

Final Report

1. **Workshop/webinar title:** “Reaching the Horizons of Nursing Research”
2. **Date:** 17th and 18th of August 2024
3. **Location:** District General Hospital Nuwara Eliya, Nuwara Eliya-Uda Pussellawa Rd, Nuwara Eliya 22200, Sri Lanka
4. **Time:** 8.00 am – 5.00 pm
5. **Summary (to publish on Global Research Nurses hub):**

Introduction

The International Council of Nurses (2012) defined evidence-based nursing as “a problem-solving approach to clinical decision-making that incorporates searching for the best and latest evidence, clinical expertise and assessment, and patient preference value within a context of caring”. Since the inception of Nursing, evidence-based practices have been integral to nursing, yielding benefits such as improved patient care, clinical excellence, cost-effectiveness, critical thinking, staff empowerment, and professional development. Today, evidence-based practice is fundamental to nursing worldwide, enhancing patient outcomes and quality of care.

However, in Sri Lanka, evidence-based nursing practice lags in contrast with global standards. Numerous challenges hinder its implementation. At present, there are limited pathways to empower nursing professionals toward the research culture. **Clinical nurses are reluctant to engage in research because they lack the necessary knowledge and exposure to engage in research, facing barriers such as language limitations, inadequate computer literacy, and heavy workloads due to staff shortages.** Moreover, **the education system for nurses in Sri Lanka is primarily based on Nursing Diploma programs, in which it is not mandatory to conduct a research project and offers limited exposure to research.** Only a very few nurses with a Nursing bachelor’s degree (having completed a research project component) and enough knowledge and exposure are absorbed into the government nursing profession in Sri Lanka. Evidence from other countries may not be directly applicable to Sri Lanka’s context, as a result, utilizing such evidence for changing the nursing practices in Sri Lanka is not suitable. It emphasizes the need for our own research to acquire evidence-based nursing. Even though only a few nurses engage in research, the findings from these studies often do not provide strong evidence to support changes in existing nursing practices. Additionally, much of the research conducted remains unpublished, often due to inadequate research methodologies or a lack of knowledge about publishing in local and international journals and conferences. It is essential to equip nurses with the necessary knowledge and skills for conducting research. To address this issue, specialized training, workshops, and consultations in research education should be conducted to overcome these barriers and fill the gaps in nursing research skills. Building research capacity among nurses is crucial for bridging this gap and empowering them to conduct high-quality studies that can

inform health policy and practice. This is particularly important in low- and middle-income countries, where research is often underfunded and undervalued, making it a timely and necessary initiative.

KAATSU International University (KIU) Sri Lanka, identified the vacuum of knowledge on nursing research and conducted a research workshop for government nurses, upon receiving the GRN workshop grant in 2023. This initiative spurred KIU to conduct numerous research capacity-building workshops at Nursing Training Schools (NTS) and several Government Hospitals across the country. Research experts from KIU visited NTS locations across Sri Lanka including areas further away from Colombo; to impart knowledge and engage with nursing students. During these visits, it became evident that nurses working in remote areas outside of Colombo had limited exposure to nursing research compared to their counterparts in more developed urban centers in and around Colombo. These remote regions lacked the necessary resources to facilitate research engagement, with nurses expressing a desire for more opportunities to learn and participate in research activities. Additionally, challenges such as transportation difficulties (due to the distance ≈ 160 km) and time constraints prevented nurses from attending workshops and training programs organized in Colombo. Moreover, the shortage of staff made it difficult for them to take consecutive leaves. Consequently, there arose a critical need to enhance research exposure for nurses employed in remote areas, away from the urban hub of Colombo.

The workshop “Reaching the Horizons of Nursing Research” aimed to address this gap by providing tailored training on research methodologies, ethics, and data analysis to Sri Lankan nurses employed at Nuwara Eliya district, an area further away from Colombo, in Sri Lanka. The workshop focused on specific research needs, providing practical guidance and support for designing and conducting research studies which enabled the participants to set up their Nursing research study addressing specific problems unique to their workplaces.

