

2020

A Review of the Impact of Postgraduate Education on Nurses and Midwives NMPDU HSE West Mid West Area

(Galway, Mayo, Roscommon,
Limerick, Clare, North
Tipperary)



Table of Contents

FOREWARD	i
Executive Summary	ii
1. Introduction	1
1.1 Introduction and Background.....	1
1.2 Context.....	2
1.3 Strategic Context of Study.....	3
1.4 Aims of the Study.....	3
1.5 Objectives of the Study.....	4
2. Methodology	5
2.1 Introduction.....	5
2.2 Questionnaire Design.....	5
2.3 Focus Group Meetings.....	5
2.4 Ethical Approval.....	6
2.5 Consent and Confidentiality.....	6
2.5.1 Data Storage.....	6
2.6 Data Analysis.....	6
3. Results	8
3.1 Introduction.....	8
3.2 Survey of Nurses and Midwives who Undertook Postgraduate Education.....	8
3.2.1 Profile of Participants.....	8
3.2.2 Work Specialty.....	9
3.2.3 Job Descriptions.....	10
3.2.4 Postgraduate Education Programmes.....	10
3.2.5 Reasons for Undertaking Postgraduate Education.....	11
3.2.6 Learning Outcomes.....	12
3.2.7 Strategic Development.....	12
3.2.8 Personal and Professional Development.....	13
3.2.9 Implementing Changes in Work Practices.....	14
3.2.10 Barriers to Applying Changes to Work Practices.....	15
3.2.11 Opportunity to Share Course Work.....	15
3.2.12 Suggestions for Further Education Programmes.....	16
3.2.13 Recommending Postgraduate Education.....	16
3.3 Focus Group Interviews.....	17
3.3.1 Introduction.....	17
3.3.2 Reasons for Undertaking Postgraduate Education.....	18
3.3.3 Themes and Sub-themes Likely to Explain Responses to Questions about Benefits of Postgraduate education.....	18

3.3.3.1	Increased Confidence and Self-esteem	18
3.3.3.2	Personal and Professional Development.....	20
3.3.3.3	Improved Patient Care.....	22
3.3.4	Themes and Sub-themes Likely to Explain Responses to Questions about Enablers to Support Postgraduate Education	24
3.3.4.1	Organisational Factors	24
3.3.4.2	Colleague Support.....	25
3.3.4.3	Personal Characteristics.....	26
3.3.5	Themes and Sub-themes Likely to Explain Responses to Questions about Challenges of Postgraduate Education.....	27
3.3.5.1	Balancing Competing Demands	27
3.3.5.2	Link between Clinical and Academic Aspects of Education Programmes.....	28
3.3.5.3	Culture	30
3.3.5.4	Organisational Commitment	31
3.3.6	Themes and Sub-themes Likely To Explain Responses to Questions about Implementing Service Improvement Initiatives and Sharing Research Findings.....	33
3.3.6.1	Support	33
3.3.6.2	Forum for New Initiatives	35
3.3.6.3	Options for Postgraduate Programmes.....	36
3.4	Cost of Funding Postgraduate Education.....	38
4.	Discussion	39
4.1	Introduction	39
4.2	Profile of Participants.....	39
4.3	Impact of Postgraduate Education on Nurses and Midwives.....	40
4.4	Enablers to Support Postgraduate Education.....	41
4.5	Challenges Experienced by the Participants.....	42
4.6	Barriers to Implementing New Skills or Changes.....	42
4.7	Sharing Research Findings.	43
5.	Key Findings and Recommendations	45
5.1	Introduction.....	45
5.2	Key Findings.....	45
5.3	Recommendations.....	47
5.4	Limitations.....	48
6.	References	49
7.	Appendices	53

List of Tables

Table 3.1	Profile of Participants	8
Table 3.2	Work Location	9
Table 3.3	Work Specialty	9
Table 3.4	Job Descriptions	10
Table 3.5	Postgraduate Education Programmes	10
Table 3.6	Themes and Sub-themes – Confidence and Self Esteem	19
Table 3.7	Themes and Sub-themes – Personal and Professional Development	21
Table 3.8	Themes and Sub-themes – Improved Patient Care	23
Table 3.9	Themes and Sub-themes – Organisational Factors	24
Table 3.10	Themes and Sub-themes – Colleague Support	26
Table 3.11	Themes and Sub-themes – Personal Characteristics	27
Table 3.12	Themes and Sub-themes – Balancing Competing Demands	28
Table 3.13	Themes and Sub-themes – Link between Academic and Clinical Aspects of Education	29
Table 3.14	Themes and Sub-themes – Culture	30
Table 3.15	Themes and Sub-themes – Organisational Commitment	32
Table 3.16	Themes and Sub-themes – Support	34
Table 3.17	Themes and Sub-themes – Forum for New Initiatives	35
Table 3.18	Themes and Sub-themes – Options for Postgraduate Programmes	37
Table 3.19	Breakdown of Expenditure on Postgraduate Education	38

List of Figures

Figure 3.1	Reasons for Undertaking Postgraduate Education	11
Figure 3.2	Participants who Changed Roles	11
Figure 3.3	Learning Outcomes	12
Figure 3.4	Strategic Development	13
Figure 3.5	Personal and Professional Development	14
Figure 3.6	Modes of Sharing Research Findings	16

Abbreviations

ABA	Bord Altranais agus Cnáimhseachais na hÉireann
ADOM	Assistant Director of Midwifery
ADON	Assistant Director of Nursing
ADPHN	Assistant Director Public Health Nursing
cANP	candidate Advanced Nurse Practitioner
CMM	Clinical Midwife Manager
CMM1	Clinical Midwife Manager 1
CMM11	Clinical Midwife Manager 11
CMM111	Clinical Midwife Manager 111
CMSp	Clinical Midwife Specialist Practitioner
CNM	Clinical Nurse Manager
CNM 1	Clinical Nurse Manager 1
CNM 11	Clinical Nurse Manager 11
CNM 111	Clinical Nurse Manager 111
CNSp	Clinical Nurse Specialist Practitioner
DoH	Department of Health
DON	Director of Nursing
DONM	Director of Nursing and Midwifery
HEI	Higher Education Institute
HR	Human Resource
HSE	Health Service Executive
IPE	Interprofessional Education Programme
NFQ	National Framework for Qualifications
NMBI	Nursing and Midwifery Board of Ireland
NMPDU	Nursing and Midwifery Planning and Development Unit
ONMSD	Office of the Nursing Midwifery Services Directorate
PHN	Public Health Nurse
RPN	Registered Psychiatric Nurse
SM	Staff Midwife
RAMP	Registered Advanced Midwife Practitioner
RANP	Registered Advanced Nurse Practitioner
RGN	Registered General Nurse
SN	Staff Nurse
WHO	World Health Organisation

FOREWORD

I am pleased to present the findings of this Review of the Impact of Postgraduate Education on Nurses and Midwives NMPDU HSE West Mid West, (Galway, Mayo, Roscommon, Limerick, Clare North Tipperary).

The Boards of Management from the Centres of Nursing and Midwifery Education in Galway, Mayo/Roscommon, and Limerick commissioned the research.

This report provides robust evidence on the positive impact of postgraduate education on the nurses and midwives who undertook it, and also highlights areas for further learning and improvement.

The report highlights the challenges associated with implementing service improvement initiatives and publishing research findings. It will act as a useful guide to inform future education, training, and continuous professional development to meet the needs of nurses and midwives who work in HSE West Mid West.

I would like to thank the Nursing and Midwifery Planning and Development Unit, Dublin South Kildare and Wicklow, for sharing the findings from their Review of Postgraduate Education.

I wish to acknowledge the nurses and midwives who contributed to and engaged in this research, in particular the participants who completed the questionnaires and those who attended the focus group meetings.

I would also like to acknowledge the leadership and dedication of the Research Steering Group who supported the research and provided valuable guidance throughout the project.

Finally, thank you to Anne McCarthy, Research Officer, NMPD, Galway, who undertook this review and compiled the report.

Mary Frances O'Reilly
Director NMPDU
HSE West Mid West

Executive Summary

The purpose of this report is to assess the impact of postgraduate education on the nurses and midwives from HSE West Mid West who received sponsorship under the HSE HR Circular 020/2014 between 2014 and 2018.

Context

The Nursing and Midwifery Planning and Development Unit (NMPDU) HSE West Mid West supports nurses and midwives from the region to access funding for postgraduate programmes under the HSE HR Circular 020/2014 Sponsorship of Nursing/Midwifery Education Initiatives, (Health Service Executive, 2014). Under the HSE HR Circular 020/2014 nurses and midwives can apply for funding sponsorship to participate in specialist post-registration or post-graduate education which supports service needs and their continued professional development. It reflects the long-standing support by the HSE for continuing nurse/midwife education in the interests of quality, safe, and evidenced-based care for patients.

Background to the Study

The Boards of Management of the Centres of Nursing and Midwifery Education in Galway, Mayo/Roscommon, and Limerick commissioned this study. The overall aim of the study was to inform the strategic plans of the NMPDU and the ONMSD of the outcomes of continuing education for nurses and midwives from NMPDU HSE West Mid West who received funding under HSE HR Circular 020/2014 to undertake postgraduate education between 2014 and 2018.

The specific aims of the research project were to:

- Formulate a profile of nurses and midwives working within NMPDU HSE West Mid West who were sponsored to complete postgraduate programmes under HSE HR Circular 020/2014
- Review the impact of continuing education programmes on the nurses and midwives who undertook them to see whether the programmes:
 - Supported their practice
 - Supported their professional development
 - Facilitated dissemination of research/evidence generated through their study
 - Supported nurses and midwives to align services with recent strategic changes in health care, for example, the Framework for Improving Quality in our Health Services (Health Service Executive, 2016) Department of Health Statement of Strategy 2016-2019, (Department of Health, 2016), and the National Clinical and Integrated Programmes
- Ascertain whether nurses and midwives have been able to implement changes and apply new skills to their work environment upon completion of postgraduate programmes.

All nurses and midwives who had been approved for and commenced postgraduate education programmes between 2014 and 2018 were eligible to be included in the study (n= 1300). A stratified sample of survey respondents representing the different stakeholders were contacted to

partake in focus group interviews throughout the region (n=7). A mixed method sequential research approach was utilised to assess the impact of postgraduate education. The evaluation involved a two pronged approach.

Quantitative Data

- A questionnaire was developed and delivered to nurses and midwives from NMPDU HSE West Mid West who received funding under HSE HR Circular 020/2014 between 2014 and 2018 (n= 1000)

Qualitative Data

- Focus group interviews with a sample of nurses who responded to the questionnaire.

Ethical approval was applied for through the Clinical Research Ethics Committees; Galway University Hospitals, and University Limerick Hospitals Group. Ethical approval was granted in January 2019.

Key Findings

The key findings from the study can be summarised as follows:

Demographic Details

- Over 90% of the study participants were female
- The majority of participants (91%) were qualified for six or more years before embarking on postgraduate education.
- The most common programmes of education were postgraduate diplomas and masters programmes.
- Half of the participants worked in the acute setting, 15% worked in mental health services and 10% worked in primary care services.

Benefits of Postgraduate Education

- The vast majority of participants (97%) agreed that undertaking postgraduate education was worthwhile and 98% reported that they would recommend postgraduate education to colleagues.
- Almost all of the participants (95%) cited wanting to gain more knowledge in their specialty as a reason for undertaking postgraduate education.
- The sense of achievement which was gained by undertaking postgraduate education was highlighted during the study.
- Postgraduate education had a positive effect on participants' level of confidence and self-esteem.
- The majority of nurses and midwives (84%) viewed the attainment of a postgraduate qualification as enhancing their career, 42% had changed roles since commencing postgraduate education.
- The study participants reported improved problem solving abilities, were more aware of the need for quality improvement and more likely to promote safe practice within their work environments.

- Participants self-reported level of knowledge, critical thinking skills, and use of evidenced-based care in day-to-day work improved upon completion of postgraduate education programmes.
- The multidisciplinary aspect of postgraduate education programmes added a valuable dimension to them, and provided nurses and midwives with the opportunity to network with other disciplines.
- Participants reported that they were able to provide better patient care, and enhance the patient experience since undertaking postgraduate education.
- The majority of respondents to the survey agreed with the statement that they had improved their clinical decision making skills since completing postgraduate education, however, increased clinical skills obtained from postgraduate education were not always sufficient.
- The majority of participants agreed that undertaking postgraduate education had enabled them to develop their leadership skills.
- Participants reported that they were more motivated to change their practice since undertaking postgraduate education.

Enablers to Support Postgraduate Education

- Participants highlighted the importance of a positive organisational culture to enable nurses and midwives to pursue postgraduate education, and to implement the findings from their research or service improvement initiatives.
- The availability of funding under the HSE HR Circular 020/2014 was an incentive for the majority of participants (78%) to pursue postgraduate education.
- The personal characteristics of individuals, in particular; personal motivation, resilience and passion for learning were identified as enablers for nurses and midwives to pursue postgraduate education programmes.
- The option to introduce mandatory study days which are linked to registration was suggested as a way of encouraging lifelong learning for nurses and midwives.
- The critical role of the CNM/CMM 11 in supporting participants to pursue postgraduate education was highlighted.
- Having the support of managers, colleagues and the multidisciplinary team was seen as crucial to create a supportive learning environment in practice.
- The need for organisations to have a systematic planned approach to continuing professional education was highlighted during the study.

Challenges Experienced by the Participants

- Combining work, study, and family life was disruptive for the participants.
- The main barrier to implementing new skills or changes in the work environment was resistance to change by colleagues, managers, and members of the multidisciplinary team.
- Participants experienced frustration at the negativity and resistance to change expressed by some colleagues, managers and multidisciplinary teams.
- Increased clinical skills obtained from postgraduate education were not always sufficient.

- The lack of integration between practice and academia was highlighted by the study participants.
- The additional financial cost associated with postgraduate education for some participants (i.e. travel and accommodation), and the lack of financial recognition for those who undertook postgraduate study were cited as challenges by the study participants.
- A minority of the study participants (14%) had published the findings of their studies, and 2% had uploaded their research onto Lenus, the Irish Health Repository.
- Many participants reported that there was no follow through on service improvement initiatives when programmes were complete.

Recommendations

It is clear from the evaluation that though postgraduate education was viewed positively by the study participants, a number of suggestions were made to help facilitate further improvements. The following recommendations are given to help facilitate improvements; they are divided into three sections.

Health Service Organisations

- There needs to be on-going organisational support for nurses and midwives who are undertaking postgraduate education, to support them to implement the findings from their service improvement or research projects.
- Services should use the Health Services Change Guide and accompanying Change Framework to support staff members to introduce change within their wards and departments.
- Senior nursing and midwifery managers should be involved in supporting nurses and midwives to implement their service improvement initiatives, and the findings from their research projects within their wards and departments.
- Clinical nursing and midwifery managers should be supported to create a learning culture within their wards or departments.
- Lifelong learning should be promoted and supported for all nurses and midwives.
- Further research which ascertains the views of patients/service users would be helpful in identifying the impact of postgraduate education from the patient/service user perspective.
- Forums for sharing research findings and service improvement projects should be organised within services.

Higher Education Institutes

- Higher education institutes should incorporate a change management module within postgraduate programmes, to support nurses and midwives to implement changes in their work environment upon completion of postgraduate education.
- Postgraduate education programmes should have more of a multidisciplinary focus and efforts should be made to promote multidisciplinary postgraduate education.
- Postgraduate education programmes which have a clinical aspect should focus more on developing the clinical skills of students.

- Consideration should be given when developing postgraduate education programmes for healthcare staff, to ensure that health promotion modules are included in all health related programmes.

Health Care Organisations and Higher Education Institutes Combined

- Directors of nursing and midwifery and their academic partners should actively explore the scope for joint appointments in order to foster collaborative working to enhance clinical practice, research, and education.
- Nurses and midwives who undertake postgraduate education programmes (especially master's programmes) should be encouraged and supported to publish their research findings.
- All nurses and midwives who receive funding under HSE HR Circular 020/2014 commit to uploading their research onto Lenus the Irish Health Repository, nursing and midwifery management should ensure that this is completed in a timely manner by nurses and midwives who receive funding.
- Consideration by service level stakeholders of strategies to enhance the visibility of nursing and midwifery research should include the maintenance and accessibility of a local record of such activity.

1. Introduction

1.1 Introduction and Background

Postgraduate education for nurses and midwives is seen as essential to provide safe, high quality and efficient health services in line with population needs (Massimi et al., 2017). The requirement for postgraduate education for nurses and midwives has received much attention both nationally and internationally in recent years. In the past, undertaking postgraduate education was seen as an optional extra, it is now a vital component of continuing professional development, and it is no longer viewed as acceptable for nurses and midwives to continue practising without further education.

We are living in a world where advances in medicine and healthcare are happening at a rapid pace, new advances in technology, a focus on evidenced-based practice and multidisciplinary working means that the roles of nurses and midwives are expanding. Nurses and midwives now undertake procedures that were once the responsibility of medical staff (Drey et al., 2009). Changing demographics, coupled with people living longer with more complex, health-related problems has led to the need for nurses and midwives to develop more advanced roles. Ireland's population is rising and is projected to grow by between 10% and 18% between 2016 and 2031, the share of the population aged 65 and over is projected to increase by 59% over this period while the number of people aged 85 and over is projected to increase by 97% (Department of Health, 2019). There has been a 19% increase in those over 65 years in Ireland in the 2016 census, (Central Statistics Office, 2016). The World Health Organisation has identified that education providers (hospitals and universities) need to facilitate education which meets the needs of an ever increasing specialised healthcare workforce, (World Health Organisation, 2013).

