)

Spirituality forms an adaptive coping pattern in individuals when facing various changes, especially psychological. The negative experience felt will be processed into something adaptive. The threshold of acceptance of situations and conditions will increase so that the individuals adaptability also increases. Perception will be pushed in a positive direction and internalization of comfort within oneself will be created. The depression that is often experienced is actually the result of dissatisfaction and failure of adaptation, so that through increasing spiritual level an adaptive pattern of adaptation will be formed (Sekhavatpour et al., 2020)

The aim of this study is to determine the relationship between spiritual level and the ability to self-cope with pain in *PCS* patients.

II. METHOD

The design of this research is quantitative with a quasi-experimental model to determine the relationship between spiritual level and the ability to self-cope with pain in *PCS* patients. The research was carried out between November until December 2022 in Jember Regency. The sample for this study was *PCS* patients without previous comorbidities, such as heart and blood vessel disorders, diabetes mellitus, kidney failure, neurological disorders, or gynecological problems. A sample of 60 *PCS* patients was screened according to inclusion and exclusion criteria. Screening is carried out in the preoperative phase to determine the suitability of the sample. Measurements of spiritual level and self-coping patterns for pain were carried out in the post-operative phase, namely 4 hours after *CS* and in the general treatment room. Sampling used a quota sampling approach (Figure 1).

Spiritual level was measured using the *DSES (Daily Spiritual Experience Scale*) questionnaire and self-coping against pain was measured using the Pain Catastrophizing Scale questionnaire were then shortened, coded, and analyzed. Data collection was carried out directly at one of the hospitals in Jember Regency by the research team.

The Ethical Part of the Research

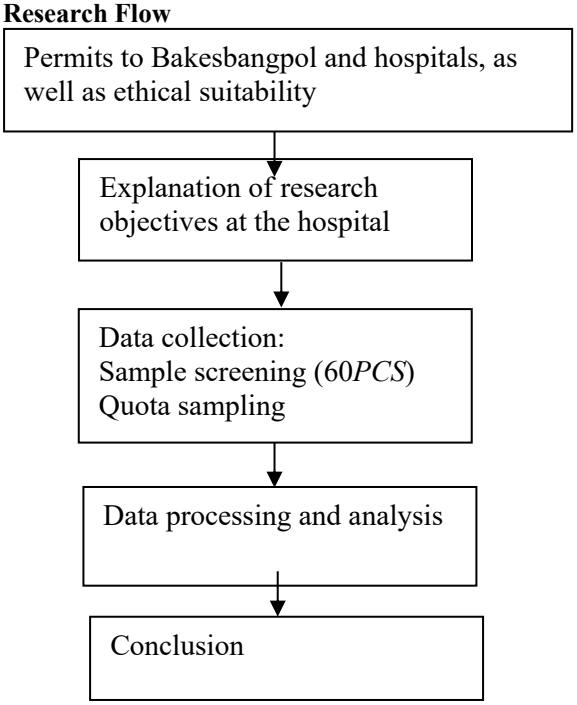
This research has received ethical feasibility from the Research Ethics Committee Universitas dr. Soebandi on January 4 2022 with number 200KEPK/UDS/I/2022.

Analysis of Data

Research analysis uses *IBM SPSS* with 2 approaches, namely univariate and bivariate analysis. Univariate analysis aims to produce information about the mean, median, mode and standard deviation (*SD*) for each variable. Bivariate analysis aims to produce information on whether there is a relationship between variables and the degree of closeness of the relationship. The normality test using Kolmogorov Smirnov obtained a value of $p = 0.005$ ($p < 0.05$) so that the distribution was declared not normal. The next analysis test uses a non-parametric approach because it does not meet the parametric test requirements. Spearman Rank analysis was carried out and obtained a value of $p = 0.014$ ($p < 0.05$). The conclusion of this research hypothesis is that there is a relationship between spiritual level and self-coping patterns for pain in *PCS* patients with a confidence level of 95%.

Below is the process flow of this research:

Figure 1. Research Flow



III. RESULTS

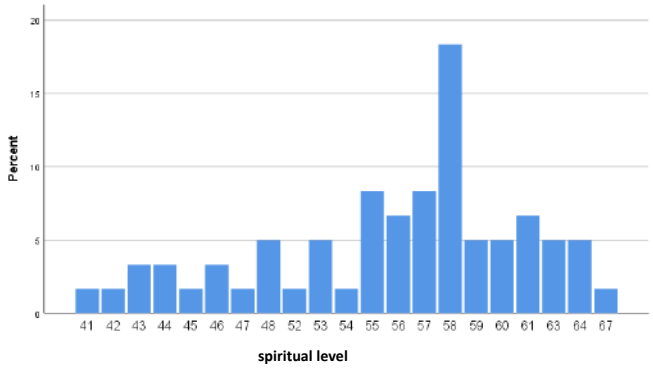
This research data comes from direct observations of *PCS* clients. General information regarding the research sample can be seen in Table 1.

Table 1. General Information for *PCS* Patients

Characteristic	Amount	%
Job		
Entrepreneur	7	11.67
Farmer	9	15
Housewife	34	56.67
Fisherman	5	8.33
Officer	5	8.33
History of previous surgery		
Ever	7	11.67
Never	53	88.33

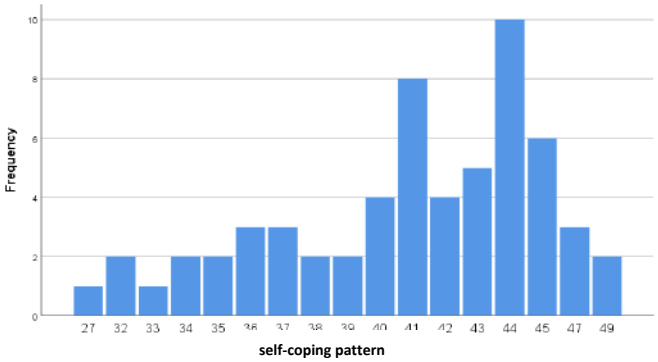
Based on Table 1, it can be concluded that the majority of *PCS* clients occupations are housewife (56.67%) and most are undergoing *CS* for the first time (88.33%). An overview of the spiritual level and self-coping patterns for *PCS* client pain can be seen in Figures 2 and 3.

Figure 2. Description of The Spiritual Level of *PCS Clients*



It is known that the mean spiritual level of *PCS* clients is 55.35, median 57, mode 58, lowest spiritual value 41, highest spiritual value 67, and *SD* 6.313. The mean spiritual level value is > *SD* (55.35 > 6.313) and it can be concluded that there is no bias in the spiritual level variable.

Figure 3. Description of Self-Coping Patterns for *PCS* Client Pain



It is known that the mean value of self-coping patterns for *PCS* client pain is 40.92, median 41.50, mode 44, lowest value 27, highest value 49, and *SD* 4.492. The mean value of self-coping patterns is greater than the *SD* value (40.92 > 4.492) and it can be concluded that there is no bias in this variable. The results of the Spearman Rank analysis with a confidence value of 95% are contained in Table 2.

Table 2. Spearman Rank Analysis Results

Correlations				
			Spiritual level	Self-coping pattern
Spearman's rho	Spiritual level	Correlation Coefficient	1.000	.315*
		Sig. (2-tailed)	.	.014
		N	60	60
	Self-coping pattern	Correlation Coefficient	.315*	1.000
		Sig. (2-tailed)	.014	.
		N	60	60
*. Correlation is significant at the 0.05 level (2-tailed).				

The *p-value = 0.014 (p-value < 0.05)* was obtained and it can be concluded that there is a relationship between spiritual level and self-coping patterns for pain in *PCS* patients with a level of closeness in the quite strong range (correlation coefficient = 0.315).

IV. DISCUSSION

Spirituality is an internal dimension within humans which is very complex in nature. Every human being has a different spiritual level according to beliefs, social and cultural factors. The journey of human psychological and emotional maturity will develop the spiritual self. Diversity in humans makes spirituality a cornerstone of one's life. Spirituality forms self-comfort with the multidimensionality of life. Spirituality forms a strong pattern of self-adaptation so that it is able to make adjusments independently wherever and whatever it encounters, including pain when health problems occur (Heard, 2023; Yousefi Afrashteh et al., 2023).

