Erasmus Mundus Joint Master Degree in Emergency and Critical Care Nursing

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Dramatic Strategies for Augmenting Nursing Student Engagement with Inter-Agency Care: A Quantitative Study

Zahida Zahid

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Master´s Thesis

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Abstract

Background: Inter-agency working (IW) is critical to the delivery of safe and effective health care to service users, families, and health-care staff to ensures that high-quality, consistent care is always available for the users. Several studies have advised that pre-registered health students get Inter-professional Education (IPE) to improve their knowledge and attitudes regarding inter-agency collaboration. Students, on the other hand, are unsure of the relevance of these concepts to their careers and demonstrate a lack of interest in studying. Similarly, the optimal approach to learn inter-agency collaboration has yet to be determined.

Objectives: The aim of the study is to explore the impact of peer-initiated authentic drama on pre-registered students' attitudes towards health care team working before and after module implementation with content on health and social care integration/inter-agency working.

Methods: In this study, a quantitative (before-and-after) design was chosen. The study included second-year nursing students from Bachelors in Nursing (BN) and Masters in Nursing (MN) programmes who were studying the module 'Effective Interagency Working in Health and Social Care.' A convenience sample of 450 student nurses completed a pre- and post-module questionnaire. For data analysis, descriptive analysis and the Paired Sample T test were used.

Results: Overall, there was an increase in the student nurses' attitudes towards health care team working, understanding of health and social care integration and confidence around working within integrated health and social care landscapes with 80%-90% of participants agreeing or strongly agreeing with the survey questionnaire. With regards to paired sample T test results, these demonstrated that there was no significant difference between the mean pre-module score and mean post-module score ratings ($p=.136$).

Conclusion: Drama-based nursing education is a real-world learning strategy that helps students gain a better understanding of health-care team working. This innovative instructional technique should be employed in the curricula of pre-registration health students in the future.

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Abbreviations

IW- Inter-agency Working

HCI- Health and Social Care Integration

IPE- Interprofessional Education

IPC- Interprofessional Collaboration

HCP-Health Care Professional

SHSC- School of Health and Social Science

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Chapter 1-Introduction and Background

1.1 Overview of Study

Health-care safety and efficacy are key global concerns. To accomplish this, collaboration across the team is considered highly critical. Research has demonstrated that ineffective communication and poor teamwork are clearly the major leading factors to adverse outcomes (Joint Commission International, 2018). Unsafe care-related adverse events are likely in the top ten causes of death and disability worldwide World Health Organization says, and these undesirable events can result in avoidable harm, death, and financial loss. About 4 out of 10 individuals are affected globally in primary and outpatient care, with up to 80% of injury being preventable (World Health Organization, 2019). Health-care specialists should place a great emphasis on compliance with collaboration among health-care professionals in order to achieve high standards of practise. The degree of collaboration between nursing personnel and other healthcare professionals (HCPs) is known as interprofessional collaboration (IPC), and it includes a number of key elements such as shared vision, team cohesion, commitment, clearly defined responsibilities, interconnection, and unification among team members (Palese et al., 2019). It encompasses both in-hospital and out-of-hospital care such as social services.

Integration of health and social care is necessary to develop a robust connection between all areas of health care. Better coordinated care, more anticipatory and preventative treatment, and a higher focus on community-based care are all examples of health and social care integration (Scottish Government, 2015). Integration which strives to improve people's lives by ensuring that long-term, high-quality care and support are available. It also seeks to guarantee that services are provided in a consistent and coordinated manner (Coulter et al., 2013). Integration is said to save money by reducing emergency hospital admissions and facilitating care transfers, as well as enhancing patient satisfaction and quality of care (Bennett & Humphries, 2013). In Scotland, people are living longer, healthier lives, but the number of individuals who require specialised care is rising (Scottish Government, 2015). Instead of functioning alone, the health-care system is working hard to reform by bringing together all of the major organisations. To that end, the NHS, public health, and social care institutions are all working to identify new methods to connect, communicate, and collaborate in order to satisfy people's health and care requirements in the United Kingdom (*Build Back Better: Our Plan for Health and Social Care*,

2022).

Studies have discovered that effective collaboration among health teams and services improves patient care quality, while inadequate teamwork leads to poor health outcomes (Babiker et al., 2014). Interprofessional Education (IPE) has been identified as an innovative technique for producing that collaborative, practice-ready health workforce, although it is not extensively embedded in undergraduate health professional programmes (Gilligan et al., 2014).

Nurses have been recognized to take an active part in IPC application by collaborating with a variety of HCPs in a variety of contexts. Nursing institutions now must equip students with interprofessional knowledge and competencies, as a result of their role in promoting and expanding IPC in everyday practise. IPE should be introduced to nursing students at an early years of education according to various regulations and evidence, both in the classroom and in the clinical setting (Creative Inc & Design, 2010; NMC, 2010). Since students who have already been exposed to IPE can start their professional careers and work immediately after graduation cohesively within the team; additionally, combining their perspectives by correlating their observations and clinical reasoning to those of other specialties (Joynes, 2018; Rosen et al., 2018b). However, when IPE experiences are inadequate or occur after a nursing education is completed, the student's capacity to function as part of a team after graduation can be significantly hindered (Gordon et al., 2015). There are some obstacles found to strongly associated with poor collaborative practices in health fields. For instance, doctor-nurse conflict can hinder interprofessional collaboration and, as a result, lower the quality of patient care. Also, these conflicts can be worsened by stereotypes and negative attitudes regarding professional boundaries and gender (Samuriwo et al., 2020).

Various instructional strategies are employed in nursing education around the world to practise IPE, such as simulation with the use of mannequins and standardised actors, to allow students to practise various skills. Drama as an instructional intervention for pre-registered student nurses is the theme of present study. It is distinctive in that it allows students to put themselves in the shoes of patients and connect with them through the stories of people who are experiencing care (Arveklev et al., 2015). This is one of the most impactful instructional experiences to learn by instilling empathy and compassion in healthcare students, which are at

the heart of care (Kyle & Atherton, 2016).

Previously, drama has been used in nursing education for a variety of purposes. For example, to prepare nursing students for professional life by improving their communication skills, developing professional identity and role, interacting with others to increase self-awareness, increased self-reflection, and critical thinking, and experiencing the perspectives of patients (Arveklev et al., 2018a; Jefferies et al., 2021; Ljunggren et al., 2021b). When drama was combined with nursing education for cancer care, students analysed the clinical experiences of cancer patients, which helped them understand the patients' point of view and reflect on their self-images as future nurses (Suh et al., 2021). In other studies students were taught about violence against women and conflict resolution, students' used this platform to gain knowledge by putting themselves in both fictitious and real-world settings (Arveklev et al., 2018b; Solano-Ruiz et al., 2021b). Thus, drama was not specifically employed with the intention of learning about Health and Social Care Integration (HCI) in nursing education.

Hence, a group of researchers from Edinburgh Napier University decided to use this innovative "drama" technique to teach health and social care students about HCI. Students and faculty teamed to produce two separate dramas, which were performed in front of an audience and followed by a discussion. The plays were recorded and eventually included in a module for undergraduate nursing and allied health professional programmes at the university.

1.2 Research Rationale

Working as a team has been shown to provide a number of advantages, including greater care continuity and coordination as well as better health outcomes (Rosen et al., 2018b). A diverse team of clinicians, administrative employees, patients, and their loved ones must work together when a patient arrives at care facility. To coordinate and deliver safe, high-quality care, dependable teamwork and collaboration are required, both inside and across organization, regional, technological, and cultural boundaries (Rosen et al., 2018b; Schot et al., 2020). Pre-registration nursing students are gaining a basic awareness of the importance of collaborative work; otherwise, the subject would have gone unnoticed during their education (Gilligan et al., 2014). Students should learn about how collaborative work affects patients, families, health

care providers, and the community (Fawaz et al., 2018). Therefore, a novel strategy of drama for pre-registration nurses was chosen for the study to boost student engagement with the complexity of HCI. Other developments in science and technology, such as high-fidelity simulation, have surely enhanced the health educational system. The major hurdles to implementing these ideas are financial limits, accommodation, and limited clinical circumstances (Padilha et al., 2019). Drama, on the other hand, does not necessitate such resources. There is a dearth of evidence to support learning HCI through drama because it has not been widely used in nursing education. To that end, it was decided to perform a study using dramas as a method for integrating health and social care to improve nursing students' knowledge, understanding, and confidence in the subject. The study's findings will aid in determining effectiveness, which will serve as a foundation for a bigger scale study in the future.

1.3 Aims and Objectives

The aim of the study is to explore the impact of peer-initiated authentic drama on pre-registered students’ attitudes towards health care team working before and after module with content on health and social care integration/inter-agency working.

The following research questions are addressed:

1. Does authentic learning increase student nurses’ attitudes towards health care team working?
2. Does authentic learning increase student nurses’ knowledge and understanding of health and social care integration?
3. Does authentic learning increase student nurses’ perceived confidence to work within integrated health and social care landscapes?

1.4 Dissertation Structure

There are several chapters in this dissertation. Starting with the present chapter, the introduction, and moving on to chapter two, the literature review, in which the available literature will be reviewed using a specific review protocol. The rationale for why this research

is needed will be presented considering existing literature by clarifying the difference between them. Following that, the third chapter the research technique will detail the various methodologies and approaches used to address the research question, aside from the reasons for choosing those methods. This chapter will include a brief overview of the sampling procedure, ethical considerations of the study. The research findings will be presented in the fourth chapter, which will provide a summary of the results. The fifth chapter is about discussion and analysis of findings, where the question of whether the study's findings met the study's goals and objectives will be discussed. The findings will be allied to the data analysed in the literature review to ensure that the findings from the current study are consistent, and a comparison with previous research will be made. The research will be concluded in chapter six, which will summarise all the dissertation's major points by giving the overview of the study and emphasizing the most important issues raised and the new knowledge gained. Finally, certain recommendations will be made based on the present study to necessitate further investigation or study replication in a larger sense.

Chapter 2-Literature Review

2.1 Introduction

Collaborations among health care teams plays an integral role in the provision of exceptional care by improving quality, safety as well as efficient use of human resources within the health care system (Adamson et al., 2020; Morley & Cashell, 2017). Effective interprofessional team collaboration has been shown to improve professional practise, quality service provision, and health outcomes for patients accessing health and social care services (Bridges et al., 2011; Rosen et al., 2018a; Zwarenstein et al., 2009). Despite the fact that teamwork and interprofessional collaboration are crucial for patient safety, health and social care professionals frequently feel unprepared and affected by the lack of association and interaction because of rare involvement in the interprofessional learning opportunities (Adamson et al., 2020; ALBalushi, 2020a; El-Awaisi et al., 2016). Interprofessional Education (IPE) has been proposed as a solution to this problem which is defined by the World Health Organisation (WHO) students from two or more professions exploring and learning about, from, and alongside others to promote clinical outcomes through effective collaboration (van Diggele et al., 2020). However, pre-registration health and social care curricula, have received minimal attention to this area (Glen & Reeves, 2004). As a result, many students entering the field are less prepared for the difficulties of working in diverse teams (McNair, 2005).

The concepts of interprofessional working and interprofessional education, although addressed widely in literature and accepted in practice as being important, are addressed using multiple and interchangeable phrases and terms such as interagency working, multi-professional, multidisciplinary and interprofessional (Chamberlain-Salaun et al., 2013; Flores-Sandoval et al., 2021). This interchangeability of language reflects a lack of clarity which extends to the understanding of health and social care students (Craddock et al., 2006; Flores-Sandoval et al., 2021). Adding to this discussion, the concept of HCI has now been proposed as a key policy focus across the United Kingdom (Scottish Government 2014; Pearson & Watson, 2018) with the goal of putting more emphasis on connecting services, improving care, reducing

inequalities, and placing the individual at the middle of care planning (Charles, 2021).

Health and social care delivery in the United Kingdom has become increasingly complicated because of an ageing population, rising costs, health, and lifestyle problems, rendering service requirement unsustainable as a result of long-term health demands (Dingwall et al., 2017; *The NHS Long Term Plan*, 2019). With a view to addressing health and social care needs and moving towards a more seamless way of working, Scotland has introduced integrated joint boards in 2016, with the goal of integrating care services to support people, their careers, and their families (Hendry et al., 2021).

Integrated care delivery across organisations and professional lines is complicated, requiring coordination and collaboration which is slower and has yet to be met in many parts of the United Kingdom (*Integrated Care*, 2021b; Baxter et al., 2018). The integration of health and social care puts a stronger emphasis on anticipatory care, which reduces unplanned hospital stays and improves assistance for individuals to live freely in their own homes in the community. Its goal is to shift the stress away from hospitals and toward community-based treatment (Crocker et al., 2020).

As frontline workforce, nurses are at the heart of HCI, thus it is critical that student nurses are well-informed about this evolving concept from the start. However, the implementation of this policy within the UK has been problematic (Humphries, 2015). The 'integration' of services remains invisible in many practice settings meaning that students within health and social care fields struggle to understand its importance and relevance to their own future careers (ALBalushi, 2020b; Joynes, 2018). Educators are therefore left with the task of presenting HCI within professional curricula to facilitate understanding and support this ongoing change to practice; to an extent this requires a prospective approach to this concept within curricula.

The ability to look forward to the benefits of HCI and find mechanisms which enable understanding through presenting credible examples of this concept in practice is key (Illingworth & Chelvanayagam, 2017). It has been suggested that authentic learning, which focuses on real-life events in the classroom, can help students contextualise and recognise the relevance of complex concepts (Kyle & Atherton, 2016). Arveklev et al., (2015), discuss the use of drama-based education as being a creative form of authentic learning which can help students understand complex health-care contexts by bridging the gap between what is learned

in the classroom and what is practised after graduation.

The following research study seeks to establish the impact and value of drama-based education in enabling the understanding of HCI.

2.2 Methods

In order to establish what was already known about this topic an initial search of literature was carried out. During the search, it was determined that the phenomena of interest in nursing education had not been extensively explored before, two key reviews (Arveklev et al., 2015; Ocarroll et al., 2016), were also included in the review as there was a lack of primary research on the topic. One is an integrative review by Arveklev et al., (2015), which comprised 20 papers (2002-3013) to investigate the usage and application of drama in nursing education focused on the goal, setting, and methods of drama implementation. When the included studies were examined individually, it was discovered that no studies had correlated drama to health and social care integration. Drama was utilised to promote students' communication, empathy, skills training, safe nursing practises, and many other aspects. None of the studies looked at drama in the context of HCI. The second review by O'Carroll et al., (2016) included 35 research publications (2000-2014) to examine health and social care staff attitudes toward IPW and IPE. Drama as an interventional tool, on the other hand, was not mentioned in any of that research. As a result, it was decided to do another review, this time taking those reviews as a starting point and then narrowing down it by looking at what the new literature has to say about drama in nursing education in terms of HCI/IW.

A scoping review was chosen as the review protocol for this dissertation due to a number of factors. To begin with, a systematic literature review was not possible due to the dissertation's time constraints. Second, because the topic hasn't been properly investigated before, is complex or heterogeneous in nature and there may not be enough existing primary research on it. As a result, it has chosen to conduct a scoping review, which allows for a more thorough examination of the published findings (Pham et al., 2014).

The purpose of this review is to determine the nature and scope of studies conducted to assess

the impact of drama in nursing education in relation to HCI/IW.

2.2.1 Search Strategy

A detailed literature search was conducted in consultation with the university librarian to investigate the phenomenon of interest. Databases CINAHL, PubMed, Medline, ProQuest, Web of Science and Moodle resources were used as search engines. Because the area was new to use in health education for nurses, no search restrictions were applied in relation to the study year's publication. In a Medline and CINAHL combined search using Boolean operators, key words/synonyms such as 'drama-based education' AND 'inter-agency care' AND 'inter-professional education' or nurs* student or student engag* or knowledge were identified using the PICO framework. Only articles published in English were considered. Mendeley version 2.58.0 (Mendeley 2021) was used to import the papers.

2.2.2 Study Selection Criteria

The search approach was narrowed down for article selection by using the Population, Concept, and Context (PCC) design to define the inclusion and exclusion criteria. By breaking down the question, this framework has directed the search process, allowing for the verification of any protocol inclusion and exclusion criteria that may have been overlooked (Peters et al., 2017).

Inclusion and exclusion criteria determined within the PCC framework:

	Inclusion Criteria	Exclusion Criteria
Population	Student nurses were kept mandatory, other health professional students optional.	Studies where nursing students were not included.
Concept	Studies on interprofessional health care teamwork and health and social care integration utilising drama-based education.	Other traditional learning methods, high fidelity simulation, Low fidelity Simulations, Standardised Patients,
Context	Primary research, Qualitative, Quantitative as well mixed methods, and grey literature systematic reviews.	No such restrictions.

The keys words were generated from MeSH NCBI are as follow:

Key Words Selection

Interprofessional	Drama in Nursing	Health and Social Care	Nursing students
Inter-professional	Drama-based learning	Interagency care	Pupil
Inter-disciplinary	Participatory learning	Multi-agency working	Learner
Multi-professional	Theatre education	Cross organizational	Pre-
	Play	Inter-institutional	registration

2.3 Results

To further categorise the review, the publications were put into the PRISMA flowchart. The preliminary findings of a database search resulted in 71 studies. The duplicates were then removed leaving 64 studies proceed into the second phase. During this phase, research was ruled out based on PCC criteria which was applied to the titles and abstracts. The complete text of 64 papers was then chosen, and the third screening procedure began. Finally, 3 primary

studies that met the established criteria were included in the review. Due to the lack of primary studies two literature reviews were considered to explore the topic more in-depth beside three primary studies. The flow chart below shows the exact sequence of events. Three studies from different nursing websites also included within the grey literature narrative to cover the maximum study on the topic.

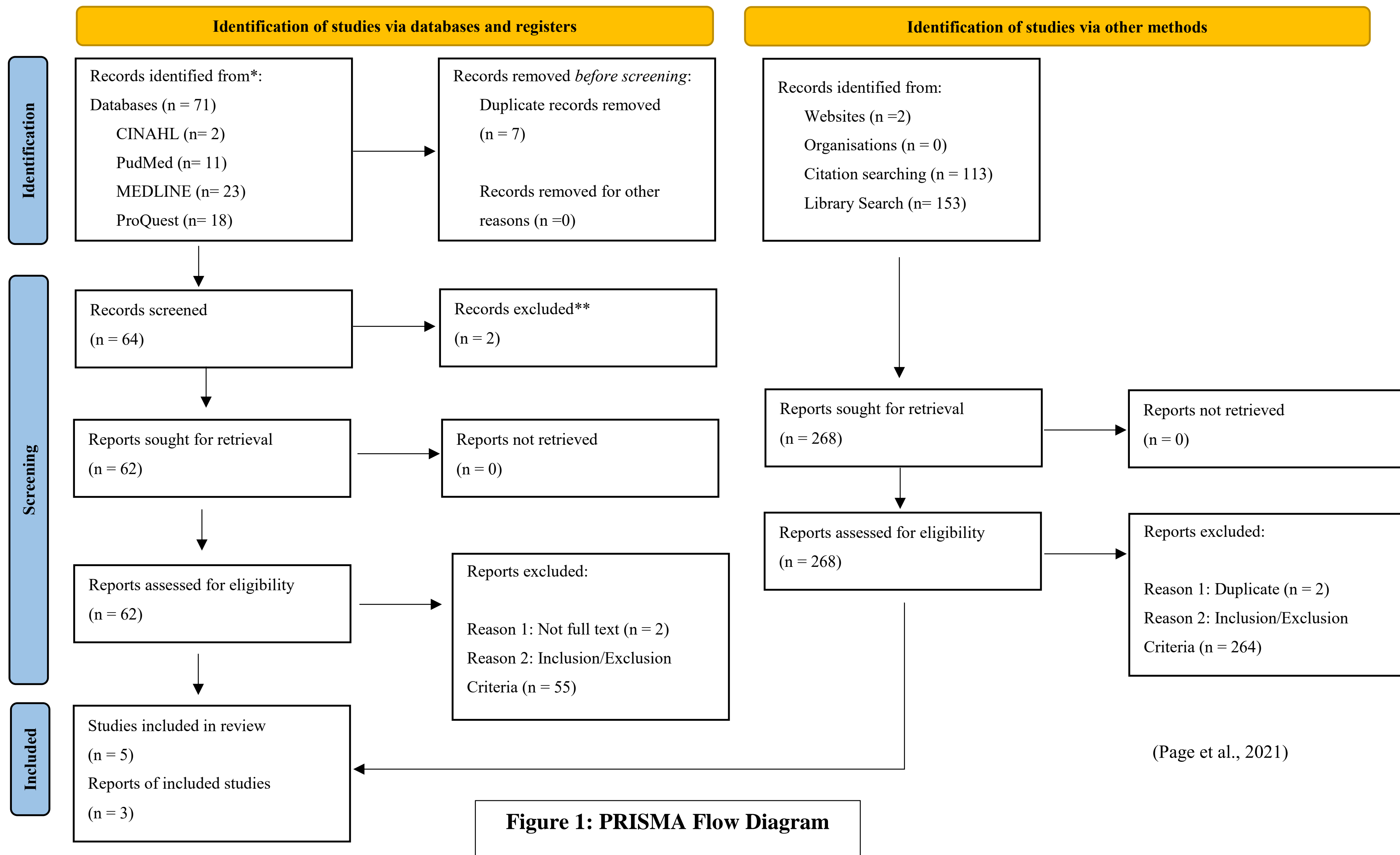


Figure 1: PRISMA Flow Diagram

2.3.1 Collating Summarizing and Reporting Results

The primary research (n=3) was identified related to the application of drama in courses to see the understanding of health and social care students about IPE (Fusco et al., 2020) person-centred care and IPE (Dingwall et al., 2017) interdisciplinary learning in health and social care (Balen et al., 2010). The table below summarise the overall methodological approach of the studies, study location, study type, participants, duration of the study and any reliable instrument utilised to measure the responses. None of the studies used valid scale/instrument. Also, there is a disparity in the studies sample size, which ranges from thousands to less than 100. The data extraction table was created in order to critically evaluate the studies (Appendix 8).

Table: 1 Methodological characteristic of included studies in the review:

Reference	Publication Year	Origin	Source	Place of Study	Type of Study	Study Population	Intervention type	Duration of study	Instrument used
(Fusco et al., 2020)	2020	Journal Article (American Journal of Pharmaceutical Education)	Peer reviewed	United States	Case Study	1921 students and 250 faculty members	Creating a film ‘Meet Fred Santiago: Improving Care Through Interprofessional Collaboration’ based on a story of a man with multiple health problems and implemented it in an annual interprofessional forum.	Three years	Used a student program evaluation form consisted of 15 items, with respondents agreeing or strongly agreeing with the statements. (No valid instrument)
(Dingwall et al., 2017)	2017	Journal Article (Nurse Education Today)	Peer reviewed	Scotland, United Kingdom	Mixed Method Study	66 students	Drama based ‘Sliding Doors to Personal Futures’ Workshop followed by interprofessional group discussion)	Not clearly mentioned	A 21-item questionnaire was developed based on three instruments commonly used in studies of interdisciplinary education and attitudes towards older people. (Validity questionable)
(Balen et al., 2010)	2010	Journal Article (Social Work Education)	Peer reviewed	United Kingdom	Narrative Research	100 students	Showing a dramatized film of an alcoholic man, acting on a scenario of depressed women, and presenting a monologue based on episodes of mania post childbirth.	Not clearly mentioned.	Post workshops students were asked to complete a feedback sheet. (No validated instrument)

2.3.2 Quality Appraisal

All the studies (n=3) were conducted in high-income countries such as the United States (Fusco et al., 2020), Scotland (Dingwall et al., 2017), the United Kingdom (Balen et al., 2010). Three primary studies among them one mixed method and two case studies (Balen et al., 2010; Dingwall et al., 2017; Fusco et al., 2020) were identified.

Following the retrieval of studies based on the inclusion/exclusion criteria, a detailed methodological quality assessment was conducted to determine the research' strengths and weaknesses. The quality appraisal of narrative study (Balen et al., 2010) was assessed using the Scale for the Assessment of Narrative Review Articles (SANRA) (Baethge et al., 2019). The case study (Fusco et al., 2020) was looked against Stake's checklist for assessing the quality of case studies (Crowe et al., 2011). Similarly, the MMAT (Hong et al., 2018) was used as a critical assessment instrument intended for mixed methods research (Dingwall et al., 2017). Based on quality assessment, none of the papers were excluded from the review. In addition, explanatory evidence was provided for grey literature in a separate paragraph to make it more robust and cover the range of the resources. The quality appraisal chart can be viewed (appendix 9).

2.3.3 Findings

The findings of the review are presented in three main themes, which are formulated after reading each research paper individually and then creating a data extraction table to compare and identify key similarities and differences in various contexts, revealing the relationship with the review's goal.