In order to keep abreast with the changes in health care, nurses and midwives have a responsibility to acquire new knowledge and competence to enable them to provide quality, competent and safe patient care, (Nursing and Midwifery Board of Ireland, 2016). Continuing nurse and midwifery education has been defined by the Nursing and Midwifery Board of Ireland (NMBI) as a lifelong learning process, which takes place after the completion of the pre-registration education and training. It consists of planned learning experiences which are designed to augment the knowledge, skills, and attitudes of registered nurses and registered midwives for the enhancement of nursing and midwifery practice, education, leadership, and research (Nursing and Midwifery Board of Ireland, 2016). The Nurses and Midwives Act (2011) stipulates that nurses and midwives have a responsibility in relation to the maintenance of professional competency. Continuing professional development is one element of professional competency (Government of Ireland, 2011).

There are few studies on the outcomes and impacts of postgraduate education for nurses and midwives in Ireland. The international literature has reported that better educated nurses have an impact on reducing patient deaths (Aiken et al., 2012, Liao et al., 2016). There is a body of evidence that shows that nurses with postgraduate qualifications are better prepared to meet the demands placed on today's nurse and can contribute to the advancement of patient care. They purport that postgraduate

education enhances critical analysis of care, (Kutney-Lee et al., 2009, Drennan, 2010, Aiken et al., 2012, Ng et al., 2016).

Postgraduate education can also help to contribute to increased professional behaviours of registered nurses and associated improvement in their clinical confidence, (Baxter and Edvardsson, 2018, Cotterill-Walker, 2011). A recent study in New Zealand by Wilkinson et al. (2018) found that there is good evidence of a positive association between postgraduate education at any level and more time spent in advanced practice activities. Postgraduate education has also been demonstrated to have a positive influence on job satisfaction (Bush and Lowery, 2016).

The number of nurses and midwives working in advanced practice roles has increased year on year over the past 10 years, both in Ireland and internationally. By December 2019 in Ireland, there were 422 nurses and midwives registered as advanced nurse/midwife practitioners and 134 candidate advanced nurse/midwife practitioners. The aim now is to have 2% of the nursing and midwifery workforce working as advanced practitioners which will see the number increase to 750 approximately (Department of Health, 2019). One of the criteria for working as an advanced practitioner is that the candidate must complete a masters' in advanced practice. This is one of the contributing factors for the increase in the number of nurses and midwives undertaking masters' programmes over the last 10 years. A total of 20 nurses and midwives from HSE West Mid West applied for masters funding in 2014, this figure rose to approximately 100 applications each year for 2017 and for 2018.

1.2 Context

The Nursing and Midwifery Planning and Development Unit (NMPDU) HSE West Mid West supports nurses and midwives from the region to access funding for postgraduate programmes under the HSE HR Circular 020/2014-Sponsorship of Nursing/Midwifery Education Initiatives, (Health Service Executive, 2014). This circular supersedes the HSE HR Circular 020/2009. Under the HSE HR Circular 020/2014 nurses and midwives can apply for funding sponsorship to participate in specialist post-registration or post-graduate education which supports service needs and their continued professional development. It reflects the long-standing support by the HSE for continuing nurse/midwife education in the interests of quality, safe, and evidenced-based care for patients.

The HSE HR Circular 020/2014 applies to nurses and midwives employed by the public health service in either a statutory or a voluntary agency. Courses undertaken must be relevant to the nurse or midwives' area of practice and meet patient or organisational needs, with due regard to available financial resources, and the educational needs of the employing organisation as a whole. Under this initiative a registered nurse or midwife undertaking a Nursing & Midwifery Board of Ireland (NMBI) / Bord Altranais agus Cnáimhseachais na hÉireann (ABA) approved post graduate, certificate, diploma, higher diploma, education initiative, module in specialist areas of clinical nursing or midwifery practice, or other relevant course are entitled to apply to have their fees paid provided the conditions of this initiative are fulfilled (Health Service Executive, 2014).

This study is based on previous work undertaken by the Nursing and Midwifery Planning and Development Unit, Dublin South Kildare and Wicklow (NMPDU, 2018). The results from this study will inform nursing and midwifery management in NMPDU HSE West Mid West of the impact that

postgraduate education had on their staff and service. Similar research has been completed in It will allow the NMPDU HSE West Mid West to benchmark itself against other NMPDUs to see whether the experiences and patterns reported nationally are also reflected by nurses and midwives from NMPDU HSE West Mid West.

1.3 Strategic Context of the Study

The following strategic documents supported and guided the study:

- Post Registration Nursing and Midwifery Programmes: Requirements and Standards (Nursing and Midwifery Board of Ireland, 2016)
- Scope of Practice Nursing and Midwifery Framework (NMBI, 2015)
- Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives (Nursing and Midwifery Board of Ireland, 2014)
- Report of the Post-registration Nursing and Midwifery Education Review Group (ONMSD, 2008)
- Review of Postgraduate Education for Nurses and Midwives, Dublin South, Kildare & Wicklow (NMPDU, 2018)
- A Study on the Impact of Continuing Education for Nurses and Midwives Who Completed Post Registration Courses (Mc Carthy and Evans, 2003)
- Commission on Nursing, (Government of Ireland, 1998).

1.4 Aims of the Study

The overall aim of the study was to inform the strategic plans of the NMPDU and the ONMSD of the outcomes of continuing education for nurses and midwives from NMPDU HSE West Mid West who received funding under HSE HR Circular 020/2014 to undertake postgraduate education between 2014 and 2018.

The specific aims of the research project were to:

- Formulate a profile of nurses and midwives working within NMPDU HSE West Mid West who were sponsored to complete postgraduate programmes under HSE HR Circular 020/2014
- Review the impact of continuing education programmes on the nurses and midwives who undertook them to see whether the programmes:
 - Supported their practice
 - Supported their professional development
 - Facilitated dissemination of research/evidence generated through their study
 - Supported nurses and midwives to align services with recent strategic changes in health care, for example, the Framework for Improving Quality in our Health Services (Health Service Executive, 2016) Department of Health Statement of Strategy 2016-2019, (Department of Health, 2016), and the National Clinical Programmes
- Ascertain whether nurses and midwives have been able to implement changes and apply new skills to their work environment upon completion of postgraduate programmes
- Ascertain the views of nursing and midwifery managers on the outcomes of postgraduate education

- Determine the financial cost of the HSE HR Circular 020/2014 Sponsorship of Nursing/Midwifery Education Initiatives between 2014 and 2018 in NMPDU HSE West Mid West
- Explore the impact of HSE HR Circular 020/2014 Sponsorship of Nursing/Midwifery Education Initiatives on the recruitment and retention of nurses and midwives.

1.5 Objectives of the Study

1. To undertake a literature review to clarify the theory and policies guiding postgraduate education for nurses and midwives
2. To undertake a survey of nurses and midwives who have been approved for and commenced postgraduate education programmes between 2014 and 2018 (under the HSE HR Circular 020/2014-Sponsorship of Nursing/Midwifery Education Initiatives which is facilitated by the Nursing and Midwifery Planning and Development Unit NMPDU HSE West Mid West)
3. To undertake a survey of nursing and midwifery managers in NMPDU HSE West Mid West to ascertain their views on the outcomes of postgraduate education*
4. To undertake focus group interviews with a stratified sample of questionnaire participants
5. To compile a comprehensive report on the findings of the study.

Note: For the purpose of this study NMPDU HSE West Mid West refers to the NMPDU area NMPDU HSE West Mid West which includes the following counties; Galway, Mayo Roscommon, Limerick, Clare and North Tipperary.

Note: For the purpose of this study postgraduate education qualifications are those referred to in the Irish National Framework for Qualifications (NFQ) and include the following: Professional Credit Awards (Modules), Certificates, Degrees, Higher Diplomas, Postgraduate Diplomas, Masters and PhDs.

*When the results of the survey of nurses and midwives was analysed it became apparent that a large percentage of the respondents (41%) were nursing and midwifery managers. The Research Steering Group in conjunction with the researcher decided not to undertake the survey of nursing and midwifery managers to ascertain their views on the outcomes of postgraduate education.

2. Methodology

2.1 Introduction

A mixed method sequential research approach was utilised to assess the impact of continuing education programmes on the nurses and midwives who undertook them. A combination of quantitative and qualitative research approaches were used to collect data for this study. When used together in one study, a combination of qualitative and quantitative methods complements and strengthens the research findings (Lund, 2012, Polit and Beck, 2004).

Quantitative Data

- A questionnaire was developed and delivered to nurses and midwives from NMPDU HSE West Mid West who received funding under HSE HR Circular 020/2014 between 2014 and 2018.

Qualitative Data

- Focus group interviews with a sample of nurses who responded to the questionnaire.

2.2 Questionnaire Design

The principle aim of the quantitative method was to investigate the impact of postgraduate education on nurses and midwives from NMPDU HSE West Mid West. A questionnaire was developed to meet the aims and objectives of the study. Following a pilot study, the survey instrument was refined. The questionnaire comprised mainly closed questions with a smaller number of open-ended questions, which allowed participants to express their views (see Appendix one). The questionnaire was distributed through the Survey Monkey platform. A detailed information letter outlining the purpose of the study was attached to each questionnaire (see Appendix one). Completion of the questionnaire implied consent. Questionnaires were anonymous. The questionnaires were delivered in March 2019. Two follow-up emails and letters (two and four weeks after sending out the initial questionnaires) were sent to participants to increase the response rate. Data from the questionnaires was analysed using the Statistical Package for Social Sciences (SPSS) Version 25.

2.3 Focus Group Meetings

Following on from the survey, a stratified sample of survey participants representing the different stakeholders were contacted to partake in focus group interviews. Seven focus group interviews were organised in the following work areas; (University Hospital Galway, Portiuncula University Hospital, Mayo University Hospital and University Hospital Limerick). An email was sent to a stratified sample of participants inviting them to attend a focus group meeting in their catchment area, (see Appendix two). Thirty participants were invited to attend each focus group interview. On the day of the focus group, each participant was given an information sheet on the project. An impartial moderator attended each of the focus groups to ensure that the rights of participants were upheld at all times. Participants were assured of confidentiality and were assured that no identifying information would be provided in the final report.

The purpose of the focus group interviews was to gain a more in-depth understanding of the impact of postgraduate education on the nurses and midwives who undertook various postgraduate programmes. The focus group interviews lasted between 60-85 minutes. The interviewees were asked a number of

predetermined open-ended questions. Probes were offered at times, and in some instances clarification was sought by the researcher. All focus group interviews were tape recorded with the verbal permission of the participants. Notes were taken by the moderator. Data from the focus group interviews was coded and pseudonymised.

Thematic content analysis was used to identify patterns or themes within the qualitative data. The goal of thematic analysis is to identify themes, i.e. patterns in the data that are important or interesting and use these themes to address the research question (Maguire and Delahunt, 2017). Braun and Clarke's six-phase guide was used as a framework for conducting the analysis. Braun and Clarke (2006) suggest that it is the first qualitative method that should be learned as '...it provides core skills that will be useful for conducting many other kinds of analysis' (p.78). It is not tied to a particular epistemological or theoretical perspective which makes it very flexible, and it offers a clear and usable framework for doing thematic analysis. Braun and Clarke's six-phase themes are as follows: Step 1: Become familiar with the data, Step 2: Generate initial codes, Step 3: Search for themes, Step 4: Review themes, Step 5: Define themes, Step 6: Write-up.

2.4 Ethical Approval

Ethical approval was applied for through the Clinical Research Ethics Committees; Galway University Hospitals, and University Limerick Hospitals Group. Ethical approval was granted in January 2019.

2.5 Consent and Confidentiality

Participants' right to confidentiality and anonymity was maintained throughout the study. Individual names or positions were not directly linked to individual responses in the questionnaire or focus group feedback. Study participants were assured that the presentation of findings in the completed study will uphold their anonymity and confidentiality of both person and location.

2.5.1 Data Storage

All data for the project was stored in a secure location by the researcher. All data files were protected by the use of; passwords, encryption and locked filing cabinets. Once collected, only the researcher and research assistant had direct access to the raw data. Paper data will be kept in a stored locked filing cabinet for up to one year after the report is published, and will then be shredded. Electronic data will be stored in an encrypted computer and will be deleted from the computer one year after the report is published. The study complied with the EU General Data Protection Regulations (GDPR) which was enacted in May 2018.

2.6 Data Analysis

Data analysis of the quantitative data consisted of descriptive frequencies and sub group analysis using the Statistical Package for Social Sciences (SPSS) Version 25. Most of the findings have been presented in tabular or chart format. In the tabular data, percentages have been rounded to the nearest whole number. Non-parametric inferential tests were carried out where appropriate.

Data from the focus groups were transcribed into written format in order to conduct a thematic analysis. The process of transcription enabled the researcher to familiarize herself with the data. Data transcription has been seen as a 'key phase of data analysis within interpretative qualitative

methodology' Bird (2005: 227). The transcripts of the focus groups were analysed thematically using a coding framework based on the areas of interest in the focus group guide. Initial codes were produced from the data. The initial codes were then sorted into potential themes. These themes were then refined and sub-themes were developed. The themes and sub-themes have been reported on in the findings. Extracts from the data were used in the report to capture the essence of the themes and sub-themes.

3. Results

3.1 Introduction

The principle aim of the evaluation was to assess the impact of postgraduate education as perceived by the nurses and midwives who undertook postgraduate programmes between 2014 and 2018. This chapter draws together the findings from the various research methods employed to gather the data. The results are presented under the following headings:

- Survey of nurses and midwives who completed postgraduate education between 2014 and 2018
- Focus group interviews with a sample of participants to the survey
- Financial cost of funding postgraduate education programmes.

3.2 Survey of Nurses and Midwives who undertook postgraduate education

This section reports on the data collected in the online survey of nurses and midwives who completed postgraduate education between 2014 and 2018. A questionnaire was designed to elicit information on the participants, the courses they studied and the learning outcomes from the courses. Approximately 1000 nurses and midwives from HSE West Mid West were sent a questionnaire. A total of 479 participants responded to the survey. The overall response was 47%.

3.2.1 Profile of Participants

The vast majority of the participants were female (91%). The most common age categories were 40-49 years (37%); and 30-39 years (34%). Due to the small number of participants in the over 60 age category, this group was amalgamated with the 50-59 age group to protect confidentiality and anonymity. Participants were asked to indicate the service they worked in, 43% worked in Saolta University Health Care Group and 22% worked in UL Hospitals Group (table 3.1).

Table 3.1 Profile of Participants

	Number	%
Gender		
Female	425	91
Male	40	9
Age		
20-29	42	9
30-39	157	34
40-49	173	37
>50	94	20
Work Area		
Saolta University Health Care Group	198	43
UL Hospitals Group	101	22
Community Healthcare West	86	18
HSE Mid West Community	50	11
Voluntary not for Profit	25	5
Other (e.g. Corporate, NMPDU)	10	2

When these figures were compared with the numbers of nurses and midwives who undertook postgraduate study from each of the service areas, there was a minimum of 30% response from each area. Saolta University Health Care Group had the highest response rate (40%), followed by HSE Mid West Community Healthcare 35% (see table 3.2).

Table 3.2 Work Location

	Number who undertook postgraduate programmes	Number of respondents to survey	% Response
Work Area			
Saolta University Health Care Group	500	198	40
UL Hospitals Group	330	101	31
Community Healthcare West (older persons services, mental health services, Intellectual disability and public health nursing)	244	86	34
HSE Mid West Community Healthcare (older persons services, mental health services, Intellectual disability and public health nursing)	136	50	35
Voluntary Services, ID.	81	25	31
Other	15	10	66
Total	1291	470	----

3.2.2 Work Speciality

The most common work specialities of the participants were acute services 50%; and mental health services 15% (table 3.3). Responses under other included nursing and midwifery planning and development units, centres of nursing and midwifery education and national groups.

Table 3.3 Work Speciality

	Number	%
Service Area		
Acute Services	233	50
Mental Health Services	72	15
Primary Care Services	47	10
Women's and Infant Health	42	9
Older Persons Services	28	6
Palliative Care	17	4
Disability Services	16	3
Other	15	3
Total	470	100

3.2.3 Job Descriptions

The job descriptions of the participants are outlined in table 3.4. Staff nurse grade which included staff nurses (SN's), staff midwives (SM's), registered psychiatric nurses (RPN's), public health nurses (PHN's) and community registered general nurses (RGN's) accounted for 43% of the participants. Thirty percent of the participants were working at a clinical nurse manager or clinical midwife manager (CNM/CMM) grade.

Table 3.4 Job Descriptions

	Number	%
Job Description		
SN, SM, RPN, PHN, Community RGN*	200	43
CNM1/CMM1, CNM11/CMM11, CNM111/CMM111	141	30
CNSp/CMSp	40	8
DON, DONM, DPHN, ADON, ADPHN, ADOM	49	11
RANP, RAMP, cANP,	36	8
Total	466	100

*Participants who worked in disability services indicated that they worked as a staff nurses, they did not specify that they were registered nurses in disability services (RNID)

3.2.4 Postgraduate Education Programmes

Participants were asked to indicate which postgraduate education programmes they had undertaken during the previous five years. The results are displayed in table 3.5. Some participants completed more than one programme. The most common programmes of education were postgraduate diplomas (47%), and masters programmes (33%). The 'other' category included programmes such as research methods, leadership programmes and lean systems.

