HEALTH SCIENCES STUDENTS' PERCEPTIONS OF COLLABORATIVE PRACTICE ON A RURAL LEARNING PLATFORM, XHARIEP DISTRICT

By

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DECLARATION

I, Nompumelelo Lucy Mona-Dinthe, declare that this dissertation is my own work. This work has not been submitted for degree purposes at any other university. I have indicated and acknowledged all the sources that I used in completing this dissertation.

Student's signature Date

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N.L. MONA-DINTHE

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SUMMARY

In a new initiative, the Faculty of Health Sciences of the University of the Free State extended interprofessional education to rural communities, including the southern Free State, which require health sciences students to participate in compulsory collaborative practice activities. The schools comprising the faculty used to work in silos, until 2015, when consensus was reached to work collaboratively. This study was done to describe the perceptions of the health sciences students of collaborative practice on a rural learning platform in Kopanong Municipality, Xhariep District. Qualitative, descriptive, and contextual design was used to gain insight into the perceptions of the students. The students of the different schools participated in focus group sessions for data collection until saturation was reached.

The argument for the study is that a description of the perceptions of the health sciences students could provide the researcher with the necessary information to formulate recommendations on how to support or enhance these students' collaborative practice on a rural learning platform. Data analysis shows that most of the students were positive about collaborative practice, though there were issues that needed to be corrected. Furthermore, students often referred to good relations, assisting one other for the purpose of improving patient outcomes, learning from each other, and appreciating one's profession.

A variety of recommendations resulted from the analysis. It was found that the range of competencies required from a collaborative practice team seemed to have been effectively addressed and should, therefore, remain part of the existing programme. However, new developments with regard to the expansion of competencies should be considered and implemented. Regarding emotions, the study concludes that a well-structured programme that allows ample time for orientation of students could ease the transition of students into an rural and collaborative practice environment. Regarding community responsiveness, it is suggested that programme developers orient the communities that are part of the programme, and provide information on the time schedule, what is expected of the community, and how they will benefit. Some form of acknowledgement of the community members' contribution to the students' collaborative practice and learning experience should be considered. Ethical issues identified were that the facilities for screening more than one community member at a time would be conducive to the exercise and ensure privacy. In relation to

socioeconomic and healthcare issues, referral pathways should be established and the existing ones should be used optimally. A dedicated person should take responsibility for monitoring patient referrals. Regarding resources, it is crucial that social workers, students and/or qualified staff are available to support programme activities and manage referrals – this should be negotiated with the provincial Department of Social Development and/or the Faculty of the Humanities at the university. Lastly, in relation to logistics and administration, the Faculty of Health Sciences should invite or extend the partnership to other schools at the university, such as those training social workers or psychologists, for the benefit of the community, which will then have enhanced access to care, and whose health outcomes will improve.

The results of this study identified the potentials of collaborative practice, which thoroughly transformed students' understanding of the other professions' roles and responsibilities, communication and mutual trust. The students displayed relevant knowledge on fundamental teamwork principles relating to specific activities. A critical condition for developing these new insights was to feel confident in the learning environment. If the Faculty of Health Sciences could implement the recommendations, students' learning will be enhanced and they will enjoy continuing working collaboratively.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBE	Community-based education
IPE	Interprofessional education
WHO	World Health Organization

CLARIFICATION OF KEY CONCEPTS

Clarification of the key concepts related to this study:

Collaborative practice

Collaborative practice in healthcare "occurs when multiple health workers from different professional backgrounds provide comprehensive services by working with patients, their families, carers and communities to deliver the highest quality of care across settings" (WHO, 2010a:196). This description of collaborative practice by the World Health Organization (WHO) seems to be widely accepted (Gilbert, Yan & Hoffman, 2010:196; Golom & Schreck, 2018:1; Morley & Cashell, 2017:207; Reeves, Perrier, Goldman, Freeth & Zwarenstein, 2013:193).

