

Original Article

Development, Implementation and Evaluation of a Community Nursing Specialization Training Programme to Promote Nurses' Development of Professional Competences: A Quasi-Experimental Study

Theodoros Pesiridis, PhD

Assistant Professor, Community Nursing Laboratory, Faculty of Nursing, National and Kapodistrian University of Athens, Athens, Greece

Petros Galanis, PhD

Assistant Professor, Clinical Epidemiology Laboratory, Faculty of Nursing, National and Kapodistrian University of Athens, Athens, Greece

Athina Kalokairinou, PhD

Professor, Community Nursing Laboratory, Faculty of Nursing, National and Kapodistrian University of Athens, Athens, Greece

Correspondence: Theodoros Pesiridis, Assistant Professor, Community Nursing Laboratory, Faculty of Nursing, National and Kapodistrian University of Athens, 123 Papadiamantopoulou street, GR-11527, Athens, Greece, e-mail: tpesiridis@nurs.uoa.gr.

Abstract

Background: Specialist community nurses are better able to provide the most specific and appropriate care for both individuals and communities. Training efforts need to provide updated knowledge, competencies and self-confidence to nurses through evidence-based interventions. **Aim:** The purpose of the study was the development, implementation and evaluation of a training programme in public health and community nursing. **Methods:** A quasi-experimental study of pretest-posttest within-groups design was used to assess competencies, comfort level, and effectiveness of a public health/community nursing specialization training programme. Study population included 182 registered nurses who enrolled in a public health/community nursing specialization training programme between October 2020 and January 2023. A questionnaire was used to assess the effectiveness of the programme. **Results:** Mean nurses' level of comfort/self-confidence before the program was 5.8 (SD; 2.0), while after the program improved statistically significant to 8.2 (SD; 1.5), (p -value < 0.001). Mean total competencies score before the program was 5.8 (SD; 1.8), while after the program improved statistically significant to 7.9 (SD; 1.5), (p -value < 0.001). Age, employment relationship and clinical experience were associated with total competencies score. However, the final multivariable linear regression model showed that increased clinical experience was associated with increased total skills score (standardized coefficient $\beta = 0.078$, 95% CI = 0.007 to 0.150, p -value = 0.032). **Conclusions:** The public health/community nursing specialization training programme was feasible and effective in improving nurses' competencies and level of comfort/self-confidence.

Key words: community nursing; competency; effectiveness; evaluation; intervention; public health nursing; specialization; training programme

Introduction

Community nursing (CN) includes health promotion as well as curative and rehabilitative activities in the community. Mainly addressed to individuals, families and groups and contributes to the health care of

the population as a whole. It has a critical role, to support people in adopting healthier attitudes, and as a science, has to contribute to evidence-based practices and policies. According to the American Nurses Association, "Community health nursing is a specialty in nursing and is the practice of

promoting and protecting the health of populations using knowledge from nursing, social and public health sciences”.

In each country the role and duties of nurses working in primary care settings are determined through legislation and the institutional framework of the professional associations where community nurses are registered. Community nurses, regardless of the workplace in which they provide their services, must have the skills to perform many of their roles such as that of clinical nurse, educator, collaborator and researcher (Huy et al., 2018).

Over the last twenty years there has been a significant increase in the proportion of people aged 65 and over in EU Member States. In 2022, Greece, Italy and Portugal had the highest shares (24% of the general population) while Greece had the highest increase in all EU Member States at the group aged 80 and over, from 3.7% in 2002 to 7.2% in 2022 (EUROSTAT, 2024). In 2021, the number of healthy life years at birth was estimated at 64.2 years for women and 63.1 years for men in the EU, this represented approximately 77.4 % and 81.7 % of the total life expectancy for women and men (EUROSTAT, 2024). With the rapid aging of the population, the number of older adults who could benefit from community health services is expected to increase significantly in the coming years (Siegler et al., 2015).