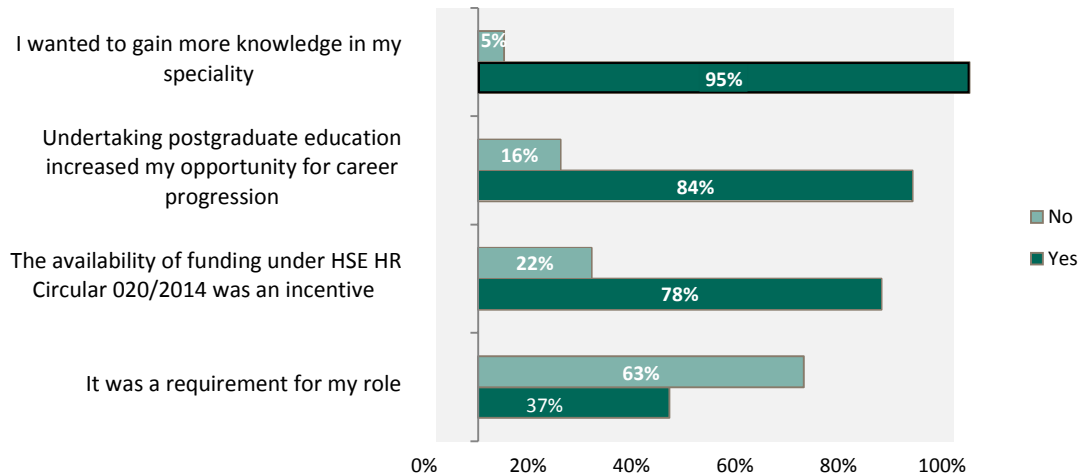
Table 3.5 Postgraduate Education Programmes

	Number	%
Postgraduate Programme		
Postgraduate Diploma	224	47
Masters	158	33
Postgraduate Certificate	76	16
Professional credit awards	73	15
Diploma	31	6
Degree	16	3
Other	12	2
PhD	6	1

3.2.5 Reasons for Undertaking Postgraduate Education

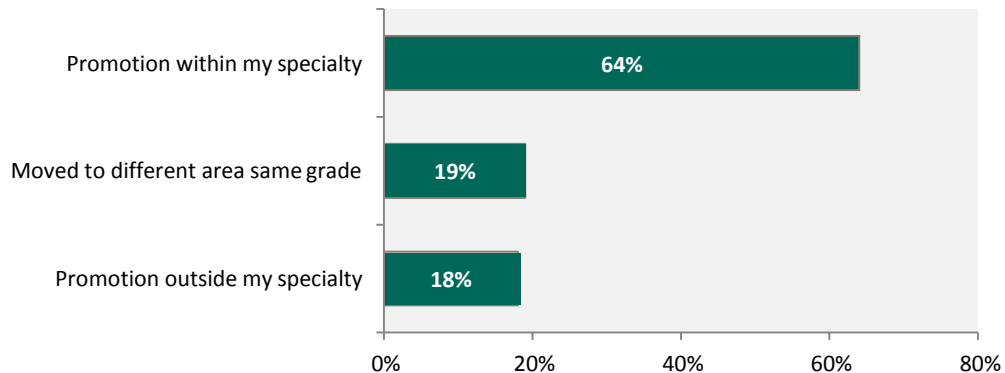
Participants were asked to indicate their reasons for undertaking postgraduate education. The responses are displayed in figure 3.1. The vast majority of the participants 95% indicated that they wanted to gain more knowledge in their speciality, 84% agreed that it increased their opportunity for career progression, and 78% agreed that the availability of funding under HSE HR Circular 020/2014 was an incentive. A total of 37% reported that it was a requirement for their role.

Figure 3.1 Reasons for Undertaking Postgraduate Education



Additionally participants were asked if they had changed roles since commencing postgraduate education; 42% reported that they had changed roles. Of those who had changed roles, promotion was the most frequently cited change, 64% had been promoted within their speciality, 19% had moved to a different area at the same grade and 18% had been promoted outside their speciality as outlined in Figure 3.2. More than half of the participants who undertook masters programmes (54%) had changed roles since their completing their postgraduate education, whereas 42% of those who had undertaken higher diploma programmes had changed roles.

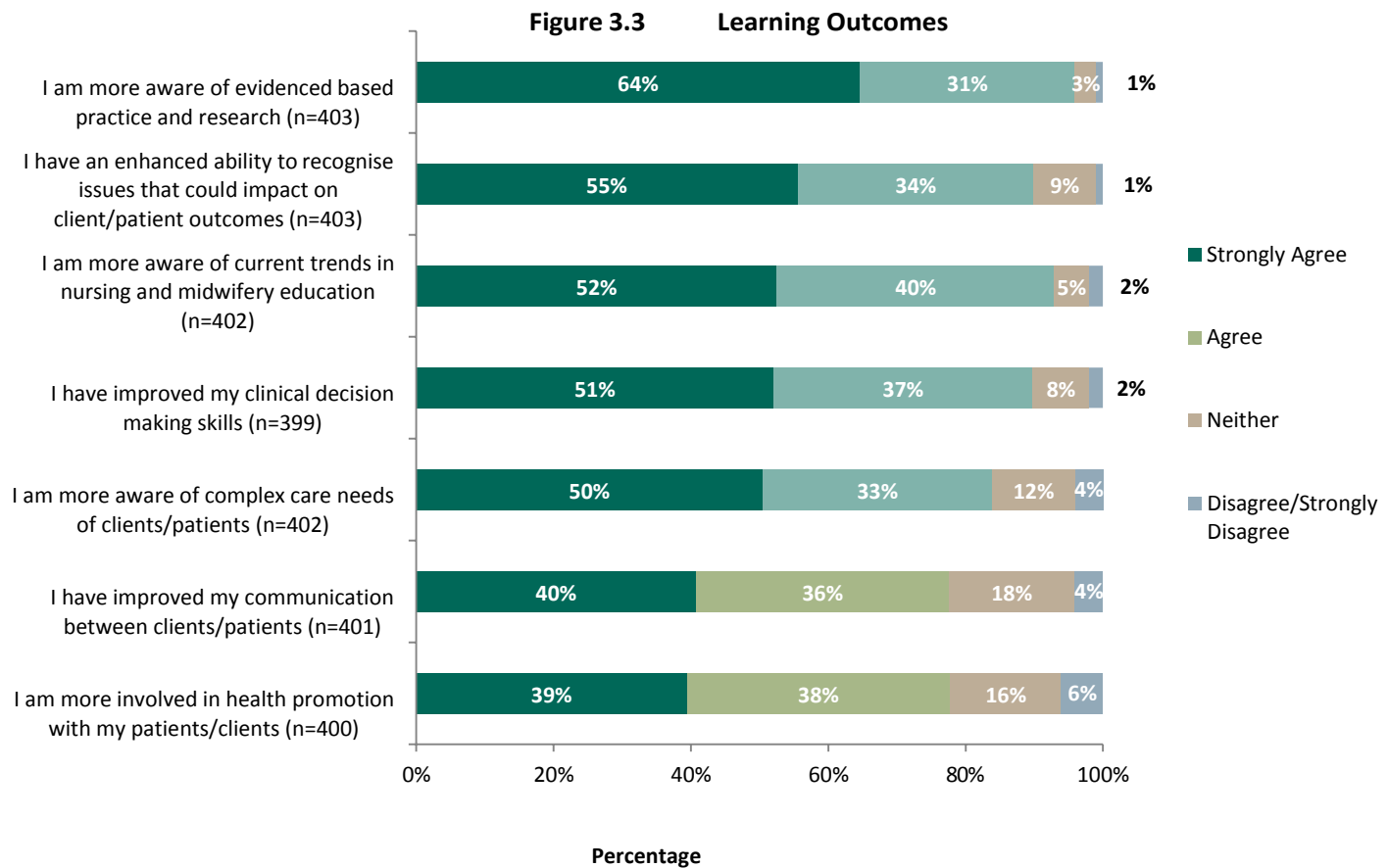
Figure 3.2 Participants who Changed Roles



3.2.6 Learning Outcomes

The majority of the participants either strongly agreed or agreed with each of the statements relating to their learning outcomes (figure 3.3). Being more aware of evidenced-based practice and current trends in nursing and midwifery education had the highest ratings. Being more involved in health promotion within work, and having improved communication with clients and patients, scored the least favourable ratings.

(Note: because the percentages in the disagree/strongly disagree categories were very low, the results of these categories are presented together. The non-applicable category was removed).

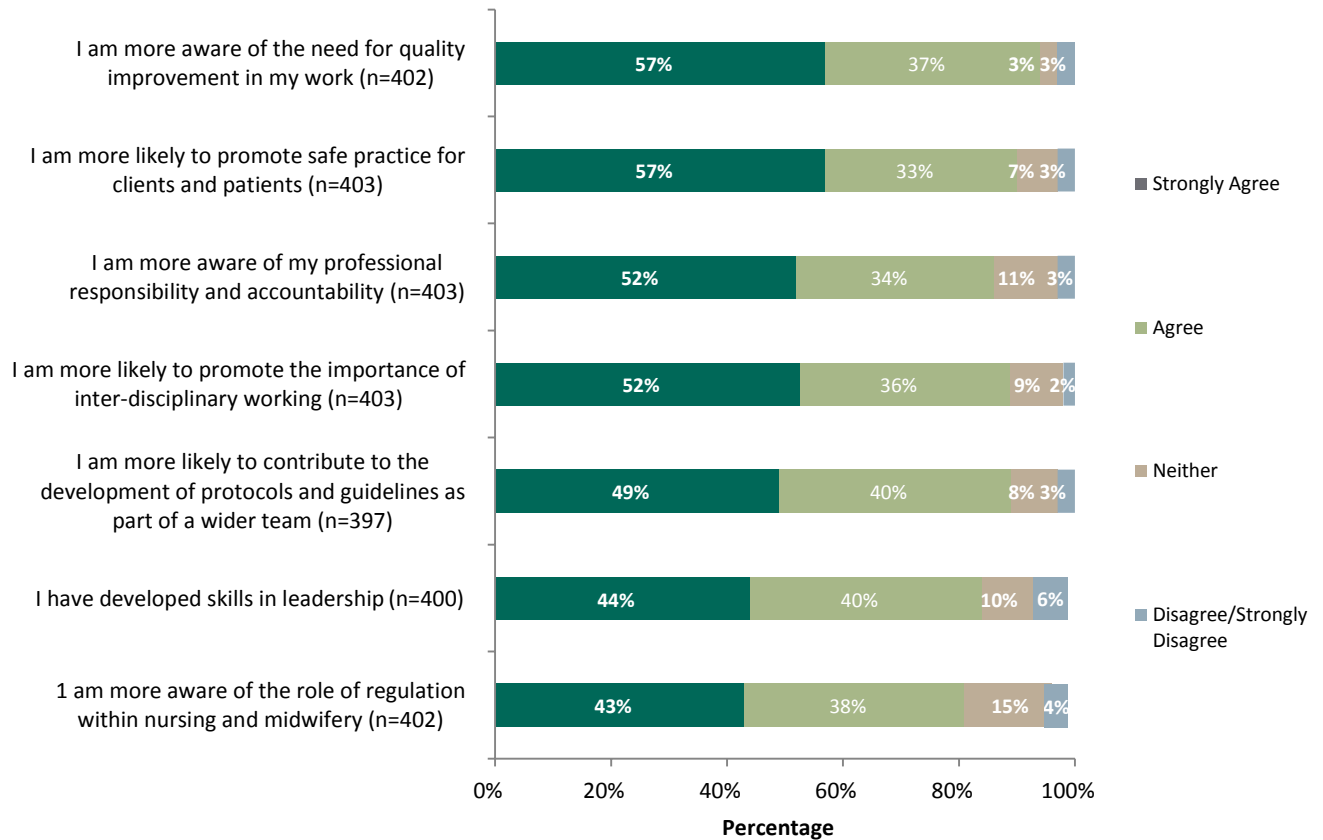


3.2.7 Strategic Development

The majority of the participants either strongly agreed or agreed with each of the statements relating to their strategic development (figure 3.4). Over 90% of the participants agreed that they were more aware of the need for quality improvement in their work and were more likely to promote safe practice for

clients and patients. Participants were less likely to agree with the statements that they had developed skills in leadership or that they were more aware of the role of regulation within nursing and midwifery.

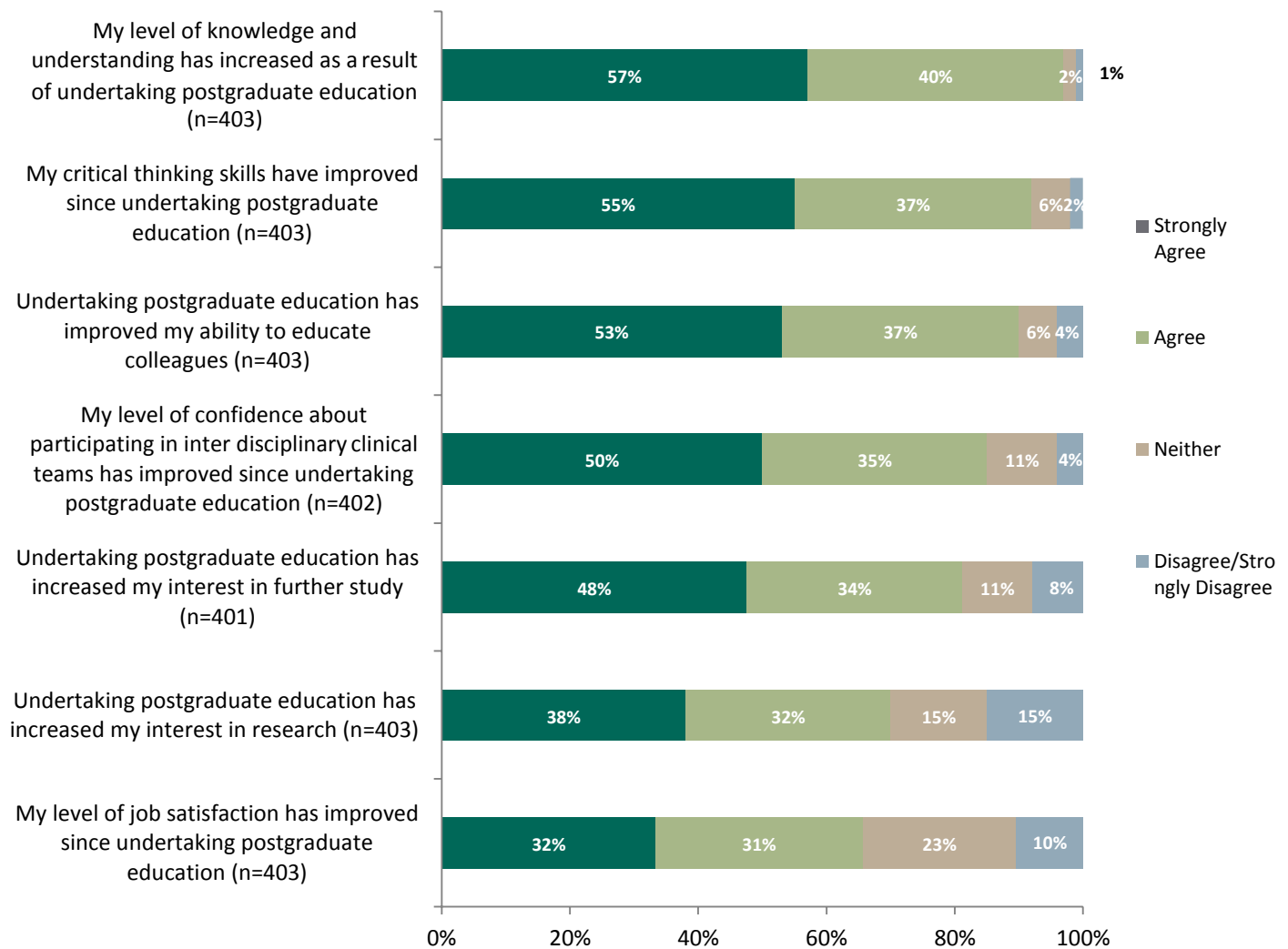
Figure 3.4 Strategic Development



3.2.8 Personal and Professional Development

Participants were asked to rate how much they agreed with statements relating to their personal and professional development (figure 3.5). Over 90% of the participants either strongly agreed or agreed with the statements that their level of knowledge and understanding, and their critical thinking skills had improved as a result of undertaking postgraduate education. Their level of job satisfaction and interest in research scored less favourably, 62% of the participants either strongly agreed or agreed with the statement that their level of job satisfaction had increased since undertaking postgraduate education, and 70% agreed that undertaking postgraduate education had increased their interest in research.

Figure 3.5 Personal and Professional Development



3.2.9 Implementing Changes in Work Practices

Participants were asked to indicate whether they had been able to implement any changes in their work practices since undertaking postgraduate education programmes; 77.67% reported that they had implemented changes, and many gave examples of changes they had introduced within their wards and departments. The main themes from the additional responses included:

- Examples given of changes which were introduced (n=40)
- More informed and knowledgeable, more aware of evidence based practice and research, better understanding (n=37)
- Involved in change management projects, introduced changes to work practices (n=24)
- More involved in audit, developing PPG's and quality improvement (n=23)
- More involved in networking, educating colleagues and sharing information (n=13)
- More confidence and competence in my role (n=11)

- No changes, main reasons due to: short staff, no support from management, changed jobs, no encouragement, no opportunity, not had a chance (n=21).

Additionally participants were asked to indicate what would help them to implement changes in their work practice, 83% of the participants made suggestions. The most common themes included:

- Support from management (n=67)
- Protected time (n=65)
- More scope to introduce initiatives (n=52)
- Better staffing levels (n=49)
- Support from colleagues (n=48)
- More resources (n=44)
- More staff educated, more education sessions available (n=34)
- Clear objectives from management (n=25)
- More support from multidisciplinary team (n=23).