The human body and soul are a whole system that forms the cycle of life. Disruption of one component can reduce the welfare of human life. Body and soul interact with each other dynamically. Disruption of one component affects the life of other components, for example biological disorders can affect psychological well-being and vice versa. The complexity of disease and changes in the current life cycle have shaken the human spirit, so many of them experience depression. Psychological chaos as a continuation of self-failure to adapt to change. Self-rejection actually makes onself tormented and the quality of life decreases (Yang et al., 2023)

Biological and psychological disorders provide information in the form of varying signs and symptoms. Pain is one of the symptoms that is easily conveyed by patients and is a manifestation of biological/ psychological disorders. It is certain that patients will experience *PCS* pain even though pharmacological therapy has been given as anticipation. Tissue damage due to incisions during surgery increases the inflammatory response, one of the symptoms of which is pain. *PCS* pain cannot just be eliminated because the inflammatory response has an impact that is not always negative. The process of granulating new tissue after an injury/ wound occurs requires inflammation. Inflammation increases circulation at the level of capillaries and fibrin nets so that wound healing will tak place. Therefore, *PCS* pain management must be attempted properly and not avoided (Husain et al., 2019)

The quality of life of *PCS* clients is influenced by many things and one of them is pain due to incision and exploration of the uterus during the *CS* procedure. Exploration of the uterus during *CS* as an effort to clean the uterus of placental remains creates a niche that increases tissue inflammation. The *PCS* inflammatory response reduces the clients sense of comfort, although this comfort is also influenced by various things. Previous surgical experience and the frequency of previously received *CS* also influence the patient's *QoL.* This is related to the patient's receptiveness to changes that will occur and psychological readiness. Every change that will occur will be a stressor and increase alertness. This condition triggers higher adrenaline and has an impact on psychological alertness. This condition is common in humans as holistic creatures. The interaction between biology and psychology will produce a response and later have an adaptive or maladaptive direction (Ilska et al., 2022; Stegwee et al., 2020)

The *QoL* of *PCS* mothers must be strived for as much as possible to ensure their wll-being. *PCS* pain must be managed well in order to maintain a good *QoL.* The declining *QoL* of postpartum mothers will create new problems. The decreased *QoL* in postpartum mothers is mostly caused by depression. Postpartum maternal depression can be caused by many things and one of them is *CS. PCS* pain which cannot be avoided absolutely is a trigger for postpartum maternal depression. Clients will experience high anxiety and affect the body's hemodynamics. Hemodynamic stability will decrease and this psychological shock increases the risk of postpartum blues (Almuqbil et al., 2022)

Therefore, optimal management of *PCS* pain could be a solution in stabilizing the *QoL* of *PCS* mothers. Effective non-pharmacological management of *PCS* pain by increasing self-acceptance of pain. This pattern adopts the adaptation model where each individual has the ability to adapt to all forms of

change. The stimulus received will be accepted as a reality. Psychological abilities that interact with self-independence and internal self will produce individual coping. Movement of psychological stability with other positive components will produce adaptive coping and vice versa (Gangadharan & Hemamalini, 2022)

Spirituality as a dimension of self that becomes a support has had a big influence in coping with stimuli. The stimulus faced becomes a stressor for humans to deal with it. Negative stimuli will cause depressive effects or psychological shocks. Depression that occurs simultaneously will encourage individuals to self-cope and the direction of their coping depends on their ability to accept it. Poor self-efficacy results in maladaptive coping and good self-efficacy results in adaptive coping. The impact of maladaptive coping is so serious that it raises the risk of suicide. Spirituality will form an dynamic and positive self-dimension in facing change even if the change is uncomfortable (Heidari et al., 2019).

A good spiritual level or also known as spiritual prosperity will increase the relativity of expectations and interpret life conditions in reality. Confidence in the rules of life that must be lived makes a person better prepared to face change. Individuals will be more resigned to conditions and ready to face situations and conditions calmly. The self-peace that is created creates an adaptive self-coping mechanism. Individuals will explore all their adaptability in going through this phase and the same goes for *PCS* patients experiencing *PCS* pain. The education received to reduce or overcome *PCS* pain will be aplllied, so that clients will be more prepared and relaxed when facing *PCS* pain (Yousefi Afrashteh et al., 2023).

The study above has clearly outlined the relationship between spiritual level and the ability to self-cope with pain in *PCS* patients. Good spirituality improves self-adaptation patterns to change and provides readiness to face them. *PCS* patients are more relaxed in dealing with pain and can carry out adaptive coping with the techniques that have been taught so that pain management is more effective.

V. CONCLUSION

PCS pain that is managed well can maintain the *QoL* of *PCS* patients. Increased self-adaptation will adjust to changes that occur, including *PCS* pain. Good or prosperous spirituality can increase self-adaptation in the form of the ability to cope with all stimuli. *PCS* patients will be better able to self-cope with the pain the face through non-pharmacological techniques that have been obtained previously. The focus of future research that needs further research is the analysis of spiritual factors in life.

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Proficiency Evaluation Scales in Nursing: A Comprehensive Review

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***Abstract*:**

Background: The World Health Organization (WHO) underscores that a mere increase in the number of healthcare professionals falls short of addressing the evolving global healthcare needs. Healthcare practitioners must possess not only increased numbers but also the requisite cognitive, emotional, and practical skills to deliver effective care. The evaluation of professional competency in nursing plays a pivotal role in improving care quality, fostering professional dedication, and mitigating turnover. Furthermore, such competency assessments serve as valuable tools for educators and nurse managers in crafting comprehensive and efficacious nursing study programs and curricula.

Aim: This study endeavors to consolidate assessment scales tailored for appraising the professional competency of both nursing students and practicing nurses across diverse specialization areas. Additionally, it delineates the key domains covered by these scales.

Review: The literature has seen the development of numerous measurement tools for assessing the competence of nursing students and nurses. Prominent examples include the "Nurse Competence Scale (NCS)," "Holistic Nursing Competence Scale (HNCS)," "Intensive and Critical Care Nursing Competence Scale," "Nurse Professional Competence Scale (NPC)," "Self-Evaluated Core Competencies Scale," "Competency Inventory of Nursing Students (CINS)," "Nursing Students Core Competencies Scale (NSCC)," "Nursing Students Competence Instrument (NSCI)," and "Ambulance Nurse Competence Scale (ANC)." Additionally, there is the "Anaesthesia Nursing Competence Scale."

Conclusion: A diverse array of assessment scales is available to evaluate the professional competencies of nursing students and nurses. Moreover, specialized nursing branches have devised scales for assessing professional competence within their respective domains. Despite commonalities in the aspects assessed by these scales, a universally standardized terminology for evaluating professional competency within the nursing profession is currently lacking.

Keywords: Competency, competency assessment, nursing

I. INTRODUCTION

Nursing is a multidimensional profession encompassing cognitive, affective, and psychomotor domains. The professional competence of nurses is paramount, requiring them to deliver safe and effective care while translating their acquired knowledge and skills into tangible behaviors (Hyun et al., 2022). The landscape of health needs has become increasingly diverse and complex due to the constant evolution of socio-demographic and economic variables. According to the World Health Organization (WHO, 2021), addressing the health needs of a changing and developing world necessitates not only an augmentation in the number of health workers but also ensures that they possess the requisite knowledge, skills, and competencies to cater to the evolving demands of the population. Professional competence stands as a fundamental prerequisite for achieving enhanced nursing care

outcomes, mitigating medical errors, making optimal clinical decisions for patients, curbing turnover rates, and elevating job satisfaction (Tyndall et al., 2018; Vaziri et al., 2019; Han et al., 2020; Kirca et al., 2020; Chang & Manojlovich, 2023).

The assessment of professional competence in nursing stands as a critical consideration for enhancing the quality of care, promoting job retention, and mitigating staff turnover. Simultaneously, the evaluation of nursing competence can offer valuable insights to nursing educators and managerial staff, providing them with ideas to craft an ideal and effective nursing study program or curriculum.

Aim

This study endeavors to compile assessment scales for the systematic evaluation of the professional competency exhibited by nursing students and practicing nurses across various specialization areas. Within the existing literature, a diverse array of measurement tools has been devised specifically for assessing the competence of both nursing students and nurses. Drawing from accessible studies, notable measurement tools include the "Nurse Competence Scale (NCS)," "Holistic Nursing Competence Scale (HNCS)," "Intensive and Critical Care Nursing Competence Scale," "Nurse Professional Competence Scale (NPC)," "Self-Evaluated Core Competencies Scale," "Competency Inventory of Nursing Students (CINS)," "Nursing Students Core Competencies Scale (NSCC)," "Nursing Students Competence Instrument (NSCI)," and "Ambulance Nurse Competence Scale (ANC)."

These measurement tools have been chronologically arranged based on the years of their development, allowing for a structured overview of their evolution. Additionally, an attached table provides concise introductory information about each measurement tool, offering a reference point for further understanding and utilization.

Nurse Competence Scale/NCS

In 2004, Meretoja et al.(Meretoja et al., 2004) developed the "Nurse Competence Scale" on 498 nurses. The scale consists of 7 sub-dimensions and 73 items: helping role (7 items), teaching–coaching (16 items), diagnosing functions (7 items), managing situations (8 items), therapeutic interventions (10 items), ensuring quality (6 items), work role (19 items). Cronbach alpha reliability coefficient of the scale sub-dimensions is between 0.79-0.91.

Self-Evaluated Core Competencies Scale

In 2009, Hsu and Hsieh (Hsu and Hsieh, 2009) introduced the Self-Evaluated Core Competencies Scale, employing a sample of 802 nursing students for its development. This scale comprises two distinct sub-dimensions. The first sub-dimension encompasses humanitarian situations and responsibility, while the second sub-dimension focuses on cognitive and performance aspects. The humanitarian situations and responsibility component include elements such as responsibility, ethics, lifelong learning, communication, teamwork, and care. Meanwhile, the cognitive and performance component comprises critical thinking, basic biomedical science, and general clinical skills. Notably, the Cronbach's alpha reliability coefficient for this scale is reported to be 0.84, indicating a high level of internal consistency.