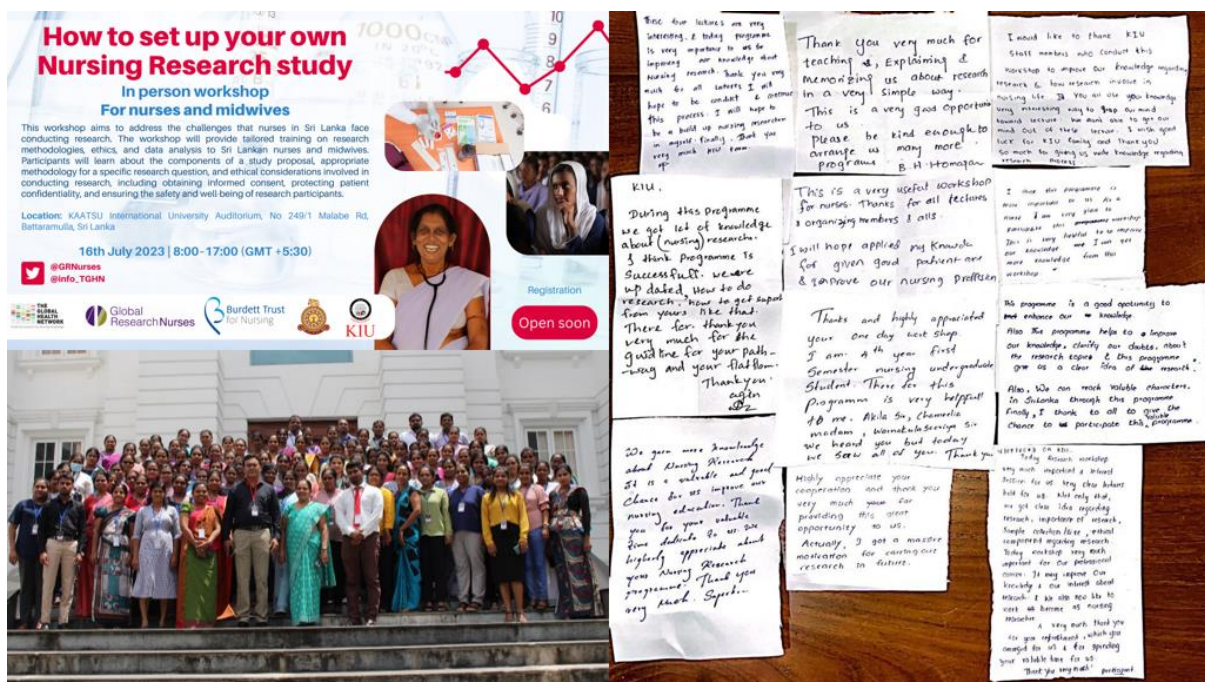


Figure 1 Captures from the “How to Set up Your Own Nursing Research Study” workshop conducted in 2023, funded by Global Research Nurses



Figure 2 Captures from the “How to Set up Your Own Nursing Research Study” workshop conducted in 2023, funded by Global Research Nurses



Figure 3 Captures taken from Research workshops conducted at Nursing Training Schools in Sri Lanka



Figure 4 Captures taken from Research workshops conducted at Nursing Training Schools in Sri Lanka



Figure 5 Captures taken during the research informatics workshop conducted at Teaching Hospital Kalutara, Sri Lanka

Exploring the horizons of Nursing Research





Dr. Akila Raselma Jayamaha
Senior Lecturer,
Faculty of Nursing, KIU, Sri Lanka



Ms. Chandhya N. Perera
Senior Lecturer,
Faculty of Nursing, KIU, Sri Lanka



Ms. Caroline Fernando
Lecturer,
Faculty of Nursing, KIU, Sri Lanka

- Gain invaluable insights into the world of nursing research.
- Learn practical skills and ethical principles necessary for conducting impactful research.
- Network with fellow nursing officers and expand your professional connections.
- Equip yourself with tools to initiate and navigate your research journey.



MAR 13



8.30 AM
4.30 PM



Teaching Hospital - Rathnapura

Don't miss this opportunity to broaden your horizons and make a difference in nursing research. See you there!