In this study, collaborative practice refers to interprofessional teams of health sciences students, working together on a rural learning platform, in order to benefit from shared learning with the aim of strengthening existing health services and health outcomes.

Collaboration between the students takes place within a structured programme based on interprofessional education (IPE) principles, and was developed by the Faculty of Health Sciences at the University of the Free State (UFS).

Refer to Figure 1.1

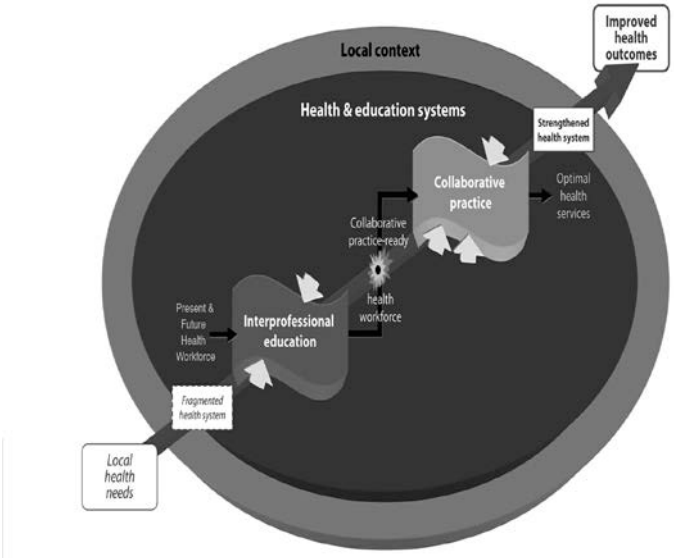

Figure 1: WHO report framework for action on interprofessional education and collaborative practice, Gilbert *et al.* (2010:196)

Community-based education

Community- based education (CBE) refers to a wide variety of instructional methods and programs that educators use to connect what is being taught in schools to their surroundings communities, including local institutions, history, literature, cultural heritage and natural environments (Claramita, Setiawati & Kristina, 2019:1-10 & Boon, Ridd & Blythe, 2018:23-28).

In this study community-based education refers to the allocation of health sciences students to facilties such as clinics, homes for the elderly, or other organisations that offer health care, to achieve their curriculum related outcomes.

Interprofessional education (IPE)

Students from different professions in health and social care learn together during part of their professional training with the purpose of cultivating collaborative practice for providing patient-centered care (Khalili, Gilbert, Lising, MacMillan, Maxwell, & Xyirichis, 2019:27).

In this study collaboration between the students takes place within a structured programme based on interprofessional education (IPE) principles, and was developed by the Faculty of Health Sciences at the University of the Free State (UFS).

Perceptions

Perception refers to seeing things from a specific frame of reference, worldview or theory. Perceptions become our reality, which gives us a sense of certainty, security and control (Burns, Grove, Gray & Barcelo, 2013:68).

For the purpose of this study, perceptions entail health sciences students' perceptions of collaborative practice on a rural learning platform in Kopanong Municipality. Participants' perceptions were obtained through focus group interviews with groups of students.

Health sciences students

"Health sciences is a multidisciplinary field. It actively combines bio-medical, psycho-social, organizational and societal aspects of health, disease and health care" (University of Twente, 2015: Online), in which the focus is, for example, on the

application of knowledge to improve healthcare and, ultimately, quality of life. ‘’Health sciences could also be described as the discipline of applied science which deals with human health” (ScienceDaily, n.d.: Online).

In this study, health sciences students refers to students in their fourth year of study who were registered for study in the allied health sciences, for example, occupational therapy, physiotherapy, optometry or dietetics, as well as medicine and nursing. These students had been involved in collaborative practice activities scheduled by the faculty of health sciences. The activities that facilitated collaborative practice were applied in a rural environment, and were embedded in the principles of interprofessional education.