Holistic Nursing Competence Scale /HNCS

In 2011, Takase and Teraoka (Takase and Teraoka, 2011) formulated the Holistic Nursing Competence Scale (HNCS) utilizing data collected from 331 nurses. This comprehensive scale encompasses five distinctive sub-dimensions, comprising a total of 36 items. The sub-dimensions are as follows: General Aptitude (Seven items), Staff Education and Management (Nine items), Ethical Practice (Nine items), The Provision of Nursing Care (Seven items), and Professional Development (Four items). Remarkably, the Cronbach's alpha reliability coefficient for the HNCS is reported to be 0.96, indicative of a remarkably high level of internal consistency within the scale.

The Intensive and Critical Care Nursing Competence Scale

In 2012, Lakanmaa et al. (Lakanmaa et al., 2012) developed "The Intensive and Critical Care Nursing Competence Scale," drawing upon a sample of 139 nursing

students and 431 intensive care nurses. This extensive scale comprises a total of 144 items organized into two distinct parts.

The first part centers on clinical competences related to the patient, encompassing sub-dimensions such as Principles of Nursing Care (12 items), Clinical Guidelines (12 items), and Nursing Interventions (36 items). The second part addresses general professional competences, with sub-dimensions including Ethical Activity and Familiarity with Health Care Laws (12 items), Decision-Making (12 items), Development Work (12 items), Collaboration (12 items), Knowledge Base (36 items), Skill Base (36 items), and Attitude and Value Base (36 items).

Impressively, the Cronbach alpha reliability coefficient for the entire scale is reported to be 0.98, attesting to an exceptionally high level of internal consistency within the measurement tool.

The Nurse Professional Competence Scale/NPC

In 2014, Nilsson et al. (Nilsson et al., 2014) introduced "The Nurse Professional Competence Scale (NPC)," employing a cohort of 1086 newly graduated nurses for its development. This comprehensive scale comprises 8 sub-dimensions and a total of 88 items, covering diverse aspects of nursing competence.

The sub-dimensions include nursing care (15 items), value-based nursing care (8 items), medical technical care (10 items), teaching/learning and support (11 items), documentation and information technology (4 items), legislation and safety planning in nursing (9 items), leadership and development in nursing (26 items), and education and supervision of staff/students (5 items). Impressively, the Cronbach alpha reliability coefficient for the original scale is reported to be 0.97, indicating a high level of internal consistency.

It's noteworthy that in 2018, Nilsson et al. (Nilsson et al., 2018) later refined the scale, reducing it from 88 items to 35 items, although specific details regarding the reduction process are not provided in the given information.

The Competency Inventory of Nursing Students/ CINS

In 2013, Hsu and Hsieh (Hsu and Hsieh, 2013) introduced "The Competency Inventory of Nursing Students (CINS)" scale, utilizing a sample of 599 nursing students for its development. This scale comprises 6 sub-dimensions encompassing a total of 43 items, each addressing specific facets of nursing competence.

The sub-dimensions are as follows: biomedical science (Five items), general clinical skills (Seven items), critical thinking and reasoning (Four items), caring (Six items), ethics and accountability (15 items), and lifelong learning (Six items). Notably, the Cronbach's alpha reliability coefficient for the scale ranges between 0.91 and 0.98 across the sub-dimensions, indicating a high level of internal consistency and reliability within each domain.

Nursing Students Core Competencies Scale/NSCC

In 2013, Perng and Watson (Perng and Watson, 2013) developed the "Nursing Students Core Competencies Scale (NSCC)" with the involvement of 200 nursing students and 301 faculty members. This comprehensive scale is structured into 8 sub-dimensions, comprising a total of 48 items. Each sub-dimension focuses on specific aspects of nursing competence.

The sub-dimensions include critical thinking and reasoning (Six items), general clinical skills (Six items), basic biomedical science (Six items), communication and teamwork (Six items), caring (Six items), ethics (Six items), accountability (Six items), and lifelong learning (Six items). Impressively, the Cronbach's alpha reliability coefficient for each sub-dimension of the scale surpasses 0.90, indicating a high level of internal consistency and reliability within each component.

Nursing Students Competence Instrument/NSCI

In 2016, Lin et al. (Lin et al., 2016) introduced the Nursing Students Competence Instrument (NSCI) scale, involving a cohort of 209 nursing students for its development. This scale is organized into four distinct sub-dimensions, encompassing a total of 27 items. Each sub-dimension is designed to capture specific facets of nursing competence.

The sub-dimensions are as follows: integrating care abilities (10 items), leading humanity concerns (Six items), advancing

career talents (Six items), and dealing with tension (Four items). The scale seeks to comprehensively assess the diverse dimensions of nursing competence exhibited by students, providing a nuanced understanding of their abilities in different aspects of nursing practice.

Ambulance Nurse Competence Scale/ANC

In 2019, Nilsson et al. (Nilsson et al., 2020) introduced the "Ambulance Nurse Competence Scale (ANC)" scale, involving 179 nurses/specialist nurses and 34 specialist nursing students in its development. This comprehensive scale is structured into 8 sub-dimensions, comprising a total of 43 items. Each sub-dimension is designed to assess specific aspects of competence relevant to ambulance nursing.

The sub-dimensions include nursing care (8 items), value-based nursing care (5 items), medical technical care (Five items), care environment's community (Four items), care environment's serious events (Eight items), leadership management (Three items), supervision and professional conduct (Four items), and research and development (Six items). Notably, the Cronbach alpha reliability coefficient for the scale is reported to be 0.94, indicating a high level of internal consistency and reliability within the measurement tool.

Anaesthesia Nursing Competence Scale

In 2019, Jeon et al. (Jeon et al., 2020) introduced the "Anaesthesia Nursing Competence Scale," involving 222 anaesthesia nurses and 205 nursing students in its development. This scale is organized into 7 sub-dimensions, encompassing a total of 39 items. Each sub-dimension is designed to evaluate specific aspects of competence relevant to anaesthesia nursing.

The sub-dimensions include ethics of anaesthesia care, patient's risk care, cooperation within patient care, patient engagement with technology, anaesthesia patient care with medication, peri-anaesthesia nursing intervention, and knowledge of anaesthesia patient care. The Cronbach alpha reliability coefficient for the sub-dimensions of the scale ranges between 0.83 and 0.95, indicating a high level of internal consistency and reliability within each domain of anaesthesia nursing competence.

Table 1. Introductory information about the scales

Measurement Tool	Developer/s	Development Group	The Cronbach alpha coefficient	Sub-dimensions
Nurse Competence Scale	Meretoja et al., 2004	498 nurses	0.79-0.91	• Helping role (*seven items*), • Teaching–coaching (*16 items*), • Diagnostic functions (*seven items*), • Managing situations (*eight items)*, • Therapeutic interventions (*10 items*), • Ensuring quality (*six items*) • Work role (*19 items*)
Self-Evaluated Core Competencies Scale	Hsu and Hsieh, 2009	802 nursing students	0,84	• Humanity/responsibility (accountability, ethics, caring, lifelong learning, communication and team work) • Cognitive/performance (critical thinking, general clinical skills and basic biomedical knowledge)
Holistic Nursing Competence Scale (HNCS)	Takase and Teraoka, 2011	331 nurses	0,96	• Staff education and management (Nine items) • Ethical practice (Nine items) • The provision of nursing care (Seven items) • Professional development (Four items)
The Intensive and Critical Care Nursing Competence Scale	Lakanmaa et al., 2014	139 graduating nursing students, 431 intensive care nurses	0,98	• The scale consists of two sub-dimensions • Patient-related clinical competence Principles of nursing care (12 items), Clinical guidelines (12 items), Nursing interventions (36 items) • Professional competence • Ethical activity and familiarity of health care laws (12 items), Decision-making (12 items),Development work (12 items), Collaboration (12 items), Knowledge base (36 items), Skill base (36 items), Attitude and value base (36 items)
The Nurse Professional Competence Scale (NPC)	Nilsson et al., 2014	1086 newly graduated nurse students	0,97	• Nursing care (15 items), • Value-based nursing care (eight items), • Medical/technical care (10 items), • Teaching/learning and support (11 items), • Documentation and information technology (four items), • Legislation in nursing and safety planning (nine items), • Leadership in and development of nursing care (26 items) and • Education and supervision of staff/students (five items) • * The scale was reduced from 88 items to 35 items in 2018.
The Competency Inventory of Nursing Students (CINS)	Hsu and Hsieh, 2013	599 nursing students	0,91-0,98	• Ethics and accountability (*15 items*) • General clinical skills (*seven items*) • Lifelong learning (*six items*) • Clinical biomedical science (*five items*) • Caring (*six items*) • Critical thinking and reasoning (*four items*)

Table 1. Introductory information about the scales (continue)