Several studies (Yodsuban et al., 2023; Markle-Reid et al., 2013; Rees and Williams, 2009) have underlined the important roles of Community Health Nurses (CHNs) in health promotion as well as in curative and rehabilitative activities mainly addressed to individuals, families and groups in the community. In order to promote CHN education and training, WHO proposed in 2012 “A framework for community health nursing education” (WHO, 2012). The Framework outlines two sets of competencies required for CHNs to practice effectively: clinical care and complementary competencies. The clinical care competencies include health assessment, disease management, case finding, case management, observation and treatment. Complementary competencies include cultural competency,

leadership, learning through action and reflecting on what they have done. Between 2010 and 2014 WHO conducted a study on CHN in 22 Member States. Some major finding from the study were (a) the need for further training in CHN which was noted as the most important factor by 38% of the responding nurses that is affecting CHN practice and (b) the need for CHN to exist as a specialization with further training after graduation (WHO, 2017). To address these challenges WHO suggested the establishment and support of family focused CN programmes and services with a clear framework for the practice of CHN, called “Enhancing the role for community health nursing for universal health coverage”.

The concept of specialties in nursing has been proposed for several years after the establishment of the Greek National Health System (NHS) in 1983 (Kalokerinou et al., 1998). For this reason, four specializations (internal medicine nursing, surgical nursing, mental health nursing and pediatric nursing) were established in Greece in 1988 and were aiming at the care of persons with the specific health care conditions. In this ministerial decision only registered nurses (RNs) that were already working in the NHS were eligible to obtain the above-mentioned specializations. Following discussions within the Central Council for Health the specialization in CN was decided to be initiated in 1994 but it was never realized. Since then, discussions on the modernization of nursing specializations always included CN with most recent the 2012 decision of the Central Council for Health. This framework also was not implemented.

On January 2020, WHO categorizes the Covid-19 disease, as a pandemic (Velavan and Meyer, 2020) requiring primary care services (PCS) and community and public health nurses on the frontline. (Akbar et al., 2022). During the pandemic CNs had to acquire several competencies that included the skills needed to identify the outbreak and to respond efficiently. On May 2020 the Ministry of Health (MoH), recognizing the necessity for specialized nurses in Public Health and Community Nursing to deal with the pandemic, legislates the framework of Public Health/Community Nursing Specialty

(PHCNS) (Act 4690/GG104/A/30.5.2020:article 58, 59). For this purpose, the Greek MoH assigns to the Nursing Department of the University of Athens the design of the PHCNS training programme. The programme was carried out for the first time between 2020 and 2023 in Greece and still is accepting new trainees. The aim of our study is to examine the scientific development, implementation and evaluation of the programme.

Methods

Study design and participants: The objectives of the study were to: (1) develop and deliver a specialization training programme in CN for registered nurses; (2) improve nurses' competencies and comfort level in providing care to individuals and families in the community and (3) evaluate the effectiveness of the training programme (before training and after training). A quasi-experimental study of pretest-posttest within-groups design was used to assess competencies, comfort level, and effectiveness of the training.

The programme was applied to the seven health regions that make up the country's NHS. In October 2020, 600 nursing positions were awarded to attend the public health/community nursing specialty program by the Greek MoH. Those interested could apply to each health region to attend the specialty program. In each health region the number of trainees varied according to the population density of each region. A total of 275 registered nurses were trained until February 2023.

An accompanying letter explaining the purposes of the study and an informed consent form was attached to each numbered pre-test questionnaire at the beginning of the programme. Six months after completion of the PHCNS training programme, a post-test was sent and returned completed.

Intervention: A systematic development of evidence-based nursing intervention was used based on the model of van Meijel et al. (2004). The first step aimed at examining the evidence already available in the literature (Pesiridis et al., 2015) about public health/community nursing programmes. We also searched the literature about the necessary skills and competencies needed to

be acquired within the specialization programme.