Figure 6 Captures taken during the research lecture at Teaching Hospital, Rathnapura, Sri Lanka

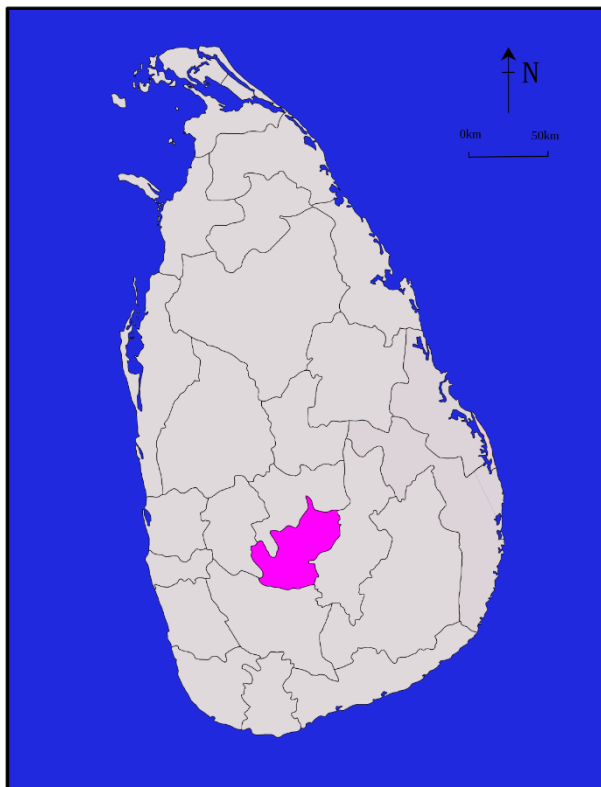


Figure 7 Nuwara Eliya District of Sri Lanka

7. Workshop aim and learning objectives:

- To assess the baseline knowledge and attitudes on nursing research among nursing officers in government hospitals of Nuwara Eliya District, Sri Lanka.
- To improve knowledge on nursing research methodologies, ethics, data analysis, and report writing among nursing officers in government hospitals of Nuwara Eliya District, Sri Lanka.
- To improve attitudes towards conducting nursing research and evidence-based practice.
- To empower the nursing officers in government hospitals of Nuwara Eliya District, to design and conduct high-quality research studies in Sri Lanka.

8. Workshop structure and content:

The workshop was held on the **17th and 18th of August 2024** at District General Hospital Nuwara Eliya, Nuwara Eliya-Uda Pussellawa Rd, Nuwara Eliya 22200, Sri Lanka from **8.00 am – 5.00 pm**. The workshop was conducted two consecutive days in four face-to-face sessions under the following topics.

Day 01

- **Session 01- Why nurses need to conduct research and the importance of nursing research (1h)**
This session was conducted by Mrs. MBC Samanmali Director of Nursing – Medical Services, Ministry of Health, Sri Lanka. The session aimed to provide a comprehensive idea of why nurses need to conduct research and its importance.
- **Session 02 - Introduction to nursing research process, how to identify a researchable problem, Components of a study proposal, and how to create research objectives (2h)**
This session was conducted by Mr. AR Jayamaha, Dean of the Faculty of Graduate Studies, KIU. The aim of the session was to provide participants with knowledge of the nursing research process, to identify a research problem, components of a study proposal, and how to create research objectives.
- **Session 03 and Session 04 - How to choose the appropriate methodology for a specific research question (1.5h)**
This session was conducted by Prof. SSP Warnakulasooriya, Professor of Nursing and Dean of the Faculty of Nursing of the University of Colombo. The session aimed to provide participants with knowledge on how to choose the appropriate methodology for a research question.

Day 02

- **Session 01 - Sample size calculation and Data Analysis (2.5h)**

This session was conducted by Mr. AR Jayamaha Dean of the Faculty of Graduate Studies, KIU. The session aimed to provide participants with knowledge on how to calculate the sample size to conduct research.