Measurement Tool	Developer/s	Development Group	The Cronbach alpha coefficient	Sub-dimensions
Nursing Students Core Competencies Scale (NSCC)	Perng and Watson, 2013	200 nursing students and 301 nursing Instructors	>0,90	• Critical thinking and reasoning (*Six items*) • General clinical skills (*Six items*) • Basic biomedical science (*Six items*) • Communication and teamwork capability (*Six items)* • Caring (*Six items*) • Ethics (*Six items*) • Accountability (*Six items*) • Lifelong learning (*Six items*)
Nursing Students Competence Instrument (NSCI)	Lin et al., 2016	200 nursing students		• Integrating care abilities (10 items) • Leading humanity concers (*Six items*) • Advancing career talents (*Six items*) • Dealing with tension (*Four items*)
Ambulance Nurse Competence Scale (ANC)	Nilsson et al., 2019	179 registered/specialist ambulance nurses and 34 specialist ambulance nursing students	0,94	• Nursing Care (*Eight items)* • Value-based Nursing Care (*Five items*) • Medical Technical Care (*Five items*) • Care Environment's Community (*Four items)* • Care Environment's Serious Events (*Eight items)* • Leadership Management (*Three items*) • Supervision and Professional Conduct (*Four items*) • Research and Development (*Six items*)
Anaesthesia Nursing Competence Scale	Jeon et al., 2019	222 anaesthesia nurses and 205 nursing students	0,83-0,95	• Ethics of anaesthesia care • Patient's risk care • Patient engagement with technology • Collaboration within patient care • Anaesthesia patient care with medication • Peri-anaesthesia nursing intervention • Knowledge of anaesthesia patient care

II. CONCLUSION

A diverse range of assessment scales is accessible for evaluating the professional competencies of both nursing students and practicing nurses. Specialized nursing branches have contributed to this landscape by developing scales tailored to assess professional competence within their specific fields. However, despite the shared focus on evaluating various aspects of competence across these scales, a universally standardized terminology for assessing professional competency within the nursing profession remains absent. The absence of such standardization may pose challenges in achieving consistent and comparable evaluations across diverse contexts and specialties within nursing. Efforts to establish common terminology and frameworks could contribute to greater coherence and comparability in assessing and enhancing professional competency in the nursing profession.

Implications for nursing education

Given the dynamic nature of professional competencies, which evolve over time, with experience and in response to changing environments, there is a recognized need for regular updates. This is particularly crucial as health needs become more diverse in an ever-changing world. To ensure

relevance and applicability, competencies should be updated periodically, localized to specific regions, and adjusted based on the cultural context of each country.

Moreover, there is a growing consensus that the measurement tools used to assess professional competencies should be simplified and made more practical. Developing tools that are straightforward, easy to apply, and aligned with real-world scenarios is imperative. This approach not only facilitates the assessment process but also enhances the utility of the assessments in diverse healthcare settings. Simplified measurement tools can contribute to more effective evaluations, enabling healthcare professionals to adapt and address evolving healthcare demands more efficiently.

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Men's Motivations for Choosing the Nursing Profession: Examples from Two Different Cultures

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Abstract:

Background: Conscious choice of the nursing profession is important in preventing human errors that may occur during health care delivery. **Aim:** This study was carried out to determine the professional choice motivations of male nurses studying in undergraduate programs and working in health care institutions in Turkey and Bulgaria.

Methods: The sample of the descriptive study consisted of 219 nursing students studying in Istanbul, Tekirdağ and Plovdiv and nurses working in these provinces. For data collection, the Diagnostic Form, prepared by the researchers and consisting of thirteen questions, was applied to the participants online. Ethics committee approval (2022/20) and institutional permissions were obtained for the study. Descriptive statistics were used to analyze the data.

Results: The average age of nursing students (26.9%; n=59) and nurses (73.1%; n=160) participating in the study was 25.85±6.0. It was determined that the top four motivations for choosing a profession were "Opportunity to perform the profession all over the world (53%)", "Professional career (42%)", "Economic gain (37.4%) and "Patient care (37.4%)". 65.3% (n=143) of the participants reported that they did not regret their professional choices, and 62.6% (n=137) reported that the patients perceived them as "reliable". 68.1% (n=109) of the participants stated that gender did not affect their job application, and 81.3% (n=178) stated that they planned to continue developing in their profession.

Conclusion: The study results show that male nurses are satisfied with their career choices, do not experience gender-related problems in career planning, and have professional development goals. The fact that "the opportunity to practice the profession all over the world" ranks first among the reasons for choosing the profession suggests the migration tendency of nurses. Since the study covers a limited sample, it is recommended that similar studies be planned with a larger sample, qualitative type, and including nurses' migration intentions.

Keywords: Career choice, gender, male, nursing

I. INTRODUCTION

Career choice is one of the most important points of human life (Olgun & Adıbelli, 2020). In this cycle, which directly affects the individual's life, people spend most of the day in the professional environment they prefer (Bulut et al., 2020). While individual characteristics and professional qualifications are expected to match in choosing a profession, many factors such as financial gain, social status, career opportunities and job security can differentiate this situation (Lafcı, 2021). It is a known fact that health professions are among the most preferred professions today (Jung & Yoo, 2022).

The World Health Organization describes nursing as a profession that requires many professional and applicable skills, special knowledge and a high level of empathy, and states that it requires daily work with people (WHO, 2018). In this definition, the characteristics of the profession are listed and the qualifications required by the profession are emphasized regardless of gender discrimination (Bayer et al., 2022). In the last thirty years, it has been reported that there has been an increase in the number of male nurses in the profession (Zhang & Tu, 2020) and studies have shown that patients have care preferences in line with their gender (Teresa-Morales et al., 2022; Uysal et al., 2019).

Consciously choosing the nursing profession is one of the important factors affecting the professional perceptions of the society as well as preventing human errors that may occur (Bölükbas, 2018). The reasons why nurses prefer the profession are feedbacks such as choosing the profession willingly, the thought of not being unemployed, liking to help and a good career opportunity (Harding et al., 2018; Olgun & Adıbelli, 2020, Şahin et al., 2020). However, burnout rates and turnover rates in nurses practicing the profession are also undeniable (Wan et al, 2022).

Motivation is defined as "the force that arises as a result of the motivation of the individual's internal or environmental factors, activates the individual and arouses a sense of maintaining the behavior" (Kuvaas et al., 2017). Professional motivation of nurses is one of the important elements of work efficiency and institutional success (Bayer et al., 2022). Although there are studies conducted for this purpose in the literature, the number of current studies directly questioning the motivation of male nurses' professional choice is limited. The aim of this study was determined the professional choice motivations of male nurses studying in undergraduate programs and working in health care institutions in Turkey and Bulgaria.

II. METHOD

The sample of the descriptive study consisted of 219 nursing students studying in Istanbul, Tekirdağ and Plovdiv, and nurses working in these provinces. For data collection, the Diagnostic Form, prepared by the researchers and consisting of thirteen questions. For ease of distribution and data collection, the data collection form was delivered to the participants online via Google Survey.

The Ethical Part of the Research

Ethics committee approval (2022/20) and institutional permissions were obtained for the study.

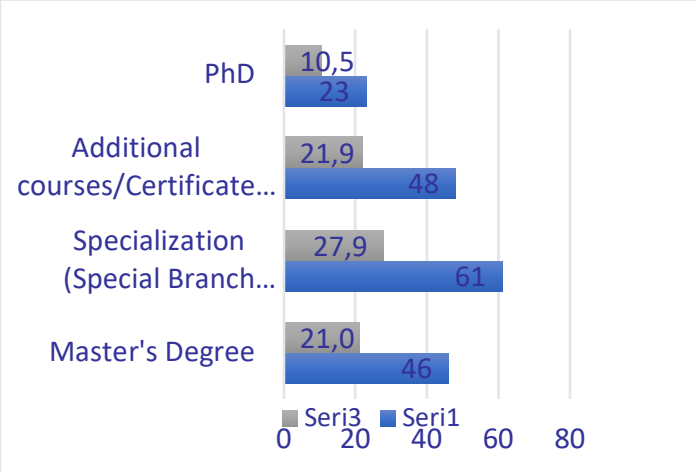
Analysis of Data

Descriptive statistics were used to analyze the data.

III. RESULTS

The average age of nursing students (26.9%; n=59) and nurses (73.1%; n=160) participating in the study was 25.85±6.0. In the study, 33.7% (n=54) of the nurses worked in intensive care, 33.1% (n=53) in inpatient services, 8.2% (n=18) in emergency services and other units (n=35, 25.0%). It was determined that the top four motivations for choosing a profession were "Opportunity to perform the profession all over the world (53%)", "Professional career (42%)", "Economic gain (37.4%) and "Patient care (37.4%)". 65.3% (n=143) of the participants reported that they did not regret their professional choices, and 62.6% (n=137) reported that the patients perceived them as "reliable". The rate of those who reported that there was no different behavior in terms of gender in clinical practice was

50.2% (n=110). 68.1% (n=109) of the participants stated that gender did not affect their job application, and 81.3% (n=178) stated that they planned to continue developing in their profession. Finally, the results indicating the path nurses take in their profession are presented in Graph 1.



Graph 1. Professional Development Preferences of Nurses

IV. DISCUSSION

It is a fact that male nurses are increasingly being adopted in nursing (Zhang & Tu, 2020). In this study, male nurses reported that they did not experience problems in finding a job in terms of gender. In the study conducted by Bölükbas (2018), it was determined that the possibility of finding a job was the first priority in the preference of the nursing profession. In this study, the result of the possibility of practicing the profession all over the world stands out. Yi and Keogh (2016) found that male nurses were motivated to choose the nursing profession because they had a good perception of the profession; however, other men chose the profession because they had no other options. A similar situation can be said about this study.