The training program was designed by an educational board of academics from the 8 nursing departments of the country's universities who were experts in public health and community nursing. After expert consensus the final programme consisted of 13 theoretical modules, according to the new recommendations of the recent strategic plan for human resources of the Greek MoH, of EFN, of ESNO, of ICN and WHO (Table. 1). For the needs of the educational process, a national hub was created by the "Center for Lifelong Learning" of the University of Athens, where the educational material of the 13 modules as well as links to related scientific articles, knowledge tests and scenarios related to the provision of care in the community were uploaded.

The length of the programme was set at 18 months (130 ECTS) and distributed as follows in different PHC settings:

- (a) Internal Medicine, Surgical, Cardiological and Pediatric outpatient department of General Hospitals (4 months)
- (b) Community Health Care Center (4 months)
- (c) Community Mental Health Center (1 month)
- (d) Home Care Facilities/Services (2 months)
- (e) National Organization for Public Health services (2 months)
- (f) Occupational health services (2 months)
- (g) Public School units (2 months)
- (h) Public Health Directorates of the Health Regions (1 month)

In each training setting a clinical trainer was appointed who was responsible for the development of skills and mentoring trainees. A training coordinator was appointed in every of the seven health regions for the supervision and coordination of the PHCNS training program. The "Training Coordinator" is a registered nurse, holder of a doctorate in Public Health or Community Nursing, master's qualification or specialty, who serves in the Greek NHS of each health region. The main duties of each coordinator is to (a) collaborate on scientific issues with nursing faculty members which are based in the

geographical area of each Health Region, (b) supervise the implementation of the theoretical and practical training of the trainees, (c) design the rotation program of the trainees in the different workplaces where the specialization is provided, (d) designate the clinical trainers of the specialty in each workplace and (e) issue a certificate of

completion of the training, taking into account the correct completion of the competencies captured at the LogBook of each trainee. After completing the 18-month training programme the trainees could participate at the final exams which include oral and written exams in order to obtain the title of “Specialized nurse in PHCNS”.

Table 1. Theoretical Modules of the PHCNS training programme

Module 1	Conceptual definitions - Public Health - Primary Health care - Community Health Care Team
Module 2	Evidence-Based Nursing - Resource and Personnel Management in Public Health, Nursing Administration, Health Policy, Nursing Protocols & Guidelines, Ethics in Community Care
Module 3	Community Health Needs Assessment & Research Methodology in Community Health Care
Module 4	Environment and Health
Module 5	Occupational Health
Module 6	Transcultural care
Module 7	Pharmaceutical Care in the Community
Module 8	Palliative Care
Module 9	Family Care
Module 10	Nursing Care of the Elderly
Module 11	Home Health Care
Module 12	School nursing
Module 13	Emergencies in Community – Disaster Care services

Measures: A questionnaire was used to estimate acquired competencies and comfort/confidence level in providing care to individuals and families in the community. Competency score was estimated, before the implementation of the programme and after completion, for 19 competencies based on the content of the training programme and the trainees’ LogBook taking into account the ENhANCE project for the development of “Core Competencies for Family and Community Nurses” in Europe. (Bagnasco et al., 2022). The ENhANCE project resulted 28 core competencies after a 4-round e-Delphi study. From those 19 were adopted after consensus between CN academic specialists and the

specialty's educational board. All 19 items were answered on a ten-point Likert scale, ranging from 1 (not at all competent) to 10 (strongly competent).

In addition, data were collected on several other variables concerning the participants: gender, age, education background, working status before the programme, working experience as a nurse, participation in conferences/seminars/workshops and publications in scientific journals. Finally, the participants’ level of comfort/confidence before and after the training and the content of the 13 theoretical modules were evaluated. The final version of the instrument was pilot-

studied by 11 nurses working in a public primary health center.