3.2.10 Barriers to Applying Changes to Work Practices

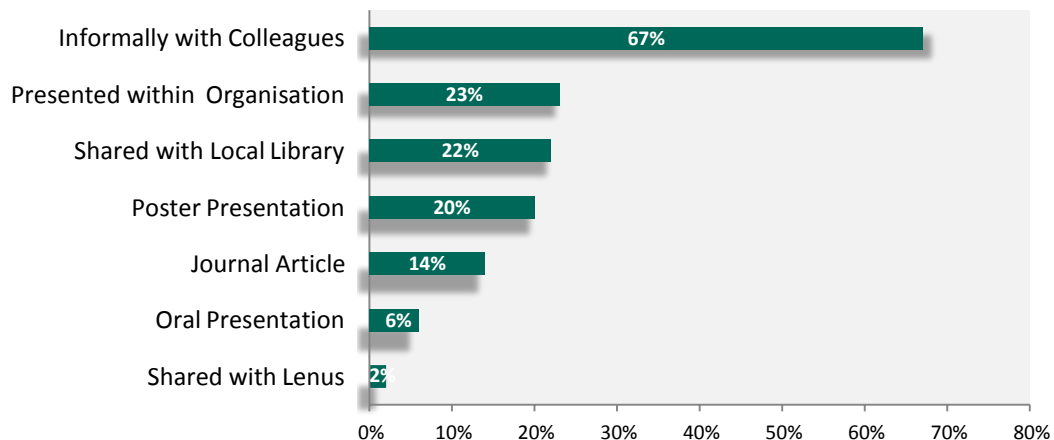
Fifty seven percent of the participants indicated that they had experienced barriers to applying changes to their work practices. The most commonly cited barriers included:

- Resistance to change from colleagues, management and multidisciplinary teams (n=71)
- Time constraints (n=24)
- Lack of support from management (n=20)
- Staff shortages (n=20)
- Funding issues (n=19)
- Lack of knowledge/understanding of some staff to expanding roles (n=15)
- Change is difficult but managed it, most people are great (n=15)
- Culture, politics, unions (n=13)
- Complicated process to change, difficult to get decisions made (n=12)
- Fear of change (n=5).

3.2.11 Opportunity to Share Course Work

Participants were asked to indicate whether they have had the opportunity to share their research or course work on various forums. The most common mode of sharing research findings was informally with colleagues, two thirds of the participants (67%) reported that they had shared their course work informally with colleagues, 23% reported that they had presented their work within their organisation and 22% had shared their work with their local library. Two percent of the participants reported that they had shared their work on Lenus.

Figure 3.6 Modes of Sharing Research Findings



3.2.12 Suggestions for Further Education Programmes

The participants made a number of suggestions for further education programmes, they included:

- Development of modules in specific areas (n=43)
- More financial support especially for people who travel for programmes (n=24)
- Management/leadership programmes (n=18)
- Increase study leave (n=13)
- More support with balancing work, study and family life (n=12)
- Development of postgraduate education programmes in areas such as: renal, forensic science, urology, surgery and midwifery (n=13)
- Develop more postgraduate programmes in mental health especially in CBT (n=10)
- Develop courses locally (n=9)
- Elderly care (masters in geriatric medicine, dementia care, stroke care) (n=5)
- Funding needs to be consistent and more funding should be available especially for masters programmes (n=4)
- The application process made easier, more support from HEI's for staff who have been out of education for a while (n=3).

3.2.13 Recommending Postgraduate Education

Of those participants who answered the question, 97% agreed that undertaking postgraduate education was worthwhile and 98% stated that they would recommend postgraduate education to colleagues.

3.3 Focus Group Interviews

3.3.1 Introduction

In addition to the quantitative aspect of the study, the researcher sought to understand the participants' experience of undertaking postgraduate education. Focus group interviews were organised in four venues. A stratified sample of survey participants (n=30) were invited to attend each of the focus group interviews. Attendance at the focus groups ranged from 2 to 7 participants. No midwives attended the focus group. The majority of attendees were at managerial or ANP/CNSp level. An additional focus group meeting was organised specifically for staff nurses and staff midwives. A total of 28 participants participated in seven focus group meetings.

The results of the focus group interviews are reported under the following sections:

- Reasons for undertaking postgraduate education.

Themes and sub-themes likely to explain responses to questions about benefits of undertaking postgraduate education:

- Increased confidence and self-esteem
- Personal and professional development
- Improved patient care

Themes and sub-themes likely to explain responses to questions about enablers to support postgraduate education:

- Organisational factors
- Interest from colleagues
- Personal characteristics

Themes and sub-themes likely to explain responses to questions about challenges of postgraduate education

- Balancing competing demands
- Link between clinical and academic
- Culture
- Organisational commitment
- Rewards

Themes and sub-themes likely to explain responses to questions about implementing service improvement initiatives and sharing research findings

- Support
- Forum for new initiatives
- Options for postgraduate programmes.

3.3.2 Reasons for Undertaking Postgraduate Education

There were many reasons identified by the focus group participants for undertaking postgraduate education they included; personal development, career progression, the need to inform clinical practice, to keep up-to-date with new developments in healthcare and for some, having a masters was a requirement for their role. Many of the participants reported that they enjoyed learning, were passionate about education and they wanted to share knowledge and skills with colleagues and junior staff members. The support and encouragement received from line managers and colleagues and the availability of financial support were also identified as enablers for undertaking postgraduate education.

3.3.3 Themes and Sub-themes Likely to Explain Responses to Questions about Benefits of Undertaking Postgraduate Education

The data analysis revealed three core domains regarding the perceived benefits of postgraduate education: (1) Increased confidence and self-esteem; (2) personal and professional development; (3) improved patient care.

3.3.3.1 Increased Confidence and Self-esteem

This domain included four themes namely; professional competence, recognition, sense of achievement and confidence to research problems. There was agreement among participants of the focus groups that undertaking postgraduate study had increased their level of confidence and self-esteem. This was reflected in many ways for example; 'being able to ask questions', 'to speak clearly and openly about patient care and patient needs', 'to undertake research', and 'to be affirmed that you are giving the best quality of care to patients and to stand over your decisions'. There was a sense that undertaking postgraduate study had enabled the participants to gain more recognition and become more confident in decision making.

Nurses were aware that advances in medicine and technology within healthcare required them to obtain a higher standard of education to understand the many factors that influenced patient health and illness. The confidence that ensued from undertaking postgraduate education enabled them to deal with such advances in healthcare and technology and made them more aware of the need to keep informed of such advances. Many recounted examples of new initiatives which they had introduced within their work environments. Advanced nurse practitioners were particularly cognisant of the increased autonomy and responsibility that came with their roles; they concurred that having a postgraduate qualification enabled them to be more autonomous practitioners, and more confident in decision making.

Undertaking postgraduate study had exposed the participants to a different way of thinking, it 'opened up their mind' and gave them more recognition and respect within the multidisciplinary team. Many reported that they were more likely to be listened to, asked their opinion and suggested that their opinion mattered a little bit more because they had a postgraduate qualification.

The sense of achievement which ensued from completion of postgraduate programmes was a common theme throughout the narratives, this was especially true for participants who had completed masters'

programmes, many described feeling personally satisfied at having undertaken postgraduate study.

The focus group participants reported feeling more competent and confident to critically evaluate research upon completion of postgraduate study. It gave them confidence to; become involved in research projects within their unit/department, to present their research findings at seminars and conferences, and for some to undertake research to address specific problems within their work environment.

Table 3.6 Themes and Sub-themes-Confidence and Self-esteem

Theme	Sub Theme	Quote	P
Increased Confidence and self-esteem	Professional Competence	'Education gives you confidence because you know you are now competent to do certain tasks'	P2
		'You feel more confident, I think it gives you confidence to have an educated background with the expertise of your specialty brought into it... you can bring patients up-to-date on what's going on within their condition'	P6
		'You are able to provide a better service because you have got more conviction in your practice'	P15
		'You are more confident in your area you are able to refer back to research based theories and ideas you can question decisions'	P21
		'Education has a big impact on your confidence as a practitioner its huge'	P7
	Recognition	'when you have the postgraduate behind you, your opinion matters a little bit more in the clinical setting'	P18
		'you have more recognition whereas before there was no recognition at least now you are able to get some'	P17
		'I suppose because you have the masters people kind of listen to you more'	P9
	Sense of achievement	'For me it's the personal benefit of achieving a masters I have always had an interest in progressing myself'	P24
		'I think it's that sense of achievement'	P27
		'Oh I loved it, I loved learning all the skills from scratch because they had changed so much and the fact that I was adding to my own personal tool box it means more to me than just getting you somewhere, its living your life and I would love to do another one'	P5
	Confidence to research problems	'I'm involved in research as well it does make you think about publishing'	P19
		'I had to present research I suppose I was more confident in doing that, I wouldn't have had the confidence to put that together if I hadn't being doing my masters'	P10
		'You see research as more of a tangible thing and realise yes I can do it'	P18
		'Education teaches you how to research new things and treatments, you need to understand the importance of reading and self-learning to be able to walk in and stand in front of somebody and claim to be a nurse working at a higher practice level'	P24
		'I suppose you are more confident and more specialised I have two postgrads and so you feel more confident in your area you are referring back to research based theories and ideas, and it kind of it prompts you into doing research based implementation on the ward and you can question things more easily'	P21

3.3.3.2 Personal and Professional Development

This domain included five themes namely; up-to-date knowledge; career opportunities; networking; open to change; and leaders within nursing. Postgraduate education provided nurses with new skills and up-to-date knowledge to back up their decisions, and enabled them to become more competent practitioners. It helped to inform their practice, allowed them to focus on different aspects of problem solving, and use current evidenced-based research to inform their work practices.

The majority of the focus group participants worked in the acute setting and spoke about how nursing had become more specialised in Model 4 hospitals because of the complex care needs of their patients. They were passionate about education; they enjoyed learning about their specialist areas, and promoted their passion for learning within their work environments. They described feeling more motivated and invigorated since completing postgraduate education.

The career opportunities which ensued for many of the participants were identified as a positive outcome of postgraduate education. Having a postgraduate qualification enabled participants to develop their role, secure more senior nursing positions, and position themselves for job opportunities in the future.

The opportunity to network with other disciplines both within and outside the health service and the positive outcomes associated with this was a recurring theme throughout the focus group interviews. The experience of studying with people from other disciplines helped to build relationships and facilitated staff to get to know each other and to gain a better understanding and appreciation of each other's roles. It also brought a wider perspective on issues and gave nurses the confidence to challenge clinical decisions within the multidisciplinary team.

Many focus group participants reported that their critical thinking skills had been developed as a result of undertaking postgraduate education, they were more able to identify 'gaps in their practice' were more aware of the 'bigger picture' and the systems in which they worked, and could see that some problems within their work environment were systemic and could not be resolved easily. They reported being more motivated to change their practice because they had a better understanding of the theory behind their work practices.

Postgraduate education enabled nurses to become leaders in their organisation, to introduce quality improvement initiatives, and to deal with complex care needs of patients. By having engaged in postgraduate education, the participants felt they were better positioned to mentor and support their junior colleagues and disseminate information to other staff members.

Table 3.7 Themes and Sub-themes-Personal and Professional Development

Theme	Sub theme	Quote	P	
	Up-to-date knowledge	'I was able to gain new knowledge and build on the skills I already had'	P16	
		'I love the feeling of being an expert in my area being able to advise the patient to give them the best advice that's out there at the moment'	P7	
		'You have more knowledge in current up-to-date practices and knowledge on what is best practice nationally and internationally'	P11	
	Career Opportunities	'I suppose from the point of post grad it has been such a benefit to me it has given me such exposure and has opened many doors for me in my career'	P28	
		'It allows you to progress up the ladder'	P9	
		'I think education is key to progressing in your nursing career'	P26	
		'It opened up opportunities that I didn't know I was looking for until they were presented'	P20	
			'I gained confidence in putting myself out there for opportunities that came	P21
	Personal and Professional Development		along whereas beforehand I would have been a bit shy about putting my name forward'	
			'Doing the masters opened up doors for me, I don't probably think I would be doing the job I am in if I wasn't doing the masters'	P9
Networking		'You get different points of view which then broaden your way of thinking, builds your networks with other people you can be exposed to different projects and I found that side of it very helpful in my role.. the whole share mentality was very obvious so for me that made a difference'	P3	
		'All the networking with the theatre document we had everybody included; its quite a robust document now, I feel it has really benefited the hospital in so many ways'	P4	
		'You are more confident you have been in classrooms with other people who have similar experiences so you learn as much from then their experiences and how they achieve something'	P9	
		'I work a lot easier collaboratively now with all different disciplines.... You can go to any discipline within your specialty and have a conversation about something you are concerned about'	P6	
		'There is also a networking side and meeting different people makes you exposed to their different ways of thinking'	P2	
Open to Change		'When you go back you see other opportunities and you can identify the gaps in your practice you can identify change'	P22	
		'That's what education does really it identifies gaps and how we can help'	P24	
		'I think on the wards you have more of an opportunity to initiate change, people see that you are not just saying something to improve the service for the sake of it but you have the knowledge to back it up'	P17	
		'You become more open to possibilities and are more open to change, to considering and being able to look at things in a different way'	P14	
Leaders		'One of the things I am most proud of is getting those people on the ward back to college and even since I have left they have gone back'	P20	
		'You know being a leader in the organisation those values enabling people working with them collaborating I feel I do that on a daily basis'	P2	
		'It's about bringing forward everybody who I work with to broaden their knowledge and bringing students along because in my department there is always an issue with recruitment and retention so am I have given the students a good experience so that they will come back'	P12	
		'We are leaders in our clinical area, I am so aware of my leadership role'	P23	

	within nursing	I suppose from the point of young nurses I'm always thinking a year down the line, two years down the line, what's your goal? what do you want to achieve? do you want to stay in this specialty? if you do then get on your postgrad programme while it's there while you are being funded	P28
		'It gave me the education I needed to be able to share knowledge and skills with the staff'	P21
		'I have a better awareness and knowledge of how to educate others in the department'	P12

3.3.3.3 Improved Patient Care

This domain included four themes namely: evidenced-based care, improved documentation, autonomy, and enhancing the patient experience. There was a general consensus among the focus group participants that in order to provide evidenced-based patient care, nurses needed to engage in continuous education. On completion of postgraduate education nurses reported feeling empowered to 'stand their ground' on certain issues and become patient advocates, it gave them the confidence to advocate for their patients and to become more competent at problem solving. Nurses reported being more able to make good clinical decisions, provide advice, and introduce new initiatives based on the best available evidence.

Many of the participants reported that since completing their postgraduate education programmes, they had introduced new guidelines and documentation within their department or service which led to improved safety for patients. Some of the focus group participants reported that they were now able to manage a project from beginning to end, had learned how to write business plans, and to manage the financial aspect of projects.

Participants spoke of being able to provide holistic care to their patients, this was especially true for advanced nurse practitioners. They reported that upon completion of postgraduate education they had developed pathways of care in conjunction with their multidisciplinary team; consequently services had become more streamlined, which meant that every patient received the same standard of care. Advanced nurse practitioners were often the main point of contact for patients which helped to reduce hospital admissions.

Throughout the narratives many of the focus group participants spoke about enhancing the patient experience, they reported that they were more likely to spot complications earlier which had a direct effect on patient care. They provided many examples of initiatives they had introduced which enhanced the patient experience.

Table 3.8 Themes and Sub-themes - Improved Patient Care

Theme	Sub theme	Quote	P
Improved patient care	Evidenced-based care	'They are evidenced-based research practices that you are working off'	P15
		'You are using current evidence based research and that is an educational tool in itself'	P21
		'You learn how to provide systematic scientific evidence base for your practice and it can have a very positive impact on patient outcomes'	P27
		'You are working from evidenced-based knowledge that is out there and the research it is about putting that into practice'	P12
		'You can give a high standard safe quality care and you know patients when they get to know you over the years, they respect you because they say she knows her stuff and they are more likely to listen to you and respect you'	P6
		'There are certain clinical skills that I learned on my ED course that I would use all the time you just forget where you learned it'	P5
		'My clinical assessment skills definitely improved following my postgrad course'	P16
		'I can give safe care, you recognise things early complications and am it does empower the patient once they have the knowledge'	P7
	Improved documentation	'Documentation, documentation improves the patients outcome, it's the safety and its everything, its huge'	P1
		'I was able to bring my departments documentation in line with national standards. I feel this has really benefited the hospital in so many ways'	P3
		'I am bringing in a behavioural pain to into my area which is a national/international guideline but currently we don't have one in my department so that is a change in practice'	P12
		'I developed a transfer guideline for new staff or for senior staff for patients transferring for CT scans'	P13
	Autonomy	'I have autonomy in my practice I am responsible for my own practice. I am an expert in my field so I can stand over my decisions'	P19
		'You are using your autonomy to influence and delegate jobs on daily basis'	P22
		'I am working under my own autonomous area so it was developing those skills'	P13
		'For me my autonomy in practice, I manage and take control of a lot of patients'	P18
		'You are more of an independent practitioner'	P9
	Enhancing patient experience	'You are enhancing the patients' experience, you know you are providing a quality based service it makes for better outcome for the patient'	P14
		'You are able to spot complications much earlier more mindful you are watching out for them you are monitoring for them so you either escalate early or actually help prevent complications and that is something I absolutely I know hand in heart I have done that'	P7
		'Problem solving, I saw a really positive benefit to the patients in prevention of hypothermia in ... and I just used the 5 whys it was just a tool that I had learned from the course.. and I was able to put a system in place'	P3
		'Sometime being the first person to come into contact with that patient that day, before the doctor, and you know being able to say what you see and say what you think and you know contribute to the overall goals and care of the patients that day so assessment skills I found definitely improved following my postgraduate course'	P16
		'I am providing clinical skills so I am fully assessing the patient taking good clinical history and a clinical exam'	P1

3.3.4 Themes and Sub-themes Likely to Explain Responses to Questions about Enablers to Support Postgraduate Education

The data analysis revealed three core domains regarding the perceived enablers to support postgraduate education: (1) organisational factors; (2) colleague support; (3) personal characteristics.