In the study in which intensive care nurses predominated, it is pleasing that male nurses had high satisfaction with their profession. Although there are studies in which the results of the study are compatible, incompatible studies were also found (Appiah et al., 2021; van der Cingel, & Brouwer, 2021; Prosen, 2022). In a study, it was determined that healthy/patient individuals demanded more service from male nurses (56.2%) than female nurses (Ünver et al., 2010). In another study, patients reported that male nurses should work in all areas (Uysal et al., 2019). In this study, male nurses reported that they were described as "reliable" by patients. From this point of view, it was considered normal that male nurses reported that they didn't encounter a different situation in clinical practice.

In the study, it was determined that the majority of male nurses aim for a higher position than their current position. In a study, no statistical significance was found between gender and career barrier (Kahraman and Kahraman, 2020). In this respect, it is a legal responsibility for both male and female nurses to continue their professional development.

V. CONCLUSIONS

The study results show that male nurses are satisfied with their career choices, do not experience gender-related problems in career planning, and have professional development goals. The fact that "the opportunity to practice the profession all over the world" ranks first among the reasons for choosing the profession suggests the migration tendency of nurses. Since the study covers a limited sample, it is recommended that similar studies be planned with a larger sample, qualitative type, and including nurses' migration intentions.

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Effects of Resilience and Personal Accomplishment on the Relationship Between Quality of Work-Life and Turnover Intention Among Newly Employed Nurses

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***Abstract*:**
The study aims to explore the effects of resilience and personal accomplishment on the relationship between the quality of work-life and turnover intention. A cross-sectional approach surveyed 387 newly employed nurses who had worked for just one month at six medical centers in Taiwan. Four instruments were used for data collection and Hayes's PROCESS analysis method was used to analyze the data. Resilience negatively mediated the relationship between quality of work-life and turnover intention (B = -.032, p< .001). The moderating effect between the quality of work- life and personal accomplishment was significant (B = .012, p< .05). The total variance of quality of work-life and sense of accomplishment explained 61% of the resilience variance. The quality of work-life and resilience explained 50.5% of turnover intention. The relationship between the quality of work-life and turnover intention mediated by resilience was stronger when the sense of personal accomplishment level was greater. Resilience plays a mediating role in the relationship between quality of work-life and turnover intention. Personal accomplishment can moderate the mediating effect of resilience. Educators should provide strategies to improve personal accomplishment and resilience education for students and nurses.

Keywords: Newly employed nurses, personal accomplishment, resilience, turnover intention, quality of work-life

I. INTRODUCTION

The World Health Organization (WHO, 2022) predicted a shortage of 18 million global health workers by 2030. Within

one year 17.5% of nurses leave hospital positions with the turnover rate increasing to 27.5% at year two (Shaffer & Curtin, 2020). Both turnover rate and recruitment are critical issues (International Council of Nurses [ICN], 2021). The ongoing nurse shortage and high rate of nurse turnover are considered critical challenges for healthcare organizations. Shortage and turnover can negatively affect the quality of nursing care along with organizational productivity (Drennan & Ross, 2019). Studies show that quality of work-life affects absenteeism, turnover intention, and actual turnover (Azhar et al., 2022; Lawyer et al., 2022). Personal accomplishment and resilience are positively correlated with the quality of work- life (Zahednezhad et al., 2021). However, the effect of a sense of personal accomplishment or resilience has received little attention in relation to the quality of work-life and turnover intention. The aim of this study was This study aimed to test a hypothetical model on the effect of resilience, Personal accomplishment, and the relationship between quality of work-life and turnover intentions among newly employed nurses.

II. METHOD

A cross-sectional survey obtained a convenience sampling of newly employed hospital nurses. Participants were recruited from six medical centers in Taiwan where newly employed nurses. The research questionnaire consisted of demographic data and four established self-report instruments.

1. Quality of Work-life Scale (QWL)
   No. of Item: 41
   Rating: 1(never agree) to 6 (highly agree)
   Reliability of sacle and in the study: .93,.90

2. Chinese Version of the Connor-Davidson Resilience Scale (CD-RISC)
   No. of Item: 25
   Rating: 0 (not true at all) to 4 (true nearly all the time)
   Reliability of sacle and in the study: .95, .97

3. Chinese version of Maslach Burnout Inventory-Human Services Survey (MBI-HSS)

No. of Item: 8 for personal accomplishment

Rating: 0 (never) to 6 (every day)

Reliability of sacle and in the study: .86, .91

4. Turnover Intention

No. of Item: 5

Rating: 0 (never) to 5 (all the time)

Reliability of sacle and in the study: .93, .83

The Ethical Part of the Research

Approval to conduct the study was obtained from the Institutional Review Board of the author's institution (NCKUH-A-ER-107-323), and the six participating hospitals. Verbal consent was obtained by the Director of Nursing of the six medical centers. Newly employed nurses provided informed consent.

Analysis of Data

The PROCESS software performs path analysis based on regression and is used to verify moderating mediation mode. Verification is confirmed by an index of moderating mediation to examine the effect of moderating mediation. Model 7 can examine the effects of mediation (direct and indirect effect), moderation (interaction effect), and moderated mediation as well as explore the cutoff point using the Johnson-Neyman procedure (Hayes, 2018).

III. RESULTS

The demographic data was shown in Table 1.

Table 1. Characteristics of the newly employed nurses (n=387)

Variable	Frequency(n)	Percentage (%)
Location of hospitals		
Northern Taiwan	125	32.3
Central Taiwan	179	46.3
Southern Taiwan	83	21.4
Type of hospital		
Public	147	38
Private	240	62
Gender		
Male	37	9.6
Female	350	90.4
	Mean	SD
Age	24.1	3.71
Quality of work-life (QWL) (1-6)	4.5	0.61
QWL_SP	5.5	0.68
QWL_WW	4.0	0.93
QWL_WB	3.8	0.95
QWL_NM	4.8	0.68
QWL_TC	5.0	0.69
QWL_SC	4.4	0.85
QWL_RA	4.6	0.79
Sense of personal accomplishment (0-6)	4.7	1.01
Resilience (R) (0-4)	1.9	0.74
R_PC	1.9	0.77
R_TTS	1.8	0.75
R_PAC	2.0	0.82
R_C	1.7	0.81
R_S	1.8	0.9
Turnover intention (1-5)	2.2	0.75

QWL: Quality of work-life; SP: Supportive milieu with job security and professional recognition; WW: 24; WB: Work/home life balance; NM: Head nurse's/supervisor's management style; TC: Teamwork and communication; SC: Nursing staffing and patient care; RA: Milieu of respect and autonomy; SPA: Sense of personal accomplishment; R: Resilience; TI: Turnover intention. PC: Personal competence; TTS: Trust in one's instincts, tolerance of negative affect, and strengthening effects of stress; PAC: positive acceptance of change and secure relationships; C: Control; and S: Spirituality.

The regression analysis of quality of work-life (QWL) and sense of personal accomplishment (SPA) affect resilience and turnover was shown in Table 2.

Table 2. Process analysis of regression for resilience and turnover intention

	Resilience		Turnover intention	
	B	SE	B	SE
Constant	58.786*	27.147	24.674**	1.251
Quality of work-life (QWL)	-.323	.151	-.065**	.007
Personal accomplishment (PA)	-.909	.706		
Resilience			-.032**	.009
QWL* PA	.012*	.004		
R^2	.610		.505	
F	75.233**		65.177**	

The relationship between quality of work-life and turnover intention through resilience is stronger when the sense of personal accomplishment level is above moderate (Table 3).

Table 3. Conditional indirect effects (moderated mediation) using Model 7 of the process analysis

Levels of PA	Effect	Boot SE	Boot LLCI	Boot ULCI
Low (PA-1SD: 29.30)	-.0006	.0016	-.0041	.0024
Moderate (PA:37.41)	-.0034	.0015	-.0068	-.0010
High (PA +1SD: 45.51)	-.0063	.0022	-.0110	-.0023
Index of moderated mediation	-.0003	.0002	-.0007	-.0001

Note. PA: Personal accomplishment

IV. DISCUSSION

When problems in a nurse's work life spill over into home life, they are perceived to be intrusive, and newly employed nurses have a stronger intention to leave. The mean age among nurses in the survey was young, a population known as Generation Y. Generation Y strongly believes in work/life balance and is very concerned with recognition and rewards for achievements (Chung & Fitzsimons, 2013). Problems in coping with the new relationship and demanding work environment can cause stress and poor quality of work-life. Yet, the Generation Y newly employed nurses demonstrated resilience which with proper support can help overcome work- life challenges (Clendon & Walker, 2012). Strengthening the feelings of competence, self-confidence, and positive motivation among nurses will result in better task performance (Karaboga et al., 2022). Resilience training should not only focus on personal character but should also emphasize the quality of work-life and workplace support systems (Zahednezhad et al., 2021).