Ethics: On commencing the specialization course, trainees were informed that they would be asked to contribute to the program's continuous improvement and effectiveness by voluntarily completing anonymous questionnaires. The trainees were also informed that by completing these anonymous questionnaires, they give their consent for processing the data collected from them anonymously. This study strictly adheres to the ethical principles outlined in the Declaration of Helsinki. At the onset of the research, participants were comprehensively informed about the nature, purpose, risks, and benefits of the study. This adherence to the Declaration of Helsinki underscores our commitment to maintaining the highest ethical standards in conducting research, ensuring respect for participants and the integrity of our scientific inquiry.

Data analysis: We use numbers and percentages to present categorical variables. Also, we use mean, standard deviation (SD), median, minimum value, maximum value to present continuous variables. We employed Kolmogorov-Smirnov test to assess the distribution of continuous variables. We found that all continuous variables except clinical experience followed normal distribution. Therefore, we used parametric tests in our analysis. In particular, we performed the paired samples t-test to compare nurses' skills before and after the program. Moreover, we performed linear regression analysis to examine the effect of demographic and work characteristics on nurses' skills. First, we performed univariate regression analysis to examine the impact of each demographic and work characteristic separately. Then, we

constructed a multivariable linear regression model by eliminating the confounding variables. Regarding linear regression models, we present coefficients beta, 95% confidence intervals (CI), p-values, and R^2 . We considered results as statistically significant when p-values were less than 0.05. We used the IBM SPSS 21.0 (IBM Corp. Released 2012. IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp.) for the analysis.

Results

Demographic and work characteristics

The response rate for both pre- and post-tests was 66,2% (n = 182). Among them, 81.9% were females. Mean age was 35.2 years with a minimum value of 25 years and a maximum value of 56 years. Most nurses have been working under a contract (80.8%). Mean clinical experience was 5.9 years with a minimum value of 6 months and a maximum value of 33 years. Almost all nurses have been attending at least one conference in the last three years (96.2%). Moreover, 43.4% of nurses participated in conferences with oral/poster presentations in the last three years. Half nurses have published at least one article in scientific journals. Detailed demographic and work characteristics of our nurses are shown in Table 2.

Assessment of the program

Among our sample, 47.3% (n=86) were very/fully satisfied with the training material, 31.9% (n=58) were moderate satisfied, and 20.9% (n=38) were not at all/somewhat satisfied. More than half of the sample (61.5% [n=112]) reported that the knowledge acquired from the program will help them quite a lot/too much in their clinical work, while 21.5% (n=34) stated that the knowledge will help them moderate, and 17% (n=31) stated that the knowledge will not help them.

Table 2. Demographic and work characteristics of nurses (N=182).

Characteristics	N	%
Gender		
Females	149	81.9
Males	33	18.1
Age ^a	35.2	8.0
Employment relationship		
Contract	147	80.8
Permanent	35	19.2
Clinical experience ^a	5.9	7.4
Conferences attendance in the last three years		
No	7	3.8
Yes	175	96.2
Conferences attendance in the last three years (number) ^a	5.8	5.6
Conferences participation in the last three years		
No	103	56.6
Yes	79	43.4
Conferences participation in the last three years (number) ^a	0.9	1.9
Publications in scientific journals		
No	90	49.5
Yes	92	50.5
Publications in scientific journals (number) ^a	0.6	0.9

^a mean, standard deviation

Mean nurses' self-confidence/level of comfort to provide healthcare before the program was 5.8 (SD; 2.0), while after the program improved statistically significant to 8.2 (SD; 1.5), (p-value < 0.001). Scores on nurses' competencies before and after the program are shown in Table 3. Mean total competencies score before the program was 5.8 (SD; 1.8), while after the program improved statistically significant to 7.9 (SD; 1.5), (p-value < 0.001). A significant increase was observed (Table 3) in all 19 dimensions of competence while the highest improvement was observed in items 1, 11, 15, 18. This result leads us to the conclusion that, after the training programme the respondents perceived themselves better able to "use the

best scientific evidence available" (item 1), "promote health in individuals, families and the school population" (item 11), "coordinate and be accountable for attributing community healthcare activities to support workers" (item 15) and "set standards and evaluate the outcomes related to nursing activities in people's homes and the community (item 18).