Interprofessional Collaboration

The first theme focusing on drama's impact on student knowledge around interprofessional collaboration. Three different studies (Balen et al., 2010; Dingwall et al., 2017; Fusco et al., 2020) have assessed the impact of drama in nursing education on interprofessional

collaboration. Two papers (Fusco et al., 2020) a case study (n=1921) and (Balen et al., 2010) a narrative study used drama as a methodology with the participants (nursing, social work, midwifery, and occupational therapy students; n=100). The responses from the study by Fusco et al., (2020) were recorded through a survey form with 5 Likert scale ranging from agree to strongly agree, 96% to 100% of responses found drama a good way to introduce students to the complex notion of interagency and the pertinent issues experienced by service users. A strategy of 22-minute film showed to students, it allowed them to interact with and understand the perspectives of a variety of professional groups, which enhanced their learning. Similarly, in another study (Dingwall et al., 2017) learners expressed a desire to learn more about interprofessional collaboration and its benefits in providing holistic patient care. Only social work students exhibited significant results when Dingwall et al., (2017) examined for significant attitudinal improvement and enhanced person-centredness among nursing students and social work students through drama presentation. Risk acceptance was discovered among social work students; however, risk aversion was reported among nursing students.

Perception of Drama in Nursing Education

The second theme covers the perception of drama in nursing education. One primary study by Fusco et al. (2020) investigated students' perceptions of drama as a tool in nursing education and its impact on their learning. Study demonstrated that making a film is a realistic depiction of a patient case scenario or service user with varied long-term health conditions. For pre-registered nurses dramatized scenario indeed are an effective way to present a complicated interrelationship of medicine, psychology, and social problems that persons with chronic health disorders encounter. Likewise, in the narrative study by Balen et al., (2010), highlighted drama's relevance with curriculum and support in understanding the lived experience of mental health challenges, as well as implications for practise, enjoyment, and added value.

Approaches to Drama

The third theme derived from the papers analyses approaches to drama in nursing education. Two studies (Balen et al., 2010; Fusco et al., 2020) introduced drama by showing a film to participants and having small interprofessional group discussions with prompt questions afterward. To perform in the film, actors were hired from a theatre group. Dingwall et al., (2017) used live drama which was performed in front of the participants inside the classroom

and afterwards they participated in discussion sessions. The main similarity between the studies identified was before performing drama students were given information about interprofessional collaboration in the form of online courses (Fusco et al., 2020), value-based warm up activities (Dingwall et al., 2017), and introductory exercises (Balen et al., 2010). However, differences were observed in the sample group of those studies, which ranges from 100 students (Balen et al., 2010), 66 students (Dingwall et al., 2017), to 1921 students and 250 faculty members (Fusco et al., 2020), making the study's generalizability doubtful.

Grey literature Narratives

A study report was published from Scotland, where a simulating disruptive possibly hazardous home setting was created showing older adults health and social needs to train nursing and social work students for interdisciplinary care (Mole et al., 2006). A professor, one nursing, and one social work student did the role play, which was supplemented by mixed breakout groups activities. This activity was evaluated via mixed open and closed ended questionnaire and found intellectually rewarding, relevance with participant's work, and has potential to deepen one's understanding of professional responsibilities. Likewise, an article from the University of Huddersfield, where theatre and nursing students partnered for mental health role-play, was featured in the *Nursing Times* (Ford, 2021). Drama students act out scenarios to help mental health nursing students prepare for future problems they may encounter in practise. The strategy was shown to be beneficial to students and patients. Another site, *The Guardian*, released an article about Kinston University's integrated drama activity to teach student nurses compassion, with the goal of exploring how theatre helps nurses learning (Partos, 2016). This project aided students in learning about effective communication, empathy, and rapport building, among other aspects.

2.4 Discussion of Findings

This scoping review explored the effectiveness of drama in nursing education for pre-registered nurses. Three studies on the subject were included after meeting the inclusion and exclusion criteria. Evidence drawn that drama was determined to be advantageous or as good as standard educational approaches for knowledge outcomes related to HCI. Drama was chosen as a novel educational intervention in the studies to provide students with an interesting and realistic

approach to real-life experiences and was found to be a useful tool for evaluating its potential for interprofessional undergraduate education (Balen et al., 2010; Dingwall et al., 2017; Fusco et al., 2020).

The existing approach to interprofessional education will not benefit older individuals enough or those with long-term health and social requirements until multi-professions can better comprehend each other's roles, limits, and aspiration (Dingwall et al., 2017). This result is in line with the findings of a study done by Balen et al., (2010), which found that students gained a better awareness of the responsibilities and competence of diverse specialized groups and generated greater empathy for service consumers. Likewise, Ocarroll et al., (2016) reviewed the attitudes of health and social care professionals toward IPE for undergraduate students and discovered that the focus was more on the IPE for staff than for students. There was a lack of research on the link between attitudes toward IPC and the value placed on IPE. Similarly, in terms of safe exercise drama provides a controlled and secure atmosphere for learners to practise nursing and reflect on and learn from fictional situations emphasised by Arveklev et al., (2015) in integrative review. As drama carried out in a variety of ways as seeing or performing in plays. The site for performing drama activities varied based on the play's requirements, though mostly drama was performed on campuses, demonstrating the method's flexibility.

2.4.1 Review Limitations

This literature review has a certain limitation. Firstly, because there was no research for nursing students solely done before, the heterogeneous study population was selected. As a result, the review included various health-related study populations. Because of the diverse character of the participants and the limited sample sizes, it is hard to derive concrete conclusions from the research included. Secondly, all primary research in the review (Balen et al., 2010; Dingwall et al., 2017; Fusco et al., 2020) was conducted on a small scale, with no potentials of generalizability. There was no comparison group in any of the studies. None of the studies were randomised. Most studies looked at student attitudes only, other behavioural and health outcomes for service users and carers were not looked at.

2.4.2 Identification of Gaps in the Literature

During the review of literature, it was identified that very little research has been done on the

topic being discussed. Most significantly, the lack of primary research on the use of drama in nursing education in HCI context, which led to the study's decision to use a scoping review. Drama has been employed as an educational methodology in other disciplines, but not specifically for pre-registered nurses, implying that more study is needed to determine numerous perspectives of this innovative intervention on student understanding. The lack of study shows essentials gaps in research on the effectiveness of drama as a teaching tool for nursing students. Therefore, further research, particularly primary studies, is required to provide nursing students with the opportunity to get the role of fictitious patients and family, allowing them to explore other viewpoints.

Chapter 3 - Research Methodology

This chapter will present the research method and methodology, including how the drama was developed as a method, the research design, the nature of participant selection for inclusion and exclusion criteria, and sample methodologies. Similarly, the study's design, data collection methods, instruments utilised in the data collection procedure will all be included. This section also outlines the ethical approval for the study to make it ethically transparent, as well as the approach to data analysis process will be explained briefly.

Starting with the various types of research designs that are used to conduct diverse studies commonly, yet individual researcher must select the most appropriate design to answer a given study question. The three common approaches to research are quantitative, qualitative, and mixed methodologies (Mulisa, 2021). Quantitative research is a deductive approach in which numerical data and mathematically based processes are used to test and reproduce hypotheses about variable correlations. Qualitative research, on the other hand, is concerned with investigating, comprehending, and deriving meaning from participants' experiences and viewpoints. Whereas, gathering and analysing both qualitative and quantitative data for the purposes of broadening, understanding as well as validating the study question is part of the mixed method approach (Almalki, 2016). The present study has adopted quantitative approach as a research design.

3.1 Methodology

Initially, a team from Edinburgh Napier University's School of Health and Social Care took a step towards improving student nurse knowledge and engagement in social sciences focusing on the topic of Health and Social Care Integration (HCI). A drama was employed in nursing education as an innovative way of enhancing students' understanding about HCI in Scotland. Six students from the Bachelors in Nursing (BN) and Masters in Nursing (MN) programme volunteered to participate in the 'School of Health and Social Care Players' drama group. The students created a drama *Mad, Bad, Invisible* in collaboration with the charity Comas (a social innovation charity) and performed which was based on a true experience of 'dis-integrated' care. The drama was performed in November 2017 at Edinburgh's Serenity Café (community

cafe run by and for individuals in recovery from addiction). Following the performance, the audience was invited to participate in a discussion about the concept of HCI. The play was preserved in its totality through video, photographs, and pictures drawn by cartoonist while the play was performed. All these resources were then incorporated into social science module within the University's pre-registration Nursing and Allied Health Programs.

The drama *Mad, Bad, Invisible* (MBI) depicted the consequences of a dis-integrated care system and the impact this can have on an individual’s overall health and social life. However, one of the MN students decided that perhaps this representation (although true) was focusing too much on the ‘negative’, in addition it only presented what they perceived to be a scenario relevant for students studying within the field of mental health. To compliment MBI the student decided to write a second drama.

A student nurse at Edinburgh University’s School of health and Social Care, wrote the play *Cracks* based on the story of Bob and Debbie. The play sought to demonstrate the consequences of variations in health outcomes due to unequal access to health and social care services. The play was performed by students, staff, and members of the public. A film of the story was also created by film studies students from Edinburgh Napier University's School of Arts & Creative Industries. The play was performed at Summerhall in Edinburgh in June 2019 using a unique combination of live action and recorded footage from the film. A play depicts the story of two older adults who are having problems adjusting to ordinary life due to their age, living conditions, and disease processes. When they were both admitted to the hospital for different reasons, the video clearly shows the disparity in their care. Bob, who received integrated care, was eventually discharged and was able to live comfortably at home with the best possible health and social care. Debbie, on the other hand, received disintegrated treatment in the hospital and had to wait a long time to be discharged due to non-responsive social care services. She succumbed to hospital-acquired illnesses and died as a result.

Both *MBI* and *Cracks* were created and incorporated within the health and social care curricula with the purpose of demonstrating an innovative, student-led approach to teaching and learning

that would assist nursing students in engaging with the challenging reality of HCI.

3.2 Research Design

The plays *MBI* and *Cracks* were embedded as films within the health and social care module in the BN and MN programmes in the SHSC. To determine the impact, value, and effectiveness of these dramas as an intervention for enhancing student nurses understanding of HCI a before and after study design was used. This design involved the students completing a survey prior to starting the module and then again after the module had been completed. This study used a before and after design because it is non-experimental design for obtaining preliminary evidence of the intervention's effectiveness. Other methods such as after-only method cannot ensure that the findings are pertinent to the intervention, or that the result would have been different without it. Without knowing the baseline, the intervention's impact cannot be confirmed (Robson et al., 2001). Therefore, the design provides more evidence on the success of an intervention than other non-experimental designs.

Pre-module survey that was distributed in week 2 of the 15-week module prior to tutorial 1 and the post module survey was distributed within the final tutorial in week 12 of the module. Data collected using a pre module survey addressing HCI on the bachelor's and master's degree programmes (2016-2019) was compiled to provide a baseline of student perceptions of HCI relevance. The drama *Mad, Bad, Invisible* performed by student nurse actors and filmed by the School of Arts and Creative Industry film students (SACI) after giving a consent. The play *Cracks* was recorded and edited by film students to create a high-quality professional output of no longer than 30 minutes. In association with student nurse actors, the video was incorporated into a module on the BN and MN programmes in nursing. Quantitative data was collected from students who completed the module throughout its delivery. To facilitate quantitative evaluation, a questionnaire was placed within the online module and a paper-based

questionnaire was also distributed during face-to-face teaching sessions.

3.3 Data Collection Instruments

This study has used the Attitudes Toward Health Care Teams Scale (ATHCTS) (Wong et al., 2018) , Heineman et al (1999) designed ATHCTS initially to assess the attitudes of nurses and Veterans Affairs geriatric physicians toward a team approach to treatment. The research resulted in the development of a 28-item scale based on three subscales: quality of care, cost of care, and physician centrality. The scale was then further reduced to 21 items utilising only Veteran's Affairs geriatric physicians. Then, Curran et al. (2008) adapted the ATHCTS for assessment of undergraduate students by using only 14 items loading on the previous quality of care factor and a new factor, time constraints, which addresses the time inefficiencies caused by working on a health care team. This version employed a 5-point scale, with 1 indicating strong disagreement and 5 indicating strong agreement.

The present survey questionnaire consisted of 14 items adopted from Attitudes towards Health Care Team Scale (ATHCTS) (Wong et al., 2018) who access the perception of graduating students from undergraduate programs towards interprofessional team working and their understanding of 6 other health professionals'. In his study a pre and post data was collected by administering intervention via teaching learning sessions. The ACHCTS tool showed a positive attitude with the mean scores ranges from 48.57 to 54.23 which demonstrated to be valid and reliable for the context of the study. Another cross-sectional study by Shokrvash et al., (2019) used the tool with the aim to translate and assess psychometrically the attitudes toward healthcare teamwork adopted scale by including 200 students from nursing and medical schools in Tehran. Eleven items were considered valid based on impact score of more than 1.5, CVR above 0.62, and CVI above 0.7. The exploratory factor analysis (EFA) considered all the 11 items valid. The study concluded that the instrument had 55% of variance in the attitude toward healthcare teamwork scale. The ATHCTS can be used as a tool to analyse graduate students' attitudes about interprofessional collaboration as a result of educational or training programmes (Kim & Ko, 2014). However, the tool's applicability to undergrads is still debatable. Because of no other validated scale was found pertinent to assess pre-registered student nurses attitudes to interprofessional health care working this scale was

used in the present study.

The questionnaire used in the study has divided into four sections. The first section is about the participants creating a unique anonymous identity for which instructions were provided before filling the forms. The second section presented the scale ATHCTS containing 14 items ranging from strongly agree to strongly disagree on a 5-point Likert scale. Because these were negative statements, the last three elements about time restrictions were reverse coded. In third section the study used the Scottish Government's 9 National Health and Wellbeing Outcomes that relate to integrated health and social care (Scottish Government, 2014). The goal is to see if students agree or disagree that HCI will influence these and the responses were assessed on the same 5-point Likert scale, from strongly agree to strongly disagree. The demographic data of the participants was the focus of the last section, which included age, gender, primary ethnicity, highest educational level, and prior health-related experience of the participants. Some questions pertinent to the qualitative component of the study were also obtained because the study was anticipated to be a mixed method at the time of data collection. However, for the sake of this dissertation, we only considered quantitative data.

3.4 Participants

A convenience sample drawn from nursing students from BN and MN programmes at Edinburgh Napier University made up the study's population. The characteristics of study population includes nursing students either in the year 2 of the BN or year 2 of the MN programs. Also, students studying one of the four fields of the nursing such as adult nursing, children's nursing, learning disabilities nursing and mental health nursing. To recruit participants, inclusion/exclusion criteria were established, and were as follows:

Inclusion criteria:

- Second year nursing students studying module NUR08101 & NUR11117 'Effective Interagency Working in Health and Social Care' at Edinburgh Napier University.

Exclusion Criteria:

- Students not studying these modules.

Student were not excluded because of other characteristics including age, gender, field of

practice and other socio-demographic information.

An announcement about the study was published on Moodle, the virtual learning environment for the students. The announcement was placed 2 weeks prior to the module's start and included a participant information sheet. The announcement explained the study in depth, including the data collection day, timing, aim of the project and the contact details of the research team to obtain additional information. The students' participation was kept entirely voluntary.

3.5 Study Setting

The research study was conducted at Edinburgh Napier University's School of Health and Social Care (ENU). A module was offered to the study population in both the bachelor's and master's degree programmes in nursing (2016-2019) in a blended form. The students were advised that participation in the study was entirely voluntary. Initially, a paper and pen survey were given to a convenience sample of students in the class to assess the module's outcomes which included determining baseline knowledge and understanding of IW/HCI, confidence to work in HCI landscapes, and the feasibility of drama as a supplement to pre-registration nurse education. At the end of the module, the survey was repeated. The study participants were requested to create an anonymous identification that was only known to them to link before and after responses.

3.6 Data Collection Procedure

The data collection was completed in two phases before and after the implementation of the module.

3.6.1 Phase 1 – Before

All the participants were approached in the classroom on the day of data collection. The principal research personal provided another brief explanation of the study's objectives and purposes. Similarly, students were told about their voluntary engagement in the study and were

assured that their participation in the study would have no impact on their academic programme. Students were given formal consent forms to sign before the real data was collected. The students were then invited to complete the questionnaires after confirming their consent in the beginning of the class. The researchers were part of the module team and made themselves available to answer questions during tutorials and on the module discussion board housed within the virtual learning environment.

3.6.2 Phase 2 – After

The module was then presented to them again by the end of the module, the post module survey was distributed within the final tutorial in week 12 of the module. Participants completed the post-intervention questionnaire in the same manner by giving the consent first and generating unique anonymous identifier.

3.7 Ethical Consideration of the Study

Before beginning the study, the primary academic researcher obtained ethical approval from Edinburgh Napier University's Ethics Committee in the SHSC. Anonymity was further guaranteed by a participant-generated unique identification that was only known by the participant. Further, the ethical consideration rules were followed during the whole study process. For instance, during data collection the intended participants were briefed about the study's voluntary nature and were guaranteed that their participation or non-participation would have no consequence on their academic programme. Participants were assured that they could withdraw their agreement at any phase during the study if they desired without giving a reason for doing so. Furthermore, the research team has assured the nature of confidentiality and anonymity of acquired data. Before beginning the study, all the participants gave their verbal and written consent. During the data collection process, privacy and confidentiality were preserved. While reporting the research findings, anonymity was also maintained.

For the data storage and disposal University’s X-drive was used and made accessible by the members of the research team only. Data storage handled by the university is robust, with several copies saved in multiple physical locations and corruption prevention. Backups are

preserved for 14 days on a daily basis and for a year on a monthly basis. A paper questionnaire was entered into a password-protected database on a secure drive accessible only to the study team for data security. The biggest threat to data security was the student's breach of anonymity. To mitigate this danger, all data in SPSS software files was anonymized so that participants could not be identified in the research report's or publication's results. SPSS software for data analysis was safely stored on the project's X drive, accessible only by the research team listed on the SHSC ethical approval application form. Paper documents were securely maintained for a maximum of six months, and electronic data for ten years, before being destroyed in accordance with Edinburgh Napier University's confidential waste disposal guidelines.

3.7.1 Risk to Participants, University, or Researcher

There was no significant risk for the participants identified. Nonetheless, it is possible that the concepts of dementia and learning disability addressed in the play may be considered by some students to be sensitive topic. Therefore, the researchers reminded the students of their right to withdraw at any time during the study, without giving reason and that will not impact on their education. There was no potential risk to the research team.

3.7.2 Dissemination of the Findings

The study's findings will be published in an academic journal, which will be used to disseminate them.

3.8 Data Analysis

Data generated through the completion of the surveys was entered into SPSS version 23 (IBM SPSS Statistics for Macintosh, Version 27.0.) to enable analysis of findings. A pre-analysis protocol was drawn up by the researchers prior to conducting data analysis. This was to ensure a clear plan for analysis aligned to the research question. The participants responses were measured by using a validate scale ATHCTS (Wong et al., 2018) and attitudes towards the Scottish Government's Nine National Health and Wellbeing Outcomes for HCI alongside some

stand-alone questions with relevance to student's confidence to working with interprofessional team landscape. The descriptive analysis was performed to identify the responses to which student most and least agreed before and after participation in the module, with the same procedure followed for the matched pair analysis. Because there were variations in student participation in the study, not all students participated in both before and after module questionnaires, the analyses were done in two steps. The responses for before and after modules were analysed first, followed by matched pairs analysis (before and after) module. The descriptive statistical analysis of the obtained data was done using percentages calculation. Also, Paired-sample T-Test was performed for the matched pair (n=48).

Chapter 4 – Research Findings

4.1 Characteristics of Study Participants

The study participants were Bachelor in Nursing (BN) 2nd year and Masters in Nursing (MN) 2nd year students. Both were pre-registration nursing students. Overall, a total of 544 students initially enrolled for the module, out of them 342 were present in the class on the day when before-module survey was distributed. The attendance rate of the students was 342 of 544= 62.9%. A total of 275 out of 342 (response rate=80.2%) completed before survey, and 175 completed the after survey (response rate=63.6%). Not all students enrolled on the module may have had the opportunity to take part in the research due a variety of factors including sickness/absence, failed year one, suspended studies, and being withdrawn from the module, among others. The fact that the exact number of students in class for the after module is unknown, which means that the response rates are indicative and likely to be higher than stated, although this remains a limitation of the study.

Out of 275 students who participated in the before-module survey most respondents 90.5% (n=249) were female and 8.7% (n=24) were male. The age of the participants with the largest proportion was 21-30 years old making 40.1% (n=110) of the total participation. The primary ethnicity of majority respondents was White/Caucasian 88.7% (n=244), and 56.9% (n=156) had prior healthcare-related experience. In terms of highest educational level half of the participants 50.4% (n=137) had college level education prior to entry to nursing education. Likewise, a total 175 students participated in the after-module survey. Out of the total participation majority 49.7% (n=80) were studying child health nursing and 96% (n=168) were enrolled in Bachelor of Nursing (BN) programme. Complete the demographic characteristics were not collected for the post-questionnaire to minimise respondent burden and reduce questionnaire length.

When the data was analysed using SPSS a total of 27.4% (n=48/175) were found to be matched pairs, meaning that they had participated in both before and after module surveys. Their demographic characteristics shows that most of the respondents 95.8% (n=46) were white/Caucasian women between the ages of 21 and 30 years 47.9% (n=23) with a college

degree as their highest educational level 68.8% (n=33) and had prior health-care related experience 62.5% (n=30) before attending a nursing education. Majority 91.7% (n=44) of them were pursuing bachelor's degrees (BN) and majority 77.1% (n=37) were studying adult health nursing. Sample characteristics of the study are shown in the table 1.

Table 1: Sample Characteristics

Demographic variables	Pre-Module (n =275) n (%)	Post-Module (n = 175) n (%)	Match-Pair (n = 48) n (%)
Age(1)			
Under 20	80 (29.2)		12 (25)
21-30 years	110 (40.1)		23 (47.9)
31-40 years	54 (19.7)		8 (16.7)
41-60 years	30 (10.9)		5 (10.4)
Gender(1)			
Female	249 (90.5)		46 (95.8)
Male	24 (8.7)		2 (4.2)
Others	2 (5.5)		
Primary Ethnicity(1)			
White/Caucasian	244 (88.7)		46 (95.8)
Black	14 (5.1)		1 (2.1)
Remaining	17 (6.1)		1 (2.1)
Highest Educational Level(1)			
Secondary/High School	70 (25.7)		8 (16.7)
College	137 (50.4)		33 (68.8)
Bachelor's/Undergraduate Degree	55 (20.2)		
Master's/Postgraduate Degree	10 (3.7)		
Healthcare-related Experience(1)			
Yes	157 (56.9)		30 (62.5)
No	118 (43.1)		18 (37.5)
Field of Nursing(2)			
Adult Health		80 (45.7)	37 (77.1)
Child Health		87 (49.7)	7 (14.6)
Qualification(2)			
Bachelor's in Nursing (BN)		168 (96)	44 (91.7)
Master's in Nursing (MN)		6 (3.2)	4 (8.3)

Note: (1) Age, Gender, Ethnicity, Highest Educational Level and Healthcare-related Experience collected only in the Before survey. (2) Field of Nursing and Qualification were the only socio-demographic characteristics collected in the After survey.

At the beginning of the module participants (n=48) were asked about the term 'Inter-agency working' and "Health and Social Care Integration' in before questionnaire and the responses were collected (Table 2). The findings shows that majority of the students heard about the terminologies.

Table: 2 Inter-agency Working and Health and Social Care Integration

Sr #	Items	Responses n (%)	
		No.	Yes
01	Before I started this module, I had heard of the term Inter-agency working?	9 (18.8)	39 (81.3)
02	Before I started this module, I had heard of the term health and social care integration?	9 (18.8)	37 (77.1)

Note: Item two was left unanswered by two respondents (Missing data).