V. CONCLUSION

Resilience plays a mediating role in the relationship between quality of work-life and turnover intention of newly employed nurses. A sense of accomplishment can moderate resilience. Strategies to improve newly employed nurses' sense of personal accomplishment and resilience may decrease turnover. Hospital administrators need to address ongoing and fundamental work-life concerns of staff nurses in a long-term and meaningful way.

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Exploring Career Counseling Strategies for Nursing Students by Testing on UCAN Platformin Taiwan

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***Abstract*:**
This study uses secondary data from the UCAN Employment Platform of the Ministry of Education's colleges and universities to conduct statistical analysis on the database of first to fourth grade nursing students in eastern Taiwan. The results show that nursing students undergo the first random inspection when they first enter school. It was found that the self-assessment results of career type scores were mainly career types in "health care". A survey conducted in the second and fourth grade found that there was a significant improvement in self-assessment scoring skills in career types after clinical internship in the hospital. A survey conducted among third- and fourth-grade students found that after intervention measures for medical care and self-performance have been significantly improved; in recent years, in addition to room forimprovement in innovation and problem-solving abilities, nursing students have significantly improved in other common performances compared with previous years.

Keywords: Career counseling strategies, common functions,nursing student, UCAN, professional functions

I. INTRODUCTION

The cultivation of nursing manpower not only affects the supply of nursing manpower but also affects the operation and quality of the medical system. If nursing students are provided with effective assistance during their studies and before graduation before they enter the workforce, it may be helpful toimprove nursing students' entry into the workforce. The Ministry of Education in Taiwan established the "UCAN-College Employment Function Platform" in 2010. This platform includes a career interest exploration test, a professional function test, a job development teaching energy feedback test, and an ability development plan.

Aim: This study uses the UCAN platform to be helpful for current work and then makes suggestions as a reference for curriculum planning or teaching adjustment and explores Strategies for career counseling for nursing students in Taiwan.

Methods: 1. This study collects data from freshmen to seniors of the Department of Nursing at Eastern University. 269 nursing students. 2. Research method: A pre-test and a post-test on common workplace functions before the basicnursing internship in the second semester in the second semester.3. Data processing: All data obtained in this study were processed with IBM SPSS 26 Chinese version statistical software for paired sample t-test.

Results: The fourth-year students of the Department ofNursing obtained the results of a secondary appraisal of professional functions, establishing a medical-patient relationship to assist in the assessment and understanding andanalysis of physical and mental health problems, and patient needs to formulate medical care plans, and tracking the effects of medical care. Some significant improvements have been made.

II. CONCLUSION

A negative correlation exists between the performance of basic nursing courses and professional functions. Reviewing the most basic nursing concepts and practical skills in basic nursing courses, it is recommended that more situational exercises be added to enhance and be closer to students' imagination of clinical.

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Nursing Experience of Patients with Hepatitis C Receiving All-Oral Antiviral Drug Therapy

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***Abstract*:**
Hepatitis C is a hepatitis reaction caused by hepatitis C virus. According to the statistics of the World Health Organization (WHO) in 2021, there are an estimated 58 million people infected with hepatitis C in the world, and there are about 1.5 million new infections of hepatitis C virus every year; According to the statistics of the Coalition for Global Hepatitis Elimination, the total number of deaths due to liver C in Taiwan in 2020 is 5,418, and the proportion of liver cancer deaths caused by liver C is 39%.Viral hepatitis C can easily cause liver cell damage, leading to long-term liver inflammation, liver fibrosis, and eventually cirrhosis. According to statistics, about 15-30% of patients infected with hepatitis C for more than 20 years will develop cirrhosis. , if the liver loses compensation, it will cause ascites, portal hypertension will cause esophageal or gastric varices to cause bleeding, or complications such as liver and brain lesions, and increase the incidence of liver cancer, which may be life-threatening. Hepatitis C patients are more anxious than other virus-infected groups during the diagnosis and treatment process because they are worried about turning into cirrhosis or even liver cancer. Physical impact and prognosis caused by psychology.

Keywords: HCV RNA viral load, hepatitis C

I. INTRODUCTION

During the regular blood test at the clinic, due to high liver function, he was transferred to our hospital for relevant tests and treatment. The test report on July 16, 2019 was GOT: 86U/L, GPT: 90U/L, HCV RNA Viral load: 745940IU/ML, HCV Genotyping Test: type 1b. After the doctor's explanation and suggestion, the case agreed to undergo full oral antiviral drug treatment for hepatitis C. Zepatier was given one tablet/day starting on September 25, 2019, for 12 days. Zhou took the medicine and completed the treatment on March 23, 2020.

During the care of the case, it was found that the case did not know that he was infected with hepatitis C, nor did he know how he was infected, and he did not understand the treatment process and effect,Through the complete nursing process, support is given to the case and family members to achieve the goal of completing the treatment of hepatitis C with oral antiviral drugs.

Subtitle (s)

The author is the hepatitis case manager of the case. The nursing period was from September 25, 2019 to March 23, 2020. Data were collected through direct outpatient interviews, telephone interviews, medical record review, physical assessment, etc., and the use of Gordon's 11 items (Gordon11Function Health Patterns) is used as the evaluation framework, and the data is collected as follows:

(1) Health cognition and health processing patterns

Due to high blood pressure, the patient will pay attention to his physical condition, and occasionally exercise to maintain physical function. When he is sick, he will go to the clinic first. He will not take over-the-counter medicines or take traditional Chinese medicine for treatment. He does not smoke or eat betel nuts. As a hobby, he only drinks when friends get together for dinner, only once a month, and drinks about the same amount as a bottle of beer each time. 9/25 cases reported: "I had a blood transfusion when I was young. Could it be because of that?" infection?", "I heard that this drug can kill hepatitis C virus, will it have any impact on my body?", "After treatment, I heard that it is still possible to be infected with hepatitis C virus, so what do I usually do? How to prevent infection?" and "What should be done to maintain normal liver function index?" During the treatment of hepatitis C, the patient will return to the doctor on time to get medicine.

The patient is positive and willing to cooperate with the treatment.

(2) Nutrition and metabolic pattern

The case is 156 cm tall, weighs 60 kg, BMI: 24.6 kg/m2, and the standard weight should be 53.2 kg. He is overweight. The caloric requirement per day is 1800-1900 calories, and the water requirement per day is 1800cc; the daily diet is eating out. More, 9/25 case: "My wife will cook twice a week, usually eating white rice. She will eat more Western breakfast, hamburgers and a large cup of fresh milk tea for dinner. My wife can cook or eat outside." "For dinner, I only eat a bowl of white rice with three kinds of vegetables, chicken or pork, and a pot of soup, sometimes with pickled pickles and gluten. But in addition to the three meals, I will eat bread or fruit snacks in the afternoon." The daily caloric intake is about 1850 calories. I don't like to drink sugary drinks on weekdays. I will have a glass of wine a week, mostly tea as my daily drink, and drink about 1000-1500CC of water a day; The test report of the case on July 16, 2019 was Albumin: 3.7g/dl. At the time of observation, the hair volume was small, the lower eyelids were ruddy and there was no anemia, there were no sunken eye sockets, the teeth were neatly arranged, there were no dentures or missing teeth, and the color of the nails was Normally, there is no pallor, the extremities of the limbs are warm, and there is no edema in the lower limbs.

(3) Excretion pattern

The patient's urine was normal and he had no difficulty in urinating. He urinated about 7-8 times a day. Case 9/25: "My urine is yellow and there is no burning sensation. I have a bowel movement about once a day." Case Observe that the stool pattern is strip-shaped and soft yellow, and there is no constipation or use of stool-softening drugs to assist defecation.

(4) Activities and sports patterns

There is no fixed time for leisure activities. I usually walk around my home, chat with neighbors and play chess. Before treatment, I can go to the park to exercise for two hours every morning, but during the treatment, I will exercise for half an hour every day, and then rest at home. 9/25 Case: "I don't exercise much recently because I'm a little tired after taking medicine, so I rest at home." "I usually listen to music or watch TV to relax." "I also meet up with friends to sing at a karaoke shop." The muscle strength of his limbs was evaluated on 9/25. His upper limbs scored 5 points and his lower limbs 5 points. He could move freely. His vital signs were body temperature 36.3 degrees, heartbeat 88 beats/min, blood pressure: 136/78mmHg, and breathing steady when walking.

(5) Sleep and rest patterns

On the 9/25 case, he said: "I sleep well. I don't have the habit of taking sleeping pills. I listen to light music to sleep at night." "I sleep for an average of 7 to 8 hours at night. I usually fall asleep around 10pm and 6am. He would get up and sleep for about half an hour at noon." There was no signs of fatigue, yawning, puffy eyelids or dark circles during the interview on 9/25.

(6) Cognition and feeling patterns

The patient has clear consciousness, E4V5M6 according to the Glasgow Coma Scale, and answers fluently. Case on 10/09: "The last time I took the liver C medicine, I felt a headache every time I took the medicine in the morning." "In addition, if I didn't sleep the night before, Well, the headache will be more obvious." "The pain is tingling, especially at the temple." "The pain lasts for about 3-5 minutes. I need to sleep to feel better." "Almost every time. "I have a headache after taking medicine", "I wonder if the doctor can prescribe stronger painkillers", "Is there any way to make my head less painful", according to the Numerical Rating Scale (NRS) during the interview, the case The perceived pain index was about 6-7, and he frowned and touched his head from time to time. During the interview, it was found that the patient was focused on the headache and had difficulty concentrating.