3.3.4.1 Organisational Factors

This domain included three themes namely: supportive line manager; availability of funding; and multidisciplinary support. The pivotal role of the CNM 11 in supporting nurses and midwives who were undertaking postgraduate education programmes was a recurring theme. Having a supportive line manager was seen as critical for progressing postgraduate education. Many of the focus group participants were very appreciative of the support they had received from their line managers.

The availability of funding under the HSE HR Circular 020/2014-Sponsorship of Nursing/Midwifery Education Initiatives was identified as an enabler to undertake postgraduate education. The increase in the number, variety and availability of specialised postgraduate programmes coupled with the sponsorship of nursing and midwifery education initiatives over the past 10 years enabled many of the focus group participants to engage in postgraduate study.

The support received from the multidisciplinary team was also highlighted by many of the focus group participants. For some having a supportive consultant on the team enabled nurses to progress with their postgraduate education and was a factor in them publishing their research findings.

Table 3.9 Themes and Sub-themes - Organisational Factors

Theme	Sub-theme	Quote	P
Organisational factors	Supportive clinical nurse manager	'Managers have a huge role to play in progressing education... sometimes staff need a little push and a little bit of reassurance to say it is a tough year but it will be worth it in the long run and it is working and it should be coming from the managers'	P20
		'If you have a CNM11 that is supportive and is trying to help further your education, it works and it snowballs, whereas if you have a CNM11 that is oh now where are you going? So you have to first of all have a CNM11 that is supportive and then the buy in is a little bit easier but it's all down to your management'	P17
		'I had huge support from my ward manager at the time and it was very much this is an exciting thing to do this is brilliant and it was very much celebrated and it was something that I carried with me as a manager then'	P10
		'Managers need to be leaders and support junior staff I am still in nursing because I was allowed to pursue what I wanted to do'	P26
		'Having the support from your manager is massive it is what will make or break you doing it'	P20
		'You still need your manager no matter what grade you are at to be supportive of what you are doing'	P22
		'If you have a ward manager that's very pro education very	P7

		supportive, it's huge it really is, it's because you are not afraid to speak up then and say you know what, I was in college yesterday and this was discussed you are not afraid to say that because it is supported it becomes part of the culture you know'	
	Availability of funding	'I am always very grateful for the funding and for the support that's given. I think as nurses sometimes we do take a little bit for granted you know the funding is there people just have to apply for it'	P28
		'Financially we were sponsored so that was fine'	P2
		'It's fantastic the funding, I have been given a wealth of opportunities, my masters was partially funded and I didn't pay anything for my degree'	P27
		'I do think it's great that we have it's great that we are able to undertake these courses coming from working in London where you had to self-fund or you had to raise money in order to do these courses I definitely think you don't have the stress of trying to do that and it enables you I do think they are much more accessible here'	P16
		'The free funding was a great incentive, it was a huge incentive to do it because as you know money is always an issue'	P11
	Multi-disciplinary support	'Education is definitely supported in our unit from all levels from consultants down, they've with my course that have been very supportive every member of the multidisciplinary team'	P7
		It has to be supported from the top down and it's not middle management and senior management it should be coming from our bosses above us	P25
		'You definitely need the support of whatever institution you are working in as well as the people on the ground level'	P19
		'As part of my project at the end I had to do an action research group I had a group of 10 people consultants, registrars, nurses, and I got massive support they turned up to the meetings they were very supportive'	P12
		'I was fully supported from the consultant's side and from my nursing colleagues as well'	P19

3.3.4.2 Colleague Support

This domain included two themes namely: snowball effect; and support and encouragement from team. There was a strong sense from the focus groups that the more nurses and midwives who undertook postgraduate education within the services the more likely that a culture of education developed, and it became easier to introduce new ideas and concepts. It was agreed that when several people were undertaking postgraduate education programmes within a unit or department it created a positive effect within that unit/department. It was seen as helpful when peers were studying to gain a shared understanding and it was also motivational for others who may have been resistant to undertaking postgraduate education programmes. Having a supportive team was identified as an essential element to support postgraduate education.

Table 3.10 Themes and Sub-themes - Colleague Support

Theme	Sub-theme	Quote	P
Interest from colleagues	Snowball effect	'The more people that go back to education the easier it is to bring in service improvement, it snowballs'	P17
		'If one or two people within a unit or an area study and create that culture eventually everybody will come on board and I have actually seen that happening with our unit'	P18
		'It becomes a culture thing you know that learning, education, furthering your education, it becomes nearly expected, it is celebrated and it is supported and it has a knock on effect you know, more people will want to do it as well'	P7
		'You know the wards where people have undertaken postgraduate education, they can see the other side a little bit easier'	P9
		'Sometimes if you have a majority pulling in your direction people will eventually come along with you'	P14
	Support and encouragement from team	'I think the support here to be honest was absolutely fantastic from managers from colleagues. Colleagues were the best am source of support you know you would come in and you would be assigned a mentor but everybody helped so it wasn't that you could only go to one person for assistance you could ask anyone and I often asked'	P16
		'I always felt very supported I was fortunate maybe with the people I met, by management and colleagues'	P18
		'I think staff support is a big thing as well, colleague support, and am I think knowing that you have the support of your colleagues..... and you engage all relevant stakeholders and you work with all of the appropriate members of the MDT'	P15
		'I do think being encouraged from my peers my managers drove me on'	P7
		'I think its helpful if your peers are also maybe studying or have studied so that you can get that shared understanding in terms of the way you are working'	P2

3.3.4.3 Personal Characteristics

This domain included three themes namely: motivation, resilience, and passion for learning. Throughout the narratives there was a sense that nurses who undertook postgraduate education had to be highly motivated and resilient to deal with the competing demands of work, study, and family life. Many of the participants concurred that they were 'driven' to achieve their career goal, and this along with their passion for learning enabled them to cope with the pressures associated with undertaking postgraduate education. There was also a sense that participants felt they would have been 'left behind' if they had not undertaken postgraduate study.

Table 3.11 Themes and Sub-themes - Personal Characteristics

Theme	Sub-theme	Quote	P
Personal characteristics	Motivation	'There has to be motivating factors the person needs to be personally motivated to take those courses and I was personally motivated'	P1
		'You have to be so driven but it has to come from you, you can't rely on everyone else'	P10
		'I would be very highly motivated and I feel my results would be a reflection on me'	P5
		'I saw it as possibly an opportunity to specialise in this new area of nursing and then as I went through that I saw that there would be eventually an opportunity for development in this area and that kept me focused and driven towards that'	P18
		'Mine was a personal goal... I am driven and I am a perfectionist in what I do'	P4
	Resilience	'Going through the academic thing itself teaches you a bit about resistance and resilience how to overcome or circumnavigate stuff'	P29
		'It is such big undertaking and it is tough to do your postgrad it is a really hard year to put in it's very time consuming from a study point of view then people have their own lives and their working really hard and so to do it is a big undertaking'	P16
		'You have to be tough to get through it'	P2
		'You have to be quite resilient and determined, smart in the way you study, very focused and driven really'	P4
	Passion for learning	'I was always really pro education I was always passionate about it'	P6
		'Personally I am quite proud of myself and I think it has been beneficial it just broadened my view on so many things, I have enjoyed the process'	P5
		'We are always learning and we are always implementing new skills and I guess am we just from the minute we walk in the door we are putting the new skills into play'	P15
		'I am always passionate about education and keeping up to speed about what's going on and applying it at clinical levels'	P28
		'I found it very enjoyable, I love learning'	P8

3.3.5 Themes and Sub-themes Likely to Explain Responses to Questions about Challenges of Postgraduate Education

The data analysis revealed four core domains regarding the perceived challenges associated with undertaking postgraduate education: (1) balancing competing demands; (2) link between clinical and academic; (3) culture; and (4) organisational commitment.

3.3.5.1 Balancing Competing Demands

This domain included two themes namely; time, and juggling work, family, and study. The amount of time involved in completing a postgraduate education programme posed one of the biggest challenges for the focus group participants. Many of the focus group participants described themselves as 'time poor' when they were studying and felt that organisations needed to provide more support to staff

members who were studying. The difficulty of juggling work, study, and family life, was identified as a source of stress and posed a challenge for the participants of the focus groups. They described the pressures of combining work with academic study, running a home and caring for family, children or elderly relatives. This led to feelings of guilt and sometimes tension in relationships.

3.12 Themes and Sub-themes - Balancing Competing Demands

Theme	Sub-theme	Sample Quotes	P
Balancing competing demands	Time	'Time is huge, you feel you have no life when you are studying, it's very intensive, its work, study, work, study'	P20
		'Time and guilt, were the two biggest challenges, guilt is the big one, every waking moment there was constantly about what you should be doing... it felt like the whole family was doing the masters with me'	P6
		'Just trying to keep everything going and then you come back from college and the reading and everything you need to do it's just time I suppose time'	P10
		'You are not really given enough time. The girls would say time is a big part of it'	P5
		'If you don't have the support it's tough enough to do, it's a tough year to put in from a time consuming point of view'	P17
	Juggling work, family, and study	'Juggling family, work, that guilt is huge even though you would always tell yourself this is an investment, this will help me better myself it will provide opportunity it will help me to give better care but yet you always have to sacrifice something you do you can't have it all'	P7
		'It is hard you know juggling the workload you are a fulltime nurse and you are trying to study and you have family on top of that that is so hard it is really hard'	P6
		'I definitely did find trying to juggle it all to work full-time and then be in college part time but you are giving it fulltime commitments I found that tough I did'	P16
		'Like that when you have family and you are trying to juggle work and being a full time mom'	P4
		'You are trying your best and you are trying to invest as much as you can but I always felt you can never give it 100% because you are trying to have a home life 100% and you are trying to give your work 100% and you can only spread so much so that would have been one of the barriers that I would have encountered personally'	P15

3.3.5.2 Link between Clinical and Academic Aspects of Education Programmes

This domain included three themes namely; clinical skills, link theory to practice, and varying standards. Throughout the narratives, there was a sense that there needed to be a stronger link between the clinical and academic aspects of education programmes. While many of the focus group participants were appreciative of the support they received from higher education institutes, and were positive about the learning outcomes, there was agreement that postgraduate programmes needed to have more experts from the clinical area to teach clinical skills, and that nurses who undertook postgraduate education required live clinical training or more simulation based clinical education to help them bridge the theory/practice gap. There was recognition that more effort was required to bridge the gap between theory and practice in order to support nurses to develop their clinical skills.

Many of the participants noted that there was a discrepancy in standards between colleges and between lecturers, and that the content of similar courses varied between colleges. Some participants were critical of the fact that colleges were slow to take feedback from postgraduate students.

Table 3.13 Themes and Sub-themes - Link between Academic and Clinical Aspects of Programmes

Theme	Sub-theme	Quote	P
Link between academic and clinical	Clinical skills	'Nurses can go through a whole programme without actually any kind of standard of clinical skills or competence'	P27
		'The surgeons teach in the medical schools its real live clinical all the time intertwining I don't see the same connection in nursing'	P28
		'When I did my ICU course in London the lecturer used to come and you would be allocated an hour and sit with you and your patient, and go through everything what settings were on etc. I found it quite good learning for me, because then you had the knowledge and practical base together. Could they do that here?'	P12
		'Maybe if there was a greater link between the university and the clinical floor and maybe between the clinical skills facilitators and the educators on the floor'	P14
		'If you are doing a postgrad in a specialist area then those modules should be enhanced to involve more practical clinical skills'	P20
		'There was very little clinical skills on my postgrad...I really feel if you are calling it a postgrad in a particular specialty, you need to be advancing your clinical skills as well, ACLS should be included'	P19
		'The higher diploma does not prepare nurses to look after the patients on a practical you level to be honest with you'	P13
	Link theory to practice	'If the theory is not linked to practice you know what is the point of even doing it'	P7
		'I think this should be a big connection between your academic and your practical, it should all be linked back to your practical. If it's not linked back to your practical there's no point'	P9
		'There is a practical element it's a practical area of work and I don't think that there is a huge focus put on the link between what you are learning academically and what you are doing practically'	P13
		'Having lecturers who are based in the college are fabulous but when it comes to the clinical side of it, it needs to be somebody who has clinical experience'	P18
		'Specialist modules need to be more practical they are very theoretical'	P20
	Varying standards	'It depends on what lecturer became your supervisor. I was lucky my supervisor... I think within the colleges there are different standards of the lecturers'	P9
		'People go to (college named) because they will tell you it's way more straight forward, its way easier you just have to do x, y and z, so how can it be so different?'	P25
		'I have been into three different colleges and one in particular they were all PhD level and I just saw there was such a difference in the content... they were a step ahead of the other colleges'	P8
		'Of all the courses I have done which is 5 or 6, two of them were extremely beneficial to my patient care, the rest were box ticking exercises to get the course'	P1

3.3.5.3 Culture

This domain included two themes namely; resistance to change and negativity. Resistance to change by colleagues was identified as a challenge for many of the focus group participants. There was a sense that some colleagues got embedded in day-to-day routines and they were not receptive to new ideas or suggestions, this was particularly true for those nurses who had not gone back to undertake postgraduate education and they were often not supportive of those who did. This seemed to cause tension within work environments.

Table 3.14 Themes and Sub-themes - Culture

Theme	Sub-theme	Quote	P
Culture	Resistance to change	'There are always people who are resistant to change or resistant to anything you try to bring in. I think you have to take that with nursing there is an element of people who are happy to come in and do their working day and not be involved in postgrad education or any change you know and they are sometimes resistant to something that might benefit the client or user group but you just have to try to bring them along with you'	P14
		'I would have been working in a group of staff nurses that hadn't changed for years and years and trying to get that change across the line was really difficult'	P17
		'I think the older nurses are more reluctant to change and especially me being a bit younger maybe a lot younger than others they will be thinking what does she know because I really do think that the older nurses are just so reluctant to change'	P8
		'Sometimes things are done because that's the way they are done the last 10 years I just found it irritating but yet motivating that what you are learning in college or in your studies you know it just really motivated that we need to change our practice you would be just thinking if that was your own relative in the bed for simple things even that we should be doing it a different way because that is best practice just changing that culture is so hard'	P10
		'There is a group of people there and nothing would shift their thinking about doing something, they just come in they do their job and they are mostly at nights so they are removed from the politics during the day they sort of flit under the radar'	P27
		'They are in this kind of zone where they come in and do their long shifts and they are doing their time and education is not an option because as far as they are concerned they have their week done and the rest of their time off is for kids or family so when you introduce the prospect of doing education the eyes go up to heaven because it is going to eat into the time they have to relax'	P24
	Negativity from colleagues	'I think peers as well our own peers within nursing the one person that's enthusiastic it's oh keep her or him in their place there is a little bit of that goes on as well'	P27
		'I have come across one or two people in the department who looked negatively that you are progressing yourself and I don't know like I just take it on the chin and I wouldn't think twice about it but it's kind of you are kind of wondering is it a jealousy that they can't find the time to do it themselves'	P11

		'People were saying sure why are you bothering with that do you want this and sometimes I didn't know why I was doing this it was just a drive I had that I am glad I did'	P16
		'You are driven with all your courses but somebody that might have a good idea and might not be as confident they might be kind of scoffed at or laughed at and then that's them ruined because someone else has disliked them'	P28

3.3.5.4 Organisational Commitment

This domain included four themes namely; study leave, financial factors, organisational expectations, and recognition. The number of study days allocated for postgraduate programmes posed a challenge for the focus group participants. Many of the participants indicated that 5 study days per year was not sufficient, especially for those who were studying for master's programmes. Staff shortages on the wards and a lack of a coordinated approach from managers often meant that nurses could not avail of their allocated study days.

While the availability of financial support to undertake postgraduate education programmes was acknowledged and appreciated by many of the focus group participants, the financial cost associated with undertaking postgraduate education posed a challenge for some; this was especially true for participants who had undertaken programmes in colleges away from their place of work. Some participants had paid for their postgraduate education programmes and this had placed a financial burden on them.

Throughout the narratives there was agreement that organisational expectations needed to be explicit and clear in order to progress nursing and midwifery postgraduate education. The lack of a 'whole systems' approach to postgraduate education posed a challenge for many of the participants. The focus group participants were critical of the apparent 'ad hoc' approach to postgraduate education by hospitals and services. There was a general agreement that services were not prioritising the educational needs of departments and wards to ensure that they were in line with workforce development strategies, and then funding nurses and midwives to attend postgraduate programmes accordingly. A number of participants commented that decisions on attendance at programmes often depended on the ward manager rather than on service need. There was a perception that people who undertook postgraduate education programmes were not rewarded or acknowledged by the organisation.