4.2 Attitudes Towards Interprofessional Team Working

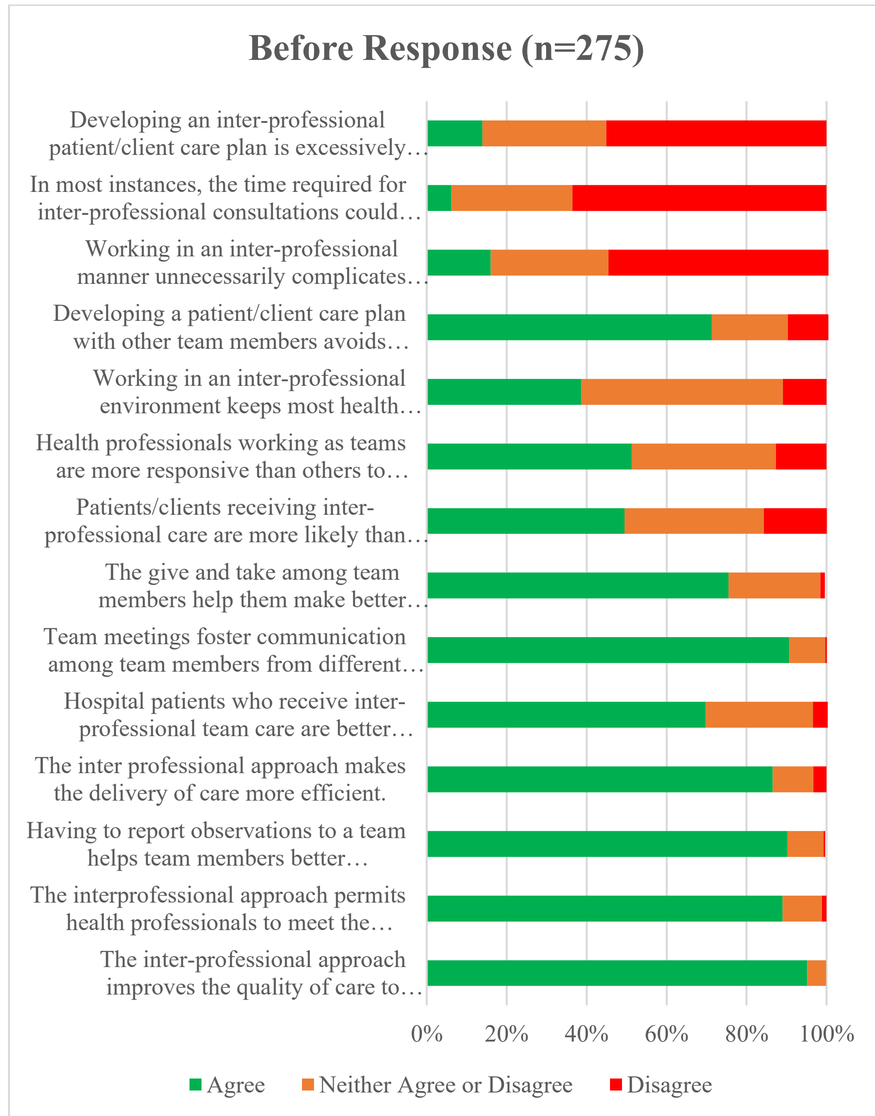
The impact of drama on student's understanding of interprofessional working was assessed using attitudes towards health care team working, (ATHCTS) scale, (Wong et al., 2018). Table 3 summarises students responses to scale items for before and after questionnaire. Respondents could rate the following items from 1 to 5, where 1 means strongly disagree and 5 means strongly agree. To make it easier for readers, the response options were reorganised into agreement, neutral, and disagreement by combining highly agree and agree to one dataset as agree, and strongly disagree and disagree to another dataset as disagree by keeping the neutral part in the middle. As using a three-point scale, the difference may be detected more quickly and readily in the bar charts. In addition, assessing the differences between the before-and-after module surveys will require less time and mental effort for readers. Due to rounding, the totals may not add up to 100%. This rule is applied to every analysis in the current study.

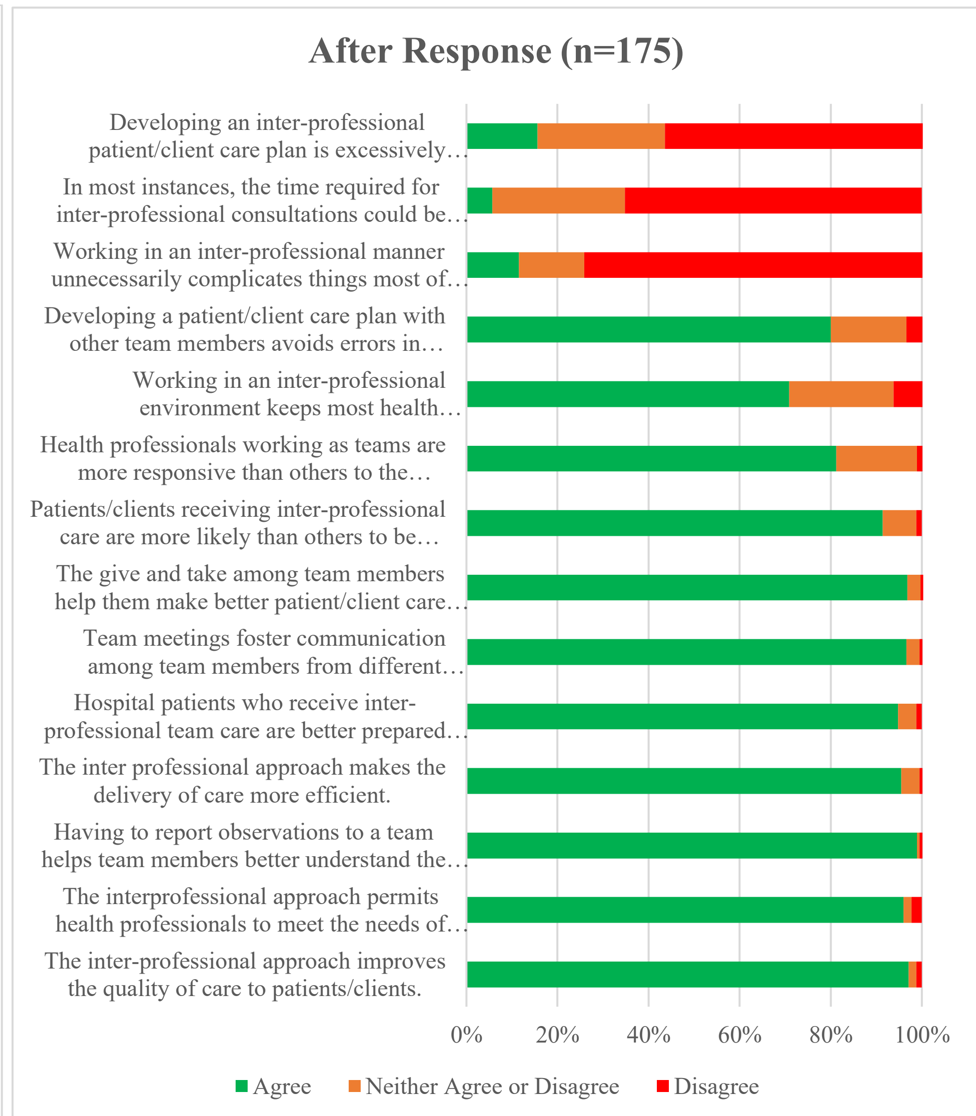
In the before-module survey, the respondents agreement to the scale items was around (38-95%) except the three negatively coded items. The statement that received the highest score

(95.2%) was ‘The inter-professional approach improves the quality of care to patients/clients’. This was followed by (90.6%) ‘Team meetings foster communication among team members from different professions or disciplines’ and then (90.2%) ‘Having to report observations to a team helps team members better understand the work of other health professionals’. When the responses were compared with after-module survey the students’ responses were overwhelmingly positive showing over (90%) agreement to almost every item except the negatively coded items which students disagreed the most. The highly agreed statement (98.9%) ‘Having to report observations to a team helps team members better understand the work of other health professionals’. This was followed by (97%) ‘The interprofessional approach improves the quality of care to patients/clients’. and then (96%) ‘The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients’. Moreover, the three negatively coded statements with which the most students disagreed in both before and after module were the ‘Developing an inter-professional patient/client care plan is excessively time-consuming’ In most instances, the time required for inter-professional consultations could be better spent in other ways’ ‘Working in an inter-professional manner unnecessarily complicates things most of the time’. Where in before module survey students disagreed with (55%), (63.6%) and (58.2%), and in after module survey (57%), (65.2%), and (74.2%) respectively.

Similarly, there is a notable change observed between the neutral responses to the survey items in the before and after module surveys. Respondents' neutral responses were up to (50%) in the pre-module survey, including three negative coded questions; however, in the post-module survey, this was substantially reduced to less than (30%). This indicates that the students' can now have a clear opinion as a result of the educational intervention. Students responded to one survey item ‘'Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs,' with (50.5%) neither agreeing nor disagreeing in the pre-module survey, which dropped to (22.9%) in the post-module survey, but the neutral response was still the highest rated neutral response in both the pre- and post-module surveys.

Table 3: Students' Attitudes Towards Health Care Team (ATHCTS) (n=450)



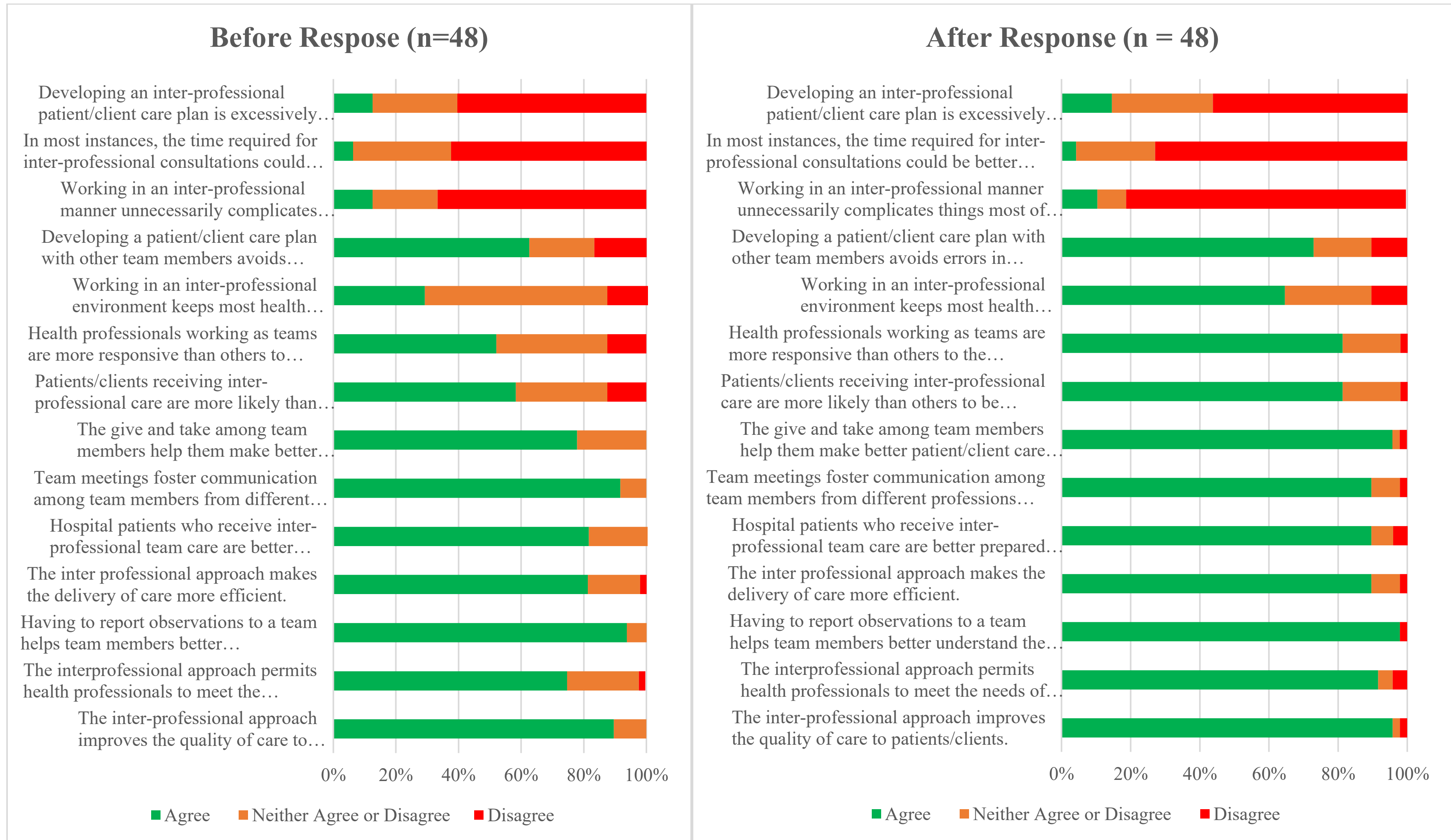


The table shown above also demonstrated that the statements relevant to quality-of-care subscale (Items 1–11) the participants agreement increased as a result of the educational intervention. For the remaining three ‘negative coded’ statements for time constraints (Items 12–14) the degree of disagreement relatively increased. More importantly, the degree of neutral response has also reduced drastically as a result of the educational intervention.

For match pair (n=48) in before-module survey, students agreed with majority of the survey items with above (50%) agreement (Table 4). The statement which the most students (93.8%) agreed was ‘Having to report observations to a team helps team members better understand the work of other health professionals’ which increased to (97.9%) in the after-module survey. That was followed by (91.7%) ‘Team meetings foster communication among team members from different professions or disciplines’ and then (90%) ‘The inter-professional approach improves the quality of care to patients/clients’. In the after-module survey the overwhelming responds observed with majority statements showing agreement exceeding (80%). The statement ‘The inter-professional approach improves the quality of care to patients/clients’ agreed by (95.8%) participants followed by ‘The give and take among team members help them make better patient/client care decisions’ with (95.7%).

There is a very clear decline with the neutral response seen in after-module surveys. The item "Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs’ (58.3%) stated neither agree or disagree in the before-module survey, which again reduced to (25%) in after-module survey. The three negative coded items (12-14) participants disagreement increased apart from 'Developing an inter-professional patient-client care plan is excessively time-consuming,' which students disagreed with (60.4%) in the before-module survey and (56.3%) in the after-module survey, keeping the neutral response at (27.1%) before-module and (29.2%) after-module survey.

Table 4: Students' Attitudes Towards Health Care Team (ATHCTS) (n=48) Matched Pair



Likewise, the Percentage Point (PP) change was calculated for the matched pair (n=48) ATHCTS, and the results obtained are shown in table 5. The statement ‘Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs’ showed the biggest PP change (35.4%). That was followed by ‘Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients’ with PP change of (29.2%) and then ‘Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons’ (23.3%).

The PP change for the negative coded statements revealed that statement ‘Working in an inter-professional manner unnecessarily complicates things most of the time’ with (14.2%) change in disagreement. This was followed by ‘In most instances, the time required for inter-professional consultations could be better spent in other ways’ with (10.4%). However, ‘Developing an inter-professional patient/client care plan is excessively time-consuming’ the disagreement PP change decreased with (4.1%).

Table: 5 ATHCTS Scale Items (PP) Matched Pair (n=48)

(ATHCTS) Scale Items	Before		After		Change
	Agree	Disagree	Agree	Disagree	PP
Quality-of-care Subscale (Items 1–11) PP Change in Agreement					
Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs.	29.2%	16.7%	64.6%	10%	+35.4%
Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients.	52.1%	12.5%	81.3%	2.1%	+29.2%
Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons.	58%	12.5%	81.3%	2.1%	+23.3%
The give and take among team members help them make better patient/client care decisions.	75%	0%	95.7%	2.1%	+20.7%
The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients.	75%	2.1%	91.6%	2.4%	+16.6
Developing a patient/client care plan with other team members avoids errors in delivering care.	62.6%	16.7%	72.9%	10.4%	+10.3
The inter professional approach makes the delivery of care more efficient.	81.3%	2.1%	89.6%	2.1%	+8.3%
Hospital patients who receive inter-professional team care are better prepared for discharge than other patients.	81.6%	0%	89.6%	4.2%	+8%
The inter-professional approach improves the quality of care to patients/clients.	90%	0%	95.8%	2.1%	+5.8%
Having to report observations to a team helps team members better understand the work of other health professionals.	93.8%	0%	97.9%	2.1%	+4.1%
Team meetings foster communication among team members from different professions or disciplines.	91.7%	0%	89.6%	2.1%	-5.1%
Time constraints (Items 12–14) 'Negative Statements' PP Change in Disagreement					
Working in an inter-professional manner unnecessarily complicates things most of the time.	13%	66.7%	10.4%	80.9 %	+14.2%
In most instances, the time required for inter-professional consultations could be better spent in other ways.	6%	62.5%	4%	72.9%	+10.4%
Developing an inter-professional patient/client care plan is excessively time-consuming.	13%	60.4%	15%	56.3%	-4.1%

4.3 Health and Social Care Integration

To evaluate the effect of drama on students' attitudes towards health and social care integration the Scottish Government's nine national health outcomes were used (Table 6). Overall, the participants have shown a mixed responses in before-module survey and positive change in terms of agreement scores can be seen in the after-module survey. In the before-module survey (n=275), the statements 'Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services' to which student agreed (93.4%), that was followed by 'People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community' (83.2%). This was followed by 'Health and social care services contribute to reducing health inequalities' which student scored with (75.5%) agreement.

Whereas in the after-module survey (n=175) students responses were highly positive where (99%) agreed to the statement 'People who use health and social care services have positive experiences of those services, and have their dignity respected' followed by (98%) agreed with 'People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community' and (96.2%) agreed to 'Health and social care services contribute to reducing health inequalities'. However, the statement 'People using health and social care services are safe from harm' only (25.4%) agreed in before-module and (45%) in after-module survey, alongside the highest scored of neither agree or disagree to the same statement in both before and after-module survey with (43.9%) and (32%) respectively. Also, scores for disagreement noted for the same item (41.7%) in before-module to (22.8%) after module survey. The overall disagreement score drastically reduced from nearly (50%) for few items to only (1-2%) to few items in after-module survey.

Table: 6 Scottish Government's Nine National Health Outcomes

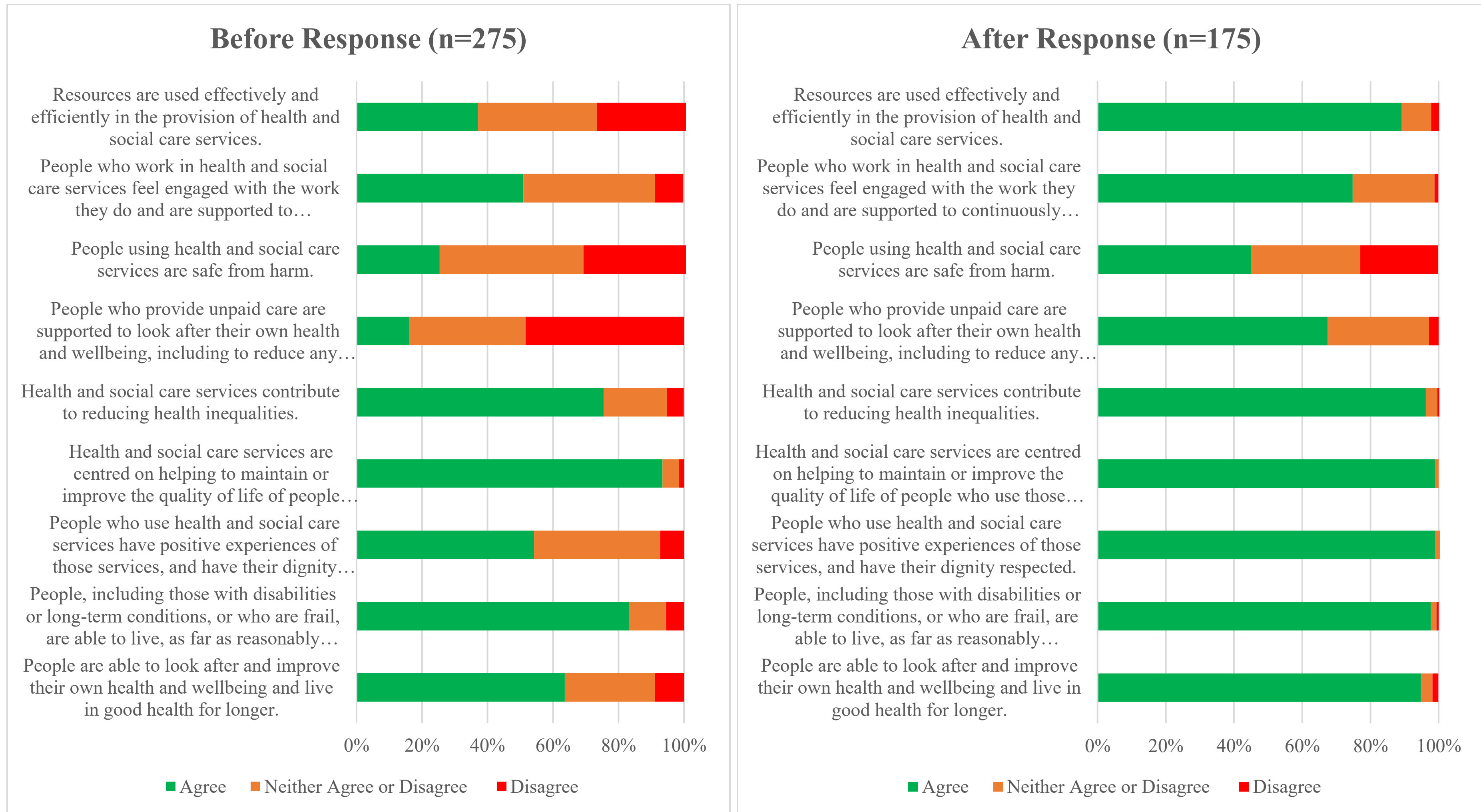
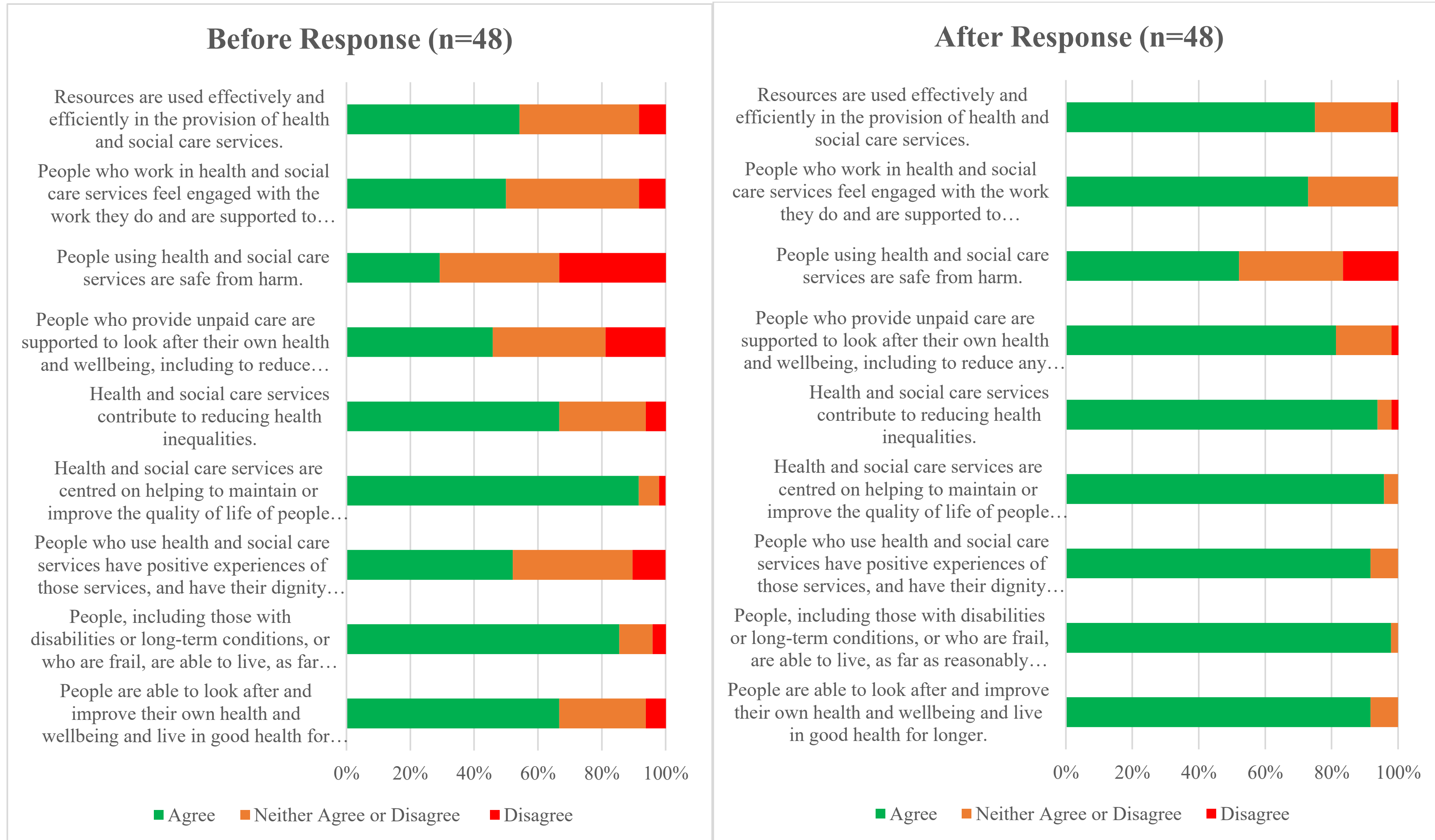


Table 7 show the overall responses of students to HCI statements for matched pairs. The mostly agreed statement (92%) in the before-module survey 'Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services'. This statement was followed by 'People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community' (86%). The third highly agreed statements are 'Health and social care services contribute to reducing health inequalities' as well as 'People are able to look after and improve their own health and wellbeing and live in good health for longer' by (67%).

In after-module survey the overall, agreement to every item increased with a greater margin where 'People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community' scored (98%), followed by 'Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services' with (96%). The third highly agreed statement 'Health and social care services contribute to reducing health inequalities' by (94%).

For the neutral and disagreement response the score reduced overall from before-module to after-module survey except the item 'People using health and social care services are free from harm' to which student disagree with (33.4%) in before-module to (16.7%) after-module survey.