Effect of demographic and work characteristics on competencies

Linear regression analysis with total competencies score before the program as the dependent variable is presented in Table 4. Univariate linear regression analysis identified that age, employment relationship and clinical experience were associated with

total competencies score. However, the final multivariable linear regression model showed that increased clinical experience was associated with increased total skills score (standardized coefficient beta = 0.078, 95% CI = 0.007 to 0.150, p-value = 0.032).

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Discussion

We implemented and evaluated a training programme aimed at improving community nurses' competencies and level of comfort/self-confidence to provide primary healthcare in community settings. During both the development and implementation stage of the programme, we collaborated with academic experts in public health and community nursing from all nursing faculties of the country and focused on the development of a training network in PHC centers in all the health regions of the country.

The study results showed that the PHCNS programme significantly improved the competencies of the nursing trainees. Furthermore, this increase was significant in all 19 competencies in which the program originally aimed. Currently, not much research has been found on the effectiveness of similar community nursing training programs that have had an impact on the competencies of registered nurses required to practice nursing in the PHC sector.

Yu et al. (2022), using a phenomenological method, investigated the learning experience of a "Basic Community Nurse Training Programme" in Singapore that was developed to equip nurses across all staff grades and background with competencies necessary to provide care for homebound patients. In this study, the training program included eight modules, using a blended learning approach combining 15 h of online lectures and 27 in-person teaching hours for 14 weeks.

The results showed that a blended training program is assisting community nurses with their duties although the program seemed to be more helpful to new nurses rather to nurses with a working experience. The results of this study were consistent with the current study that identified that age, employment relationship and clinical experience were associated with better total skills score both in the pre-test and post-test.

Ewens et al. (2001) investigated the effects of a Community Health Studies degree preparing specialist community nurses for practice in the UK, given the fact that CN is a discrete area of practice, requiring specialist post-registration preparation. The sample of the study was consisted of 27 graduates of the programme who had already been working in PHC settings for a year after graduation.

A brief description of their experiences as newly qualified community health nurses was asked to write. Results revealed that community health nurses felt unprepared for the 'real world' of practice and their work place demands though many had found the theory relevant and a determining factor in the exercise of their practice.

Similarly, the results in our study showed that more than half of the sample reported that the knowledge acquired from the program will help them quite a lot/too much in their clinical work.

Table 3. Comparison of the score of competencies before and after the PHCNS Programme.

	Mean	Standard deviation	Median	Minimum value	Maximum value	P-value ^a
1. Use the best scientific evidence available.						<0.001
Before	5.6	1.9	5.5	1	10	
After	7.9	1.6	8	2	10	
2. Systematically document and evaluate their own practice.						<0.001
Before	6.1	2.0	6	1	10	
After	8.0	1.6	8	2	10	
3. Plan, implement and assess nursing care to meet the needs of individuals, families, and the community.						<0.001
Before	5.9	1.9	6	1	10	
After	8.1	1.7	8	2	10	
4. Identify and assess the health status and health needs of individuals and families within the context of their cultures and communities.						<0.001
Before	5.8	1.8	6	1	10	
After	8.0	1.6	8	2	10	
5. Provide patient education and build a therapeutic relationship with patients, informal carers and their families.						<0.001
Before	5.9	2.0	6	1	10	
After	8.0	1.7	8	2	10	
6. Work together with the multidisciplinary team to prevent disease and promote and maintain health.						<0.001
Before	5.9	2.2	6	1	10	
After	8.1	1.8	8	1	10	
7. Apply educational strategies to promote health and safety of individuals and families.						<0.001