Rural learning platform

The rural learning platform referred to in this study is the initiative of the faculty of health sciences. This platform offers accommodation, lecture rooms, a small library, internet access and recreation facilities. It has the aim of placing fourth-year students in the allied health professions, medicine and nursing, for a forty-hour collaborative practice learning experiences in the townships of Trompsburg and Springfontein, which are in the Kopanong Municipality, Xhariep District. Ample learning opportunities are available in these communities, including real-life experience, to promote collaborative learning or practice through the application of IPE principles.

In this study, students’ perceptions of collaborative practice on a rural learning platform were obtained through focus group interviews with different groups of students.

Study context

- Xhariep District, Free State province

Xhariep is one of the five districts of the Free State province of South Africa. The district constitutes the southern part of the Free State, and covers approximately 34 131 km^2. The seat of Xhariep is the town of Trompsburg.

According to 2016/2017 census data, the population of the district was 125 884 (StatsSA, 2017a). Other data relating to the population in Xhariep is as indicated in Table 1.

Table 1.1: Population data for Xhariep district

Demographics		
Age	Under 15 years	26.5%
	Over 65 years	6.8%
Education	No schooling	10.6%
	Matric	26.2%
	Higher education	5.6%
Dependency ratio per 100 between 15 and 64 years		98.5%
Sex ratio males per 100 females		98.5%
Population growth per annum		0.72%
Average household size		2.5
Housing	Formal dwelling	89.1%
	Housing owned	61.7%
Household services	Flush toilet connected to sewerage	79.2%
	Weekly refuse removal	67.7%
	Piped water inside dwelling	34.7%
	Electricity for lighting	94.2%

Source: StatsSA (2017a: Online)

The Free State province is a South African province that sprawls over high plains, and stretches along the Maluti Mountains that border the landlocked country of Lesotho. Nestled in the heart of South Africa, the Free State is essentially an agricultural hub. The province is not considered poor, as all districts are in the third and fourth highest socio-economic quintile (StatsSA, 2017a: Online).

- Kopanong Municipality

Kopanong municipal area is located in the southern Free State. Kopanong covers 15 190 km^2, making this municipality the largest of three local municipalities that were involved in the study. Trompsburg and Springfontein are two of the nine towns situated

in this municipality (www.localgovernment.co.za; www.kopanong.gov.za). Refer to Figure 2.

Figure 1: Location of Xhariep District and Kopanong Municipality in the Free State provinc

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 INTRODUCTION, BACKGROUND AND RATIONALE

Health systems throughout the world are struggling to meet community health needs, due to fragmented healthcare services and complex healthcare issues (Hoffman & Cole, 2018:38; Gilbert, Yan & Hoffman, 2010:196; Maes, Closser & Kalofonos, 2014:7; Nxumalo, Goudge & Manderson, 2016:17).

In an effort to bolster the global workforce and to address this fragmentation of healthcare, the World Health Organization (WHO, 2010b) has called for the implementation of innovative strategies and mechanisms (Manyazewal, 2017:225). Various authors (Brandt, Chioreso & Lutfiyya, 2016:393; Doll, Packard, Furze, Huggett, Jensen, Jorgensen, Wilken, Chelal & Maio, 2013:194-196; Gilbert *et al.*, 2010:196; Mocumbi, Carrilho, Aronoff-Spencer, Funzamo, Patel, Preziosi, Lederer, Tilghman, Benson, Badaró, Nguenha, Schooley & Noormahomed, 2014:78-82; Safabakhsh, Irajpour & Yamani, 2018:459) consider collaborative practice that could be strengthened using an interprofessional education (IPE) approach to be such a strategy. To enable effective collaboration that could improve health outcomes, students from different professions "learn about, from, and with each" other, to enable effective collaboration and to improve health outcomes (Brashers, Haizlip & Owen, 2019:1-5; Dow, Zhu, Sewell, Banas, Mishra & Tu, 2017:677-678; Gilbert *et al.*, 2010:196; Talaat & Landhani, 2014:4; Yeh, Huang, Chen & Hsieh, 2019:188-191).