Table: 7 Scottish Government's Nine National Health Outcomes Matched Pair



Likewise, the percentage point change (PP) was calculated, and the results obtained are shown in table 8 for the health and social care integration national outcomes matched pair (n=48).

The statement highest PP change (40%) scored by the statement ‘People who use health and social care services have positive experiences of those services, and have their dignity respected’. That was followed by ‘People who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and well-being’ with PP change (35%) and then ‘Health and social care services contribute to reducing health inequalities’ PP change (27%).

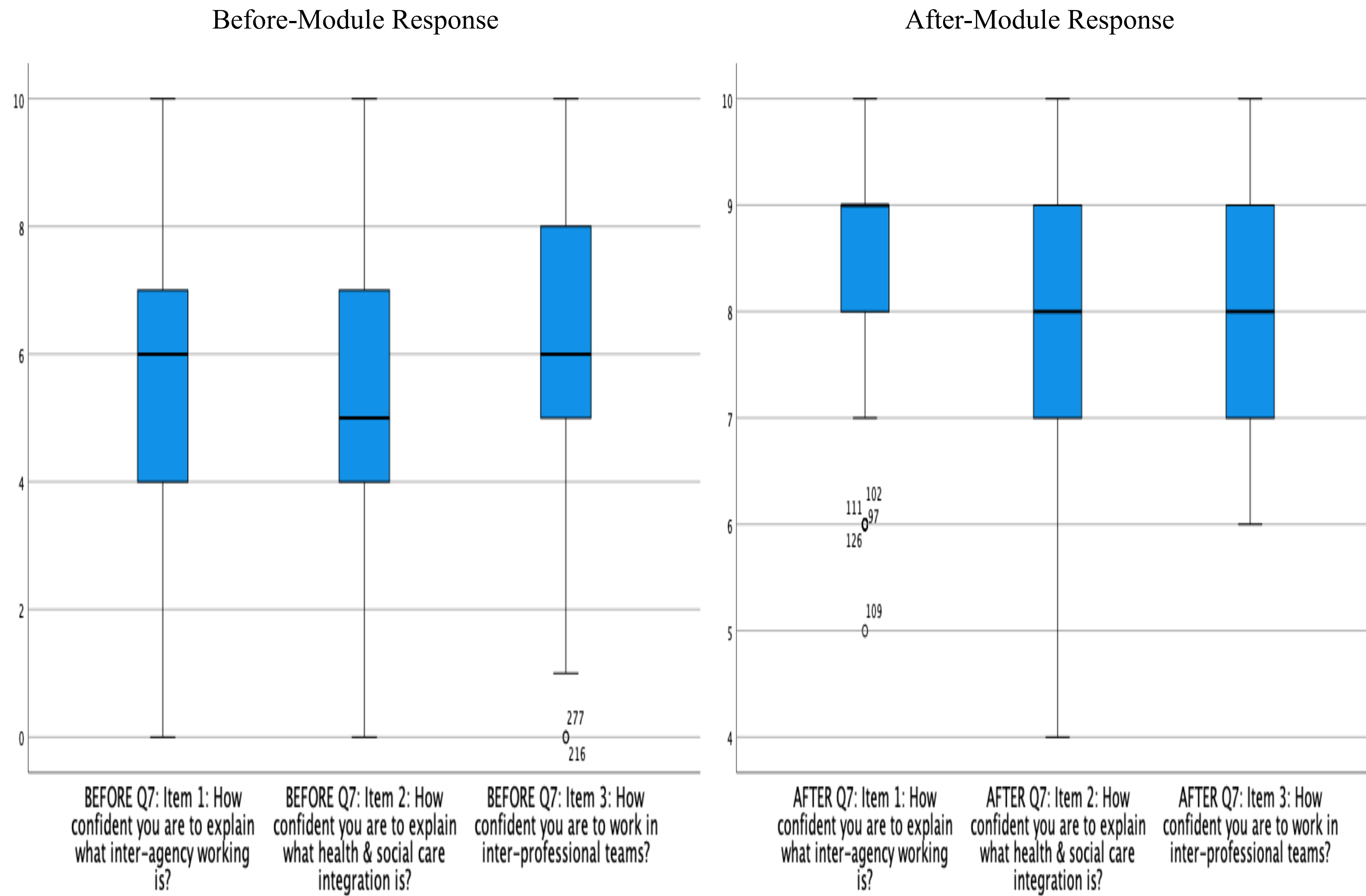
Table: 8 Scottish Government's Nine National Outcomes (PP) Change (n=48)

HCI Items	Before		After		Change PP (Agree)
	Agree	Disagree	Agree	Disagree	
People who use health and social care services have positive experiences of those services, and have their dignity respected.	52%	10.4%	92%	0%	+40%
People who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and well-being.	46%	18.8%	81%	2.1%	+35%
Health and social care services contribute to reducing health inequalities.	67%	6.3%	94%	2.1%	+27%
People are able to look after and improve their own health and wellbeing and live in good health for longer.	67%	6.3%	92%	0%	+25%
People who work in health and social care services feel engaged with the work they do and are supported to continuously improve the information, support, care, and treatment they provide.	50%	8.3%	73%	0%	+23%
People using health and social care services are safe from harm.	29.2%	33.4%	52.1%	16.7%	+22.9%
Resources are used effectively and efficiently in the provision of health and social care services.	54.2%	8.4%	75%	2.1%	+20.8%
People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community.	86%	4.2%	98%	0%	+12%
Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services.	92%	2.1%	96%	0%	+4%

4.4 Student Level of Confidence

Students' confidence on explaining interagency working, health and social care integration, and working with interprofessional teams was analysed on a scale of 0 to 10 and score was noted (Figure 1). The box and whisker plot results of pre-module survey question 7 item 1(interagency working), item 2 (health and social care integration) and item 3 (working with interprofessional teams) shows median 6, 5 and 6. In the post-module survey, the scores increased as compared to the pre-module survey. For item 1 there was 3 units improvement in the score and the median 9, and for item 2 and 3 the median score was 8 and 8 respectively indicating greater success overall. Two outliers can be observed in the Q7 item 3 before-module, and five outliers seen in Q7 item 1 in after-module. When the responses were checked individually in SPSS using case numbers, these outliers found to be genuine outliers so were not removed.

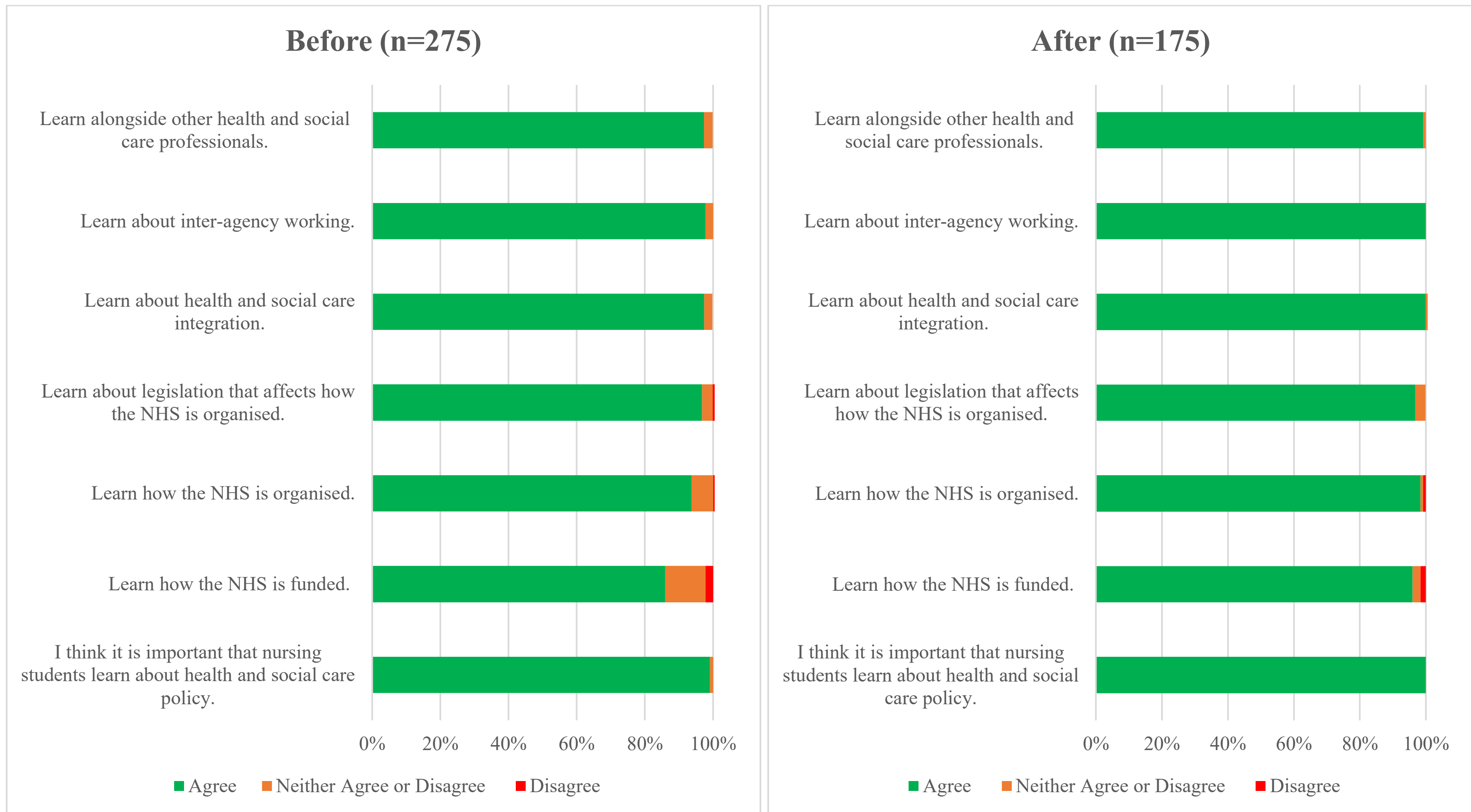
Figure: 1 Box and Whisker Plot (Before and After) Matched Pair



4.5 Nursing Education

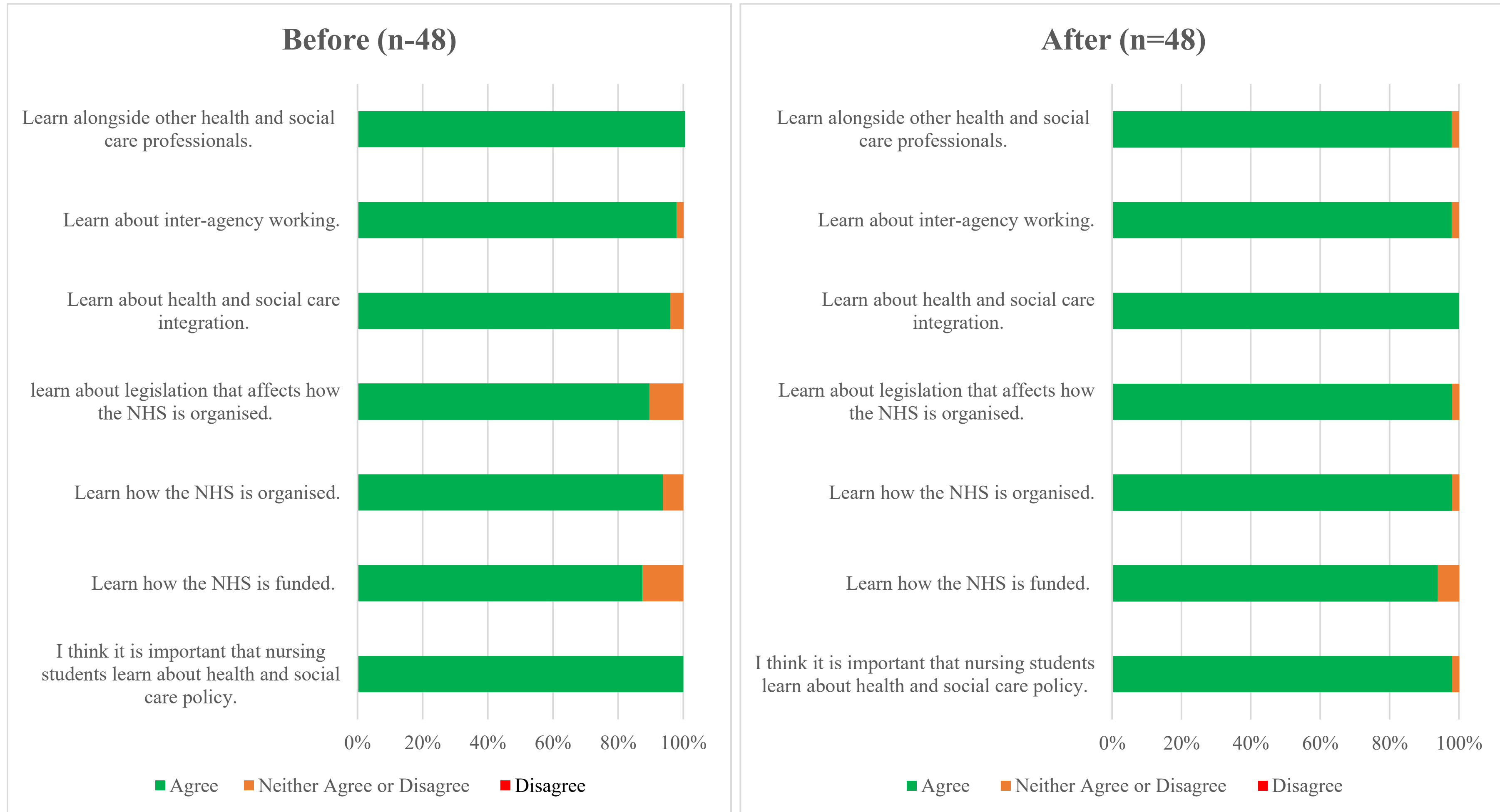
Some stand-alone questions regarding health and social care, interagency working, and National Health Service (NHS) were asked from respondents to check their understanding in relation to learning about the terms, the results were obtained on a 5-point Likert scale. Most of the students agreed with all the statements around the topics, indicating that students had an optimistic attitude (Table 9). The findings of the analysis revealed that only (2%) students disagreed to statement 'I think it is important that nursing student learn how the NHS funded' in both before and after-module survey, and (1%) disagreed 'Learn how the NHS organised' in after module survey. In after-module survey students agreed with all of the statements with (90-100%) showing the great interest and relevance of the concepts with nursing education.

Table: 9 Nursing Education (Before and After)



For the matched pair (n=48), the same questions were calculated (Table 10), and the results revealed that in the before-module survey the respondents agreed with all the statements with scores (80-100%) showing highly positive responses. The score increased to (90-100%) in the after-module showing positive attitudes of the students towards learning these concepts. Most importantly, not a single student disagreed to learning about these concepts. Students rated neither agree or disagree to few items with around (2-12%) which reduced to (2-6%) only after the implementation of the module.

Table: 10 Nursing Education (Matched Pair)



4.6 Paired-Sample T Test

A paired-sample T test was conducted to determine whether difference exist in students attitude between before-and-after implementation of educational intervention drama. ATHCTS overall mean scores of matched pair data set (n=48) was calculated. The results of the test demonstrated that the difference is statistically insignificant at p=0.136. There is not a significance different in the score for before-module (M=3.87, SD=.414) and after-module (M=3.98, SD=.448); t (47)= 1.516, p=.136. That is, there is no significant difference in the impact of interventions on students' attitudes. The reason for this is due to the limited sample size; if the sample size were bigger, a major change would be visible.

Chapter 5- Discussion and Analysis of Findings

This chapter will present the interpretation of the study's findings in a broader context. Overall, the chapter has five parts in total. First part will highlight the significant findings in relation to the study's goals. In second part a comparison of the key findings with the existing literature will be made. In the third part strengths of the study will be presented. Likewise, the limitations will also be examined in the fourth part of discussion. Finally, the implication of current study for nurse education, future research, and practice will be proposed in the last part of the discussion.

5.1 Principal Findings of the Study

The quantitative analysis of the study findings revealed that the drama implementation in the module has increased the students' attitudes towards team working which was assessed to answer research question 1. When the frequency was run in SPSS to check the level of students agreement and disagreement to the scale items from before-module (n=275) to after-module (n=175), the results showed that the two same scale items were highly agreed by students in before-module and in after-module survey with the addition of one different item in each surveys respectively. In before-module the most agreed item was that 'The inter-professional approach improves the quality of care to patients/clients', this was followed by 'Team meetings foster communication among team members from different professions or disciplines' and third highly agreed statement was 'Having to report observations to a team helps team members better understand the work of other health professionals'. In after-module, the item 'Having to report observations to a team helps team members better understand the work of other health professionals' was highly agreed following by 'The interprofessional approach improves the quality of care to patients/clients' and then the third highly agreed item was 'The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients'.

It is worth mentioning there that those students who attended the second session may not necessarily share the same characteristics as those who attended the first session. In fact, these

might be two distinct groups of students attended the session. Therefore, comparison was made with the matched pairs and the finding of the same scale items showed that the item ‘‘Having to report observations to a team helps team members better understand the work of other health professionals’ were highly agreed in both before-and-after module survey, followed by two different scale items in before-module and after-module that is ‘The inter-professional approach improves the quality of care to patients/clients’ and ‘The give and take among team members help them make better patient/client care decisions’ respectively.

When comparing before and after responses in respect to views about interprofessional health care teamwork, a clear difference in Percentage Point (PP) change (n=48) was witnessed (details in findings chapter). The majority of students agreed with the items supporting the use of health-care team working. There was an increase in the agreement rate by (35.4%) PP change for statement ‘Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs’. Participants agreement to ‘Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients’ increased with (29.2%) PP change. Moreover, ‘Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons’ a PP change of (23.3%) was observed after a drama-based educational intervention. Furthermore, the student nurses disagreement level with negative coded statement ‘Working in an inter-professional manner unnecessarily complicates things most of the time’ with (14.2%) PP disagreement which was followed by ‘In most instances, the time required for inter-professional consultations could be better spent in other ways’ with (10.4%) PP change in after-survey was observed. However, the disagreement decreased with (4.1%) PP change for the statement ‘Developing an inter-professional patient/client care plan is excessively time-consuming’ in after-survey.

Similarly, students' knowledge and understanding of health and social care integration was tested using the Scottish Government’s Nine National Health Outcomes to answer research question 2, and the results were found to be positive. When pre-module responds were compared to after-module responses, a clear difference was observed. Though students gave mixed replies in the pre-module, agreeing (40%-60%) with most of the items, but in the after-module, their responses changed to nearly (90%) agreement with the bulk of the statements.

Showing that students' knowledge and understanding levels have improved as a result of the educational intervention. Students' perceived confidence levels were assessed via three independent questions in accordance with study research question 3 and a comparison was done between before and after the module. The median confidence level of students before the programme was 6 on a scale of 10, but it substantially increased to 8 after the module. Students were also interested in learning about inter-agency collaboration, health, and social care integration, and how the NHS operates, and they found it as important and relevant in nursing education for them to work effectively in their careers. Most importantly, students who agreed (100%) that it is vital for nursing students to learn about health and social care policy demonstrated that they see the concepts as being relevant to their nursing careers.

In terms of the impact of pedagogical strategy, the overall findings of the present study show that nursing students' attitudes toward health care team working, HCI, and nursing education around these concepts have considerably changed, and this has a positive impact on their knowledge, understanding, and confidence. As a result, the findings of this study suggest that "drama" could be an acceptable and useful pedagogical strategy in nursing education for pre-registered nursing students.

5.2 Comparison Between Main Findings and Literature

In this section of the discussion, the key findings of the current study are compared to those of previous studies. Each of the key findings will be presented in turn.

5.2.1 Increase in Understanding of Interprofessional Collaboration

The results of the descriptive analysis of the current study revealed that following the implementation of drama as an educational intervention, the participants' attitudes have changed positively. That means, students were able to comprehend the importance of teamwork and the positive effects it has on patients, families, and caregivers. The findings are consistent with a study conducted by Fusco et al. (2020) with health professions students from athletic

training, dental medicine, dietetics, law, management, medicine, nursing, occupational therapy, pharmacy, physical therapy, public health, social work, and faculty members to evaluate the effectiveness of a film to develop the foundational knowledge and skills of health professions students and teach them the importance of interprofessional collaboration (n=1921). The results were recorded using a 5-point Likert scale survey form, which revealed that (96-100%) thought drama was a useful technique to introduce them to the difficult concept of IW and the relevant issues faced by service users. It also allowed students to interact with and understand the viewpoints of a range of professional groups, which helped them work more efficiently. This is going in line with the current study results when the student (n=48) was asked 'The give and take among team members help them make better patient/client care decisions' their response showed (75%) agreement with the statement in before-module survey which increased to (95.7%) in after-module survey with a total of (20.7%) PP change. This shows that students agreed with that through integration amongst team will help them better understand patient/client situations that will ultimately help in decision making. Thus, drama improves students' awareness of interprofessional collaboration and teamwork.

5.2.2 Increase in Perceived Confidence

According to the quantitative data analysis in current study the participants' perceptions of learning about health and social care integration through drama embedded modules increased their confidence explaining the terms inter-agency working, health and social care integration, and their confidence working with inter-professional teams. When the students were asked how confident you are to explain what inter-agency working, health and social care integration is and how confident you are to work with interprofessional teams? The before-and-after score were calculated and found the increase in the median score from 6, 5 and 6 in before-survey to 9, 8 and 8 respectively in after-survey. This finding is consistent with Lewis et al., (2013), who used a mixed method approach to examine nursing students' confidence levels before and after a session in which role-plays were used to give effective communication skills training. A total of 520 first-year nursing students took part in a two-hour drama-based simulation event. Amongst them 82 students were able to participate in the role play, with another 196 observed the play and provided feedback. Both participating students and observers had a considerable boost in post-session confidence levels, according to the study. Students' pre-session

confidence levels (median=6) were lower than post-session confidence levels (median=8), implying that role-play participants and observers benefited from the instructional session. Role-playing is also an effective technique of teaching students nurses a communication skill that will help them in the real world the study suggests.

5.2.3 Dramatic Approach-Study Methodology

The study was conducted in a way that drama was created at Edinburgh Napier University School of Health and Social Care. Aiming to help nursing students increase their understanding, knowledge, and involvement in social sciences through a collaborative approach in real-world practise concentrating on health and social care integration. It was based on a real experience of a person who depicted a disjointed health-care system. In conjunction with a charity foundation, the students created drama, *Mad, Bad, Invisible*. Another play *Cracks* was created by the same students in coordination with staff members. Both plays were performed in front of an audience and recorded, followed by a debate on HCI. MBI and Cracks were later incorporated into the health and social care curriculum to demonstrate an innovative method to teaching students about a demanding issue. This dramatic approach had a significant impact on students' understanding of interagency collaboration, terminology used within the subject, and explaining the concepts when applied as an intervention in the current study. In an after-module survey, student nurses who participated in the current study agreed the most with the Sottish Government's Nine 9 National Health and Social Care Integration outcomes. In the current study, overall, the participants expressed a high level of agreement more than 90% with majority of the outcomes in after-survey which was around (60%-80%) in before-survey. This finding is comparable to that of Balen et al. (2010), who evaluated the process and implications of an interdisciplinary workshop (embedded drama) with content concentrating on mental health employing service user narratives and collaboration with other professional groups. The study included (n=100) undergraduate students from social work, mental health nursing, adult health nursing, midwifery, and occupational therapy. Three multidisciplinary workshops concentrating on mental health and based on service user experience (film/drama/monologue) were organised. Drama was used as a method, with a performer who are or have been mental health service users acting out several scenarios involving a woman with depression, with a

variety of responses from family, friends, and the workplace. Following that, an interactive debate was held in which the benefits and drawbacks of the various responses were discussed. Audience feedback was encouraged and discussed during the play. According to the study's findings, more than half of the respondents rated the activity a 10/10, while the remaining (30%) rated it 8 or 9 out of 10. The qualitative finding emphasises students' understanding of the concepts, as evidenced by their development of thinking regarding mental health, engagement with service consumers, and effective interprofessional connectivity. Another phenomenopraphic study by Ljunggren et al., (2021a) integrated theatre with a focus on professional communication in nursing education. The study included a total of 15 nursing students, and the data was analysed using a phenomenographic approach. Phenomenography is a means of determining how knowledge about other people's perceptions of the world might be acquired. The findings demonstrated that using drama as an educational tool in nursing education can help nursing students better understand professional communication in relation to patient care in a variety of settings. It aids in the development of their professional identity and role. Most importantly, it improves theoretical comprehension through authentic way such as viewing and discussing a drama by building a real-world connection.