- **Session 02 - How to conduct a Literature review (1.5h)**

This session was conducted by Ms. CA Fernando Lecturer, Faculty of Nursing, KIU. The session aimed to provide participants with knowledge on how to conduct a literature review.

- **Session 03 - Ethical considerations involved in conducting research, including obtaining informed consent, protecting patient confidentiality, and ensuring the safety and well-being of research participants (1.5 h)**

This session was conducted by Mrs. ACH Perera Assistant Dean of the Faculty of Nursing KIU. The session aimed to provide participants with knowledge on how to conduct a literature review.

- **Session 04 - Report writing (1h)**

This session was conducted by Mrs. ACH Perera Assistant Dean of the Faculty of Nursing KIU. The session aimed to provide participants with knowledge on how to conduct a literature review.

9. Attendance report - Participants:

All participants who participated in the workshop were Nursing professionals working at government hospitals in the Nuwara Eliya district of Sri Lanka. In total, there were 100 (± 3) attendees. Out of the participants, 97 (97%) responded to the pre-test while 91 (91%) responded to the post-test. Most participants were female 84 (86.6%) nursing professionals having a mean age of 35.42 (± 8) years (min - 25 years, max - 56 years). Most participant nurses belonged to nursing Grade III (n=39, 40.2%), followed by Grade II (n=27, 27.8%), Grade I (n=23, 23.7%), Supra Grade (n=6, 6.2%), Special Grade (n=1, 1%) and Nursing sister (n=1, 1%). The hospital breakdown of the attendees is as follows.

Name of the Hospital	No. of participants
1. Base Hospital Gampola	5 (5.2%)
2. District Base Hospital Teldeniya	5 (5.2%)
3. District General Hospital Nawalapitiya	5 (5.2%)
4. District General Hospital Matale	5 (5.2%)
5. District General Hospital Nuwara Eliya	28 (28.9%)
6. Sirimavo Bandaranayake Children's Hospital - Peradeniya	5 (5.2%)
7. Teaching Hospital Badulla	5 (5.2%)
8. National Hospital Kandy	23 (23.7%)
9. Teaching Hospital Peradeniya	6 (6.2%)
10. District Base Hospital Dickoya	4 (4.1%)
11. District Base Hospital Rikillagaskada	6 (6.2%)

10. Polling report

Result Interpretation of the Pre and post – Knowledge assessment questionnaire

A short knowledge assessment questionnaire consisting of 10 questions was administered among the participants before and after the program to assess their knowledge of nursing research. This was employed via a Google form.

Nursing Knowledge-questionnaire

This section contained 10 questions that required the participants to answer (*True/False/Don't Know*).

Pre-Assessment Responses

Item	True	False	Don't Know
1. Research is used to generate new knowledge in the field of nursing	99.0% (n=96)	1.0% (n=1)	
2. Literature review identifies gaps in existing knowledge	91.8% (n=89)	7.2% (n=7)	1.0% (n=1)
3. Descriptive cross-sectional study is a quantitative research approach	71.1% (n=69)	17.5% (n=17)	11.3% (n=11)
4. Phenomenological study is a quantitative research approach.	28.9% (n=28)	53.6% (n=52)	17.5% (n=17)
5. During the randomized controlled trial, the researcher manipulates the independent variable	68.0% (n=66)	17.5% (n=17)	14.4% (n=14)
6. Sample size calculation is required only in qualitative studies.	18.6% (n=18)	74.2% (n=72)	7.2% (n=7)
7. Purposive sampling is a probability sampling method	58.8% (n=57)	25.8% (n=25)	15.5% (n=15)
8. Data extracted from bed head tickets (BHT) is considered as secondary data.	75.3% (n=73)	20.6% (n=20)	4.1% (n=4)
9. Participant observation is a self-reported data collection method.	74.2% (n=72)	20.6% (n=20)	5.2% (n=5)
10. Statistics is used for qualitative data analysis.	39.2% (n=38)	56.7% (n=55)	4.1% (n=4)