Table 3.15 Themes and Sub-themes - Organisational Commitment

Theme	Sub-theme	Quote	P
Organisational commitment	Study leave	'Yea you don't necessarily get your study days you are trying to get your job done'	P10
		'Am study leave I suppose was another challenge I just found trying to make sure you got all your study leave'	P16
		' I found it very difficult to get study leave within the unit'	P12
		'The study days it doesn't even reflect a fifth of what you actually have to put in yourself'	P5
		'It's very hard to get study time it's hard to get support'	P27
		'It was very much down to the ward manager who did what, especially courses or study days `whereas I didn't even have to ask in London, everybody got the opportunity to go'	P22
	Financial factors	'What stopped me along the way was financial is a big thing, that was massive'	P7
		'Financially I had difficulties as well because I wasn't funded for the two years so that put an enormous strain on my postgrad experience on top of the rest of my financial commitments'	P5
		'Although the hospital is paying for the actual course you still have to pay for the travel you are having to pay for the accommodation when you are having to have placements.. 'there is that financial support that is not there'	P19
	Organisational Expectations	'It has to be supported from the top down and it's not just middle management and senior management it should be coming from our bosses above us'	P23
		'What is our service need? What do we need for the patients? Is it a role we need? Is it skills we need?'	P2
		'I don't think it should be a one person decision going forward. It should be more a hospital priority decision, what is the priority? and what are the skills that are needed...if you were to look at the need for the service your personal interest may not be what the service needs and that is where there becomes a tension'	P4
		'If you are educating a number of people within a unit to a masters level there is an expectation that that group of people can effect change in their unit and should be supported to do that....we have lost sight of why we are educating people and at the end of the day we are sending people off on courses because we want to improve patient outcomes and patient experiences with the practical skills and competencies that people expect'	P27
		'You don't get any financial reward or you know recognition for doing something like other private companies get'	P15
	Rewards	'How many people out there have done masters and given sweat and blood and they don't get anything extra there is no additional recognition'	P6
		'It is an organisational issue I think there is a lack of recognition of the value that could be gained from using the stuff that people have done'	P27
		'I think as clinical nurse specialist or ANP we spend a lot of time going up to the college teaching and we leave our clinical area and teach undergraduates but there is no recognition of that'	P25

3.3.6 Themes and Sub-themes Likely to Explain Responses to Questions about Implementing Service Improvement Initiatives and Sharing Research Findings

Participants of the focus groups were asked for suggestions about how service improvement initiatives could be implemented and findings from research projects shared within services. The data analysis revealed three themes namely: (1) support; (2) forum for new initiatives; (3) options for postgraduate programmes.

3.3.6.1 Support

This domain included three themes namely; management support, college support, and service improvement as part of formative assessment. A common theme throughout the focus group meetings was the need for health service management to be more involved in ensuring that service improvement initiatives and the recommendations from research projects were implemented within the services. It was suggested that implementing service improvement initiatives should not be left to individuals; it needed to be driven and supported by management. Some participants suggested that a dedicated person within the clinical setting should be available to assist nurses and midwives to implement what they had learned on their postgraduate programmes, and to help them to implement the findings from their service improvement projects.

While some of the participants were very complimentary of the support they received from the colleges with publishing their research, there was agreement that colleges needed to be more supportive in helping postgraduate students to prepare research for publication, and in presenting research findings at conferences etc. There was an acknowledgement that unlike doctors, nurses didn't have a culture of publishing research or being primary investigators in research projects and many of them found it daunting.

The option to make service improvement initiatives an integral part of the formative assessment for postgraduate education programmes was explored by the focus group participants. Some participants suggested that presenting a poster presentation of findings from research or quality improvement initiatives should become an integral part of postgraduate programmes, these posters could then be shared within the work setting and at local and national events.

Table 3.16 Themes and Sub-themes - Support

Theme	Sub-theme	Quote	P
Support	Management support	'It is an organisational issue, lack of recognition of the value that could be gained from using the stuff that people have done'	P27
		'If you had one link person in the hospital that you could say to look I've done this I've got this level would you give me a hand to get it through and to have one dedicated to actually help with you the process rather than relying on 3-4 different managers who probably don't have a big interest in it'	P10
		'How do you bring in that service improvement? sometimes they cannot progress it because management is a huge problem... If you just had one person there focused on service improvement who helped people get their service improvement initiative over the line and also for the business applications it would be very worthwhile role'	P8
		'I think in every hospital you nearly need a project office, where you can have people to support you to work through projects... management need to encourage people, sometimes they are shy to do that they are not comfortable'	P4
		'Service improvement projects rarely materialises even though the first thing they have to do is get their management to agree but they just seem to agree just to get them to get that piece of paper but they don't, there is a block then.... Management is definitely they are not supporting people to get your information out there'	P9
		'Management don't leverage the investment that they have made in the staff. We don't shout out our good news stories so people do these small improvement projects but they are not sustained because maybe they did them to fulfil a need or to tick the box to get their masters but it actually was a really good piece of work and they did identify a need or a gap in the system but it's not sustained'	P1
	College support	'We need link people between the universities that understand. Nearly like an academic officer. That will help the postgrads in the right direction'	P5
		'I would imagine follow up would be a big thing am maybe having a link lecturer or somebody who you worked in close contact with I think you know things don't have to finish the minute the course finishes. It might mean another commitment of 3-6 months but if that is what it takes for things to be published and practices new ideas put out there then I think it would be worth it'	P15
		'I think that needs to come from the colleges, they need to teach people how to present their research and that it's not such a daunting thing to do and teach them how to do it'	P22
		'I think we are all very nervous about speaking as well. I don't know if our postgrads prepare us for that element. I don't know that the colleges prepare us from that point of view. It's a big deal to stand up in front and a lot of people are nervous about it and people shy away from it particularly nurses we tend to shy back from those kind of things'	P14
		'When I did my postgrad there was nothing to say you should publish it. There was no information on how to publish it if I did want to.'	P17

		'Maybe we could do workshops on publishing and how to publish'	P12
		'For me the consultant geriatrician was pushing for me to share my findings get it published'	P8
		'When I was finished my thesis I went to my supervisor and asked if I'd publish it and she said of course you will publish it. And it gives you that bit of confidence once you get involved in it'	P18
	Service improvement as part of formative assessment	'If it could be included in the actual course, your service improvement project you would be given guidance on how to do it and given the funding or that they would print it for you'	P10
		'Make service improvement part of formative assessment'	P9
		'I actually sometimes think that the postgrad courses that's an ideal opportunity to actually kick-start quality initiatives and to say ok they won't pass this programme unless they have done this'	P27
		'As part of their service improvement that you have to present a poster and then do that here and have a poster day to show that oh this is what I have done and this is what I have learnt'	P22
		'A formative assessment in a way that kind of makes sure that they put that quality initiative into play in the clinical area'	P28

3.3.6.2 Forum for New Initiatives

This domain included two themes namely; poster presentations, and showcase work. Many of the focus group participants suggested that a forum should be set up within services to support the implementation of projects and sharing of information. There was a general agreement that nurses were supported to undertake their postgraduate programmes but there was no forum within their work setting to support them to implement their service improvement initiatives on completion of their postgraduate study. A recurring theme throughout the narratives was the suggestion that postgraduate students should be asked to do up a poster as part of their service improvement initiative and this could then be displayed on wards and departments and at events throughout the year.

Table 3.17 Themes and Sub-themes – Forum for New Initiatives

Theme	Sub-theme	Quote	P
Forum for new initiatives	Poster Presentations	'You could have a poster day at the end of the year before the applications go in for the next round'	P18
		'One of the lecturers got us to present the findings on posters and then we did it to everybody and then she encouraged us to present it nationally into the INMO poster competition and 2 of us did that and our poster won nationally..... I suppose it depends on the programme again that's a skill that can be developed but it needs to be acknowledged as well'	P11
		'I think a poster for everyone in the different areas have a poster of your thesis displayed and put it out there for everyone to see'	P4
		'A poster day could be included as part of the postgrad'	P19
		'I don't think it would be outside the bounds of a request that on completion of your research that you present a poster to the CNME and let them decide....and that there is a protected space where recent research completed by nurses is displayed'	P24

		'If your manager gives the proper time to go and do a study, that part of that is would you come back and share your findings with us even locally here we might get a poster up you know and just if you get confidence to do that locally you kind of feel you know people are supportive of me'	P6
	Showcase work	'A recognition award for people who are undergoing research'	P25
		'There are so many people out there that have done courses and we don't know about it maybe have a forum to share information'	P7
		'I think they should maybe, I don't know if they can do some sort of showcase day basically where they present either on posters that it's nearly almost part of the course that they can showcase what they have done that they can showcase how much work they have put in even after say six months after they have completed their postgrad'	P14
		'I would say that's from just chatting to people around that have done different bit's am I suppose like we try to do international nurses day and things like that that it might be forums for people like we have a stand in our local hospital I was saying am it's so important to try to get everybody'	P6
		'I don't believe there is a forum at the moment that takes frontline people we have educated them to a certain level who could introduce meaningful change in their clinical practice areas I don't there's that forum exists at the moment'	P27

3.3.6.3 Options for Postgraduate Programmes

This domain included three themes namely; availability of modules, mandatory study days and link continuing education to registration. The lifestyle changes which were required by nurses returning to postgraduate education, coupled with a fear of going back to study, were suggested as possible barriers for those nurses who had not undertaken postgraduate education. One option put forward by the groups was for colleges to offer individual modules; it was felt that this would 'get people started'. By undertaking one module at a time, nurses could build up their profile and hopefully develop an interest in undertaking further modules. It was recognised by the focus group participants that it can be daunting to go straight into a postgraduate diploma or master's programme especially for nurses who have been out of education for several years and the option to undertake individual modules would make it easier. It was seen as vital that line managers support and encourage nurses to engage in postgraduate study.

The suggestion to make postgraduate education the norm for nurses and midwives was a common theme throughout the focus groups, some participants suggested that it should reflect the system in the UK where it was mandatory for nurses and midwives to undertake some form of postgraduate education on an annual basis. The possibility of making it mandatory for all nurses and midwives to attend 3-5 study days annually and incorporate it into the NMBI nurse/midwife annual registration was suggested as a way of encouraging continuous life-long learning for nurses.

Table 3.18 Themes and Sub-themes – Options for Postgraduate Programmes

Theme	Sub-theme	Quote	P
Options for Postgraduate Programmes	Availability of modules	'Even going to shorter courses getting you interested in it'	P10
		'I think the module thing; you know breaking up the modules if you enjoy the module then you can build on it'	P7
		'I think I know some colleagues of mine are doing post grads the universities are allowing them to break it down into modules so I done my post grad in a yr. some of the others are doing it over two years. they are taking on specific modules and as they said themselves they find it a lot more achievable'	P6
		'A standalone module might be good for some people, It just dips your toe in it gets you started you know what I mean and next they are doing an infection control module out in University limerick and next thing they were out the door because they got promotion'	P28
		'Even to go back and do a stand-alone module cause that is peoples biggest fears like this big commitment, start with one module as part of your core practice and that's one less module to do the following year'	P17
		'A module verses a whole 2 years to do a post grad and I think that you don't have to go firing into a postgrad you can do it by module'	P5
	Mandatory Study Days	'I just think stuff should be made mandatory.....so if you could get them that you have to have so many points then they will do the so many points then they are in the education and they go that was very interesting and I met other people and that will encourage them to do more but it's to get them to go and do stuff at the beginning. You aren't going to make certain people go to stuff unless you make it mandatory'	P9
		'I just think the importance of making education mandatory for nurses is absolutely essential and until we do that it's the same people who are doing the courses'	P8
		'If it's mandatory you can even get those ones that aren't so keen'	P17
		'I think when it becomes mandatory it will improve things further and the more that go back the easier it will become because everybody will see oh ok you survived it'	P22
	Link continuing education to registration	'Unless you are going to make postgraduate education mandatory and tie into the NMBI you CPD your registration and you are going to say to people if you want to reregister as a nurse you are going to have to prove that you did something that you have educated yourself appropriate to your area'	P27
		'The NMBI have been talking for years about introducing CEUs to the point that all their courses have CEUs'	P26
		'I think the sooner NMBI brings in you have to have so many CEUs to register the better'	P10
		'If it was index linked to some kind of credit system so that you could look at your credits at the end of the year and say I have gained x amount of credit and then if that could be worked off some postgraduate education or if in the future you were going to do some kind of higher diploma you would have a crude credits and I think they have that in the UK'	P25

3.4 Cost of Funding Postgraduate Education for Nurses and Midwives from HSE West Mid West

The total cost of funding postgraduate education programmes for nurses and midwives from HSE West Mid West between 2014 and 2018 came to **€8,061,449.22**. A breakdown of the expenditure for each year is outlined in Table 3.19.

Table 3.19 Breakdown of Expenditure on Postgraduate Education

Year	Expenditure HSE West (Galway, Mayo, Roscommon)	Expenditure HSE Mid West (Limerick, Clare, North Tipperary)	Total
2014	€612,465.00	€335,603.25	€948,068.25
2015	€874,239.00	€502,072.59	€1,376,311.59
2016	€713,956.00	€239,321.96	€953,277.96
2017	€868,005.00	€854,089.29	€1,722,094.29
2018	€1,375,811.00	€468,335.13	€1,844,146.13
TOTAL	€5,662,027.00	€2,399,422.22	€8,061,449.22

4. Discussion

4.1 Introduction

The overall aim of continuing nursing and midwifery education is to enable nurses and midwives to enhance the care that they provide to patients. The importance of continuing education for nursing has been stressed in the literature since the beginning of the profession, Florence Nightingale encouraged nurses to continue to learn throughout their career (Nightingale, 1860). The Nursing and Midwifery Board of Ireland suggest that nurse education should be viewed on a continuum and not something that begins on entry to nurse education programmes and ends at the point of registration; nurses and midwives are required to continuously develop their knowledge and skills through continuing professional development (CPD). Post-registration programmes are designed to increase the competence of nurses and midwives to enhance professional practice, patient safety, and the education, administration and research capacity of the nursing and midwifery disciplines (Nursing and Midwifery Board of Ireland, 2016).

There are many factors which impact on the need for nurses and midwives to continue to progress their postgraduate education namely; demographic changes in the population, new healthcare technologies and interventions, changes in the health and social status of the population, and the increase in the number of new and extended roles that nurses and midwives are adopting.

There is widespread recognition across the Government agencies that in order to achieve the goals of Sláintecare (2017) the nursing and midwifery professions will need to have a well-motivated, highly educated and highly flexible workforce. There has been significant investment in continuing professional education in recent years to ensure that nurses and midwives have the knowledge and skills to respond effectively to the needs of patients and service users (Clark et al., 2015).

The overall aim of this study was to inform the strategic plans of the NMPDU and ONMSD of the outcomes of continuing education for nurses and midwives from NMPDU HSE West Mid West who received funding under HSE HR Circular 020/2014 to undertake postgraduate education between 2014 and 2018.

4.2 Profile of Participants

Overall, 59% (n=275) of the survey participants worked in the acute hospital setting (which included acute and women's and infant health), and 38% (n=180) worked in community healthcare organisations (which included mental health services, primary care services, disability services, older persons services and palliative care services). These numbers represent 5.7% of nurses and midwives who work in acute services and 5.7% of nurses and midwives who work in community healthcare organisations, and NMPDU HSE West Mid West (Health Sector Nursing Workforce, 2019). Seventy one percent of the study participants were aged between 30 and 50 years of age, which would indicate that they would have potentially gained several years of clinical experience before deciding to embark on a course of study in their chosen specialist field of study.

4.3 Impact of Postgraduate Education on Nurses and Midwives

One of the most encouraging aspects to emerge from the data was the endorsement of the need for continuing education for nurses and midwives. Almost all of the participants (97%) agreed that undertaking postgraduate education was worthwhile, and 98% indicated that they would recommend postgraduate education to colleagues. Postgraduate education was of benefit to the participants both personally and in their clinical practice. It had a positive effect on participants' level of confidence and self-esteem, which was reflected in them feeling more professionally competent, more able to undertake research, and more likely to gain recognition within their multidisciplinary teams. Increased confidence and self-esteem as an outcome of postgraduate education is well documented in the literature, (Ng et al., 2016, Massimi et al., 2017, Watkins, 2011). There was also a sense of personal achievement especially for those who had undertaken masters' programmes; this finding is supported by the work of (Nolan et al., 2000, Whyte et al., 2000, Brown and Watson, 2010).

Participants' self-reported level of knowledge, critical thinking skills and use of evidenced-based care in day-to-day work improved upon completion of postgraduate education programmes. Improved critical thinking skills have been linked with self-reported improved patient care and more autonomous practice (Gijbels et al., 2010, Clark et al., 2015, Cotterill-Walker, 2011, Drennan, 2010). Nurses and midwives require critical thinking skills in order to provide evidenced-based care to patients. They need to be able to search, analyse, and understand appropriate literature. Drennan, (2010) asserts that completion of a degree at masters' level is associated with a growth in critical thinking ability. The nurses and midwives in this study perceived that they had gained these skills during their postgraduate programmes; 95% agreed that they were more aware of evidenced-based practice and research, 89% agreed that they had an enhanced ability to recognise issues that could impact on patient outcomes, and 78% reported that they had implemented changes in their work practices since completing postgraduate education. Nurses provided many examples of changes they had made to professional practice through the use of appropriate evidence. They reported being more competent to research problems, more aware of current literature in their speciality, and more likely to introduce documentation based on current evidence. This finding is supported in the literature (Watkins, 2011, Pelletier et al., 2003, Barnhill et al., 2012).