Collaborative practice that benefits healthcare users and student learning has become increasingly popular (Thomas, Pollard & Sellman, 2014:18). This approach to practice moves healthcare from fragmentation to integration, and to a position of strength (Gilbert *et al.*, 2010:196; WHO, 2010b:3-8). Importantly, collaborative practice in healthcare provides extensive and quality healthcare to a diversity of healthcare users across healthcare settings (El-Awaisi, Joseph, El-Hajj & Diack, 2018:1-5; Gilbert *et al.*, 2010:196; Morley & Cashell, 2017:207-216; Reeves, Perrier, Goldman, Freeth & Zwarenstein, 2013:193; WHO, 2010a:13). Concepts describing collaborative practice include, for example, interaction between diverse groups striving to achieve common outcomes, continuous partnerships with focused efforts to render services, and collective engagements founded on values such as trust and respect (Morley & Cashell, 2017:208).

There is evidence that student engagement through collaborative practice affects student success and achievement positively (Rué, Font & Cebrián, 2013:191-209). Exposure of healthcare professionals to interprofessional opportunities helps them to master the skills that they need to become part of collaborative, practice-ready healthcare teams (Gilbert *et al.*, 2010:196; Morley & Cashell, 2017:208; Shirey & White-Williams, 2019:101-112). Benefits of collaboration include improved health outcomes, knowledge transfer through knowledge sharing, improved decision-making, evidence-based practice and innovative approaches to healthcare issues.

Collaborative practice by students on a rural learning platform is a new initiative of the Faculty of Health Sciences, University of the Free State (UFS). Therefore, it was important to initiate research that could contribute to the refinement of this initiative. This qualitative study aimed to describe the perceptions of health sciences students who were placed for collaborative practice on a rural learning platform in the Kopanong Municipality, Xhariep District. The current study was conducted within the framework of a project funded by the National Research Foundation of South Africa, 2015-2017, and implemented and monitored by a school of nursing within a faculty of health sciences.

1.2. PROBLEM STATEMENT

The WHO (2010a) *Framework for Action on Interprofessional Education and Collaborative Practice* highlights the importance to develop a healthcare workforce that is ready to collaborate and armed with the necessary collaborative practice skills. In this framework, healthcare teams are unequivocally linked with the aim of improving healthcare and health outcomes (Brandt, Lutfiyya, Delaney, Pechacek & Cerra, 2016:394; Reeves, Pelone, Harrison, Goldman & Zwarenstein, 2017:72). Although collaborative practice have been an area of enquiry for several decades, quality research that examines the impact of and strengthens the evidence base for effective collaborative practice still remains a pressing need (Brandt, Lutfiyya *et al.*, 2016:393; Malcolm, Shellman, Elwell & Rees, 2017:6-8).

A scoping review of research that addressed collaborative practice indicates that only 12.7% of the 496 papers that were analysed, involved a setting that combined higher education and healthcare practice sites where health sciences students were placed (Brandt, Lutfiyya et al., 2016:394). However, this faculty of health sciences has

extended collaborative practice to rural communities, such as the southern Free State province of South Africa, by requiring health sciences students to participate in compulsory collaborative practice activities.

The argument of the current study was that a description of the perceptions of the health sciences students, from occupational therapy, physiotherapy, dietitians, medicine and nursing on collaborative practice could provide the researcher with information needed to formulate recommendations for supporting or enhancing these students' collaborative practice on a rural learning platform.

1.3. RESEARCH QUESTION

Based on the introduction to the study, the background, rationale and the problem statement, the following research question emerged:

> What are health sciences students' perceptions of collaborative practice on a rural learning platform in Kopanong Municipality, Xhariep district, Free State province?

1.4. PURPOSE OF THE STUDY

The purpose of this study was as follows:

> To describe health sciences students' perceptions of collaborative practice on a rural learning platform in Kopanong Municipality, Xhariep District, Free State province.