Before	5.7	2.1	6	1	10	
After	7.9	1.8	8	1	10	
8. Involve individuals and families in decisions concerning their own health and wellbeing.						<0.001
Before	5.7	2.1	6	1	10	
After	7.8	1.8	8	1	10	
9. Monitoring and providing long-term care to people affected by chronic and rare illnesses on one community in collaboration with other members of the multidisciplinary team.						<0.001
Before	5.6	2.2	6	1	10	
After	7.6	2.1	8	1	10	
10. Communication competencies based on evidence in relation to a specific context.						<0.001
Before	6.0	2.2	6	1	10	
After	8.1	1.7	8	2	10	
11. Promote health in individuals, families and the school population						<0.001
Before	5.4	2.1	6	1	10	
After	7.8	2.2	8	1	10	
12. Make decisions based on professional ethical standards.						<0.001
Before	6.2	2.1	6	1	10	
After	8.1	1.6	8	2	10	
13. Multidimensional community health needs assessment to implement appropriate clinical interventions and care management.						<0.001
Before	5.7	2.0	6	1	10	
After	7.8	1.9	8	1	10	
14. Assess the social, cultural, and economical context in which the nurse's patient lives.						<0.001

Before	6.0	2.0	6	1	10	
After	8.1	1.8	8	1	10	
15. Coordinate and be accountable for attributing community healthcare activities to support workers.						<0.001
Before	5.2	2.1	5	1	10	
After	7.6	2.0	8	1	10	
16. Development of nurse leadership and decision-making skills to ensure clinical and healthcare effectiveness and appropriateness.						<0.001
Before	5.5	2.2	5.5	1	10	
After	7.6	2.0	8	1	10	
17. Alleviate patient suffering and pain.						<0.001
Before	6.2	2.0	6	1	10	
After	8.0	1.7	8	2	10	
18. Set standards and evaluate the outcomes related to nursing activities in people's homes and in the community.						<0.001
Before	5.4	2.1	5	1	10	
After	7.7	2.1	8	1	10	
19. Managing diversity and fostering inclusiveness.						<0.001
Before	6.1	1.9	6	1	10	
After	8.0	1.8	8	2	10	
Total skills score						<0.001
Before	5.8	1.8	6	1.3	10	
After	7.9	1.5	8.1	2.2	10	

^a paired samples t-test

Table 4. Linear regression analysis with total competencies scores before the programme as the dependent variable.

Characteristics	Univariate linear regression			Multivariable linear regression ^a		
	Unstandardized coefficient beta	95% CI for beta	P-value	Standardized coefficient beta	95% CI for beta	P-value
Males vs. females	-0.101	-0.777 to 0.559	0.747	-0.176	-0.827 to 0.474	0.593
Age	0.048	0.017 to 0.080	0.003	0.006	-0.044 to 0.056	0.807
Permanent vs. contract	0.900	0.261 to 1.540	0.006	-0.460	-1.571 to 0.651	0.415
Clinical experience	0.068	0.035 to 0.102	<0.001	0.078	0.007 to 0.150	0.032
Conferences attendance in the last three years	0.933	-0.399 to 2.264	0.169	0.554	-0.794 to 1.902	0.419
Conferences participation in the last three years	0.442	-0.073 to 0.958	0.092	0.251	-0.275 to 0.776	0.348
Publications in scientific journals	0.295	-0.218 to 0.808	0.258	0.026	-0.500 to 0.552	0.923

CI: confidence interval ^a R² for the final multivariable model = 6.0%, p-value for ANOVA = 0.012

Discussion Cont.

In contrast to the findings of the previous study, our results showed that the educational intervention improved, statistically significant, nurses self-comfort/confidence to provide healthcare in the community after the program.

Many studies from various countries have found that nurses use best scientific evidence practice to a very limited extent (Stokke et al., 2014; Boström et al., 2013; Brown et al., 2008).