5.3 Strength of the Study

This is the first study of its nature where drama as an intervention was used to assess pre-registered nursing students' attitudes about interprofessional teamwork. Based on the increased improvement in student understanding the nurse educators and policymakers should establish similar curricular content and pedagogical tools to promote students' learning and involvement around health and social care integration. The study's sample population of 2nd BN and 2nd year pre-registered MN students is another strength. The drama-based strategy as an interventional method in nursing education was used previously in other study (Lundén et al., 2017) but the difference with the current study is the participant are pre-registration student nurses whereas in the previous study participants were post-graduate nursing students. Therefore, the study populations make it unique in itself. The existing literature has suggested drama as a useful learning medium for promoting teamwork, collaboration, deeper engagement, and exposure to various communication strategies, but the current study has

presented a broader picture of pre-registered student nurses' perspectives on the phenomenon under investigation. Other studies have looked into the impact of drama on student learning such as skills training, managing numerous long-term illnesses, cultural and social aspects of violence against women, and conflict management on student learning (Arveklev et al., 2018a; Backman et al., 2018; Solano-Ruiz et al., 2021a). However, there are lack of literature using drama to explore concepts of health and social care integration. As a result, the researcher feels that the study's focus on health and social care integration distinguishes it as a unique study that can help nursing educators support students' learning and engagement around the topic.

5.4 Limitation of the Study

There are, however, certain limitations to the current study. First, 342 students were in the class on the day before-module survey was distributed making response rate (80.2%). Student participated in the study with greater numbers in before-module survey, however, the number reduced in after-module survey because of the low attendance rate (62.9%) that have impacted the response rate of the students in after-module survey. Also, it was not the same group of students who participated in the second (after) survey. Therefore, results that are suggestive rather than conclusive should be published with caution. The low response rate could be attributed to students' irregular attendance in higher education, which is a prominent issue in the United Kingdom (Lipscomb & Snelling, 2010). Several studies have found that teaching issues, students' involvement in part-time employment, assessment demands, poor quality and inconvenient lecture timing are some of the argued drivers of university attendance in the UK (Moores et al., 2019; Newman-Ford et al., 2009; Paisey & Paisey, 2004). Failure in the programmes or students on sick leaves could be other reasons. Due to differences in the before and after-module response rates, the current study's analysis was conducted in two stages: in the first stage for before module (n=275) and after module (n=175), and then in the second stage for the matched pair before and after (n=48). Because the participants in the matched pair took part in both surveys, the analysis completed for matched pairs would be considered conclusive, although limited by the small sample size.

Second, the study only included students from one university, limiting its generalizability.

More comparative research including different universities is needed to acquire a broader view on health and social care integration/interagency functioning from health and social care students. Third, because the exact number of students in class for the module (after-survey) is unknown, the number of people enrolled in a module varies as people quit programmes and so making response rate indicative. Alongside the entire demographic variables for the post-questionnaire were not obtained to reduce respondent burden and questionnaire length. Another significant concern was the drop-off in students attendance, and the fact that different groups of students attended the before and after sessions. As a result, obtaining the post-module sample characteristics that would have allowed participants to be matched by socio-demographic variables when comparing before and after questionnaires was difficult for the researcher. The only complete defined sample characteristics information obtained was for the matched pair (n=48). Fourth, the study's generalizability is limited due to the small sample size employed for primary data collection, which included those who completed both the before-and-after questionnaires. There could be a variety of reasons for this. One reason could be a student's hectic schedule with classes; as a result, they may have been hesitant to engage in the study and also their level of interest in the topic has an impact on the students participation.

Fifth, the review only included a small number of studies. The possible reason for this is that the topic has not been thoroughly researched in nursing education before, as seen by the critical literature search, hence two reviews were included in the literature review. The primary goal of the study was to look at the impact of drama in nursing education on HCI/IW. Beyond the three primary studies, no other primary studies on the topic could be found. Finally, the use of a ATHCTS (Wong et al., 2018) whose validity for the current study participant is debatable. The instrument was created (Heineman et al., 1999) to examine professionals' views regarding a team approach to management. It was later adapted for undergraduate students (Curran et al., 2008). However, the tool's validity for pre-registered student nurses is still unclear, and because of un-availability of other reliable scale this was utilised for the current study.

5.5 Implications of the Study

Despite these limitations, the study's findings have certain implications for nursing education, research, and practice.

Implication for Nursing Education

To support learner-centered curriculum and equip student nurses to work in today's challenging health care environments, updated teaching and learning methodologies are required. While traditional lectures are still frequently employed in nursing education, novel techniques are needed to foster discussion, dialogue, and reflective thinking, all of which are skills that facilitate long-term learning. When Edinburgh Napier University offered the module 'Effective Interagency Working in Health and Social Care' to pre-registered student nurses. The students struggled to understand the concept, which was reflected in their grades at the end of the course. On the other hand, when drama was embedded in their curriculum, it aids them in grasping knowledge and its relevance to their careers, as evidenced by their better success rate in the course. This showed that drama-based learning is a unique technique that has the capacity to engage students, develop understanding of diverse viewpoints on inter-agency collaboration, and integrate emotional and cognitive learning domains at the same time. Is therefore anticipated that all those who participate in this type of module would gain a greater understanding of how drama-based learning can be applied in their own practise. Because the creative approach motivates students to apply what they have learned in the classroom to real-world situations. These findings should be emphasised by the nursing educational policymakers, who should incorporate learning strategies that help nurses embrace the effect of their role as a nurse while practicing interagency working. It can be useful involving more students in the drama creation, performance, and debate with different roles like patient, family, or care giver, so that they can experience the associated responsibilities and reflect on their

own judgement.

Implication for Nursing Research

Drama in education can help students focus on key concepts while also stimulating their curiosity. In the future, it would be beneficial to use the findings of this dissertation to further research in order to have a better understanding of what students appreciated best about the technique. The results of the current study revealed that after-module scores for agreement with inter-agency collaboration were higher than before-module scores. This could imply that students value learning and believe it is crucial to their nursing profession. A mixed method study in the future could be useful in learning more about their feelings. Also, the other fascinating thing to see in further study is how students familiarise to drama in nursing school if drama were to be a required and recurring activity throughout their study. For instance, when modules are created to align with the course objectives, students gain more independence in their own learning. Giving students time to reflect on their own learning, course of action during performing plays will also boost their interest in the subject. Therefore, it is necessary to find ways such as doing live performance, watching recorded play, or a debate around a play by highlighting the positive and negative aspect. If students learn about drama as part of their curriculum, they may feel more ready to participate enthusiastically in the play activities. Another concern that might be pointed out here is the idea of designing dramatic classes to help students understand the need of emerging this capacity which will help them to become critical thinkers and reflective practitioners, and therefore prepared to handle potential difficult nursing scenarios. Finally, in a broader sense, it would be interesting to see in the research if drama can be used in collaborative projects with students from various health-care sectors to foster interprofessional collaboration and health and social care integration. Also, this will help them to clarity their pre-occupied minds about each other professions in order to work as a one team in the care setting. That will ultimately increase patient satisfaction and positive health outcomes.

Implication for Nursing Practice

In terms of nursing practise, dramatic approach gives a safer space for students to reflect deeply

on their own and others' experiences, as opposed to a stressful and high-pressure situation like clinical settings. Viewing dramatic depictions of multiple roles of nurses by pre-registered student nurses in a classroom supports a high degree of understanding. When participants are asked to play a role, there is a chance they will get it wrong, but dramatic interpretations of nursing scenarios offer a safe environment to get it right without endangering anyone in the care setting. Students will be able to view a range of situations, connect with the portrayed patients, and comprehend the behaviours and emotions of those they have observed in the past. The dramatic scenarios assist students in preparing for their duties as professional nurses, and it is thought that the students will be able to get inter-agency working education that is difficult to convey in theory-based classes. As a result, it would be strongly advised to reintroduce this creative, student-led approach to nursing curricula, not just for interprofessional education, as the current study suggests, but also to improve student nurses' overall practise.

Chapter 6- Conclusion and Recommendations

6.1 Conclusion

This study looked at the impact of drama-based teaching on health and social care integration/inter-agency collaboration among Edinburgh Napier University pre-registered nursing students. The lack of prior studies evaluating students' experiences using drama-led creative educational approaches around inter-agency working landscape was the most startling finding. Other subjects in nursing education have been taught using a dramatic format, but not the integration of health and social care. Thus, showing that, this creative technique is quite new in the field of nursing education which was assessed via quantitative way in the current study. Drama was included as an authentic learning approach in the module that was offered to BN and MN programmes for the purpose of intervention. The study's findings reveal that students were taught about health and social care integration in a dramatic way helped them understand the concept, as evidenced by the findings. The analysis shown that authentic learning improved student nurses' attitudes regarding working in a health-care team, as evidenced by greater sored of agreement on ATHCTS (Wong et al., 2018) scale items. The study also found that authentic drama-based learning improved student nurses' knowledge and understanding of health and social care integration, as shown by higher scores on the Scottish Government's Nine National Outcomes. Furthermore, the increased in the score for participants' confidence levels, indicating that the drama-based programme was a huge success. The main message of the study is that this student-led dramatic method can be used as an evidence-based educational strategy for pre-registered nursing students in the future. It will also assist in the development of new guidelines for educators in the sector in order to improve student engagement with such complex concepts.

To summarise, this pedagogical method must be included in the educational curriculum of pre-registration student nurses in order for them to grasp the need of interagency collaboration and get assistance in doing so. The findings of this study give a foundation for nurse educators to build a course and provide information by emphasising the importance of health and social care integration in care delivery. This promising pedagogical approach should be used in the

curricula of pre-registration nursing students in the future as this is the authentic way of learning and is critical in bridging the gap between traditional knowledge acquisition via books and classrooms and practical application of that knowledge.

6.2 Recommendations for Further Research

Few of the study's recommendations are listed below for additional research.
First, the findings of this study highlight the need for more investigation. It would be excellent to acquire the results of the same study with a larger sample size and randomization of the sample, which would boost the generalizability of the findings. Second, confounder could be correlated to future study, such as complete socioeconomic status or lived experiences of the participants, as this could influence students' knowledge of the topic at hand. For example, if a student has experienced a scenario involving unequal or disintegrated care for self or family members, he/she may evaluate the module differently than those who have not. Third, more research with a bigger population from other nursing institutions that incorporate undergraduate nursing education should be considered. This will aid in not only drawing more thorough conclusions, but also providing insight into a wider spectrum of educational techniques and allowing comparisons to be made. Fourth, in order to acquire a more in-depth understanding of students' comprehension of the survey form, their responses/statements in the forms, a pilot study with a small sample size should be performed beforehand to main research in order to determine students' understanding of the questionnaire items. In addition, a set of questions could be used to reflect on the module and to elicit student nurses' opinions on which instructional approaches being a performer in the play or observer they believe would be more effective in gaining a strong knowledge.

Fifth, in the future, a randomised controlled trial might be conducted to examine the findings of drama's impact on students' comprehension of health and social care integration and their participation with health care teams and make a clear comparison between the groups. Sixth, the concept of interprofessional health care teamwork and health and social care integration is a complicated subject that is unlikely to be truly understood by pre-registration student nurses

who have yet to engage in multi-professional teams in the field. Additionally, having a single group of students' study alone and address the issue of disintegrated care or interprofessional team working may be impracticable. As a result, it is advised that other healthcare professionals, such as dieticians, physiotherapists, and social worker students, examine the integration of these principles together. This could let students interact with individuals from diverse professional background on a one-on-one basis and help them learn in a realistic manner.

References

Adamson, K., Ashcroft, R., Langlois, S., & Lising, D. (2020). Integrating social work into interprofessional education: A review of one university's curriculum to prepare students for collaborative practice in healthcare. In *Advances in Social Work* (Vol. 20, Issue 2, pp. 454–472). Indiana University School of Social Work. https://doi.org/10.18060/23602

ALBalushi, L. D. (2020a). *The Attitudes of Pre-registration Nursing Students toward the Teamwork and Collaboration in Inter-professional Classroom Learning Context*. www.opastonline.com

ALBalushi, L. D. (2020b). *The Attitudes of Pre-registration Nursing Students toward the Teamwork and Collaboration in Inter-professional Classroom Learning Context*. www.opastonline.com

Almalki, S. (2016). Integrating Quantitative and Qualitative Data in Mixed Methods Research—Challenges and Benefits. *Journal of Education and Learning*, *5*(3), 288. https://doi.org/10.5539/jel.v5n3p288

Arveklev, S. H., Berg, L., Wigert, H., Morrison-Helme, M., & Lepp, M. (2018a). Nursing students experiences of learning about nursing through drama. *Nurse Education in Practice*, *28*, 60–65. https://doi.org/10.1016/j.nepr.2017.09.007

Arveklev, S. H., Berg, L., Wigert, H., Morrison-Helme, M., & Lepp, M. (2018b). Learning about conflict and conflict management through drama in nursing education. *Journal of Nursing Education*, *57*(4), 209–216. https://doi.org/10.3928/01484834-20180322-04

Arveklev, S. H., Wigert, H., Berg, L., Burton, B., & Lepp, M. (2015). The use and application of drama in nursing education - An integrative review of the literature. In *Nurse Education Today* (Vol. 35, Issue 7, pp. e12–e17). Churchill Livingstone. https://doi.org/10.1016/j.nedt.2015.02.025

Babiker, A., El Husseini, M., Al Nemri, A., Al Frayh, A., Al Juryyan, N., Faki, M. O., Assiri, A., Al Saadi, M., Shaikh, F., Al Zamil, F., Husseini, E. M., Nemri, A. A., Frayh, A. A., Juryyan, A. N., Saadi, A. M., & Zamil, A. F. (2014). Health care professional development: Working as a team to improve patient care. In *S* (Vol. 14, Issue 2). http://www.sudanjp.org

Backman, C., Stacey, D., Crick, M., Cho-Young, D., & Marck, P. B. (2018). Use of participatory visual narrative methods to explore older adults' experiences of managing multiple chronic conditions during care transitions. *BMC Health Services Research*, *18*(1). https://doi.org/10.1186/s12913-018-3292-6

Baethge, C., Goldbeck-Wood, S., & Mertens, S. (2019). SANRA—a scale for the quality assessment of narrative review articles. *Research Integrity and Peer Review*, *4*(1).

https://doi.org/10.1186/s41073-019-0064-8

Balen, R., Christine, R., & Lisa, W. (2010). The power of stories: Using narrative for interdisciplinary learning in health and social care. *Social Work Education*, *29*(4), 416–426. https://doi.org/10.1080/02615470902991742

Baxter, S., Johnson, M., Chambers, D., Sutton, A., Goyder, E., & Booth, A. (2018). The effects of integrated care: A systematic review of UK and international evidence. *BMC Health Services Research*, *18*(1). https://doi.org/10.1186/s12913-018-3161-3

Bennett L, & Humphries R. (2013). *Making best use of the Better Care Fund: Spending to save?*

Bridges, D. R., Davidson, R. A., Odegard, P. S., Maki, I. V., & Tomkowiak, J. (2011). Interprofessional collaboration: Three best practice models of interprofessional education. *Medical Education Online*, *16*(1), 1–10. https://doi.org/10.3402/meo.v16i0.6035

Chamberlain-Salaun, J., Mills, J., & Usher, K. (2013). Terminology used to describe health care teams: An integrative review of the literature. In *Journal of Multidisciplinary Healthcare* (Vol. 6, pp. 65–74). https://doi.org/10.2147/JMDH.S40676

Coulter, A., Roberts, S., & Dixon, A. (2013). *Delivering better services for people with long-term conditions Building the house of care*.

Craddock, D., Q'Halloran, C., Borthwick. Alan, & McPherson, K. (2006). *Interprofessional education in health and social care fashion or informed practice*.

Creative Inc, M., & Design, C. (2010). *Framework for Action on Interprofessional Education & Collaborative Practice Health Professions Networks Nursing & Midwifery Human Resources for Health*. http://www.who.int/hrh/nursing_midwifery/en/

Crocker, H., Kelly, L., Kelly, L., Harlock, J., Fitzpatrick, R., & Peters, M. (2020). Measuring the benefits of the integration of health and social care: Qualitative interviews with professional stakeholders and patient representatives. *BMC Health Services Research*, *20*(1). https://doi.org/10.1186/s12913-020-05374-4

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*. https://doi.org/10.1186/1471-2288-11-100

Dingwall, L., Fenton, J., Kelly, T. B., & Lee, J. (2017). Sliding doors: Did drama-based inter-professional education improve the tensions round person-centred nursing and social care delivery for people with dementia: A mixed method exploratory study. *Nurse Education Today*, *51*, 1–7. https://doi.org/10.1016/j.nedt.2016.12.008

El-Awaisi, A., Anderson, E., Barr, H., Wilby, K. J., Wilbur, K., & Bainbridge, L. (2016). Important steps for introducing interprofessional education into health professional education. *Journal of Taibah University Medical Sciences*, *11*(6), 546–551.

https://doi.org/10.1016/j.jtumed.2016.09.004

Fawaz, M. A., Hamdan-Mansour, A. M., & Tassi, A. (2018). Challenges facing nursing education in the advanced healthcare environment. In *International Journal of Africa Nursing Sciences* (Vol. 9, pp. 105–110). Elsevier Ltd. https://doi.org/10.1016/j.ijans.2018.10.005

Flores-Sandoval, C., Sibbald, S., Ryan, B. L., & Orange, J. B. (2021). Healthcare teams and patient-related terminology: a review of concepts and uses. In *Scandinavian Journal of Caring Sciences* (Vol. 35, Issue 1, pp. 55–66). Blackwell Publishing Ltd. https://doi.org/10.1111/scs.12843

Fusco, N. M., Elze, D. E., Antonson, D. E., Jacobsen, L. J., Lyons, A. G., Symons, A. B., & Ohtake, P. J. (2020). Creating a film to teach health professions students the importance of interprofessional collaboration. *American Journal of Pharmaceutical Education*, *84*(4), 507–513. https://doi.org/10.5688/ajpe7638

Gilligan, C., Outram, S., & Levett-Jones, T. (2014). Recommendations from recent graduates in medicine, nursing and pharmacy on improving interprofessional education in university programs: A qualitative study. *BMC Medical Education*, *14*(1). https://doi.org/10.1186/1472-6920-14-52

Glen, S., & Reeves, S. (2004). Developing interprofessional education in the pre-registration curricula: Mission impossible? *Nurse Education in Practice*, *4*(1), 45–52. https://doi.org/10.1016/S1471-5953(03)00019-2

Gordon, M. A., Lasater, K., Brunett, P., & Dieckmann, N. F. (2015). Interprofessional Education: Finding a Place to Start. *Nurse Educator*, *40*(5), 249–253. https://doi.org/10.1097/NNE.0000000000000164

Hendry, A., Thompson, M., Knight, P., McCallum, E., Taylor, A., Rainey, H., & Strong, A. (2021). Health and social care reform in Scotland – What next? *International Journal of Integrated Care*, *21*(S2), 1–14. https://doi.org/10.5334/ijic.5633

Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M. P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M. C., Vedel, I., & Pluye, P. (2018). The Mixed Methods Appraisal Tool (MMAT) version 2018 for information professionals and researchers. *Education for Information*, *34*(4), 285–291. https://doi.org/10.3233/EFI-180221

Humphries, R. (2015). Integrated health and social care in England - Progress and prospects. *Health Policy*, *119*(7), 856–859. https://doi.org/10.1016/j.healthpol.2015.04.010

Illingworth, P., & Chelvanayagam, S. (2017). The benefits of interprofessional education 10 years on. *British Journal of Nursing*, *26*(14), 813–818. https://doi.org/10.12968/bjon.2017.26.14.813

Jefferies, D., Glew, P., Karhani, Z., McNally, S., & Ramjan, L. M. (2021). The educational benefits of drama in nursing education: A critical literature review. In *Nurse Education*

Today (Vol. 98). Churchill Livingstone. https://doi.org/10.1016/j.nedt.2020.104669

Joint Commission International. (2018). *Communicating Clearly and Effectively to Patients How to Overcome Common Communication Challenges in Health Care*. 11. www.jointcommissioninternational.org

Joynes, V. C. T. (2018). Defining and understanding the relationship between professional identity and interprofessional responsibility: implications for educating health and social care students. *Advances in Health Sciences Education*, *23*(1), 133–149. https://doi.org/10.1007/s10459-017-9778-x

Kim, K., & Ko, J. (2014). Attitudes toward interprofessional health care teams scale: A confirmatory factor analysis. *Journal of Interprofessional Care*, *28*(2), 149–154. https://doi.org/10.3109/13561820.2013.857645

Kyle, R. G., & Atherton, I. M. (2016). Biogeography as critical nursing pedagogy: Breathing life into nurse education. *Nurse Education in Practice*, *20*, 76–79. https://doi.org/10.1016/j.nepr.2016.07.006

Lewis, D., O'Boyle-Duggan, M., Chapman, J., Dee, P., Sellner, K., & Gorman, S. (2013). *"Putting Words into Action" project: using role play in skills training*.

Lipscomb, M., & Snelling, P. C. (2010). Student nurse absenteeism in higher education: An argument against enforced attendance. *Nurse Education Today*, *30*(6), 573–578. https://doi.org/10.1016/j.nedt.2009.12.003

Ljunggren, C., Carlson, E., & Isma, G. E. (2021a). Drama with a focus on professional communication – A phenomenographic study. *Nurse Education in Practice*, *52*(February). https://doi.org/10.1016/j.nepr.2021.103022

Ljunggren, C., Carlson, E., & Isma, G. E. (2021b). Drama with a focus on professional communication – A phenomenographic study. *Nurse Education in Practice*, *52*. https://doi.org/10.1016/j.nepr.2021.103022

Lundén, M., Lundgren, S. M., Morrison-Helme, M., & Lepp, M. (2017). Professional development for radiographers and post graduate nurses in radiological interventions: Building teamwork and collaboration through drama. *Radiography*, *23*(4), 330–336. https://doi.org/10.1016/j.radi.2017.06.005

McNair, R. P. (2005). The case for educating health care students in professionalism as the core content of interprofessional education. *Medical Education*, *39*(5), 456–464. https://doi.org/10.1111/j.1365-2929.2005.02116.x

Mole, L., Scarlett, V., Campbell, M., & Themessl-Huber, M. (2006). Using a simulated chaotic home environment for preparing nursing and social work students for interdisciplinary care delivery in a Scottish context. *Journal of Interprofessional Care*, *20*(5), 561–563. https://doi.org/10.1080/13561820600909837

Moores, E., Birdi, G. K., & Higson, H. E. (2019). Determinants of university students' attendance. In *Educational Research* (Vol. 61, Issue 4, pp. 371–387). Routledge.

https://doi.org/10.1080/00131881.2019.1660587

Morley, L., & Cashell, A. (2017). Collaboration in Health Care. *Journal of Medical Imaging and Radiation Sciences*, *48*(2), 207–216. https://doi.org/10.1016/j.jmir.2017.02.071

Mulisa, F. (2021). When Does a Researcher Choose a Quantitative, Qualitative, or Mixed Research Approach? *Interchange*. https://doi.org/10.1007/s10780-021-09447-z

Newman-Ford, L., Lloyd, S., & Thomas, S. (2009). *absentism from school in UK*.

NMC. (2010). *Standards for Pre-registration nursing education 2010*.