1.5. PARADIGMATIC PERSPECTIVE

The study is embedded in the interpretive research tradition, which is a tradition influenced by several intellectual traditions, among which hermeneutics, phenomenology and symbolic interactionism (Du Plooy-Cilliers, Davis & Bezuidenhout, 2014:28). The paradigmatic perspective describes the manner in which the researcher views and explains the research material (De Vos, Strydom, Fouché & Delport, 2011:40). Some basic beliefs associated with constructivism, as explained by Mertens (2015:11), informed the researcher's paradigmatic perspective.

The researcher recognises that human behaviour is complex and cannot be observed objectively, or in parts. The things that happen in their environment (Du Plooy-Cilliers *et al.*, 2014:28) influence people. The task of the researcher in this study was to describe health sciences students' perceptions, in order to gain an empathetic understanding of how the students perceive collaborative practice on a rural learning platform. These meaningful perceptions were described from the point of view of the group being studied (Du Plooy-Cilliers *et al.*, 2014:28). The researcher did not attempt to generalise the study findings. Furthermore, the researcher was aware that the observations made through a thematic analysis of findings could not be considered to be neutral, objective or value free; instead, they were shaped by her stated theoretical framework and values (Zuber-Skerritt, Wood & Louw, 2015:138). The researcher adhered to the basic principles of ethics as stated in the Belmont Report, and in the codes of ethics described by the South African Nursing Council (Mertens, 2015:18). The research subjects, namely, health sciences students, were participants in the research process, and participated in the triangulation of data.

1.6. RESEARCH DESIGN

The researcher used a qualitative, descriptive, and contextual design to gain insight into the perceptions of health sciences students regarding collaborative practice on a rural learning platform. Qualitative research is context-bound and aims to understand and describe events within the concrete, natural context or setting in which they occur (Brink, Van der Walt & Van Rensburg, 2018:121; Burns & Grove, 2009:54; Crossman, 2018:23; Hammarberg, Kirkman & De Lacey, 2016:498-501; Merriam & Tisdell, 2016:18, Pathak, Jena & Sanjay, 2013:192).

Various authors explain that qualitative research is used to explore the meaning, or to describe and provide an in-depth understanding of human experiences, such as a pain, grief, and hope or caring (Brink *et al.*, 2018:104; Maree, 2007:50-51; Neuman, 2014:110). Qualitative approaches, therefore, are appropriate for exploring the meaning individuals or groups ascribe to social or human problems (Burns & Grove, 2009:23). Also called interdisciplinary, transdisciplinary and, sometimes, counter-disciplinary research, qualitative research crosscuts the humanities, the social, and the physical sciences (Brink, Van der Walt & Van Rensburg, 2012:120; De Vos, Strydom, Fouché & Delport, 2014:310).

The study was descriptive in nature. Descriptive research is a type of research that provides an accurate portrayal or account of the characteristics of a particular event or groups in a real situation (Brink *et al.*, 2018:96-97; Burns & Grove, 2009:696; Nassaji, 2015:129-132). The researcher used the descriptive design to give an accurate report of the students' perceptions.

1.7. RESEARCH METHODOLOGY

Research methodology includes procedures and techniques that could be used to develop research project's blueprint. In this study the research methodology includes aspects such as the research technique, population and sampling, data gathering and analysis, trustworthiness, and ethical issues.

1.7.1. Research techniques

Focus group interviews consist of a series of audio-recorded group discussions that are conducted to gain a better understanding of group beliefs, norms, and how people feel or think about a product or a service (Bloor & Wood, 2006:88; Dilshad & Latif, 2013:191-198; Greeff, 2005:299; Nyumba, Wilson, Derrick & Mukherjee, 2018:20-32). The researcher considered focus group interviews to be an appropriate technique to collect data, because a sharing climate could be established between the students, and rich data could be generated at little cost (Babbie, 2007:309; Brink *et al.*, 2018:144).