The Sláintecare Action Plan (2019) aims to encourage and support the healthcare workforce to become leaders and innovators. Similarly, the Office of the Nursing and Midwifery Services Director Strategic Plan 2019-2021 (ONMSD, 2019) supports and provides high quality leadership programmes for nurses and midwives based on identified service need. Leadership for quality is the foundation stone of the Framework for Improving Quality in our Health Services, the Framework states that leaders shape culture, create the conditions and model the behaviour necessary for quality to flourish, (HSE., 2016). Drennan (2012) has argued that nurses are well placed within healthcare systems to take on effective, strategic, leadership roles, and that masters' level education is effective in developing leadership and management capabilities that can be applied to professional working. The majority of participants in this study (84%) agreed that they had developed their leadership skills, and 90% agreed that undertaking postgraduate education had increased their ability to educate colleagues. Many of the focus group participants described themselves as leaders and educators within the clinical environment, they described how they worked autonomously and provided many examples of how they had developed

their leadership roles since undertaking postgraduate education. This finding is supported by the work of (Plunkett et al., 2010, Cotterill-Walker, 2011).

Improved clinical skills are an intended outcome of undertaking postgraduate education (Ng et al., 2016, Whyte et al., 2000, Cotterill-Walker, 2011). The majority of respondents to the survey (88%) agreed with the statement that they had improved their clinical decision making skills since completing postgraduate education, when this was further explored during the focus group meetings, participants gave examples how their clinical skills had improved.

Notwithstanding these positive findings, increased clinical skills obtained from postgraduate education were not always sufficient. Many of the focus group participants asserted that postgraduate education programmes did not provide sufficient clinical skills training, and many courses did not adequately prepare students to work in the clinical area. Other authors have argued that there is little evidence that postgraduate education improves clinical skills or enables participants to provide evidenced-based care to patients (Massimi et al., 2017, LeFlore and Thomas, 2016).

Career plans of individual nurses are an important driver for the uptake of postgraduate education (Wilkinson et al., 2018). The majority of nurses and midwives in this study (84%) viewed the attainment of a postgraduate qualification as enhancing their career, and for some it was a prerequisite for their role as advanced nurse/midwife practitioner. Several studies have linked career advancement with postgraduate qualifications (Nolan et al., 2000, Johnson and Copnell, 2002, Drey et al., 2009, Gijbels et al., 2010, Walker and Spendlove, 2018).

Sláintecare (2017) promotes interprofessional working and envisions an integrated system of care with healthcare professionals working closely together. The multidisciplinary aspect of postgraduate education programmes added a valuable dimension to them and provided nurses and midwives with the opportunity to network with other disciplines. The confidence which ensued from undertaking postgraduate education enabled the study participants to participate more readily in interdisciplinary clinical teams, and to work collaboratively with different disciplines. Eighty five percent of the participants reported that their level of confidence about participating in inter disciplinary clinical teams had improved since undertaking postgraduate education. There were many references throughout the focus group interviews of improved interdisciplinary working upon completion of postgraduate education. Interprofessional education programmes (IPE) can bring many benefits; they can enhance collaboration and can change attitudes and perceptions (Massimi et al., 2017, Owen and Schmitt, 2013, Thistlethwaite, 2012).

4.4 Enablers to Support Postgraduate Education

The personal characteristics of individuals, in particular; personal motivation, resilience and passion for learning were identified as enablers for nurses and midwives to undertake postgraduate education. Kinsella et al. (2018) have argued that personal motivation is essential for encouraging professional development across all healthcare disciplines.

The need for organisations to have a systematic planned approach to continuing professional education was highlighted during the survey and focus groups, this finding is supported in the literature (Clark et

al., 2015). Commitment to creating a positive learning environment should be demonstrated at all levels in a healthcare organisation (Clark et al., 2015, Ng et al., 2016).

Participants highlighted the importance of a positive organisational culture to enable nurses and midwives to pursue postgraduate education and to implement the findings from their research or service improvement initiatives. Having the support of managers, colleagues and the multidisciplinary team was seen as crucial to create a supportive learning environment in practice. This finding has been replicated in the literature, Kyndt et al. (2016) reported that educational organisations, health care services and nurse educators need to consider the importance of cultural context and embedded belief and values within a ward, unit or service as this may directly influence the expectancy of staff to undertake educational activities.

The critical role of line managers, in particular CNM11's in supporting postgraduate education was identified by the study participants; these findings are confirmed by the work of (Clark et al., 2015, Hegney et al., 2010).

4.5 Challenges Experienced by the Participants

Most of the study participants worked in busy clinical environments. The difficulty of juggling work, study and family life was identified as a challenge and was a source of stress for the study participants. This finding has been replicated in other studies (Ng et al., 2016, Burrow et al., 2016). The limited number of study days allocated, and the amount of time required to study for postgraduate qualifications were contributory factors. It may be necessary to review the amount of study time allocated to nurses and midwives who undertake postgraduate programmes.

While many participants were very appreciative of the funding they received for their postgraduate education, the financial cost associated with postgraduate education, and the lack of financial recognition for those who undertook postgraduate study were cited as challenges by the study participants. This finding is not new (Duff et al., 2014, Gijbels et al., 2010).

4.6 Barriers to Implementing New Skills or Changes

Participants experienced frustration at the negativity and resistance to change expressed by some colleagues, managers and multidisciplinary teams. Resistance to change was the most frequently cited barrier when participants were trying to introduce changes to practice. Tensions often arose between nurses and midwives who had undertaken postgraduate study and those who had not. Most of the resistance to change came from within the participants' work environment rather than externally. This finding is confirmed by the work of Nolan et al (2000), who found that 'some colleagues were jealous and some other disciplines did not necessarily appreciate the emergence of confident, assertive nurses who challenged the status quo' (Nolan et al., 2000: pp 464-467). Numerous authors have written about the process of change within organisations. Effective change management involves a number of different activities which need to be undertaken in order to bring about sustained change. The Health Services change guide is a supportive and practical resource to help HSE employees and managers

across the health and social care system to undertake change initiatives (HSE, 2018). This change guide and supporting change framework should be used by health service managers to support staff members to introduce change within their wards and departments.

Professional development for nurses and midwives is a requirement of the Nursing and Midwifery Board of Ireland (NMBI, 2015), and the Department of Health (Department of Health, 2019). The need to encourage lifelong learning for all nurses and midwives was endorsed by the study participants. The participants recommended that a specific number of mandatory study days which are linked to annual nursing and midwifery registration with NMBI should be introduced for all nurses and midwives. An option to take individual modules for all postgraduate programmes should be available to, this would encourage nurses and midwives who were out of education for a long time to build up their profile. It was suggested that measures such as these would encourage nurses and midwives to continue their professional development throughout their working lives.

The need to strengthen links between the theoretical aspects of programmes and clinical practice was highlighted by the study participants. There is evidence from the literature that this is a longstanding issue across many disciplines (Allan and Smith, 2010). Some authors have argued that educators need to understand the culture of the clinical environment in which students work and how this impacts on their ability to put their new knowledge and skills into practice (Clark et al., 2015, Allan and Smith, 2010).

One of the objectives of Sláintecare (2017) is to promote the health of our population to prevent illness. Gallagher (2006) asserts that the most significant implication of continuing education is its ability to enhance practice and promote the health of the public. Providing health promotion advice scored the least favourable rating of the learning outcomes for nurses and midwives in this study. This finding has been replicated in other studies (Wangensteen et al., 2018). Consideration should be given when developing postgraduate education programmes for healthcare staff, to ensure that health promotion modules are included in all health related programmes. The health promotion departments within the HSE could become involved in the delivery of health promotion modules within higher education institutes. This may help to improve the link between theory and practice.

4.7 Sharing Research Findings

The ONMSD Strategic Plan 2019-2021 proactively supports nursing and midwifery research (ONMSD, 2019). Nurse-led research is increasingly recognised as a critical pathway to practical and effective ways of improving patient outcomes (Curtis et al., 2017). The HSE Action Plan for Health Research 2019-2029 suggests that 'dissemination is an essential component of the research process and is the first step towards achieving impact, so that the benefits of new knowledge generation can be passed onto other researchers, practitioners and the wider community' (Terrés, 2019 p 25). Undertaking research is an integral part of postgraduate education, and nurses and midwives who receive funding under the HSE HR Circular 020/2014 agree to upload their research projects onto Lenus the Irish Health Repository. The fact that only 14% of the study participants had published their research findings, or that 2% had uploaded their research projects onto Lenus the Irish Health Repository, would indicate that nurses and

midwives may need more support with publishing their research findings. When this was further explored during the focus group meetings, the participants indicated that they needed support from management and higher education institutes to enable them to publish their research findings. A key priority of both the UL Hospitals Group and the Saolta University Health Care Groups' Nursing and Midwifery Strategic Plans are to build the reputation for nursing and midwifery led research, (Galway and Roscommon University Hospitals Group, 2013, UL Hospitals, 2019). In order to ensure that these priorities are met, it will be important for nursing and midwifery management and higher education institutes to proactively support the publication of nursing and midwifery research.

The HSE Action Plan for Health Research 2019-2029 maintains that gaps in governance, support, and a lack of strategic direction exist within the health services, and represent a barrier for the performance of good quality research and research capacity building (Terrés, 2019). The critical role of the nurse/midwife manager cannot be underestimated. Tyndall and Caswell (2017) suggest that nurse leaders set the tone for the units they manage, they create the vision of what nursing is, and what nurses do on those units, and thus are in a pivotal position to engage clinical nurses in writing for publication. The authors go on to argue that the three main strategies to promote publication for clinical nurses include: create a culture that supports publication, offer incentives to motivate nurses to publish and reward those who do publish, and provide writing experiences that facilitate writing for publication. O'Keeffe et al. (2019) in a recent study on developing research capacity in children's nursing in Ireland found that there is a need for a clearer strategic vision and political commitment to establish a research supportive environment for nurses working in children's hospitals to conduct research.

The three primary methods of disseminating research findings are posters, presentations and papers, (Dudley-Brown S., 2016). The option to incorporate poster presentations into course modules and formative assessments was suggested by the participants and should be considered by service providers and higher education institutes.

5. Key Findings and Recommendations

5.1 Introduction

This study aimed to assess the impact of postgraduate education on the nurses and midwives from HSE West Mid West who received sponsorship under the HSE HR Circular 020/2014.

5.2 Key Findings

The key findings from the study can be summarised as follows:

Demographic Details

- Over 90% of the study participants were female
- The majority of participants (91%) were qualified for six or more years before embarking on postgraduate education.
- The most common programmes of education were postgraduate diplomas and masters programmes.
- Half of the participants worked in the acute setting, 15% worked in mental health services and 10% worked in primary care services.

Benefits of Postgraduate Education

- The vast majority of participants (97%) agreed that undertaking postgraduate education was worthwhile and 98% reported that they would recommend postgraduate education to colleagues.
- Almost all of the participants (95%) cited wanting to gain more knowledge in their specialty as a reason for undertaking postgraduate education.
- The sense of achievement which was gained by undertaking postgraduate education was highlighted during the study.
- Postgraduate education had a positive effect on participants' level of confidence and self-esteem.
- The majority of nurses and midwives (84%) viewed the attainment of a postgraduate qualification as enhancing their career, 42% had changed roles since commencing postgraduate education.
- The study participants reported improved problem solving abilities, were more aware of the need for quality improvement and more likely to promote safe practice within their work environments.
- Participants self-reported level of knowledge, critical thinking skills, and use of evidenced-based care in day-to-day work improved upon completion of postgraduate education programmes.
- The multidisciplinary aspect of postgraduate education programmes added a valuable dimension to them, and provided nurses and midwives with the opportunity to network with other disciplines.
- Participants reported that they were able to provide better patient care, and enhance the patient experience since undertaking postgraduate education.
- The majority of respondents to the survey agreed with the statement that they had improved their clinical decision making skills since completing postgraduate education, however, increased clinical skills obtained from postgraduate education were not always sufficient.
- The majority of participants agreed that undertaking postgraduate education had enabled them to develop their leadership skills.

- Participants reported that they were more motivated to change their practice since undertaking postgraduate education.

Enablers to Support Postgraduate Education

- Participants highlighted the importance of a positive organisational culture to enable nurses and midwives to pursue postgraduate education, and to implement the findings from their research or service improvement initiatives.
- The availability of funding under the HSE HR Circular 020/2014 was an incentive for the majority of participants (78%) to pursue postgraduate education.
- The personal characteristics of individuals, in particular; personal motivation, resilience and passion for learning were identified as enablers for nurses and midwives to pursue postgraduate education programmes.
- The option to introduce mandatory study days which are linked to registration was suggested as a way of encouraging lifelong learning for nurses and midwives.
- The critical role of the CNM/CMM 11 in supporting participants to pursue postgraduate education was highlighted.
- Having the support of managers, colleagues and the multidisciplinary team was seen as crucial to create a supportive learning environment in practice.
- The need for organisations to have a systematic planned approach to continuing professional education was highlighted during the study.

Challenges Experienced by the Participants

- Combining work, study, and family life was disruptive for the participants.
- The main barrier to implementing new skills or changes in the work environment was resistance to change by colleagues, managers, and members of the multidisciplinary team.
- Participants experienced frustration at the negativity and resistance to change expressed by some colleagues, managers and multidisciplinary teams.
- Increased clinical skills obtained from postgraduate education were not always sufficient.
- The lack of integration between practice and academia was highlighted by the study participants.
- The additional financial cost associated with postgraduate education for some participants (i.e. travel and accommodation), and the lack of financial recognition for those who undertook postgraduate study were cited as challenges by the study participants.
- A minority of the study participants (14%) had published the findings of their studies, and 2% had uploaded their research onto Lenus, the Irish Health Repository.
- Many participants reported that there was no follow through on service improvement initiatives when programmes were complete.

5.3 Recommendations

It is clear from the evaluation that though postgraduate education was viewed positively by the study participants, a number of suggestions were made to help facilitate further improvements. The following recommendations are given to help facilitate improvements; they are divided into three sections.

Health Service Organisations

- There needs to be on-going organisational support for nurses and midwives who are undertaking postgraduate education, to support them to implement the findings from their service improvement or research projects.
- Services should use the Health Services Change Guide and accompanying Change Framework to support staff members to introduce change within their wards and departments.
- Senior nursing and midwifery managers should be involved in supporting nurses and midwives to implement their service improvement initiatives, and the findings from their research projects within their wards and departments.
- Clinical nursing and midwifery managers should be supported to create a learning culture within their wards or departments.
- Lifelong learning should be promoted and supported for all nurses and midwives.
- Further research which ascertains the views of patients/service users would be helpful in identifying the impact of postgraduate education from the patient/service user perspective.
- Forums for sharing research findings and service improvement projects should be organised within services.

Higher Education Institutes

- Higher education institutes should incorporate a change management module within postgraduate programmes, to support nurses and midwives to implement changes in their work environment upon completion of postgraduate education.
- Postgraduate education programmes should have more of a multidisciplinary focus and efforts should be made to promote multidisciplinary postgraduate education.
- Postgraduate education programmes which have a clinical aspect should focus more on developing the clinical skills of students.
- Consideration should be given when developing postgraduate education programmes for healthcare staff, to ensure that health promotion modules are included in all health related programmes.

Health Care Organisations and Higher Education Institutes Combined

- Directors of nursing and midwifery and their academic partners should actively explore the scope for joint appointments in order to foster collaborative working to enhance clinical practice, research, and education.
- Nurses and midwives who undertake postgraduate education programmes (especially master's programmes) should be encouraged and supported to publish their research findings.

- All nurses and midwives who receive funding under HSE HR Circular 020/2014 commit to uploading their research onto Lenus the Irish Health Repository, nursing and midwifery management should ensure that this is completed in a timely manner by nurses and midwives who receive funding.
- Consideration by service level stakeholders of strategies to enhance the visibility of nursing and midwifery research should include the maintenance and accessibility of a local record of such activity.

5.4 Limitations of the Study

- The evaluation would have been more comprehensive if the nursing and midwifery managers were surveyed to assess the impact of postgraduate education on the service as was originally planned.
- The under representation of staff midwives and staff nurses in the focus groups, meant that the results of the focus groups were not representative of that cohort of staff.