Ocarroll, V., McSwiggan, L., & Campbell, M. (2016). Health and social care professionals attitudes to interprofessional working and interprofessional education: A literature review. *Journal of Interprofessional Care*, *30*(1), 42–49. https://doi.org/10.3109/13561820.2015.1051614

Padilha, J. M., Machado, P. P., Ribeiro, A., Ramos, J., & Costa, P. (2019). Clinical virtual simulation in nursing education: Randomized controlled trial. *Journal of Medical Internet Research*, *21*(3). https://doi.org/10.2196/11529

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *The BMJ*, *372*. https://doi.org/10.1136/bmj.n71

Paisey, C., & Paisey, N. J. (2004). Student attendance in an accounting module–reasons for non-attendance and the effect on academic performance at a scottish university. *Accounting Education*, *13*, 39–53. https://doi.org/10.1080/0963928042000310788

Palese, A., Gonella, S., Brugnolli, A., Mansutti, I., Saiani, L., Terzoni, S., Destrebecq, A., Zannini, L., Grassetti, L., & Dimonte, V. (2019). Nursing students' interprofessional educational experiences in the clinical context: Findings from an Italian cross-sectional study. *BMJ Open*, *9*(3). https://doi.org/10.1136/bmjopen-2018-025575

Pearson, C., & Watson, N. (2018). Implementing health and social care integration in Scotland: Renegotiating new partnerships in changing cultures of care. *Health and Social Care in the Community*, *26*(3), e396–e403. https://doi.org/10.1111/hsc.12537

Peters, M., Godfrey, C. M., Khalil, H., & Mcinerney, P. (2017). *Wound care View project Caring for parents following stillbirth View project*. https://reviewersmanual.joannabriggs.org/

Pham, M. T., Rajić, A., Greig, J. D., Sargeant, J. M., Papadopoulos, A., & Mcewen, S. A. (2014). A scoping review of scoping reviews: Advancing the approach and enhancing the consistency. *Research Synthesis Methods*, *5*(4), 371–385.

https://doi.org/10.1002/jrsm.1123

Robson, L. S., Shannon, H. S., Goldenhar, L. M., & Hale, A. R. (2001). *Guide to Evaluating the Effectiveness of Strategies for Preventing Work Injuries: How to Show Whether a Safety Intervention Really Works*. www.iwh.on.ca

Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018a). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *American Psychologist*, *73*(4), 433–450. https://doi.org/10.1037/amp0000298

Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018b). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *American Psychologist*, *73*(4), 433–450. https://doi.org/10.1037/amp0000298

Samuriwo, R., Laws, E., Webb, K., & Bullock, A. (2020). "I didn't realise they had such a key role." Impact of medical education curriculum change on medical student interactions with nurses: a qualitative exploratory study of student perceptions. *Advances in Health Sciences Education*, *25*(1), 75–93. https://doi.org/10.1007/s10459-019-09906-4

Schot, E., Tummers, L., & Noordegraaf, M. (2020). Working on working together. A systematic review on how healthcare professionals contribute to interprofessional collaboration. *Journal of Interprofessional Care*, *34*(3), 332–342. https://doi.org/10.1080/13561820.2019.1636007

Scotland, A. (2015). *Health and social care integration*. www.audit-scotland.gov.uk/about/ags

Shokrvash, B., Saeid, A., Saeieh, S. E., Khasti, M. Y., & Salehi, L. (2019). A psychometric property of the attitudes toward health care teamwork scale among university students. *Shiraz E Medical Journal*, *20*(2). https://doi.org/10.5812/semj.69726

Solano-Ruiz, Mc. C., Andina-Díaz, E., Noreña-Peña, A. L., & Siles-González, J. (2021a). Photovoice and dramatisation in the classroom with nursing students: An exploratory study to raise awareness of the cultural and social dimensions of violence against women. *Nurse Education Today*, *103*. https://doi.org/10.1016/j.nedt.2021.104974

Solano-Ruiz, Mc. C., Andina-Díaz, E., Noreña-Peña, A. L., & Siles-González, J. (2021b). Photovoice and dramatisation in the classroom with nursing students: An exploratory study to raise awareness of the cultural and social dimensions of violence against women. *Nurse Education Today*, *103*. https://doi.org/10.1016/j.nedt.2021.104974

Suh, E. E., Ahn, J., Kang, J., & Seok, Y. (2021). The development and application of drama-combined nursing educational content for cancer care. *International Journal of Environmental Research and Public Health*, *18*(18).

https://doi.org/10.3390/ijerph18189891

The NHS Long Term Plan. (2019). www.longtermplan.nhs.uk

van Diggele, C., Roberts, C., Burgess, A., & Mellis, C. (2020). Interprofessional education: tips for design and implementation. In *BMC Medical Education* (Vol. 20). BioMed Central Ltd. https://doi.org/10.1186/s12909-020-02286-z

Wong, P. S., Hasan, S. S., Ooi, J., Lawrence, S. H. L., & Nadarajah, V. D. (2018). Assessment of attitudes for interprofessional team working and knowledge of health professions competencies for final year health professional students. *The Asia Pacific Scholar*, *3*(1), 27–37. https://doi.org/10.29060/TAPS.2018-3-1/OA1064

Zwarenstein, M., Goldman, J., & Reeves, S. (2009). Interprofessional collaboration: Effects of practice-based interventions on professional practice and healthcare outcomes. In *Cochrane Database of Systematic Reviews* (Issue 3). John Wiley and Sons Ltd. https://doi.org/10.1002/14651858.CD000072.pub2

Appendices

Appendix 1: Record of Supervisory Meeting

Meetings Date	Duration	Points for Discussion	Action Points	Agreed Timeframes	Next Meeting Date and Time
25 June 2021	01hour	General discussion around the topic, aim, data collection and further information.	To understand the topic, reason behind selecting this theme. To go through the documents including ethic approval, survey forms etc.	One week	04 August, 09:00am-10:00am
18 August 2021	2.5 hours	Understanding of survey forms and drama implementation in the module.	Looking for scales used in the study. Data bases access.	0ne week	17 August, At Sighthill campus university.
20 August 2021	1.2 hours	Explanation on Before and After data, looking for literature review,	Pre-reading advised, Module access provision, Reading from module,	Two weeks	15 September, 0230-0330pm
15 September 2021	01hour	Literature review, in-depth discussion on survey forms,	Understanding SPSS, Data entry,	0ne week	21 September, 0900am at campus
21 September, 2021	7 hours (on campus)	Data bases access, (before-survey) Data entry in SPSS,	Before-module data entry, literature review search,	Three weeks	03 October, 0900-1400hrs
03 October, 2021	05 hours (on campus)	Data bases access (after-survey)	After-module data entry into SPSS,	1.5 weeks	14 October, 1400-1530hrs

		Data entry in SPSS,			
14 October, 2021	1.5hours	Literature review	Exploring type of review, Considering scoping review for present study,	02 weeks	01 November, 1230-1330pm
01 November, 2021	01 hour	Feedback on literature review draft, Points discussed related to research question, search engine, inclusion and exclusion criteria, critical appraisal tools utilization,	Amendments in reporting findings of review, overall organizing review, Literature review write up discussion, (Chapter 2)	02 weeks	15 November 1300-1400hrs
15 November, 2021	01 hour	Feedback on literature review, use of appropriate terminology throughout the project, discussion on relationship between existing review and present review,	Reading from recommended book, online links for reading from further studies, Understanding SPSS, Feedback on chapter 3	08 days	23 November 1300-1400hrs
23 November 2021	02hours	Data compilation by merging (before and after)	Exercising some statistical tests, Write up for analysis section,	08 days	01 December 0900-1000hrs
01 December 2021	01hour	Analysis plan Categories to write-up report,	Descriptive analysis, Calculating overall scales,	02 weeks	14 December 1000-1100hrs
14 December 2021	01 hour	Discussion on sample characteristics, Logical sequencing of analysis reporting,	Reporting of Likert scale, Feedback on chapter 4	01 week	21 December 11-1230hrs
21 December 2021	2.2hours	Presentation on study findings followed by discussion, Points reviewed for discussion chapter,	Amendments on bar charts, feedback on chapter 5,		18 January 0900-1000hrs

Appendix: 2 Consent Form

Dramatic effect: enhancing student engagement through performance - research evaluation

Informed Consent for Paper-based Questionnaire, Focus group Interview and Blog

	Please initial box
1. I confirm that I have read and understood the **Participant Information Sheet (Version 1, 03/04/19).** I have had the opportunity to consider the information and ask questions, and have had these answered satisfactorily.	
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, without any of my rights being affected. I understand that if I choose to withdraw from the study all data collected from me will be destroyed.	
3. The information I provide will be treated confidentially and will be stored securely in electronic and paper form.	
4. I agree to the focus group being audio-recorded.	
5. I give permission for the information I provide to be used in reports, publications and presentations with preservation of anonymity.	
6. I agree to take part in this study.	

______________________	____________	______________
Name of participant	Date	Signature
______________________	____________	______________
Name of person taking consent	Date	Signature

Please complete two copies: 1 for participant; 1 for researcher's site file.

I would like to receive a summary of the anonymized findings by email.	

Appendix 3: Ethics Application Form SHSC

SCHOOL OF HEALTH AND SOCIAL CARE
APPLICATION FORM FOR PROJECT ETHICAL APPROVAL

Project title: Dramatic effect: enhancing student engagement through performance - research evaluation **Version no: 1**

Full name & title: Dr Catherine Mahoney (Lecturer in Nursing, SHSC) **School:** School of Nursing, Midwifery & Social Care

E-mail address: c.mahoney@napier.ac.uk **Telephone:** 5627

Postal address: Room 3.B.42 Sighthill Campus

Status: Staff (Edinburgh Napier University) **Student (Edinburgh Napier University)** ☐

External Applicant *Please provide additional details below:*

Other researchers (name, role & affiliation): Dr Richard Kyle (Reader SHSC), Fiona Bastow (Lecturer SHSC), Patricia Jeram (MN Nursing Student SHSC)

Matriculation Number: Click here to enter text.

Degree programme: Click here to enter text.

Independent advisor: Dr Anne Rowat **Level of study:** Choose an item.

Financial support from outside Edinburgh Napier University (amount & source): Click here to enter text.

Project start date: April 2019 **Project duration: 8 months**

Date application submitted: 14/03/19 **Ref no. (LEAVE BLANK):** Click here to enter text.

Edinburgh Napier UNIVERSITY

	YOU MUST ANSWER ALL QUESTIONS	YES	NO	N/A
1	Will you describe the main procedures to participants in advance, so that they are informed about what to expect in your study?	☒	☐	☐
2	Will you tell participants that their participation is voluntary?	☒	☐	☐
3	Will your participants be able to read and understand the participant information sheet?	☒	☐	☐
4	Will you obtain written consent for participation?	☒	☐	☐
5	If the research is observational (including tape and video), will you ask participants for their consent to being observed?	☒	☐	☐
6	Will you tell participants that they may withdraw from the research without penalty and without reason?	☒	☐	☐
7	With questionnaires and interviews, will you give participants the option of omitting questions they do not want to answer?	☒	☐	☐
8	Will you tell participants that their data will be treated with full confidentiality and that, if published, it will not be identifiable as theirs?	☒	☐	☐
9	Are the data to be stored anonymously (i.e. the identity of the person is NOT linked directly or indirectly with their data)?	☒	☐	☐
10	Will you debrief participants at the end of their participation (i.e. give them a brief explanation of the study and an opportunity to ask questions)?	☒	☐	☐
11	Will the research involve deliberately misleading participants (deception) in any way?	☐	☒	☐
12	Is there any realistic risk of any participants experiencing either physical or psychological distress or discomfort?	☐	☒	☐
13	Is the information gathered from participants of a sensitive, personal or contentious nature?	☐	☒	☐
14	Will any payment or reward be made to participants, beyond reimbursement or out-of-pocket expenses?	☐	☒	☐
15	Do participants fall into any of the following special groups? *If the answer is YES, indicate which group(s) by checking the appropriate box(es).*	☐	☒	☐
	☐ Children (under 18 years) or Children in local authority care ☐ Clinical population ☐ People with mental health issues ☐ People in custody ☐ People with learning or communication difficulties ☐ People engaged in illegal activities (e.g. drug-taking) *NOTE: You may also need to obtain clearance from Disclosure Scotland or an equivalent authority.*			

You must check **either Box A or Box B** below and provide **all** relevant information in support of your application in the Details of Project section. If you answered **NO** to any of **questions 1-10**, or **YES** to any of **questions 11-15** (with a shaded background), then you

must check **Box B**.

DETAILS OF PROJECT

1. Background information *(300 words maximum; references should be cited and listed)*
Health and social care integration (HCI) is an important policy priority across the United Kingdom (Scottish Government 2014). HCI is a complex process, not least because it results in blurring and redefinition of professional roles. Because nurses are at the forefront of HCI it is vital that nursing students are equipped to practice in this emerging integrated landscape. However, education about HCI comes at a time when students are developing their professional identity as nurses. This may lead to disengagement with the theory and practice of HCI. Authentic learning focussed on real-life experiences and environments has potential to bridge this gap (Kyle and Atherton, 2016; Educational Research, 2007). Drama, in particular, provides an accessible entry-point into complex healthcare environments through the stories of individuals experiencing care (Arveklev et al.2015). To support student nurses' engagement with the complexity of HCI, in November 2017 nursing students following a Bachelor/Master of Nursing (BN/MN) programme formed a drama group. Six students performed a play *Mad, Bad, Invisible* that told the story of a woman experiencing mental health crisis as she tried (and failed) to receive care and support from a range of health and social care services. Following public performance, the video-recorded play and associated educational materials, including cartoons, were incorporated into a module focussed on HCI in the BN/MN programme. Student nurse performers noted that involvement had been a 'highly meaningful' learning experience that enabled them to 'explore a different perspective' and 'get a glimpse' into the world of people for whom they care. Students engaging with module materials noted it was 'novel', 'innovative' and 'relevant'. Following an initial public engagement event, one student actor has scripted a sequential drama '*Old, Sad, Invisible'* demonstrating the progression of HCI for future students.

References
1. Arveklev, SH, Wigent, H, Berg, L, Burton, B. and Lepp, M. (2015). The use and application of drama in nursing education; an integrative review of the literature. Nurse Educ Today. 35(7)
2. Educational Research (2007) The four characteristics of authentic learning. https://www.ernweb.com/educational-research-articles/the-four-characteristics-of-authentic-learning/
3. Kyle, R and Atherton, I (2016) Biogeography as critical nursing pedagogy: Breathing life into nurse education. Nurse Education in Practice. 20 pp76-79
4. Scottish Government (2014) The Public Bodies Joint Working Act (Scotland) 2014. **http://www.legislation.gov.uk/asp/2014/9/contents/enacted** accessed: [27/04/19]

2. Aims & research questions
The Aim of this study is to explore the impact of peer-initiated authentic drama on student learning and perceptions of relevance using technology enhanced learning. The following **research questions** will be addressed:

1. Does authentic learning increase student nurses' **knowledge and understanding** of health and social care integration?
2. Does authentic learning increase student nurses' perceptions of the **relevance** of education around health and social care integration?
3. Does authentic learning increase student nurses' perceived **confidence** to work within integrated health and social care landscapes?
4. What are student nurse performers' **experiences** of participating in the production of a play and co-production of educational materials?

3. Participants

- ***Number & nature of sample:*** Quantitative paper questionnaire open to ~540 student nurses; 2 focus groups with 6-8 students in each group (n=12-16); 1x focus group with student nurse performers (n=12); online blog open to ~540 student nurses.
- ***Inclusion/exclusion criteria:*** Students will be eligible for inclusion in the study if they are second year nursing students studying the module NUR08101 & NUR11117 Effective Interagency Working in Health and Social Care (4A) at Edinburgh Napier University. Students will be excluded from the study if they are students who are not studying these modules. Thus, students will not be excluded based on age, gender, field of practice or other socio-demographic information.

4. *Recruitment of participants:* Participants for the study will be recruited through an announcement on the students' virtual learning environment (Moodle). The students will be informed about the project and its aims, and a contact email address for students to seek further information (c.mahoney@napier.ac.uk) will be provided. Students will volunteer to take part in focus groups through a question at the end of the online questionnaire survey.

5. Outline of methods & measurements *(approx. 500 words)*

A before and after research evaluation using a mixed methods approach. Anonymous data from completed module evaluations of previous modules addressing Health and Social Care Integration (HCI) and interagency working (Module NUR08101/NUR11117) on the BN/MN programme (2016-2019) will be collated in order to establish a baseline of student perceived relevance about HCI. The play *Old, Sad, Invisible* will be performed by student nurse actors in a private space while being filmed by film students from the School of Arts and Creative Industry (SACI). Actors will be asked to complete consent for filming. The recording will be edited by film students to ensure a high quality professional production of no more than 30mins. The video will be incorporated into a module on the BN/MN programme (NUR08101

/NUR11117) in collaboration with the student nurse actors.

To address **research questions 1-3**, during module delivery qualitative and quantitative data will be collected from students completing the module. First, a paper and pen survey will be administered to a convenience sample of students present in class at the outset of the module to assess baseline knowledge and understanding of health and social care integration, perceived relevance of education around HCI, and confidence to work in HCI landscapes. This survey will be repeated at the end of the module. Participants will be asked to create an anonymous identifier known only to them to enable before and after responses to be linked and paired statistical analysis to be conducted. Second, students

will also be invited to take part in an online blog and focus groups (n=2) to enable qualitative exploration of anonymised survey responses. To address **research question 4**, student performers will be invited to a focus group to explore their experiences of performing in the play.

Data Analysis – Survey data will be entered into SPSS to enable descriptive analysis; focus group and online blog data will be analysed using thematic analysis.

6. Risks to participants, university or the researcher (Please consult the Risk Assessment Folder on web page)

There are no significant risks to participants. Nonetheless, it is possible that the concepts of dementia and learning disability addressed in the play may be considered by some students to be a sensitive topic.

Therefore, the researchers will remind the students of their right to withdraw at any time during the study, without giving a reason for doing so. Moreover, students will be informed that exercising the right to withdraw will not impact their education. This information will also be included in the information sheet and the informed consent form (see **Appendix 1: Participants information sheet; Appendix 2: Informed consent form**).

7. Consent and participant information arrangements, debriefing

There are no potential risks to the research team.

8. Ethical considerations raised by the project and how you intend to deal with them.

Anonymity – addressed through a participant-generated unique identifier known only by the participant (questionnaire data) and a researcher-generated identifier known only by the research team (focus group data).

Data security – paper questionnaires will be input into a password-protected databased on a secure drive accessible only to the research team. The breach of anonymity of the students would be the main risk to data security. In order to safeguard against this risk, all the data in SPSS and NVivo software files will be anonymised in a way that participants are not identifiable in the results of both the research report and publication. A unique participant identifier will be allocated (e.g. Student A, Focus group 1). Audio-records will be destroyed after the study has been completed to minimise the risk of re-identification. The anonymised transcript of the focus groups will be retained for 10 years in line with Edinburgh Napier University policy. SPSS and Nvivo software for data analysis, transcripts and audio records will be stored securely on the X: drive allocated to the project and only accessible by the research team named in the SHSC ethical approval application form.

DECLARATION

There is an obligation on the researcher to bring to the attention of the Faculty Research Ethics Approval Sub-Group any issues with ethical implications not clearly covered by this application form.

I request ethical and governance approval for the research described in this application. I have read Edinburgh Napier University's policies and guidelines relating to ethics and governance in research, and those of relevant professional bodies (e.g. BPS, BSA, IFPA, SIR, NMC) and agree to abide by these.

A ☒	**I consider that this project has no significant ethical implications to be brought to the attention of the Faculty Research Ethics Approval Sub-Group**
B ☐	**I consider that this project <u>may</u> have significant ethical implications to be brought to the attention of the Faculty Research Ethics Approval Sub-Group**

Signature **Date 27/04/19**

I am the Director of Studies or supervisor for this research. I have read this application and approve it. I do not consider that any part of the research process will cause physical and/or psychological harm to participants, or be detrimental to the reputation of Edinburgh Napier University.

Signature **Date**

- **You must also attach Participant Information Sheet(s), Consent Form(s), as well as copies of any questionnaires, details of interview questions you plan to use, debrief sheets and notices advertising the study. You may need to create different versions of these materials (e.g. parental Participant Information Sheet and Consent Form if research involves children); if so, all the different versions should be attached. Materials should be printed on paper headed with the University logo.**
- **If you will be recruiting participants via an outside organisation and/or will be conducting research on the premises of an outside organisation, you must provide a**

copy of written permission from the appropriate organisation(s).

- **Submit the completed and signed form (with supporting materials) to Hilary Sawers, Hilary H.Sawers@napier.ac.uk 3.B.43, Sighthill Campus, Sighthill Court, Edinburgh, EH11 4BN; an electronic copy should also be sent to: ethics.fhlss@napier.ac.uk.**

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Appendix: 4 Survey Questionnaire

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Dramatic Effect: Enhancing Student Engagement Through Performance

Research Evaluation

Consent Form

Please complete the **Consent Form** below before completing the questionnaire.

This page will be separated from the questionnaire to ensure your responses are anonymous.

Please initial box

1. I confirm that I have read and understood the **Participant Information Sheet (Version 1, 03/04/19).** I have had the opportunity to consider the information and ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving a reason, without any of my rights being affected. I understand that if I choose to withdraw from the study all data collected from me will be destroyed.
3. The information I provide will be treated confidentially and will be stored securely in electronic and paper form.
4. I give permission for the information I provide to be used in reports, publications and presentations with preservation of anonymity.
5. I agree to take part in this study.

______________________ ______________ _________________

Your Name (PLEASE PRINT) Today's Date Your Signature

______________________ ______________ _________________ Name of person taking consent Date Signature

If you would like to receive a summary of the **anonymised findings by email** please write your email address here:

____

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Section 1: Create Your Unique Anonymous Identifier

We will ask you to complete some questions in this survey again after you have completed the Module. So that we are able to link your responses to this questionnaire to a future questionnaire, please create a **unique anonymous identifier** for the study known only to you by:

Writing the **first two letters** of your **first name** in these boxes (e.g., if **Ri**chard, write **R I**)	R	I
Writing the month of your **birthday** in these boxes (e.g., if July, write **0 7**)	0	7
Writing the **last two letters** of your **mother's maiden name** in these boxes (e.g., if Smi**th**, write **T H**)	T	H

Section 2: Inter-agency Working and Health & Social Care Integration

Question 1: Before I started this Module, I had heard of the term **inter-agency working**?

(Please **tick** yes or no.)

Yes	☐1	No	☐0

Question 2: What does **inter-agency working** mean to you? (Please write in the box.)

Question 3: Before I started this Module, I had heard of the term **health & social care integration**?

(Please **tick** yes or no.)

Yes	☐1	No	☐0

Question 4: What does **health and social care integration** mean to you? (Please write in the box.)

Question 5: Please tick the extent to which you agree or disagree with the following statements:

		Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
1)	The interprofessional approach improves the quality of care to patients/clients.	☐5	☐4	☐3	☐2	☐1
2)	The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients.	☐5	☐4	☐3	☐2	☐1
3)	Having to report observations to a team helps team members better understand the work of other health professionals.	☐5	☐4	☐3	☐2	☐1
4)	The inter professional approach makes the delivery of care more efficient.	☐5	☐4	☐3	☐2	☐1
5)	Hospital patients who receive inter-professional team care are better prepared for discharge than other patients.	☐5	☐4	☐3	☐2	☐1
6)	Team meetings foster communication among team members from different professions or disciplines.	☐5	☐4	☐3	☐2	☐1
7)	The give and take among team members helps them make better patient/client care decisions.	☐5	☐4	☐3	☐2	☐1
8)	Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons.	☐5	☐4	☐3	☐2	☐1

		Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
9)	Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients.	☐5	☐4	☐3	☐2	☐1
10)	Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs.	☐5	☐4	☐3	☐2	☐1
		Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
11)	Developing a patient/client care plan with other team members avoids errors in delivering care.	☐5	☐4	☐3	☐2	☐1
12)	Working in an inter-professional manner unnecessarily complicates things most of the time.	☐5	☐4	☐3	☐2	☐1
13)	In most instances, the time required for inter-professional consultations could be better spent in other ways.	☐5	☐4	☐3	☐2	☐1
14)	Developing an inter-professional patient/client care plan is excessively time-consuming.	☐5	☐4	☐3	☐2	☐1

Question 6: Please **tick** the extent to which you **agree or disagree** with the following statements: **Health and social care integration will mean that…**	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
1) …people are able to look after and improve their own health and wellbeing and live in good health for longer.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
2) …people, including those with disabilities or long term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
3) …people who use health and social care services have positive experiences of those services, and have their dignity respected.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
4) …health and social care services are centred on helping to maintain or improve the quality of life of people who use those services.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
5) …health and social care services contribute to reducing health inequalities.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

6)	…people who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and well-being.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
7)	…people using health and social care services are safe from harm.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
8)	…people who work in health and social care services feel engaged with the work they do and are supported to continuously improve the information, support, care and treatment they provide.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1
9)	…resources are used effectively and efficiently in the provision of health and social care services.	☐ 5	☐ 4	☐ 3	☐ 2	☐ 1

Section 3: Nursing Education

Question 7: Please tick the extent to which you agree or disagree with the following statements

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I think it is important that nursing students…	Strongly Agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
1) …learn about health and social care **policy**	☐5	☐4	☐3	☐2	☐1
2) …learn how the NHS is **funded**	☐5	☐4	☐3	☐2	☐1
3) …learn how the NHS is **organised**	☐5	☐4	☐3	☐2	☐1
4) …learn about **legislation** that affects how the NHS is organised	☐5	☐4	☐3	☐2	☐1
5) …learn about **health and social care integration**	☐5	☐4	☐3	☐2	☐1
6) …learn about **inter-agency working**	☐5	☐4	☐3	☐2	☐1
7) …learn alongside other health and social care professionals	☐5	☐4	☐3	☐2	☐1

Question 8: Please **circle** on a scale of **0 to 10**, where 0 is not at all confident and 10 is extremely confident please rate…

a) How **confident** you are to **explain** what **inter-agency working** is?

Not at all confident										**Extremely Confident**
0	1	2	3	4	5	6	7	8	9	10

b) How **confident** you are to **explain** what **health & social care integration** is?

Not at all confident										**Extremely Confident**
0	1	2	3	4	5	6	7	8	9	10

c) How **confident** you are to **work** in **inter-professional teams**?

Not at all confident										**Extremely Confident**
0	1	2	3	4	5	6	7	8	9	10

Section 4: Protective Nursing Advocacy Scale (Hanks 2010)

Please indicate your rating using strongly disagree, moderately disagree, moderately agree, and strongly agree for each of the following statements. Please indicate your rating using a √ in the box to the right of each statement.