Because a focus group is considered a unit of analysis, Mertens (2015:383) states that the researcher should decide on the number of groups that should be included. Six focus groups consisting of 8-12 mixed students were scheduled, in order to meet focus group interview criteria, and to reach data saturation. The following open-ended question was posed during each focus group interview:

> *Tell me about your learning experiences in Trompsburg or Springfontein during your placement for collaborative practice in these areas*.

1.7.2. Study population

A study population refers to a group of people, documents, events or specimens the researcher is interested in collecting information or data from (Brink *et al.*, 2018:116-117; Moule, Aveyard & Goodman, 2017:391). The study population involved between 340 and 370 fourth-year students registered in the Faculty of Health Sciences (UFS).

1.7.3. Unit of analysis

A unit of analysis is the object of a study that researchers intend to draw their conclusions from (Botma, Greeff, Mulaudzi & Wright, 2010:51-52). Typically, the unit of analysis includes individuals, or groups, organisations and social artefacts (Brink *et al.*, 2018:138; De Vos *et al.*, 2011:93). In this study, purposive sampling was used to select fourth-year health sciences students who,

- Were placed in either Trompsburg or Springfontein for a 40-hour, weeklong collaborative practice experience;
- Were part of a group that consisted of at least three professions, such as nursing, occupational therapy, physiotherapy and/or medicine; and
- Provided consent to participate in a focus group interview that was conducted in English.

1.7.4. Explorative interview

An expert in the field of qualitative research conducted the explorative interview. Information was collected a week after students had participated in collaborative practice activities. A group of 8-12 students that had provided consent participated in the explorative interview. The purpose of this interview was to test if the research question met the required criteria, and the findings of the explorative interview group were included in the main study. The same process as described below was followed during this interview.

1.7.5. Data collection

Data collection, by means of focus group interviews, took place at a health sciences faculty's facility in Trompsburg. Permission to conduct the study was obtained from the relevant ethics committee and other stakeholders.

A list of the names of students who were placed in Trompsburg or Springfontein was obtained. Groups that consisted of at least three professions were informed about the research project during an orientation session conducted by a facilitator at Trompsburg. Written consent to participate was obtained at the same time.

Before the focus group interviews commenced, the researcher booked a venue that suited the research technique. Two audio recorders, one serving as backup, and in working condition, were placed on a small table near the group of participants. Data gathering took place on a Friday morning, after the selected participants had taken part in the collaborative practice activities.

Prior to data gathering, the focus group interview facilitator, who is an expert in the field of qualitative research, gave an overview, and explained the purpose of the study. The facilitator facilitated the focus group interviews in English. The researcher, who was unknown to the participants, observed the data collection process, handled logistics and distractions, and operated the audio recorders. The number of focus group interviews was determined by saturation of data. The facilitator and the researcher displayed attitudes of genuineness and respect towards participants during and after the focus group interviews.

1.7.6. Strategies to enhance trustworthiness

Throughout the study, the researcher adhered to four criteria to establish the trustworthiness of qualitative data, namely, credibility, conformability, dependability and transferability (Botma *et al.*, 2010:233-234).

1.8. ETHICAL CONSIDERATIONS

Respect for people, justice and beneficence formed the foundation throughout the study, but specifically during data collection (Botma *et al.*, 2010:17; Mhaolrunaig, Heffernan, Brown, Greaney & Murphy, 2016:38).

1.9. DATA ANALYSIS

The researcher used the data analysis step proposed by Creswell (2013:186). Refer to Figure 2.1. At this stage, the researcher did the data reduction and presentation and the interpretation of the data (Brink *et al.*, 2018:165-166; De Vos *et al.*, 2011:306).

Transcription is the process of converting audio recordings and/or field notes into text data, to ease the process of data analysis (Creswell, 2008:648).