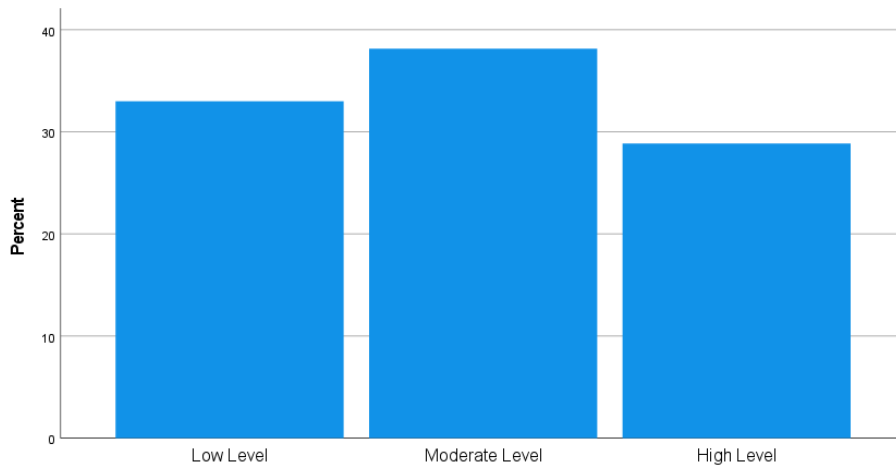
Post-Assessment Responses

Item	True	False	Don't Know
1. Research is used to generate new knowledge in the field of nursing	100% (n=91)		
2. Literature review identifies gaps in existing knowledge	97.8% (n=89)	2.2% (n=2)	
3. Descriptive cross-sectional study is a quantitative research approach	83.5% (n=76)	16.5% (n=15)	
4. Phenomenological study is a quantitative research approach.	26.4% (n=24)	73.6% (n=67)	
5. During the randomized controlled trial, researcher manipulates the independent variable	69.2% (n=63)	29.7% (n=27)	1.1% (n=1)
6. Sample size calculation is required only in qualitative studies.	15.4% (n=14)	84.6% (n=77)	
7. Purposive sampling is a probability sampling method	34.1% (n=31)	65.9% (n=60)	
8. Data extracted from bed head tickets (BHT) is considered as secondary data.	83.5% (n=76)	16.5% (n=15)	
9. Participant observation is a self-reported data collection method.	65.9% (n=60)	34.1% (n=31)	
10. Statistics is used for qualitative data analysis.	33.0% (n=30)	67.0% (n=61)	

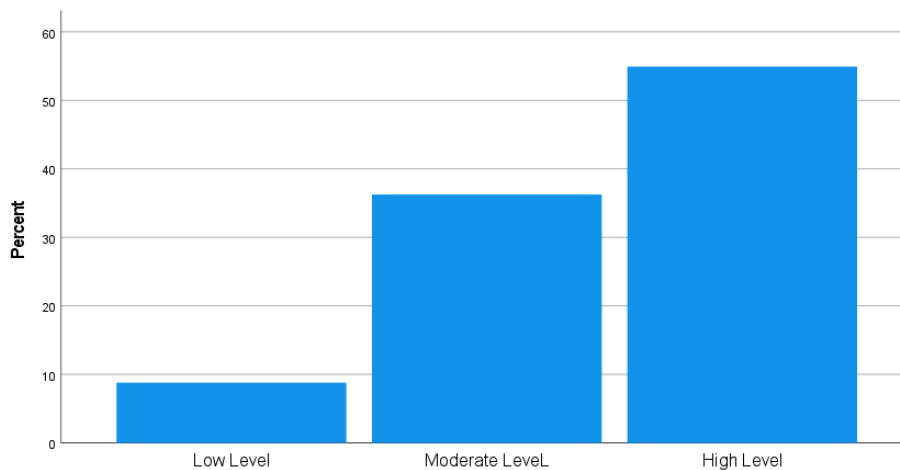
Each correct answer was allocated one mark, and a total of 10 marks was allocated for the questionnaire. Then marks were calculated as percentages and the level of knowledge was assessed according to Bloom's Knowledge categories. Accordingly, less than 60% was categorized as Low level, 60% - 79% as Moderate Level, and >80% as high knowledge level (Alzahrani et al., 2022).