6. References

- AIKEN, L., CIMIOTTI, J., SLOANE, D., SMITH, H., FLYNN, L. & NEFF, D. 2012. Effects of Nurse Staffing and Nurse Education on Patient Deaths in Hospitals With Different Nurse Work Environments. *JONA: The Journal of Nursing Administration*, 42, S10-S16.
- ALLAN, H. T. & SMITH, P. 2010. Are pedagogies used in nurse education research evident in practice? *Nurse Education Today*, 30, 476-479. w
- BARNHILL, D., MCKILLOP, A. & ASPINALL, C. 2012. The impact of postgraduate education on registered nurses working in acute care. *Nursing praxis in New Zealand inc*, 28, 27-36.
- BAXTER, R. & EDVARDSSON, D. 2018. Impact of a critical care postgraduate certificate course on nurses' self-reported competence and confidence: A quasi-experimental study. *Nurse Education Today*, 65, 156-161.
- BIRD, C. M. 2005. How I Stopped Dreading and Learned to Love Transcription. *Qualitative Inquiry*, 11, 226-248.
- BRAUN, V. & CLARKE, V. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3, 77-101.
- BROWN, L. & WATSON, P. 2010. Understanding the experiences of female doctoral students. *Journal of Further and Higher Education*, 34, 385-404.
- BURROW, S., MAIRS, H., PUSEY, H., BRADSHAW, T. & KEADY, J. 2016. Continuing professional education: Motivations and experiences of health and social care professional's part-time study in higher education. A qualitative literature review. *International Journal of Nursing Studies*, 63, 139-145.
- BUSH, C. T. & LOWERY, B. 2016. Postgraduate Nurse Practitioner Education: Impact on Job Satisfaction. *The Journal for Nurse Practitioners*, 12, 226-234.
- CENTRAL STATISTICS OFFICE 2016. Census 2016 An Age Profile of Ireland. Ireland.
- CLARK, E., DRAPER, J. & ROGERS, J. 2015. Illuminating the process: Enhancing the impact of continuing professional education on practice. *Nurse Education Today*, 35, 388-394.
- COTTERILL-WALKER, S. M. 2011. Where is the evidence that master's level nursing education makes a difference to patient care? A literature review. *Nurse Education Today*, 32.
- CURTIS, K., FRY, M., SHABAN, R. Z. & CONSIDINE, J. 2017. Translating research findings to clinical nursing practice. *Journal of Clinical Nursing*, 26, 862-872.
- DEPARTMENT OF HEALTH 2016. Department of Health Statement of Strategy 2016-2019. In: HEALTH (ed.). Dublin.
- DEPARTMENT OF HEALTH 2019. A Policy on the Development of Graduate to Advanced Nursing and Midwifery Practice. In: HEALTH, D. O. (ed.). Dublin: Government of Ireland.
- DRENNAN, J. 2010. Critical thinking as an outcome of a Master's degree in Nursing programme. *Journal of Advanced Nursing*, 66, 422-431.
- DRENNAN, J. 2012. Masters in nursing degrees: an evaluation of management and leadership outcomes using a retrospective pre-test design. *Journal of Nursing Management*, 20, 102-112.
- DREY, N., GOULD, D. & ALLAN, T. 2009. The relationship between continuing professional education and commitment to nursing. *Nurse Education Today*, 29, 740-745.
- DUDLEY-1521BROWN S. 2016. Dissemination of evidence. In: WHITE K., DUDLEY-BROWNE S. &

- TERHAAR M. (eds.) *Translation of evidence into nursing and health care* New York, NY: Springer Publishing Company.
- DUFF, B., GARDNER, G. & OSBORNE, S. 2014. An integrated educational model for continuing nurse education. *Nurse Education Today*, 34, 104-111.
- GALWAY AND ROSCOMMON UNIVERSITY HOSPITALS GROUP 2013. Nursing and Midwifery Strategy 2013 - 2018.
- GIJBELS, H., O'CONNELL, R., DALTON-O'CONNOR, C. & O'DONOVAN, M. 2010. A systematic review evaluating the impact of post-registration nursing and midwifery education on practice. *Nurse Education in Practice*, 10, 64-69.
- GOVERNMENT OF IRELAND 1998. Report of the Commission on Nursing: A Blueprint for the Future,. Dublin: Stationary Office.
- GOVERNMENT OF IRELAND 2011. Nurses and Midwives Act 2011. Government of Ireland. HEALTH SERVICE EXECUTIVE 2014. HR Circular 020/2014 re Sponsorship of Nursing & Midwifery Education initiatives. *In: HSE. (ed.)*.
- HEALTH SERVICE EXECUTIVE 2016. Framework for Improving Quality in our Health Service. *In: DIVISION, Q. I. (ed.)*. Dublin.
- HEGNEY, D., TUCKETT, A., PARKER, D. & ELEY, R. 2010. Access to and support for continuing professional education amongst Queensland nurses: 2004 and 2007. *Nurse education today*, 30, 142-9.
- HSE 2018. People's Needs Defining Change- Health Services Change Guide *In: HSE (ed.)*. Dublin, Ireland.
- HSE. 2016. Framework for Improving Quality, Part 1 Introducing the Framework. Health Service Executive.
- JOHNSON, A. & COPNELL, B. 2002. Benefits and barriers for registered nurses undertaking post-graduate diplomas in paediatric nursing. *Nurse Education Today*, 22, 118-127.
- KINSELLA, D., FRY, M. & ZECCHIN, A. 2018. Motivational factors influencing nurses to undertake postgraduate hospital-based education. *Nurse Education in Practice*, 31, 54-60.
- KUTNEY-LEE, A., LAKE, E. T. & AIKEN, L. H. 2009. Development of the hospital nurse surveillance capacity profile. *Research in Nursing & Health*, 32, 217-228.
- KYNDT, E., VERMEIRE, E. & CABUS, S. 2016. Informal workplace learning among nurses: Organisational learning conditions and personal characteristics that predict learning outcomes. *Journal of Workplace Learning*.
- LEFLORE, J. L. & THOMAS, P. E. 2016. Educational Changes to Support Advanced Practice Nursing Education. *The Journal of perinatal & neonatal nursing*, 30, 187-190.
- LIAO, L.-M., SUN, X.-Y., YU, H. & LI, J.-W. 2016. The association of nurse educational preparation and patient outcomes: Systematic review and meta-analysis. *Nurse Education Today*, 42, 9-16.
- LUND, T. 2012. Combining Qualitative and Quantitative Approaches: Some Arguments for Mixed Methods Research. *Scandinavian Journal of Educational Research*, 56, 155-165.
- MAGUIRE, M. & DELAHUNT, B. 2017. Doing a Thematic Analysis: A Practical, Step-by-Step Guide fro Learning and Teaching Scholars. *All Ireland Journal of Teaching and Learning in Higher Education (AISHE-J)*, 3.
- MASSIMI, A., MARZUILLO, C., DI MUZIO, M., VACCHIO, M. R., APOS, ANDREA, E., VILLARI, P. & DE VITO, C. 2017. Quality and relevance of master degree education for the professional development of nurses and midwives. *Nurse Education Today*, 53, 54-60.
- MC CARTHY, A. & EVANS, D. 2003. A Study on the Impact of Continuing Education for Nurses and

- Johnson, M. & Midwives who Completed Post Registration Courses.
- NG, L., ELEY, R. & TUCKETT, A. 2016. Exploring factors affecting registered nurses' pursuit of postgraduate education in Australia. *Nursing & Health Sciences*, 18, 435-441.
- NIGHTINGALE, F. 1860. *Notes on Nursing: What It is, and What It is Not*, London, London: Harrison.
- NMBI 2015. Scope of Practice Nursing and Midwifery Framework. In: IRELAND, N. A. M. B. O. (ed.). Dublin: NMBI.
- NMPDU, D. S., KILDARE, & WICKLOW, 2018. Review of Postgraduate Education for Nurses and Midwives Dublin South, Kildare & Wicklow. NMPDU.
- NOLAN, M., OWEN, R., CURRAN, M. & VENABLES, A. 2000. Reconceptualising the outcomes of Continuing Professional Development. *International Journal of Nursing Studies*, 37, 457-467.
- NURSING AND MIDWIFERY BOARD OF IRELAND 2014. Code of Professional Conduct and Ethics for Registered Nurses and Registered Midwives. In: IRELAND, N. A. M. B. O. (ed.). Dublin: NMBI.
- NURSING AND MIDWIFERY BOARD OF IRELAND 2016. Post Registration Nursing and Midwifery Programmes: Requirements and Standards. Dublin: NMBI.
- O'KEEFE, N., CULLINANE, A. M., GREENSMITH, L., BRACKEN, S., O'SHAUGHNESSY, N., DENNEHY, C., SMITH, H. & LAMBERT, V. 2019. GP132 Developing research capacity: baseline survey identifying research activity, skills and supports for nurses in children's hospitals in Ireland. *Archives of Disease in Childhood*, 104, A83-A84.
- ONMSD 2008. Report of the Post-registration Nursing and Midwifery Education Review Group. Dublin: Office of the Nursing and Midwifery Services Director.
- ONMSD 2019. Office of the Nursing and Midwifery Services Director Strategic Plan 2019-2021. Dublin, Ireland.
- OWEN, A. J. & SCHMITT, H. M. 2013. Integrating Interprofessional Education into Continuing Education: A Planning Process for Continuing Interprofessional Education Programs. *Journal of Continuing Education in the Health Professions*, 33, 109-117.
- PELLETIER, D., DONOGHUE, J. & DUFFIELD, C. 2003. Australian nurses' perception of the impact of their postgraduate studies on their patient care activities. *Nurse Education Today*, 23, 434-442.
- PLUNKETT, R. D., IWASIW, C. L. & KERR, M. 2010. The Intention to Pursue Graduate Studies in Nursing: A Look at BScN Students' Self-Efficacy and Value Influences. *International Journal of Nursing Education Scholarship*, 7.
- POLIT, D. & BECK, C. 2004. *Nursing Research: Principles and Methods*, Philadelphia, United States.
- TERRÉS, A. 2019. HSE Action Plan for Health Research 2019–2029. Health Service Executive (HSE).
- THISTLETHWAITE, J. 2012. Interprofessional education: a review of context, learning and the research agenda. *Medical Education*, 46, 58-70.
- TYNDALL, D. E. & CASWELL, N. I. 2017. Changing the Publication Culture From “Nice to Do” to “Need to Do”: Implications for Nurse Leaders in Acute Care Settings. *Nursing Forum*, 52, 30-37.
- UL HOSPITALS 2019. UL Hospitals Group Nursing and Midwifery Strategic Plan 2019-2022. Limerick: HSE.
- WALKER, L. & SPENDLOVE, Z. 2018. The personal and professional importance of post-registration postgraduate education. *British Journal of Midwifery*, 26, 120-124.
- WANGENSTEEN, S., FINNBAKK, E., ADOLFSSON, A., KRISTJANSDOTTIR, G., ROODBOL, P., WARD, H. & FAGERSTRÖM, L. 2018. Postgraduate nurses' self-assessment of clinical competence and need for further training. A European cross-sectional survey. *Nurse Education Today*, 62, 101-106.
- WATKINS, D. 2011. The influence of Masters education on the professional lives of British and German nurses and the further professionalization of nursing. *Journal of Advanced Nursing*, 67, 2605-2614.

- WHYTE, D. A., LUGTON, J. & FAWCETT, T. N. 2000. Fit for purpose: the relevance of Masters preparation for the professional practice of nursing. A 10-year follow-up study of postgraduate nursing courses in the University of Edinburgh. *Journal of Advanced Nursing*, 31, 1072-1080.
- WILKINSON, J., CARRYER, J. & BUDGE, C. 2018. Impact of postgraduate education on advanced practice nurse activity – a national survey. *International Nursing Review*, 65, 417-424.
- WORLD HEALTH ORGANISATION 2013. Transforming and scaling up health professionals education and training: World Health Organisation Guidelines 2013. World Health Organisation.

7. Appendices

Appendix One

Dear Colleague,

Welcome to our Review of Postgraduate Education for Nurses and Midwives from HSE

West Mid West. The Nursing and Midwifery Planning and Development Unit, HSE West Mid West, is reviewing the impact of postgraduate education on the nurses and midwives who undertook various postgraduate programmes under the HSE HR Circular 020/2014-*Sponsorship of Nursing and Midwifery Education Initiatives*.

As a nurse or midwife who has undertaken postgraduate education over the past five years, we would like to hear your views on how post graduate education has impacted on your professional development and clinical practice. You are invited to complete this questionnaire electronically, and share your views.

By filling in and submitting this questionnaire you are consenting to participate in this research. All information you give us will be treated in the strictest confidence, and your identity will not be passed onto a third party or connected to your answers in anyway.

The questionnaire should take approximately 10 minutes to complete. There are no right or wrong answers we are just looking for your opinion.

If you have any queries about this review, please feel free to contact me at annem.mccarthy@hse.ie or at 087 7082504.

Yours sincerely,
Anne Mc Carthy Research

* 1. Do you consent to be part of this study?

Yes

No

2. Demographic Details

*** 2. Which of the following categories best describes the service you currently work in? Please choose only one**

- | | |
|---|--|
| <input type="radio"/> Saolta University Health Care Group | <input type="radio"/> Community Health Organisation Mid-West (CHO 3) |
| <input type="radio"/> University of Limerick (UL) Hospitals Group | <input type="radio"/> Voluntary/Not for Profit Service |
| <input type="radio"/> Community Health Organisation West (CHO 2) | |
| <input type="radio"/> Other (please specify) | |

*** 3. Which of the following best describes the field of practice in which you currently work? (please choose only one)**

- | | |
|---|--|
| <input type="radio"/> Acute Services | <input type="radio"/> Disability Services |
| <input type="radio"/> Older Person's Services | <input type="radio"/> Women's and Infant's Health (Maternity Services) |
| <input type="radio"/> Primary Care Services | <input type="radio"/> Palliative Care Services |
| <input type="radio"/> Mental Health Services | <input type="radio"/> Health and Wellbeing Services |
| <input type="radio"/> Other (please specify) | |

4. Please indicate your age category Please choose only one box

- | | |
|-----------------------------------|-----------------------------------|
| <input type="radio"/> 20-29 years | <input type="radio"/> 50-59 years |
| <input type="radio"/> 30-39 years | <input type="radio"/> 60 or over |
| <input type="radio"/> 40-49 years | |

5. What is your gender?

- | | |
|-----------------------------|------------------------------|
| <input type="radio"/> Male | <input type="radio"/> Female |
| <input type="radio"/> Other | |

*** 6. What is your current job title (please include your grade)?**

3. Course Details

* 7. Please tick which post graduate education programme you have undertaken between 2014 and 2018 (this includes any course you are currently undertaking)

Please tick all that apply

- | | |
|---|--|
| <input type="checkbox"/> Professional Credit Awards (Specialist Module) | <input type="checkbox"/> Post Graduate Diploma |
| <input type="checkbox"/> Diploma | <input type="checkbox"/> Masters Degree |
| <input type="checkbox"/> Degree | <input type="checkbox"/> PhD |
| <input type="checkbox"/> Post Graduate Certificate | |
| <input type="checkbox"/> Other (please specify) | |
| <input type="checkbox"/> | |

8. Did any of the following factors influence your decision to undertake postgraduate education?

	Yes	No	Dont Know
I wanted to gain more knowledge in my specialty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It was a requirement for my role	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The availability of funding under the HSE HR Circular 020/2014 was an incentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undertaking postgraduate education increased my opportunity for career progression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undertaking postgraduate education was part of my professional development plan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

9. Have you changed roles since you commenced the post graduate education programme? (within the past 5 years)

Yes

No

10. If you answered yes to Question 9 above which best describes the change? Please choose only one

Promotion within my specialty

Moved to different area at same

Promotion outside my specialty

Other (please specify)

Not Applicable 5. Impact of Postgraduate Education Programmes

11. Please indicate how much you agree or disagree with each of the following statements in relation to how undertaking post graduate education has impacted your work with patients or clients (1 =strongly agree 5 =strongly disagree)

	Strongly agree	Agree	Neither	Disagree	Strongly disagree	NA	NA
I have improved my communication with clients/patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more aware of current trends in nursing and midwifery education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more aware of complex care needs of clients and patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have improved my clinical decision making skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an enhanced ability to recognise issues that could impact on client/patient outcomes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more aware of evidenced based practice and research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more involved in health promotion with my clients/patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. From a strategic development perspective how would you rate the impact of your postgraduate education in terms of the following?

(1=Strongly Agree, 5=Strongly Disagree)

	Strongly Agree	Agree	Neither	Disagree	Strongly Disagree	Not Applicable
I am more aware of my professional responsibility and accountability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more aware of the role of regulation within nursing and midwifery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have developed skills in leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more aware of the need for quality improvement in my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to promote the importance of inter-disciplinary working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to contribute to the development of protocols and guidelines as part of a wider team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am more likely to promote safe practice for clients and patients	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13. Please indicate how much you agree or disagree with each of the following statements in relation to your personal and professional development (1=Strongly Agree, 5=Strongly Disagree)

	Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree	Not Applicable
My level of job satisfaction has improved since undertaking postgraduate education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My level of knowledge and understanding has increased as a result of undertaking postgraduate education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My critical thinking skills have improved since undertaking postgraduate education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My level of confidence about participating in interdisciplinary clinical teams has improved since undertaking postgraduate education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undertaking postgraduate education has improved my ability to educate colleagues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undertaking postgraduate education has increased my interest in further study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Undertaking postgraduate education has increased my interest in research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate if there are other changes which have occurred for you as a result of undertaking post graduate education

14. Do you think that undertaking postgraduate education has helped you to implement changes in your work practices?

Yes No

Please expand

15. Did you experience any barriers to applying changes in your work practices?

Yes

No

If yes, please specify the barriers you experienced?

*** 16. What would help you to implement improvements in your work practice?**

17. Please indicate whether you have had the opportunity to share your research or course work in any of the following forums

Please tick all that apply

- | | |
|---|--|
| <input type="checkbox"/> Informally with colleagues | <input type="checkbox"/> Poster presentation |
| <input type="checkbox"/> Presented within my organisation | <input type="checkbox"/> Oral presentation (for example; conferences, workshops, masterclasses) |
| <input type="checkbox"/> Shared with Lenus www.lenus.ie (Regional library Service) | <input type="checkbox"/> Journal article |
| <input type="checkbox"/> Shared with my local library | <input type="checkbox"/> Have not had the opportunity yet |

18. Overall do you think that undertaking postgraduate education is worthwhile?

Y

N

19. Would you recommend postgraduate education to your colleagues?

Y

N

20. We welcome your suggestions for further postgraduate education programmes which would assist you in your role

21. Any further comments, we would appreciate your feedback and value your comments

Appendix two Invitation to Focus Group Meeting

10th May 2019

Dear Colleague,

As a follow on from the questionnaire which you recently completed on the impact of postgraduate education on the nurses and midwives who undertook various postgraduate programmes under the HSE HR Circular 020/2014-Sponsorship of Nursing and Midwifery Education Initiatives, you are invited to attend a focus group meeting to further discuss the impact that postgraduate education has had on your professional development and clinical practice.

The details of the meeting is as follows:

Venue....

Date: 4th June 2019

Time: 10am -11.30am

I would appreciate it if you could let me know whether you can attend the meeting. You can either email me at annem.mccarthy@hse.ie or phone me on 091 775843

Thanking you in anticipation,

Kind regards,

Anne Mc Carthy
Researcher