Item no.	Item	Strongly Disagree	Moderately Disagree	Moderately Agree	Strongly Agree
1	Patients need nurses to act on the patients' behalf				
2	Nurses are legally required to act as patient advocates when patients are perceived to be in danger				
3	As the nurse, I keep my patient's best interest as the main focus of nursing advocacy				
4	Nurses who understand the benefits of patient advocacy are better patient advocates				
5	I am acting on my patient's behalf when I am acting as my patient's advocate				
6	I speak out on my patient's behalf when I am acting as my patient's advocate				
7	I am acting as my patient's voice when I am advocating for my patient				
8	I am acting as the patient's representative when I am acting as the patient's advocate				
9	I am advocating for my patient when I protect my patient's rights in the health care environment				
10	I am acting as a patient advocate when I am protecting vulnerable patients from harm				

11	I provide patient advocacy to protect my patients only when necessary in the health care environment				
12	Nurses that act on a patient's behalf are preserving the patient's dignity				
13	I scrutinize circumstances that cause me to act as a patient advocate				
14	I utilize organizational channels to act as a patient advocate				
15	I would benefit from the advice of ethics committees to be a more effective patient advocate				
16	Lack of time inhibits my ability to act as a patient advocate				
17	Nurses practice patient advocacy more when they are working in a tolerant work environment				
18	Nurses who are supported by physicians are better patient advocates				
19	I am able to be a better patient advocate because I have more self-confidence				
20	Nurses that are committed to providing good patient care are better patient advocates				
21	Increased dedication to nursing increases the nurse's ability to act as a patient advocate				

22	Increased nursing education enhances the nurse's effectiveness in patient advocacy				
23	I doubt my own abilities to provide advocacy for my patients				
24	Nurses do not provide advocacy for their patients in the clinical setting				
25	I am ethically obligated to speak out for my patients when they are threatened by harm				
26	Nurses that provide information to patients about patient care are acting as patient advocates				
27	Patients have varying degrees of ability to advocate for themselves				
28	Vulnerable patients need my protection in harmful situations				
29	Increased nursing experience does not increase the nurse's ability to act as a patient advocate				
30	I may suffer risks to my employment when acting as a patient advocate				
31	Nurses that speak out on behalf of patients may face retribution from employers				
32	I may be punished for my actions by my employer when I inform my patients of their own rights				

33	Nurses that speak out on behalf of vulnerable patients may be labeled as disruptive by employers				
34	When nurses inform and educate patients about patients' rights in the clinical setting, the nurses may place their employment at risk				
35	When nurses act as patient advocates, they are not supporting patients				
36	Nurses can protect patients from harmful situations by physically barring a procedure from occurring				
37	Nurses are acting as advocates when nurses protect the right of patients to make their own decisions				
38	Nurses should not advocate for patients when treatments cause suffering without patient benefit				
39	The more years that I work in nursing, the less effective I am at advocating for my patients				
40	I am less effective at speaking out for my patients when I am tired				
41	I am not an effective advocate because I am suffering burnout				
42	Because I don't like working as a nurse, I am less willing to act as a patient advocate				

43	I lack the dedication to the nursing profession to act as a patient advocate				

Section 4: About You

Question 9: What is your age? (Please tick one box.)

Under 20	☐ 1	41-60	☐ 4
21-30	☐ 2	61 and over	☐ 5
31-40	☐ 3		

Question 10: What **gender** do you identify as? (Please tick one box.)

Female	☐ 1	Trans	☐ 3
Male	☐ 2	Other	☐ 4
		Prefer not to say	☐ 5

Question 11: What is the **primary ethnicity** that you identify as? (Please tick one box.)

White / Caucasian	☐ 1	Asian	☐ 3
Black	☐ 2	Other	☐ 4
		Prefer not to say	☐ 5

Question 12: What was your **highest educational level** before starting your nursing

programme? (Please tick one box.)

Secondary / High School	☐ 1	Bachelor's / Undergraduate Degree	☐ 3
College	☐ 2	Master's / Postgraduate Degree	☐ 4
		PhD	☐ 5

Question 13: Did you have previous **healthcare-related experience** before starting your nursing programme? (Please tick one box.)

Yes	☐ 1	No	☐ 0

Thank you for completing this questionnaire!

Adapted from:
Attitudes towards Health Care Team Scale (ATHCTS) – see Pei Se Wong et al (2018) Assessment of attitudes for interprofessional team working and knowledge of health professions competencies for final year professional students.
Hanks (2010)
National Outcomes for Health and Social Care – Scottish Government

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Appendix: 5 Participation Information Sheet

Dramatic effect: enhancing student engagement through performance - research evaluation

Invitation

We would like to invite you to take part in a **focus group, paper based survey and/or blog** to evaluate teaching delivered on **Module 4A Effective Interagency Working in Health and Social Care (NUR08101/NUR11117)**. Before you decide whether or not you would like to take part, it is important that you understand why we are carrying out this research and what exactly it involves if you agree. Please read this information sheet and discuss it with others and the research team if you wish.

What is the project's purpose?

We are interested in finding out your opinions on the impact and effectiveness of using authentic drama, performed by your peers (other student nurses) on your learning and understanding of interagency working in health and social care and your confidence to work in integrated health and social care settings.

Who are we?

We are a team of researchers and student nurses from Edinburgh Napier University. The project is led by Dr Catherine Mahoney, Dr Richard Kyle and Fiona Bastow are members of the project team.

Why have I been chosen?

You have been chosen because you are a student who is completing a module addressing interagency working in health and social care (Module NUR08101/NUR11117) as part of your nursing programme.

Do I have to take part?

No, you do not have to take part in the survey, blog or focus group. If you do decide to take part you are encouraged to save and/or print and keep this Participant Information Sheet for your future reference. You are still free to withdraw from the study at any time and you do not need to give a reason for doing so. Participation or withdrawal from the study will not affect your education in any way.

What will I have to do?

If you decide to take part you will be invited to complete a paper-based questionnaire at the start and end of the Module. At the end of the questionnaire you will be invited to take part in a focus group with some of your colleagues. An online blog will be made available to you on the Moodle presence of this module. The focus group will take place in a room on the Sighthill Campus. The focus group, paper questionnaire and blog will invite you to share your opinion about the play **Old, Sad, Invisible**, which has featured in the module, and the impact this story and the way it has been presented has had on your understanding of interagency working. All your responses will be processed anonymously and all data will be

securely stored on a password-protected computer at Edinburgh Napier University.

Has this evaluation been reviewed by an ethics committee?

Yes, the evaluation has been reviewed by the Research Integrity Committee in the School of Health & Social Care at Edinburgh Napier University.

What will happen to the results of the research?

The findings will be shared at national and international conferences, and published in academic journal articles. Your responses will not be identifiable in any report, presentation or publication. If you like to receive a summary of the anonymized findings of the study, they will be shared with you by email. Data will be held on a password protected folder on the University server. Only the research team will have access to this data.

If you wish to take part in a focus group or online blog, please contact:

Catherine Mahoney, School of Health & Social Care, Edinburgh Napier University (email: **c.mahoney@napier.ac.uk**).

If you wish to speak to an independent advisor about the evaluation, or if you have any complaints, please contact:

Dr Anne Rowat
Chair, School Research Integrity Committee
School of Health & Social Care
Edinburgh Napier University
Sighthill Campus
EH11 4BN

Email: a.rowat@napier.ac.uk

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Appendix: 6 Risk Assessment Proforma

To Be Completed by The Researcher/ Supervisor or the Principle Investigator

Researcher Name: Dr Catherine Mahoney

Title of Project: Dramatic effect: enhancing student engagement through performance - research evaluation

Date(s) to be carried out: 25th April 2019-30th December 2019

List here any potential risks you (as researcher) may face in carrying out this research: (Please consult the ENU Risk Assessment Information together with the SRA Code of Practice for Social Researchers available at :

http://the-sra.org.uk/wp-content/uploads/safety_code_of_practice.pdf

The topics of dementia and learning disability featured in the play Old Sad Invisible may provoke strong feelings in participants as they are considered by some students to be a sensitive topic. Therefore, a potential risk could involve emotional reactions from the participants and which could impact on psychological well-being for the researcher.

Outline here the measures/steps you are putting in place to minimise these risks:

In order to minimise this risk, various measures are taken:

The choice of methods limits the pressure to share information when participants do not want to discuss certain topics.
The facilitator will observe the dynamics of the face to face focus group and manage any conflict or disagreement that may occur.
Focus group interviews will take place in a private classroom/meeting room on Sighthill

Campus which is an acceptable and safe place.

More than one researcher will be present during all focus group interviews.
A flexible focus group interview schedule will be used to prevent tiring effects.
The researchers will remind the students to not feel the pressure to share information.
Researchers will remind the students of their right to withdraw at any time during the study when feeling uncomfortable, without giving a reason for doing so.
Students will be informed that exercising the right to withdraw will not impact their education. This information will also be included in the information sheet and the informed consent form.

Researchers carrying out research off-campus should complete the following:

N/A

Outline here the procedure you will be using to do this:

N/A

Researcher's signature: Date:.................

Supervisor's/ PI signature (if applicable) : Date:.................

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Appendix: 7 Data Management Plan

0. Proposal name
Dramatic effect: enhancing student engagement through performance - research evaluation
1. Description of the data
1.1 Type of study Retrospective survey data generated through previous module evaluation, a paper based questionnaire and free text blog plus two focus groups will be conducted to investigate the impact of 'authentic learning' (in the form of a drama performed by student nurses) on the understanding about interagency working in health and social care and reflect on this educational strategy for teaching about complex issues in nursing education. **1.2 Types of data** Anonymised **quantitative** data from retrospective module evaluations and a current online survey will be imported from Moodle into **SPSS** for analysis. **Textual** data will be generated from an online blog and focus group interviews, this will be imported into qualitative data software for analysis. **Audio** data will be created to support the transcription of all focus groups. **1.3 Format and scale of the data** File formats / Software / Records (n) .docx / MS Word / 3 .nvo / Nvivo / 1 .MP3 / Windows Media Player / 3 .sav / SPSS / 1 Formats and software enable sharing and long-term validity of data. **http://data-archive.ac.uk/create-manage/format/formats-table**
2. Data collection / generation

2.1 Methodologies for data collection / generation

A before and after research evaluation using a mixed methods approach. Data from completed module evaluations of previous modules addressing Health and Social Care Integration (HSCI) and interagency working (Module NUR08101/NUR11117) on the BN/MN programme (2016-2019) will be collated in order to establish a baseline of student perceived relevance about HSCI. The play *Old, Sad, Invisible* will be performed by student nurse actors in a private space while being filmed by film students from the School of Arts and Creative Industry (SACI). Actors will be asked to complete consent for filming. The recording will be edited by film students to ensure a high quality professional production of no more than 30mins. The video will be incorporated into a module on the BN/MN programme (NUR08101/NUR11117) in collaboration with the student nurse actors. During module delivery qualitative and quantitative data will be collected from a purposive sample of students completing the module. A paper based questionnaire will be distributed at the beginning and end of the module during face to face teaching sessions to enable quantitative evaluation; on completing the questionnaire, students will also be invited to take part in a focus group (n=2; 12-16 students) to enable qualitative evaluation. Student nurses performers will also be invited to take part in a focus group. An online blog will be made available on the Moodle presence of the module to enable ongoing evaluation.

2.2 Data quality and standards

To ensure data quality, validity and consistency, the online survey questions will be piloted and pre-analysis protocol designed; a focus group guide will be used across both focus groups to keep the moderator on track and remind them of the topics that need to be discussed in order to reach the aim of the study. Furthermore, a pilot focus group will be conducted to test the various topics listed on the focus group guide.

3. Data management, documentation and curation

3.1 Managing, storing and curating data.

Research data will be stored on the University's X:drive and accessible by members of the research team (see SHSC Approval form section 1). University-managed data storage is resilient, with multiple copies stored in more than one physical location and protection against corruption. Daily backups are kept for 14 days and monthly backups for an additional year.

3.2 Metadata standards and data documentation

All research data will be organized as per the Universities metadata standards
http://staff.napier.ac.uk/services/research-innovation-office/research-data/Pages/Organising.aspx

3.3 Data preservation strategy and standards

The **Edinburgh Napier Data Management Policy** states requires research data to be retained after project completion if they substantiate research findings, are of potential long-term value or support a patent for at least 10

years. The policy also requires that funders and/or sponsors requirements are met. Long term storage is provided through the University data repository.

4. Data security and confidentiality of potentially disclosive information

This section MUST be completed if your research data includes ***personal data relating to human participants in research****. For other research, the safeguarding and security of data should also be considered. Information provided will be in line with you ethical review. Please note this section concerns protecting the data, not the patients.*

4.1 Formal information/data security standards

N/A

4.2 Main risks to data security

The breach of anonymity of the students would be the main risk to data security. In order to safeguard against this risk, all the data in SPSS and NVivo software files will be anonymised in a way that participants are not identifiable in the results of both the research report and publication. A unique participant identifier will be allocated (e.g. Student A, Focus group 1). Audio-records will be destroyed after the study has been completed to minimise the risk of re-identification. The anonymised transcript of the focus groups will be retained for 10 years in line with Edinburgh Napier University policy. SPSS and Nvivo software for data analysis, transcripts and audio records will be stored securely on the X: drive allocated to the project and only accessible by the research team named in the SHSC ethical approval application form.

MRC guidance on the **Confidentiality and data security** *is provided (please see page 24 of the PDF file generated by selecting the above or adjacent* **link***).*

5. Data sharing and access

Identify any data repository (-ies) that are, or will be, entrusted with storing, curating and/or sharing data from your study, where they exist for particular disciplinary domains or data types. Information on repositories is available here.

5.1 Suitability for sharing

Is the data you propose to collect (or existing data you propose to use) in the study suitable for sharing? If yes, briefly state why it is suitable. If No, indicate why the data will not be suitable for sharing and then go to Section 6.

Data will not be available to be shared due to its unique nature, collected specifically for the purpose of this study.

5.2 Discovery by potential users of the research data

N/A

5.3 Governance of access

N/A

5.4 The study team's exclusive use of the data

Funders have a requirement for timely data sharing, with the understanding that a limited, defined period of exclusive use of data for primary research is reasonable according to the nature and value of the data, and that this restriction on sharing should be based on simple, clear principles. What are the timescale/dependencies for when data will be accessible to others outside of your team? Summarize the principles of your current/intended policy.

N/A

5.5 Restrictions or delays to sharing, with planned actions to limit such restrictions

N/A

5.6 Regulation of responsibilities of users

Indicate whether external users are (will be) bound by **data sharing agreements***, setting out their main responsibilities (please see page 13 section 7, titled* **Data-sharing agreements** *of the PDF file generated by selecting either of two links above).*

N/A

6. Responsibilities

Apart from the PI, who is responsible at your organisation/within your consortia for:

- *study-wide data management*
- *metadata creation,*
- *data security*
- *quality assurance of data.*

The first point of contact for all queries in relation to this data is the PI (Dr Catherine Mahoney) who will also have overall responsibility for the production and maintenance of metadata. Preparation and upload of the data will be carried out by the team with the support of the University's Information Services staff.

7. Relevant institutional, departmental or study policies on data sharing and data security

Please complete, where such policies are (i) relevant to your study, and (ii) are in the public domain, e.g. accessible through the internet.

Add any others that are relevant

Policy	URL or Reference
Data Management Policy &	**http://staff.napier.ac.uk/services/research-innovation-**

Procedures	**office/Documents/Research%20Data%20Management%20Policy.pdf**
Data Security Policy	**http://staff.napier.ac.uk/services/cit/infosecurity/Pages/InformationSecurityPolicy.aspx**
Data Sharing Policy	**http://staff.napier.ac.uk/services/secretary/governance/DataProtection/Pages/DataSharing.aspx**
Institutional Information Policy	**https://staff.napier.ac.uk/services/cit/Documents/Security/Information%20Security%20User%20PolicyV2.0.pdf**
Other:	

8. Author of this Data Management Plan (Name) and, if different to that of the Principal Investigator, their **telephone & email contact details**
Name: Dr Catherine Mahoney

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Appendix: 8 Data Extraction Table for the Studies Included in Literature Review

Citation/ Place of study	Aims/ Objectives	Sampling strategy/ Setting	Methods and Methodology	Intervention /Exposure	Outcomes	Results	Over all Rating
Dingwall, L., Fenton, J., Kelly, T. B., & Lee, J. (2017). Sliding doors: Did drama-based inter-professional education improve the tensions round person-centred nursing and social care delivery for people with dementia: A mixed method exploratory study. *Nurse Education Today*, *51*, 1–7. https://doi.org/10.1016/j.nedt.2016.12.00 Place: Scotland United Kingdom	To assess whether 'Sliding Doors' had an impact on social work and nursing students' attitudes to older people, person-centred care and interprofessional collaboration.	Population: Third year nursing student and third year social work students in University of Dundee Scotland. Sampling technique: Pre and post workshop questionnaire Sample size: 66 30 Nursing students and 33 Social work students Average age group: Not mentioned	Mixed Method For Quantitative design: Turning Point – an inter-active polling system ? Pre-test ? Workshop ? Post-test For Qualitative Design: Uni-professional focus groups discussion Data Analysis Statistical Package for the Social Sciences (SPSS), Paired t-tests, Independent t-tests, Two independent author analysed data, themes identified and shared, coded and checked.	Workshop with value-based activities, drama presentation, breaking session into small interdisciplinary groups, structured group discussions.	A 21-item questionnaire was developed to measure learning out- comes. The scale used a 5-point Likert-scale from Strongly Disagree to Strongly Agree. The questionnaire was administered using Turning Point – an inter- active polling system. Eight weeks after Sliding Doors, uni-professional focus groups were held. The discipline-specific groups were sub divided into smaller focus groups. Each group was given a series of prompt questions in relation to understanding the statistical findings and points raised were noted by each working group's facilitator.	* Only social work students made significant attitudinal shifts and more per-son-centred than nurses in their attitudes. *Risk acceptance and risk averse-nature identified as a distinct factor to facilitate person-cantered care. *Both cohorts of students found it worth understanding interprofessional working and expressing a need for more understanding.	Strong

Fusco, N. M., Elze, D. E., Antonson, D. E., Jacobsen, L. J., Lyons, A. G., Symons, A. B., & Ohtake, P. J. (2020). Creating a film to teach health professions students the importance of interprofessional collaboration. *American Journal of Pharmaceutical Education*, *84*(4), 507–513. https://doi.org/10.5688/ajpe7638 Place: United States	To produce, implement, and evaluate the effectiveness of a film to develop the foundational knowledge and skills of health professions students and teach them the importance of interprofessional collaboration.	Population:12 Health Professionals students including Athletic Training, dental medicine, Dietetics, Law, Management, Medicine, Nursing, Occupational therapy, Pharmacy, Physical Therapy, Public Health, Social Work, and faculty members. Sampling technique: Not clear Sample size: 1921 students and 250 faculty members out of them 1858 students and 174 faculty members responded to the evaluation form after forum. Average age group: Not mentioned.	Mixed Method Students and faculty members were asked to rate their level of agreement on a scale of strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree based on 15items, of which 2were related to film for students, and faculty program evaluation consisted to 9 Items with one item related to film. At the end of the evaluation both were asked for comments about the film and themes were generated based on those comments.	An existing interprofessional case study of a man with multiple health conditions and its impact on his health and family was utilised as a base of the film which was produced in coordination with the local theatre company. Upon completion, it was integrated into the annual interprofessional forum and then evaluated by both students and faculty members in consecutive three years 2016, 2017 and 2018.	Use of survey with Agree or Strongly Agree in relation to three items for the student group, and the survey with Agree or Strongly Agree in relation to one item for faculty members and themes generation.	*87% to 90% student found the film presented a realistic view of the challenges faced by people with multiple chronic problems. 86% to 90% students found that the film helped me appreciate the breadth of issues confronting individuals with multiple chronic problems. The faculty responded to the forum that the film effectively introduced health professions students to the complex interrelationship of medicine, psychological, and social issues experienced by people with chronic health conditions by 96% to 100%.	Moderate

Balen, R., Christine, R., & Lisa, W. (2010). The power of stories: Using narrative for interdisciplinary learning in health and social care. Social Work Education, 29(4), 416–426. https://doi.org/10.1080/02615470902991742 Place: United Kingdom	The paper discusses the aims, process and outcomes of an interdisciplinary workshop day held for undergraduate students in the School of Human and Health Sciences at the University of Huddersfield.	Population: Undergraduate Students from social work, mental health nursing, adult health nursing, midwifery, and occupational therapy. Sampling Technique: Post-workshops evaluation forms, feedback sheets with questions related to workshops attended. Sample size: 100 students	Narrative research Three interdisciplinary workshops focused on mental health and were based on the use of service user narrative was held for undergraduate students.	Students were divided into interdisciplinary groups and attend introductory, ice-breaking exercises. Where students engage within the small groups while producing their mini narratives. Then they were asked to make a poster/collage/haiku reflecting what mental health means to them. Students reflected on different natures of stories like romantic, comedic, and tragic. First narrative was through film/tragedy where students were shown TV dramatization of Stuart: A Life Backwards, a life story of an alcoholic, homeless man with mental health difficulties followed by a guided small group discussion with prompts questions. Second was narrative through drama/comedy where a theatre group who are or were mental health service users	Students completed a feedback sheet which included the following questions: What have you learned from spending the day with students from other professional groups? What have you learned about the lived experience of mental health difficulties? What will you take away from today that you will use in practice?	The students' feedback about the day was overwhelmingly positive. Over 50% of the respondents scored the day as 10 out of 10 and a further 30% scored it at 8 or 9. The qualitative responses were also given. Recovery: students illustrated the development in their thinking about mental illness, mental health, and recovery. The use of narrative: engaging with service users' narratives, stories about their experiences would give the students opportunities to develop their thinking skills through inquiring into those human experiences, exploring their meaning, interpreting the stories, and looking for truth. Interprofessional Learning: Students gained insight of mental health issues	Mode rate

				acted on different versions of scenario concerning a woman with depression, featuring a range of responses from family, friends, and employer. This was followed by an interactive discussion in which the positives and negatives of the differing responses were explored. Comments from audiences were encouraged and discussed during the play. Third narrative was personal/romance where a service users presented a monologue based on her experience of mania and subsequent recovery following childbirth. She told her story in sections and paused at appropriate moments to ask the students prompting questions. Those questions were discussed in the groups and provided feedback.		and how different professions can work together to provide effective care. Learners spent their whole day in intergroup contact and to increase the sense of the personal and interconnectedness.	

Arveklev, S. H., Wigert, H., Berg, L., Burton, B., & Lepp, M. (2015). The use and application of drama in nursing education - An integrative review of the literature. In *Nurse Education Today* (Vol. 35, Issue 7, pp. e12–e17). Churchill Livingstone. https://doi.org/10.1016/j.nedt.2015.02.025 Place:	To review empirical and theoretical articles on the use and application of drama in nursing education.	Population: Nursing students	Integrative Review Initial search: 352 Articles ↓ Screened for duplicates and 64 were read to match with inclusion criteria ↓ 20 articles selected for the review ↓ Analysis performed with a data reduction of logical system from primary sources into subgroups. ↓ Themes and Sub-themes generation	Looking for a drama as a tool use in nursing education in the articles. *What was the purpose of using of drama in the education? *What form of drama used? *Who were the participants? *Where were the location/venue drama conducted? *What were the level and courses where drama implemented as a tool? *What were the ways drama was implemented in nursing education?	Themes generation	Three themes with their attendant sub-themes emerged as a result of analysis. 1.The Framing Shows that drama can be implemented in various stages and courses on the ground level in nursing education. 2.The Objectives Range of purposes utilised in nursing education through drama including support students learning, learning specific skills and lifelong learning. 3.The Embodiment Drama in nursing can be carried out in various ways including the students participated in role plays, watched, or performed in plays, and participated in forum theatre. Further, exploring different roles, the relationship between performers and spectators, and	

						combining drama with other activities were also highlighted in relation to drama in nursing education.	
Ocarroll, V., McSwiggan, L., & Campbell, M. (2016). Health and social care professionals attitudes to interprofessional working and interprofessional education: A literature review. *Journal of Interprofessional Care*, *30*(1), 42–49. https://doi.org/10.3109/13561820.2015.1051614 Place: Scotland, United Kingdom.	To provide a summary and critique for the existing literature related to two main concepts: The attitudes of health and social care professionals, working in healthcare settings, to IPW. The attitudes of health and social care professionals, working in healthcare settings, to IPE for students.	Population: Health and social care professional, Health and social care students.	Literature Review Systematic search (Databases) Studies 59 full text met the criteria Studies 35 screened out qualitative synthesis	Looking for common these including the effect of professional background on attitudes to Interprofessional working and interprofessional education and previous experience of interprofessional education on attitudes to interprofessional working.	Themes generation	The effect of professional background on attitudes to IPW and IPE, and the effects previous experience of IPE on attitudes to IPW and IPE. Professional background and prior IPE experience were identified as the influencing factors with most evidence. The huge limitation of the studies is evident as the main focus on the value of IPE for staff as opposed to students. Students having lack of focus on IPE during their studies period.	

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Appendix: 9 Critical Appraisal of Included Studies in Literature Review

Critical appraisal of study done by Fusco et al., (2020) using Stake's checklist.