Some of the factors associated with this limitation include lack of mentorship and experienced staff in the process of training, lack of time to review the literature and lack of authority to make changes in the nursing environment and culture (Meijers et al., 2006). In our training programme the “use of best scientific evidence practice” competence was the most increased among all 19 competencies at the post-test.

A possible explanation for this finding could be that attending and participating in scientific conferences as well as publishing scientific articles counted positively for obtaining the title of specialized nurse. At the end of the training programme all participants had attended numerous scientific conferences and half of them had published at least one scientific article. Another contributory factor could be that all trainees had a clinical instructor/educator in every training setting during their shift, supervising their efforts to achieve clinical competency. Consequently, this is an area that needs to be focused on in the future, by more thorough research.

Numerous studies have investigated self-reported comfort of nurses in different working environments. Leng et al. 2021 reports that when nurses' comfort is increased, they feel happier with their job, their performance is higher, absenteeism and turnover are reduced, and as a consequence, patients receive superior care and treatment. Furthermore, research on the topic revealed that nurses with a high level of comfort have the potential to change their work environment, culture, and resources with their abilities, which indirectly improves their satisfaction, commitment, motivation, and work engagement (Abdelaliem and Saed

Boswihi, 2024). On the contrary, Kaye et al. 2019 found that community nurses who work in pediatric palliative care, with lack of training in pediatric CN reported low levels of comfort and competency in providing health care to children. In this study, the findings confirmed that nurses' self-reported level of comfort and the overall clinical competence score was considerably positively associated to the PHCNS programme. Most studies have concentrated on the nursing practice of providing comfort to their patients. The present study investigated the topic of comfort/self-reported confidence to provide community health services among nursing trainees. The findings can serve as a guide for curricular adaptations of training in CN and could be used as a model to develop similar programmes for Community Nurses, based on a common theoretical and clinical framework, timetable and certain competencies achieved.

In a hybrid concept analysis study, in 2021, with the scope to investigate the concept of clinical competence in nursing, results showed that gaining clinical competence is a process that is achieved over time through practice and repetition and increasing experience (Nabizadeh-Gharghozar, 2021). Similarly, Almarwani and Alzahrani (2023) conducted a systematic review to investigate the factors affecting the development of nursing competency and identified that work experience affected the most the development of nursing competence among other influencing factors. Our results showed that increased clinical experience was associated positively with increased total competence score. These results demonstrate that the longer clinical experience is, the higher the level of nursing competency is.

Limitations: There are some limitations in our study. The study used a self-report questionnaire to collect responses, which may increase the likelihood of socially desirable responses. Response bias may have mitigated by using anonymous questionnaires. The study did not use a control group which may have affected the internal validity. Additionally, randomization methods were not used because the study addressed the entire population under investigation. However, in studies investigating the effectiveness of educational interventions,

non-randomized methods and the use of a control group are common and ethical because they provide all of the study sample with knowledge and skills without excluding anyone. Another limitation is that the impact or potential benefits of the educational intervention on patient care and the health care system were not captured. Further research on the effect of the PHCNS programme is needed, where inquiries can be made into whether noticed an improved level of care after registered nurses took the PHCNS programme.

Nevertheless, this study has the following strength. The training programme can be reproducible, as a whole in other countries, because it was based on a structured reflection model, developed according to the WHO framework for community health nursing education and the ENhANCE Project. Minor modifications of the programme may be needed in clinical practice settings depending on each country's PHC system.

Conclusion: In this study we presented the effects of a training programme for registered nurses in Community Nursing. The study findings provide evidence that the training programme met the anticipated objectives, by improving nurses' core competencies in Community Nursing. Moreover, reveals that working experience is one critical factor affecting the development of core competencies. The current study looked also at the connection between nurses' reported self-comfort/self-confidence before and after the PHCNS programme in order to perform CN interventions and concluded that the programme had a positive effect. In addition, the study provides important insights for policymakers and educational institutions on the most effective way of integrating and developing CN training for registered nurses in the future.

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