	Pre-test			Post-test		
Knowledge Questionnaire	High Level	Moderate Level	Low Level	High Level	Moderate Level	Low Level
	28.9% (n=28)	38.1% (n=37)	33% (n=32)	54.9% (n=50)	36.3% (n=33)	8.8% (n=8)
Mean Marks for Knowledge questionnaire	6.36 (±1.78)			7.59 (±1.49)		
Median	6.00 (Q1-5.00,Q2-6.00,Q3-8.00)			8.00 (Q1-7.00,Q2-8.00,Q3-9.00)		
Minimum	2			3		
Maximum	10			10		

Pre-Test of Knowledge-questionnaire



Post Test of Knowledge-questionnaire



Result Interpretation of the Pre and post – Attitude assessment questionnaire

A short assessment to investigate the attitude toward nursing research was employed via a questionnaire consisting of 10 questions among the participants before and after the program via a Google form.

Nurses' attitudes towards nursing research - questionnaire

This section contained 10 questions that required the participants to answer (on a five-point Likert scale).

- 1 – Strongly Disagree
- 2 – Disagree
- 3 – Neutral
- 4 – Agree
- 5 – Strongly Agree

Pre-test questionnaire

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Research is instrumental in my nursing career development	3.1% (n=3)	2.1% (n=2)	8.2% (n=8)	14.4% (n=14)	72.2% (n=70)
2. Conducting and engaging in research is stressful	23.7% (n=23)	14.4% (n=14)	40.2% (n=39)	15.5% (n=15)	6.2% (n=6)
3. I am interested in nursing research	6.2% (n=6)		15.5% (n=15)	22.7% (n=22)	55.7% (n=54)
4. I enjoy engaging in nursing research	7.2% (n=7)	4.1% (n=4)	21.6% (n=21)	18.6% (n=18)	48.5% (n=47)
5. I find it difficult to understand the concepts of research	14.4% (n=14)	17.5% (n=17)	37.1% (n=36)	21.6% (n=21)	9.3% (n=9)
6. Nursing research should be included in the nursing curriculum	4.1% (n=4)	1.0% (n=1)	9.3% (n=9)	12.4% (n=12)	73.2% (n=71)
7. I need to improve my nursing research knowledge	5.2% (n=5)		6.2% (n=6)	10.3% (n=10)	78.4% (n=76)
8. It is very difficult to allocate time due to heavy workload	6.2% (n=6)	5.2% (n=5)	30.9% (n=30)	21.6% (n=21)	36.1% (n=35)
9. Research-based evidence is not important for nursing care	78.4% (n=76)	8.2% (n=8)	5.2% (n=5)	2.1% (n=2)	6.2% (n=6)
10. Research-orientated thinking is important for day-to-day life	4.1% (n=4)	3.1% (n=3)	15.5% (n=15)	14.4% (n=14)	62.9% (n=61)