Is this report easy to read?	Does it fit together, each sentence contributing to the whole?	Does this report have a conceptual structure (i.e., themes or issues)?	Does this report have a conceptual structure (i.e., themes or issues)?	Is the case adequately defined?	Is there a sense of story to the presentation?	Is the reader provided some vicarious experience?	Have quotations been used effectively?	Are headings, figures, artefacts, appendices, indexes effectively used?	Was it edited well, then again with a last-minute polish?
Yes	Yes	Yes	No	Yes	Yes	Can't tell	NA	Yes	Yes
Has the writer made sound assertions, neither over- or under interpreting?	Has adequate attention been paid to various contexts?	Were sufficient raw data presented?	Were data sources well-chosen and in sufficient number?	Do observations and interpretations appear to have been triangulated?	Is the role and point of view of the researcher nicely apparent?	Is the nature of the intended audience apparent?	Is empathy shown for all sides?	Are personal intentions examined?	Does it appear individuals were put at risk?
Yes	P	P	Yes	P	Yes	Yes	P	P	Yes

Keys:
1. Yes
2. No
3. Partial
4. Not applicable
5. Can't tell

Overall scoring:
Strong: 14-20 Yes
Moderate: 7-13 Yes
Weak: 1-6 Yes

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Quality appraisal of the study done by Dingwall et al., (2017) using the MMAT checklist

Methodological quality criteria		Do the collected data allow to address the research questions?	Do the collected data allow to address the research questions?	*Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.*	
		Yes	Yes		
Is there an adequate rationale for using a mixed methods design to address the research question?	Are the different components of the study effectively integrated to answer the research question?	Are the outputs of the integration of qualitative and quantitative components adequately interpreted?	Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?	Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?	Comments There is lack of randomization and the ensuing differences at baseline between the study groups.
Yes	Yes	Yes	Yes	Can't tell	
Qualitative design of the study					
Is the qualitative approach appropriate to answer the research question?	Are the qualitative data collection methods adequate to address the research question?	Are the findings adequately derived from the data?	Is the interpretation of results sufficiently substantiated by data?	Is there coherence between qualitative data sources, collection, analysis, and interpretation?	Comments There is lack of description about the extraneous variables that can have effect on the outcome of the study.
Yes	Yes	Yes	Yes	Yes	
Quantitate design of the study					
Is the sampling strategy relevant to address the research question?	Is the sample representative of the target population?	Are the measurements appropriate?	Is the risk of nonresponse bias low?		Comments Small sample size (66 participants) from one university only. Risk of nonresponse bias was not mentioned.
Yes	No	Yes	Can't Tell		

Overall Scoring:

Yes = 2	0-5= week
No = 1	6-11 = Moderate
Can't tell = 0	12-16 = Strong

Critical appraisal of the study done by Balen et al., (2010) using the SANRA checklist.

Justification of the article's importance for the readership?	Statement of concrete aims or formulation of questions?	Descriptions of the literature search?	Referencing?	Scientific reasoning?	Appropriate presentation of data?
Thoroughly = 02 Superficially = 01 Not at all = 00	Thoroughly and clearly = 02 Vaguely or unclearly = 01 Not at all = 00	Refers briefly = 01 Not mentioned = 00	Most or all relevant key statements = 02 Inconsistently = 01 Sporadically – 00	Thoroughly = 02 Superficially = 01 Hardly at all = 00	Thoroughgoingly = 002 Partially = 01 Hardly at all = 00
01	01	00	02	00	01

Overall scoring:

Strong: 12-10 Yes
Moderate: 6-9 Yes
Weak: 1-5 Yes

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Appendix: 10 Frequency Table

#	Scale Item	Before-Response n (%)		After- Response n (%)	
Students' attitudes towards health care team (n = 450) Before (n = 275), After (n = 175),					
01	The inter-professional approach improves the quality of care to patients/clients.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	131 (47.6) 131 (47.6) 13 (4.7)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	122 (64) 58 (33.1) 03 (1.7) 02 (1.2)
02	The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree.	93 (33.9) 151 (55.1) 27 (9.9) 02 (0.7) 01 (0.4)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	102 (58.3) 6 (37.7 03 (1.7) 01 (0.6) 03 (1.7)
03	Having to report observations to a team helps team members better understand the work of other health professionals.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	124 (45.1) 125 (45.1) 25 (9.1) 01 (0.4)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	99 (56.6) 74 (42.3) 01 (0.6) 01 (0.6)
04	The inter professional approach makes the delivery of care more efficient.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	109 (39.6) 129 (46.9) 28 (10.2) 09 (3.3)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	117 (66.9) 50 (28.6) 07 (4) 01 (0.6)
05	Hospital patients who receive inter-professional team care are better prepared for discharge than other patients.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	88 (32) 104 (37.8) 73 (26.8) 09 (3.3) 01 (0.4)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	144 (65.1) 52 (29.7) 07 (4) 02 (1.2)

06	Team meetings foster communication among team members from different professions or disciplines.	Strongly Agree 103 (37.5) Agree 146 (53.1) Neither agree, or Disagree 25 (53.1) Disagree 01 (0.4) Strongly Disagree	Strongly Agree 115 (66.1) Agree 53 (30.5) Neither agree, or Disagree 05 (2.9) Disagree Strongly Disagree 01 (0.6)
07	The give and take among team members help them make better patient/client care decisions.	Strongly Agree 59 (21.5) Agree 148 (54) Neither agree, or Disagree 63 (23) Disagree 03 (1.1) Strongly Disagree	Strongly Agree 79 (45.4) Agree 90 (51.4) Neither agree, or Disagree 05 (2.9) Disagree Strongly Disagree 01 (0.6)
08	Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons.	Strongly Agree 48 (17.6) Agree 87 (31.9) Neither agree, or Disagree 95 (34.8) Disagree 37 (13.6) Strongly Disagree 06 (2.2)	Strongly Agree 102 (58.3) Agree 58 (33.1) Neither agree, or Disagree 13 (7.4) Disagree 01 (0.6) Strongly Disagree 01 (0.6)
09	Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients.	Strongly Agree 41 (14.9) Agree 100 (36.4) Neither agree, or Disagree 99 (36) Disagree 30 (10.9) Strongly Disagree 05 (1.8)	Strongly Agree 68 (38.9) Agree 74 (42.3) Neither agree, or Disagree 31 (17.7) Disagree 01 (0.6) Strongly Disagree 01 (0.6)
10	Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs.	Strongly Agree 20 (7.3) Agree 86 (31.3) Neither agree, or Disagree 139 (50.5) Disagree 29 (10.5) Strongly Disagree 01 (0.4)	Strongly Agree 33 (18.9) Agree 91 (52) Neither agree, or Disagree 40 (22.9) Disagree 9 (5.1) Strongly Disagree 2 (1.2)
11	Developing a patient/client care plan with other team members avoids errors in delivering care.	Strongly Agree 64 (23.3) Agree 132 (48) Neither agree, or Disagree 51 (18.5) Disagree 23 (8.4) Strongly Disagree 05 (1.8)	Strongly Agree 67 (38.3) Agree 73 (41.7) Neither agree, or Disagree 29 (16.6) Disagree 05 (2.9) Strongly Disagree 01 (0.6)

12	Working in an inter-professional manner unnecessarily complicates things most of the time.	Strongly Agree 12 (8) Agree 22 (8) Neither agree, or Disagree 81 (29.5) Disagree 138 (50.2) Strongly Disagree 22 (8)	Strongly Agree 05 (2.9) Agree 15 (8.6) Neither agree, or Disagree 25 (14.4) Disagree 82 (47.2) Strongly Disagree 47 (27)
13	In most instances, the time required for inter-professional consultations could be better spent in other ways.	Strongly Agree 5 (1.8) Agree 12 (4.4) Neither agree, or Disagree 83 (30.2) Disagree 151 (54.9) Strongly Disagree 24 (8.7)	Strongly Agree 02 (1.1) Agree 08 (4.6) Neither agree, or Disagree 51 (29.1) Disagree 74 (42.3) Strongly Disagree 39 (22.9)
14	Developing an inter-professional patient/client care pls excessively time-consuming.	Strongly Agree 03 (1.1) Agree 35 (12.8) Neither agree, or Disagree 85 (31) Disagree 122 (44.5) Strongly Disagree 29 (10.6)	Strongly Agree 05 (2.9) Agree 24 (13.7) Neither agree, or Disagree 49 (28) Disagree 61 (34.9) Strongly Disagree 05 (21.2)

Students' attitudes towards health care team (Matched-pair n = 48)			
#	**Scale Item**	**Matched-Pair (Before) n (%)**	**Matched-Pair (After) n (%)**
01	The inter-professional approach improves the quality of care to patients/clients.	Strongly Agree 24 (50) Agree 19 (39.6) Neither agree, or Disagree 5 (10.4) Disagree Strongly Disagree	Strongly Agree 34 (70.8) Agree 12 (25) Neither agree, or Disagree 01 (2.1) Disagree Strongly Disagree 02 (4.1)
02	The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients.	Strongly Agree 01 (2.1) Agree 20 (41.7) Neither agree, or Disagree 11 (22.9) Disagree Strongly Disagree 01 (2.1)	Strongly Agree 28 (58.3) Agree 16 (33.3) Neither agree, or Disagree 02 (4.2) Disagree Strongly Disagree 02 (4.2)
03	Having to report observations to a team helps team members better understand the work of other health professionals.	Strongly Agree 18 (37.5) Agree 27 (56.3) Neither agree, or Disagree 03 (6.3) Disagree Strongly Disagree	Strongly Agree 29 (60.4) Agree 18 (37.5) Neither agree, or Disagree Disagree Strongly Disagree 01 (2.1)
04	The inter professional approach makes the delivery of care more efficient.	Strongly Agree 21 (43.8) Agree 18 (37.5) Neither agree, or Disagree 08 (16.7) Disagree 01 (2.1) Strongly Disagree	Strongly Agree 29 (60.4) Agree 14 (29.2) Neither agree, or Disagree 04 (8.3) Disagree Strongly Disagree 01 (2.1)
05	Hospital patients who receive inter-professional team care are better prepared for discharge than other patients.	Strongly Agree 18 (37.8) Agree 21 (43.8) Neither agree, or Disagree 09 (18.8) Disagree Strongly Disagree	Strongly Agree 27 (56.3) Agree 16 (33.3) Neither agree, or Disagree 03 (6.3) Disagree 01 (2.1) Strongly Disagree 01 (2.1)

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06	Team meetings foster communication among team members from different professions or disciplines.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	17 (35.4) 27 (56.3) 04 (8.3) 17 (35.4)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	28 (58.3) 15 (31.3) 04 (8.3) 01 (2.1)
07	The give and take among team members help them make better patient/client care decisions.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	06 (12.5) 30 (62.5) 11 (22.9)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	20 (41.7) 26 (54.2) 01 (2.1) 01 (2.1)
08	Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	12 (25) 16 (33.3) 14 (29.2) 05 (10.4) 01 (2.1)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	25 (52.1) 14 (29.2) 08 (16.7) 01 (2.1)
09	Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	09 (18.8) 16 (33.3) 17 (35.4) 04 (8.3) 02 (4.2)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	19 (39.6) 22 (45.8) 06 (12.5) 01 (2.1)
10	Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	02 (4.2) 12 (25) 28 (58.3) 06 (12.5) 02 (4.2)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	15 (31.3) 16 (33.3) 12 (25) 04 (8.3) 01 (2.1)
11	Developing a patient/client care plan with other team members avoids errors in delivering care.	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	09 (18.8) 21 (43.8) 10 (20.8) 06 (12.5) 02 (4.2)	Strongly Agree Agree Neither agree, or Disagree Disagree Strongly Disagree	1 (2.1) 4 (8.3) 4 (8.3) 29 (60.4) 9 (18.8)
12	Working in an inter-professional manner unnecessarily	Strongly Agree Agree	 06 (12.5)	Strongly Agree Agree	01 (2.1) 04 (8.3)

	complicates things most of the time.	Neither agree, or Disagree 10 (20.8) Disagree 26 (54.2) Strongly Disagree 06 (12.5)	Neither agree, or Disagree 04 (8.3) Disagree 30 (62.1) Strongly Disagree 09 (18.8)
13	In most instances, the time required for inter-professional consultations could be better spent in other ways.	Strongly Agree Agree 03 (6.3) Neither agree, or Disagree 15 (31.3) Disagree 26 (54.2) Strongly Disagree 04 (8.3)	Strongly Agree Agree 02 (4.2) Neither agree, or Disagree 11 (22.9) Disagree 24 (50) Strongly Disagree 11 (22.9)
14	Developing an inter-professional patient/client care plan is excessively time-consuming.	Strongly Agree Agree 06 (12.5) Neither agree, or Disagree 13 (27.1) Disagree 25 (52.1) Strongly Disagree 04 (8.3)	Strongly Agree Agree 07 (14.6) Neither agree, or Disagree 14 (29.2) Disagree 20 (41.7) Strongly Disagree 07 (14.6)

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Health and Social care Integration National Outcomes (n = 450) Before (n = 275), After (n = 175)			
Sr #	**Health and Social care Outcome statements**	**Before-Module Response n (%)**	**After-Module Response n (%)**
01	People are able to look after and improve their own health and wellbeing and live in good health for longer.	Strongly Disagree 03 (1.2) Disagree 21 (7.6) Neither Agree or Disagree 76 (27.6) Agree 142 (51.6) Strongly Agree 33 (12)	Strongly Disagree 01 (0.6) Disagree 02 (1.1) Neither Agree or Disagree 6 (3.4) Agree 79 (45.1) Strongly Agree 87 (49.7)
02	People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community.	Strongly Disagree 01 (0.4) Disagree 14 (5.1) Neither Agree or Disagree 31 (11.3) Agree 175 (63.6) Strongly Agree 54 (19.6)	Strongly Disagree Disagree 01 (0.6) Neither Agree or Disagree 03 (1.7) Agree 77 (44.3) Strongly Agree 93 (53.4)
03	People who use health and social care services have positive experiences of those services, and have their dignity respected.	Strongly Disagree 02 (0.7) Disagree 18 (6.6) Neither Agree or Disagree 105 (38.5) Agree 113 (41.4) Strongly Agree 35 (12.8)	Strongly Disagree Disagree 01 (0.6) Neither Agree or Disagree 10 (5.7) Agree 87 (49.7) Strongly Agree 77 (44)
04	Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services.	Strongly Disagree Disagree 04 (1.5) Neither Agree or Disagree 14 (5.1) Agree 162 (59.1) Strongly Agree 94 (34.3)	Strongly Disagree Disagree Neither Agree or Disagree 02 (1.1) Agree 75 (42.9) Strongly Agree 98 (56)
05	Health and social care services contribute to reducing health inequalities.	Strongly Disagree Disagree 14 (5.1) Neither Agree or Disagree 53 (19.3) Agree 156 (56.9) Strongly Agree 51 (18.6)	Strongly Disagree 01 (0.6) Disagree Neither Agree or Disagree 06 (3.4) Agree 87 (49.7) Strongly Agree 81 (46.3)
06	People who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and well-being.	Strongly Disagree 04 (1.5) Disagree 40 (14.5) Neither Agree or Disagree 98 (35.6) Agree 107 (38.9) Strongly Agree 26 (9.5)	Strongly Disagree Disagree 05 (2.9) Neither Agree or Disagree. 52 (29.7) Agree 70 (40) Strongly Agree 48 (27.4)

07	People using health and social care services are safe from harm.	Strongly Disagree 20 (7.3) Disagree 89 (34.4) Neither Agree or Disagree 98 (34.9) Agree 52 (18.9) Strongly Agree 18 (6.5)	Strongly Disagree 02 (1.1) Disagree 38 (21.7) Neither Agree or Disagree 56 (32) Agree 50 (28.4) Strongly Agree 29 (16.6)
08	People who work in health and social care services feel engaged with the work they do and are supported to continuously improve the information, support, care and treatment they provide.	Strongly Disagree Disagree 24 (8.7) Neither Agree or Disagree 111 (40.4) Agree 116 (42.2) Strongly Agree 24 (8.7)	Strongly Disagree 02 (1.1) Disagree Neither Agree or Disagree 42 (24) Agree 72 (41.1) Strongly Agree 59 (33.7)
09	Resources are used effectively and efficiently in the provision of health and social care services.	Strongly Disagree 03 (1.1) Disagree 32 (11.6) Neither Agree or Disagree 100 (36.4) Agree 121 (44) Strongly Agree 19 (6.9)	Strongly Disagree Disagree 04 (2.3) Neither Agree or Disagree 15 (8.6) Agree 89 (50.9) Strongly Agree 67 (38.3)

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Health and Social care Integration National Outcomes, Matched pair (n = 48)			
Sr #	**Health and Social care Outcome statements**	**Before-Module Response n (%)**	**After-Module Response n (%)**
01	People are able to look after and improve their own health and wellbeing and live in good health for longer.	Strongly Disagree Disagree 03 (6.3) Neither Agree or Disagree 13 (27.1) Agree 27 (56.3) Strongly Agree 05 (10.4)	Strongly Disagree Disagree Neither Agree or Disagree 04 (8.3) Agree 19 (39.6) Strongly Agree 25 (52.1)
02	People, including those with disabilities or long-term conditions, or who are frail, are able to live, as far as reasonably practicable, independently and at home or in a homely setting in their community.	Strongly Disagree Disagree 02 (4.2) Neither Agree or Disagree 05 (10.4) Agree 26 (54.2) Strongly Agree 15 (31.3)	Strongly Disagree Disagree Neither Agree or Disagree 01 (2.1) Agree 17 (35.4) Strongly Agree 30 (62.5)
03	People who use health and social care services have positive experiences of those services, and have their dignity respected.	Strongly Disagree Disagree 05 (10.4) Neither Agree or Disagree 18 (37.5) Agree 20 (41.7) Strongly Agree 05 (10.4)	Strongly Disagree Disagree Neither Agree or Disagree 04 (8.3) Agree 20 (41.7) Strongly Agree 24 (50)
04	Health and social care services are centred on helping to maintain or improve the quality of life of people who use those services.	Strongly Disagree Disagree 01 92.1) Neither Agree or Disagree 03 (6.3) Agree 28 (58.3) Strongly Agree 16 (33.3)	Strongly Disagree Disagree Neither Agree or Disagree 02 (4.2) Agree 17 (35.4) Strongly Agree 29 (60.4)
05	Health and social care services contribute to reducing health inequalities.	Strongly Disagree Disagree 03 (6.3) Neither Agree or Disagree 13 (27.1) Agree 26 (54.2) Strongly Agree 06 (12.5)	Strongly Disagree Disagree 01 (2.1) Neither Agree or Disagree 02 (4.2) Agree 20 (41.7) Strongly Agree 25 (52.1)
06	People who provide unpaid care are supported to look after their own health and wellbeing, including to reduce any negative impact of their caring role on their own health and well-being.	Strongly Disagree Disagree 09 (18.8) Neither Agree or Disagree 17 (35.4) Agree 17 (35.4) Strongly Agree 05 (10.4)	Strongly Disagree Disagree 01 (2.1) Neither Agree or Disagree 08 (16.7) Agree 21 (43.8) Strongly Agree 18 (37.5)

07	People using health and social care services are safe from harm.	Strongly Disagree 01 (2.1) Disagree 15 (31.3) Neither Agree or Disagree 18 (37.5) Agree 11 (22.9) Strongly Agree 03 (6.3)	Strongly Disagree 01 (2.1) Disagree 07 (14.6) Neither Agree or Disagree 15 (31.3) Agree 12 (25) Strongly Agree 13 (27.1)
08	People who work in health and social care services feel engaged with the work they do and are supported to continuously improve the information, support, care and treatment they provide.	Strongly Disagree Disagree 04 (8.3) Neither Agree or Disagree 20 (41.7) Agree 18 (37.5) Strongly Agree 06 (12.5)	Strongly Disagree Disagree Neither Agree or Disagree 13 (27.1) Agree 19 (39.6) Strongly Agree 16 (33.3)
09	Resources are used effectively and efficiently in the provision of health and social care services.	Strongly Disagree 01 (2.1) Disagree 03 (6.3) Neither Agree or Disagree 18 (37.5) Agree 20 (41.7) Strongly Agree 06 (12.5)	Strongly Disagree Disagree 01 (2.1) Neither Agree or Disagree 11(22.9) Agree 22 (45.8) Strongly Agree 14 (29.2)

Nursing Education Before (n = 275), After (n=175)		
Items	Before Module n (%)	After Module n (%)
1.I think it is important that nursing students learn about health and social care policy.	Strongly Agree 182 (80.2) Agree 43 (18.9) Neither Agree or Disagree 02 (0.9)	Strongly Agree 87 (68.5) Agree 40 (31.5) Neither agree or disagree
2. Learn how the NHS is funded.	Strongly Agree 123 (54.2) Agree 72 (31.7) Neither agree or disagree 27 (11.9) Disagree 04 (1.8) Strongly disagree 01 (0.4)	Disagree 02 (1.6) Strongly Agree 108 (85) Agree 14 (11) Neither agree or disagree 03 (2.4)
3.Learn how the NHS is organised.	Strongly Agree 140 (61.7) Agree 72 (31.7) Neither agree or disagree 12 (5.3) Disagree 2 (0.9) Strongly Disagree. 1 (0.4)	Strongly Agree 113 (89) Agree 12 (9.4) Neither agree or disagree = 01 (0.8) Disagree 01 (0.8)

4. Learn about legislation that affects how the NHS is organised.	Strongly Agree 164 (72.2) Agree 48 (21.1) Neither agree or disagree 13 (5.7) Disagree. 2 (0.9)	Strongly Agree 116 (91.3) Agree 07 (5.5) Neither agree or disagree 04 (3.1) Disagree
5. Learn about health and social care integration.	Strongly Agree 187 (82.4) Agree 34 (15) Neither agree or disagree 05 (2.2)	Strongly Agree 121 (95.3) Agree 06 (4.7) Neither agree or disagree
6. Learn about inter-agency working.	Strongly Agree 183 (80.6) Agree 39 (17.2) Neither agree or disagree 05 (2.2)	Strongly Agree 121(95.3) Agree 06 (4.7) Neither agree or disagree
7. Learn alongside other health and social care professionals.	Strongly Agree 188 (82.8) Agree 33 (14.5) Neither agree or disagree 06 (2.6)	Strongly Agree 119 (93.7) Agree 07 (5.5) Neither agree or disagree 01 (0.8)

Nursing Education match pair (n = 48)		
Item	**Before Module n (%)**	**After Module n (%)**
1.I think it is important that nursing students learn about health and social care policy.	Strongly Agree 38 (79.2) Agree 10 (20.8) Disagree	Strongly Agree 39 (81.3) Agree 08 (16.7) Neither agree or disagree 01 (2.1)
2. Learn how the NHS is funded.	Strongly Agree 26 (54.2) Agree 16 (33.3) Neither agree or disagree 06 (12.5)	Strongly Agree 36 (75) Agree 09 (18.8) Neither agree or disagree 03 (6.3)
3.Learn how the NHS is organised.	Strongly Agree 28 (58.3) Agree 17 (35.4) Neither agree or disagree 03 (6.3)	Strongly Agree 39 (81.3) Agree 08 (16.7) Neither agree or disagree = 01 (2.1)
4. learn about legislation that affects how the NHS is organised.	Strongly Agree 34 (70.8) Agree 09 (18.8) Neither agree or disagree 07 (10.4)	Strongly Agree 38 (79.2) Agree 09 (18.8) Neither agree or disagree 01 (2.1)
5. Learn about health and social care integration.	Strongly Agree 38 (79.2) Agree 08 (16.7) Neither agree or disagree 02 (4.2) Disagree	Strongly Agree 41 (85.4) Agree 07 (14.6) Neither agree or disagree
6. Learn about inter-agency working.	Strongly Agree 38 (79.2) Agree 09 (18.8) Neither agree or disagree 01 (2.1) Disagree	Strongly Agree 42 (87.5) Agree 05 (10.4) Neither agree or disagree 01 (2.1)
7. Learn alongside other health and social care professionals.	Strongly Agree 35 (74.5) Agree 13 (25.5)	Strongly Agree 43 (89.6) Agree 04 (8.3) Neither agree or disagree 01 (2.1)

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Appendix: 11 Attitudes Towards Health Care Team Working Scale

Sr #	Scale Items
1	The inter-professional approach improves the quality of care to patients/clients.
2	The interprofessional approach permits health professionals to meet the needs of family caregivers as well as patients.
3	Having to report observations to a team helps team members better understand the work of other health professionals.
4	The inter professional approach makes the delivery of care more efficient.
5	Hospital patients who receive inter-professional team care are better prepared for discharge than other patients.
6	Team meetings foster communication among team members from different professions or disciplines.
7	The give and take among team members help them make better patient/client care decisions.
8	Patients/clients receiving inter-professional care are more likely than others to be treated as whole persons.
9	Health professionals working as teams are more responsive than others to the emotional and financial needs of patients/clients.
10	Working in an inter-professional environment keeps most health professionals enthusiastic and interested in their jobs.
11	Developing a patient/client care plan with other team members avoids errors in delivering care.
12	Working in an inter-professional manner unnecessarily complicates things most of the time.
13	In most instances, the time required for inter-professional consultations could be better spent in other ways.

14	Developing an inter-professional patient/client care plan is excessively time-consuming.