(7) Self-feeling and self-concept type

The case said that he is outgoing and easy to get along with, serious at work, responsible for his family, and has no bad habits. On 9/25, the case said: "I was really surprised when I tested positive for hepatitis C this time. I started taking hepatitis C this time." After hepatitis drug treatment, will the virus still be there after treatment?", "Now that the hepatitis virus and liver function index are so high, will the virus and liver function remain as high after taking the medicine and drawing blood?", "I just heard the doctor say that the liver "I already have fibrosis. If it is not treated well, will I develop cirrhosis of the liver? What if it turns into liver cancer again?" When the patient told the story, his tone of voice was rapid, his brows were furrowed, his hands were placed in front of his chest, his feet were constantly changing positions, and he was restless. While telling the story, he kept looking at his wife, feeling helpless in his tone, and kept repeating the same questions. According to the SAS (Self-Rating Anxiety Scale), his score was 70, indicating moderate anxiety.

(8) Role relationship types

The case is a 65-year-old male who plays the roles of husband, father, and son-in-law. He gets along well with his wife and children. He is accompanied by his wife during all the return visits and takes care of his daily life. The 9/15 case said: "After marrying my wife, I get along very well with my parents-in-law. I usually use my holiday time. "I take my wife back to her parents' home, and sometimes we go out for walks together." "I sometimes take my grandchildren out to play during holidays." The patient gets along well with her children.

(9) Sex and reproductive patterns

The contraceptive method used by the case and his wife was condoms. Case 9/25: "We had a child one year after we got married. My wife and I have a very good relationship." "I am also very satisfied with my current sex life. After having children and getting older, She has less sex." The patient did not have prostate hypertrophy or other reproductive system abnormalities.

(10) Stress response and tolerance patterns

On 9/25, the patient stated: "Whenever I feel stressed at work or in life, I discuss it with my wife and come up with solutions together. Sometimes we go on a family trip to adjust my mood." Consciously able to adjust and cope with stress, 9/25 case: "I was really surprised to be diagnosed with hepatitis C this time, but I still need to treat it. I just thought that I already have a lot of medicines for chronic diseases, and now I have to take hepatitis C medicine again. With medication, people really have all sorts of problems as they age." During the treatment, when patients face physical and mental pressure, they will talk to their husband, children and medical staff to seek positive stress relief.

(11) Values and Belief Types

The patient is a Taoist. His family worships on the first and fifteenth day of the lunar month and burns incense on a daily basis. Through the power of ancestors and gods, he gets psychological support and reliance. The patient said: "Sometimes the gods will visit temples on their birthdays or participate in incense-burning groups. ", the observed case was wearing a peace charm, and the hat was exclusive to the incense group temple.

II. CONCLUSION

This article describes a case of hepatitis C infection. When faced with the current all-oral antiviral drug treatment for hepatitis C, he suffered from headaches and discomfort caused by the side effects of the drug, uncertainty about the effectiveness of the treatment, and anxiety. Regarding the health-seeking behavior of how to maintain liver function and avoid reinfection with hepatitis C during and after treatment, as well as the patient's anxiety during the treatment process, the patient can understand the current treatment by informing the patient of the test items and results during follow-up visits. The effect is to reduce the patient's anxiety, increase the patient's confidence in treatment through greetings and encouragement from family members, and at the same time, through health education books and daily dietary maintenance, let the patient know how to maintain liver function after the treatment is completed; the patient is Under the author's progressive guidance, I have the courage to express my own opinions, give recognition and encouragement, and complete the treatment with the support of my family.

During the treatment period, I strengthen the patient's contingency care when side effects occur and the importance of hepatitis tracking, thereby enhancing The patient's sensitivity to the disease is improved, and self-care ability is improved. At the same time, the patient is assisted to take correct response measures, seek resources, and overcome health problems during the treatment process.

Although oral antiviral drug treatment for hepatitis C is the latest treatment method, at the time of writing this article, it was found that few people in the public know that they are infected with hepatitis C, and most liver diseases have no obvious symptoms, and people are easily alert at present, patients are tested for hepatitis C only through physical examination and the judgment of the attending physician.

We hope that through the relevant publicity measures of the National Health Bureau and the government, we can increase the willingness of Chinese people to have regular health examinations and protect their health. Your own health can also effectively prevent the spread of hepatitis.

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The Crucial Predictors of Resilience in Community-Residing Middle-and Older-Aged Adults with Chronic-Disease-Related Comorbidities

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***Abstract*:**

This study aimed to identify and quantify the useful, crucial predictors of resilience in community-residing middle- and older-aged adults with chronic-disease-related comorbidities. A cross-sectional study design was employed. Subjects were purposively sampled from residential communities in Taiwan. Measures included demographics and health habits questionnaire, 10-item Connor-Davidson Resilience Scale, Social Support Scale, and 15-item Geriatric Depression Scale, World Health Organization- Five Well- Being Index, Karnofsky Scale, and self-rated spiritual health on a 5-point Likert scale. A total of 726 adults with chronic-disease-related comorbidities between 40 and 90 years of age participated in the study. Analysis of stepwise multiple linear regression revealed that the strongest predictors of resilience inparticipants were: perceived well-being, educational level, social support, physical functioning, employment status, depression, and self-rated spiritual health. The model used in the present study explained 44.9% of the variance in the resilience.

Keywords: Chronic diseases, perceived well-being, resilience

I. INTRODUCTION

Elderly are susceptible to suffer chronic disease. In the coming years, the increasing of the proportion of elderly population leads to rising dependency ratios, which is called the "demographic burden" (World Health Organization [WHO], 2023). More than 65% of elderly people have a chronic disease, and those aged over 75 are more likely to have three chronic diseases (multimorbidity) (Ministry of Health and Welfare in Taiwan, 2023 ; Abad-Díez, et al., 2014). Multiple chronic diseases are associated with a high use of healthcare, admissions to nursing homes, and reduced quality of life, which is a stressful event in the late life (Alex, 2010; Lekan, 2018). Of note, resilience is a concept that is gaining attention in gerontology research, as it has been linked to successful aging, which does not mean that the older adults have no disease, and individuals with greater resilience can reverse the negative impacts related aging (Lekan, 2018; MacLeod et al., 2016). Hence, resilience and its related significant factors are early recognized, and further incorporate a supportive model of resilience -related elderly care.

This study aimed to examine resilience and its related factors in community-residing elderly with multimorbidity.

II. METHOD

This was designed as a cross-sectional study using purposive and snowball sampling methods. After approval was obtained from the Human Research Ethics Office. Potentially eligible individuals were invited to participate after being provided a detailed explanation of the study purpose. Inclusion criteria were: 1) community residents aged 65 or over, 2) exhibiting at least two of physician-diagnosed chronic disease, and 3) able to communicate in Mandarin Chinese or Taiwanese. Otherwise-eligible subjects with any of the following criteria were excluded from participation: 1) having a psychiatric disorder, 2) having cognitive impairment, 3) bedridden. Measures included demographics and health habits questionnaire, resilience (using

10-item Connor-Davidson Resilience Scale), social support (using Inventory of Socially Supportive Behavior), depression (15-item Geriatric Depression Scale), and perceived health status (using Chinese Health Questionnaire-12)

The Ethical Part of the Research

Approval to conduct the study was obtained from the National Cheng Kung University Human Research Ethics(NCKU-HREC-E-111-244-2).

Analysis of Data

The SPSS (version 22.0 for Windows) statistical software package was used to analyze the data.category variables were dummied as 0 (no, women, junior high school or lower, and single/widowed) and 1 (yes, man, senior high school or higher, and married) . Pearson's correlations were used to examine relationships among variables and resilience. All results with $p <$ .05 were considered statistically significant.

III. RESULTS

The demographic data was shown in Table 1

Table 1. Demographic Characteristics of Participants (n =224)

Variables	*n* (%)	Mean (*SD*)
Age (years)		66.7 (11.5)
Total number of chronic diseases		1.45 (0.79)
Education level		
Junior high school or lower	400 (55.1%)	
Senior high school or higher	326 (44.9%)	
Employment status		
No	502 (69.1%)	
Yes	206 (28.4%)	
Religious		
No	311 (42.8%)	
Yes	415 (57.2%)	
Taking regularly prescribed Medications		
No	200 (27.5%)	
Yes	526 (72.5%)	
Regular exercise		
No	322 (44.4%)	
Yes	404 (55.6%)	
Smoker		
No	659 (90.8%)	
Yes	67 (9.2%)	
Alcohol consumption		
No	641 (88.3%)	
Yes	85 (11.7%)	

The regression model of resilience was shown in Table 2.