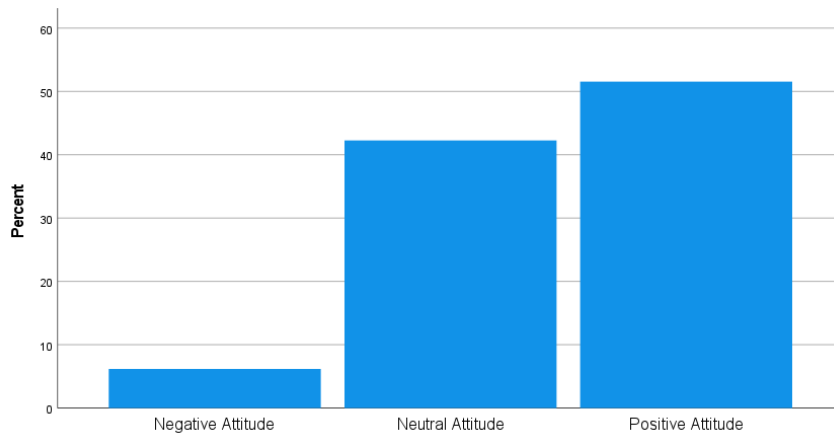
Post-test questionnaire

Item	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. Research is instrumental in my nursing career development	3.3% (n=3)	2.2% (n=2)	5.5% (n=5)	7.7% (n=7)	81.3% (n=74)
2. Conducting and engaging in research is stressful	31.9% (n=29)	19.8% (n=18)	30.8% (n=28)	13.2% (n=12)	4.4% (n=4)
3. I am interested in nursing research	1.1% (n=1)	2.2% (n=2)	6.6% (n=6)	17.6% (n=16)	72.5% (n=66)
4. I enjoy engaging in nursing research		1.1% (n=1)	7.7% (n=7)	23.1% (n=21)	68.1% (n=62)
5. I find it difficult to understand the concepts of research	28.6% (n=26)	33.0% (n=30)	22.0% (n=20)	12.1% (n=11)	4.4% (n=4)
6. Nursing research should be included in the nursing curriculum	3.3% (n=3)	1.1% (n=1)	4.4% (n=4)	4.4% (n=4)	86.8% (n=79)
7. I need to improve my nursing research knowledge	1.1% (n=1)		5.5% (n=5)	7.7% (n=7)	85.7% (n=78)
8. It is very difficult to allocate time due to heavy workload	13.2% (n=12)	12.1% (n=11)	30.8% (n=28)	27.5% (n=25)	16.5% (n=15)
9. Research-based evidence is not important for nursing care	90.1% (n=82)	3.3% (n=3)	3.3% (n=3)	2.2% (n=2)	1.1% (n=1)
10. Research-orientated thinking is important for day-to-day life	1.1% (n=1)	2.2% (n=2)	5.5% (n=5)	12.1% (n=11)	79.1% (n=72)

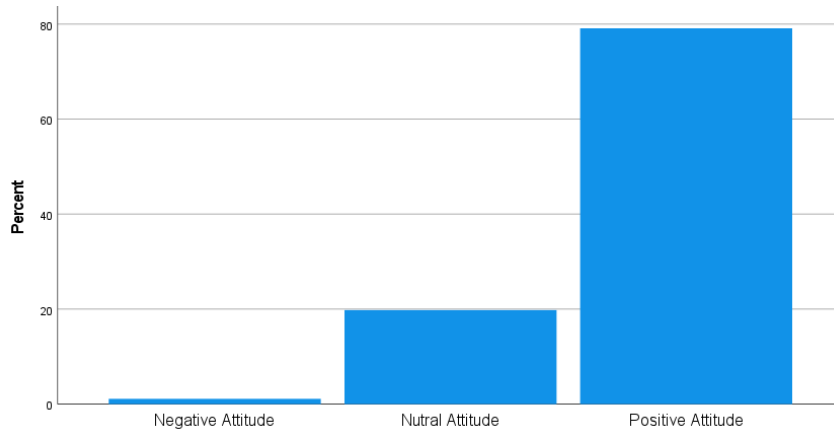
Responses were rated on a five-point Likert scale, where a score of 5 indicated the strongest positive attitude and a score of 1 indicated the weakest attitude. The total possible score for the questionnaire was 50 marks. Then the percentage was calculated for each participant and the attitude level was determined according to Bloom's Knowledge categories. Accordingly, attitudes were categorized based on the following criteria where a score of less than 60% indicated a Negative Attitude, a score between 60% and 79% indicated a Neutral Attitude, and a score of 80% or higher indicated a Positive Attitude (Alzahrani et al., 2022).

	Pre-test			Post-test		
Attitude Questionnaire	Positive Attitude	Neutral Attitude	Negative Attitude	Positive Attitude	Neutral Attitude	Negative Attitude
	51.5% (n=50)	42.3% (n=41)	6.2% (n=6)	79.1% (n=72)	19.8% (n=18)	1.1% (n=1)
Mean marks for the attitude questionnaire	39.19 (±5.93)			42.79 (±4.91)		
Median	40.00 (Q1-36.00, Q2-40.00, Q3-44.00)			43.00 (Q1-40.00, Q2-43.00, Q3-46.00)		
Minimum	19			24		
Maximum	50			50		

Pre-test Questionnaire: Attitude towards research



Post-test Questionnaire: Attitude towards research



1. Outcomes and evaluation:

The Nurses who participated in the workshop gained knowledge on the importance of engaging in nursing research, how to prepare a study proposal, and how to choose the appropriate methodology for a specific research question, sample size calculation, and ethical considerations involved in conducting research, including obtaining informed consent, protecting patient confidentiality, and ensuring the safety and well-being of research participants.

2. Recommendations:

As a recommendation, we recommend conducting future workshops as a ‘workshop series’ covering other provinces in Sri Lanka. Also, we wish to continue to carry out research workshop training at nursing training schools in Sri Lanka to give nursing diploma students exposure to nursing research.

Before organizing future workshops, we wish to conduct a thorough needs assessment to understand the specific requirements and challenges faced by nursing professionals in Sri Lanka. This would enable us to tailor the workshop content to address these identified needs effectively.

We also wish to incorporate interactive learning methods such as group discussions, case-based learning, role-playing, and hands-on exercises during future research workshop sessions so that these methods engage participants actively, fostering a deeper understanding and application of concepts.

We wish to encourage peer-to-peer learning and collaboration among participants by incorporating group projects or collaborative research exercises that allow participants to apply their learning to real-world scenarios.

Further, we wish to provide participants with information on funding opportunities, grants, and research resources specific to nursing research in low and middle-income countries (LMICs). Equipping participants with knowledge on resource mobilization enhances their ability to initiate and sustain research projects.

We also wish to establish mentorship programs that pair workshop participants with experienced researchers. Long-term mentorship ensures ongoing support, guidance, and skill development beyond the workshop duration.

We wish to foster collaborations between institutions, organizations, and universities to share expertise, resources, and best practices so that collaborative partnerships amplify the impact of capacity-strengthening efforts.

By implementing these recommendations, future research capacity-strengthening workshops can ensure a more targeted, engaging, and impactful learning experience for nursing professionals in LMICs.

3. Conclusion:

In conclusion, the workshop proved to be a transformative experience for the participants, leading to significant improvements in both knowledge and attitudes toward nursing research among nurses in Sri Lanka. The data indicates a substantial increase in the percentage of participants demonstrating a high level of knowledge about nursing research, rising from 28.9% to 54.9% post-workshop. This notable enhancement reflects the effectiveness of the workshop in bridging knowledge gaps and fostering a more research-oriented mindset among nurses. Furthermore, the positive shift in attitudes towards nursing research, with 79.1% of participants expressing a favorable view compared to 51.5% before the workshop, underscores the workshop's role in cultivating a supportive environment for research engagement. The reduction in negative attitudes from 6.2% to a mere 1.1% further highlights the workshop's success in promoting a culture of inquiry. These outcomes not only underscore the necessity for continuous efforts to strengthen research capacity in low- and middle-income countries (LMICs) like Sri Lanka but also pave the way for future initiatives aimed at enhancing the professional development of nurses and improving healthcare outcomes through evidence-based practices.

Captures taken during the workshop - “Reaching the Horizons of Nursing Research” 2024



Figure 8 Participants of the workshop “Reaching the Horizons of Nursing Research” held at District General Hospital, Nuwara Eliya, Sri Lanka 2024



Figure 9 Workshop participants with resource personnel at the workshop “Reaching the Horizons of Nursing Research” held at District General Hospital, Nuwara Eliya, Sri Lanka 2024



Figure 10 Lecture session delivered by Mrs. A. C. H. Perera at District General Hospital Nuwara Eliya Sri Lanka - 2024



Figure 11 Lecture session by Mr. A. R. Jayamaha at District General Hospital Nuwara Eliya Sri Lanka - 2024



Figure 12 Lecture session by Prof. S. S. P. Warnakulasooriya at District General Hospital Nuwara Eliya Sri Lanka - 2024