Table 2 Stepwise Multiple Regression Model for Resilience in Participants

Predictor variables	B	*SE*	β	*t*	*p*	R2	Adjusted R2	*F change*	*p-value*
perceived well-being	0.167	0.013	0.414	13.109	<.001	0.28	0.279	280.973	<.001
Educational level	0.937	0.181	0.174	5.184	<.001	0.351	0.349	79.143	<.001
Social support from	0.312	0.046	0.191	6.738	<.001	0.394	0.391	51.421	<.001
Physical functioning	-1.447	0.316	-0.149	-4.586	<.001	0.423	0.42	36.103	<.001
Employment status	1.851	0.545	0.115	3.398	0.00	0.433	0.429	12.91	0.001
Depression	-0.237	0.079	-0.095	-3.003	0.00	0.44	0.435	9.016	0.003
Self-rated spiritual health	0.92	0.335	0.09	2.747	0.00	0.446	0.44	7.548	0.006
Social support from friends	0.093	0.042	0.065	2.207	0.02	0.449	0.443	4.871	0.028
Constant	14.615	1.715							

The Ethical Part of the Research

Approval to conduct the study was obtained from the National Cheng Kung University Human Research Ethics (NCKU-HREC-E-111-244-2).

Analysis of Data

The SPSS (version 22.0 for Windows) statistical softwarepackage was used to analyze the data. Two-sample t-tests were also used to examine the relationships among categorical variables and depression. Pearson's correlations were used to examine relationships among continuous variables and depression. Finally, stepwise multiple linear regression analysis was performed to predict resilience in community residents aged 40 or over with at least one of physician-diagnosed chronic disease. All results with $p < .05$ were considered statistically significant.

IV. DISCUSSION

The important significant predictors of resilience included perceived well-being, educational level, social support, physical functioning, employment status, depression, and self-rated spiritual health. Our findings were partially echo to the study by Kim et al. (2020), they found individuals who had lower depression levels and greater interpersonal relationship had more positive psychological status. Our findings were similar with the results of Pierini and Stuifbergen (2010).

They investigated the relationship between psychological resilience factors (eg., personal resources, interpersonal relationships, self-rated health, and spiritual growth) and depressive symptoms in persons over age 65 ($n = 630$), and results revealed that depressive symptoms and spiritual growth were the main predictors of resilience.

V.CONCLUSION

Community-residing middle-and older-aged adults with chronic-disease-related comorbidities who were employed, had a higher degree of education, were greater physical functioning, had a greater perceived well-being, received higher levels of social support, had a lower level of depression, or had greater self-rated spiritual health were more likely to report have a higher level of resilience. Since perceived well- being, social support, physical functioning, and self-rated spiritual health are amenable to intervention, further research should incorporate these four variables into a supportive model of self-management for chronic health conditions.

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Resilience and Its Related Factors among Community-residing Elderly with Multimorbidity

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***Abstract*:**
The aim of the study was to examine resilience and its related factors in community-residing elderly with multimorbidity. A cross-sectional study design was conducted.Convenience and snowball samplings were employed to recruit potential subjects from communities in southern Taiwan. Measures included demographics and health habits questionnaire, 10-item Connor-Davidson Resilience Scale, Social Support Scale, Chinese Health Questionnaire-12, and 15-item Geriatric Depression Scale. Of the 300 eligible individuals invited to participate in this study, 224 participants,with a mean age of 73.6, completed the data collection. The most common chronic illness was hypertension (71.4%). The significant associations were found between resilience and the variables of age, the number of chronic illness, marital status, education levels, regular exercise, social support, perceived health status, and depression (all *p* values below .05).

Keywords: Elderly, multimorbidity, resilience

I. INTRODUCTION

Elderly are susceptible to suffer chronic disease. In the coming years, the increasing of the proportion of elderly population leads to rising dependency ratios, which is called the "demographic burden" (World Health Organization [WHO], 2023). More than 65% of elderly people have a chronic disease, and those aged over 75 are more likely to have three chronic diseases (multimorbidity) (Ministry of Health and Welfare in Taiwan, 2023； Abad-Díez, et al., 2014). Multiple chronic diseases are associated with a high use of healthcare, admissions to nursing homes, and reduced quality of life, which is a stressful event in the late life (Alex, 2010; Lekan, 2018). Of note, resilience is a concept that is gaining attention in gerontology research, as it has been linked to successful aging, which does not mean that the older adults have no disease, and individuals with greater resilience can reverse the negative impacts related aging (Lekan, 2018; MacLeod et al., 2016). Hence, resilience and its related significant factors are early recognized, and further incorporate a supportive model of resilience -related elderly care.

This study aimed to examine resilience and its related factors in community-residing elderly with multimorbidity.

II. METHOD

This was designed as a cross-sectional study using purposive and snowball sampling methods. After approval was obtained from the Human Research Ethics Office. Potentially eligible individuals were invited to participate after being provided a detailed explanation of the study purpose. Inclusion criteria were: 1) community residents aged 65 or over, 2) exhibiting at least two of physician-diagnosed chronic disease, and 3) able to communicate in Mandarin Chinese or Taiwanese. Otherwise-eligible subjects with any of the following criteria were excluded from participation: 1) having a psychiatric disorder, 2) having cognitive impairment, 3) bedridden. Measures included demographics and health habits questionnaire, resilience (using 10-item Connor-Davidson

Resilience Scale), social support (using Inventory of Socially Supportive Behavior), depression (15-item Geriatric Depression Scale), and perceived health status (using Chinese Health Questionnaire-12)

The Ethical Part of the Research

Approval to conduct the study was obtained from the National Cheng Kung University Human Research Ethics(NCKU-HREC-E-111-244-2).

Analysis of Data

The SPSS (version 22.0 for Windows) statistical software package was used to analyze the data.category variables were dummied as 0 (no, women, junior high school or lower, and single/widowed) and 1 (yes, man, senior high school or higher,and married) . Pearson's correlations were used to examine relationships among variables and resilience. All results with $p < .05$ were considered statistically significant.

III. RESULTS

The demographic data was shown in Table 1.

Table 1. Demographic Characteristics of Participants (n = 224)

Variables	*n* (%)	Mean (*SD*)
Age (years)		73.6 (5.8)
Total number of chronic diseases		2.21(0.51)
Gender		
Man	104(46.4%)	
Women	120(53.6%)	
Education level		
Junior high school or lower	190 (84.8%)	
Senior high school or higher	34 (15.2%)	
Marital status		
Married	148 (71.6%)	
Single / Widowed	76 (33.9%)	
Religious		
No	126 (56.3%)	
Yes	98 (43.7%)	
Regular exercise		
No	112 (50.0%)	
Yes	112 (50.0%)	
Smoker		
No	200 (89.3%)	
Yes	24 (10.7%)	
Alcohol consumption		
No	197 (87.9%)	
Yes	27 (12.1%)	

The resilience and its related factors was shown in Table 2.

Table 2 Relationships between Variables and Resilience

	Resilience	
Variables	***r***	***p*-value**
Age	.153	.032
The number of chronic illness	-.205	.006
Marital status	.178	.008
Education levels	.198	.003
Regular exercise	.260	.001
Social support	.279	<.001
Perceived health status	-.251	.001
Depression	-.254	.001

IV. DISCUSSION

In this present study, elderly subjects with at the least two of chronic diseases. We found the positive significant relationships among marital status, education levels, social support and resilience. Also, inverse associations among the number of chronic illness, perceived health status, depression degree and resilience were observed in this study, which infers that participants with greater total numbers of comorbidities, poor perceived health status, and depression levers may be expected to have relatively lower levels of resilience. Similar findings have been reported in previous studies in this study (Gale et al., 2014; Jeste, et al., 2013; Lekan, 2018； MacLeod et al., 2016).

V. CONCLUSION

The participants who were older age, were physical inactivity, were single or widowed, had greater numbers of chronic illness, had lower education levels, received lower levels of social support, worst perceived health status, or had a higher level of depression reported lower levels of resilience. Suggesting that a supportive intervention should be developed based on these findings to enhance the resilience of community-residing elderly with multimorbidity.

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Physical Assessment in Nursing Education: A Systematic Review

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Abstract:

Introduction: Previous research indicated nursing students or nurses merely using parts of physical assessment skills taught in undergraduate physical assessment courses in clinical settings (Douglas et al., 2015). However, more studies are needed to systematically review the literature on physical assessment in nursing education.

Purpose: This research aims to systematically review and integrate the literature related to physical assessment in nursing education.

Methods: A systematic review was conducted by searching related literature in the electronic databases of PubMed, CINAHL, and Medline for studies published until 10 September 2023. Inclusion criteria for the articles included in this review were all observational, randomized controlled trials and mixed methods studies with the English language investigating physical assessment in nursing education, using keywords: physical assessment, nursing education, and Boolean logic to search literature. Two reviewers used the STROBE Statement checklist for observational studies and the JBI critical appraisal checklist for qualitative research to appraise the articles' methodological quality.

Conclusion: Clinical preceptors could demonstrate and leave opportunities for nursing students to practice physical assessment skills and then point out the importance of physical assessments in caring for patients.

Implications for Nursing Education

This study reviews the related literature on physical assessment in nursing education and finds that the course design of physical assessments needs to collaborate with clinical practice to overcome barriers to implementing physical assessment skills in clinical practice.

Ethical Considerations

This study systematically reviews literature related to physical assessment in nursing education, and all the literature used in this study was cited in the text of this article and listed in the reference lists of this study.

Declaration of conflicts of interest: This study has no conflict of interest.

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