1.10. CONCLUSION

Chapter 1 enabled the researcher to conceptualise how the research would be conducted. Clear guidelines related to each aspect of the research process were stated. The researcher's main aim was to adhere to these guidelines in order to gather information that would be considered trustworthy. Chapter 2 will contain a detailed description of the research methodology, in order to facilitate an in-depth understanding of the process described in Chapter 1.

CHAPTER: 2 RESEARCH METHODOLOGY

2.1. INTRODUCTION

In Chapter 1, the researcher gave an outline of the problem statement and the paradigmatic perspective, as well as a brief orientation of the research methodology applied in the study. The brief discussion included the research design and method, and indicated how both the design and method contributed to the research purpose, namely, to describe the perceptions of health sciences students of collaborative practice on a rural learning platform in Kopanong Municipality, Xhariep District, Free State province.

Chapter 2 will include a detailed description of the above-mentioned research methodology. The discussion will include the research design and technique and other aspects of the study, such as the selection of participants, the data collection process, and the data analysis method. The researcher believes that a thorough discussion of the methodology will enable a better understanding of the process followed to conduct the study.

2.2. RESEARCH DESIGN

A qualitative, descriptive and contextual design was selected to achieve the purpose of the study, namely, to improve insight into the perceptions of health sciences students regarding collaborative practice on a rural learning platform. A research design is a plan (Du Plooy-Cilliers *et al.*, 2014:93) or strategy that moves from the underlying philosophical assumption to specifying the selection of the population and sample, the data gathering techniques, and the data analysis approach (Maree, 2007:70). In addition, the research design is a plan and procedure for research that spans the steps, from broad assumptions, to detailed methods of data collection, analysis and interpretation (Creswell, 2013:3). Other authors state that a research design is the overall plan for obtaining answers to the research questions, including strategies for enhancing the study integrity (Bhattacherjee, 2012:22; Kumar, 2011:9; Mouton, 2012:55, Polit & Beck, 2013:39).

2.2.1. Qualitative design

A qualitative design is suitable when inadequate information exists about a phenomenon, or when the nature of such a phenomenon is not fully understood or demarcated (Gray, Grove & Sutherland, 2018:59; Polit & Beck, 2017:784). Qualitative studies are emergent in nature, that is, a researcher's reflections and decisions determine the form it will take (Polit & Beck, 2017:463). These studies are systematic and suitable to explore, describe and understand life experiences that cannot be statistically measured, to give experiences significance or meaning (Brink *et al.*, 2018:121). Furthermore, Burns *et al.* (2013:23), Creswell (2013:4) and De Vos *et al.* (2011:65) confirm that qualitative research is preferred when the purpose is to ascertain the meaning behind the experiences, or to ultimately offer a thorough or in-depth view on human experiences, such as pain, grief, hope or caring. Qualitative researchers describe mainly the research participants' activities, movements and actions, and strive to create meaning in accordance with participants' own beliefs, interpretations, perspectives and histories (Brink *et al.*, 2018:103-104; Gray *et al.*, 2018:59, Mouton, 2009:279). Importantly, researchers need to let the participants' voices to be heard.

Merriam and Tisdell (2016:15) state that characteristics that are important for understanding qualitative research are "the focus on process, understanding, and meaning; the researcher is the primary instrument of data collection and analysis; the process is inductive; and the product is richly descriptive".

Qualitative research, therefore, seeks to explore phenomena, typically in an in-depth and holistic fashion, through the collection of rich narrative material (Brink *et al.*, 2018:162-163; Polit & Beck, 2013:389). Creswell (2013:14) indicates that a qualitative research design is based on inductive reasoning and holistic paradigms, and focuses on individual meaning and the importance of rendering the complexity of a situation.

In Chapter 1, the researcher mentioned that the study would address an issue about which little is known. Therefore, students' perceptions regarding collaborative practice on a rural learning platform was described. A qualitative design was appropriate to address the purpose of the study.

2.2.2. Descriptive design

Descriptive research gives a precise representation of the nature of a specific occurrence or groups exposed to a real-life situation (Burns *et al.*, 2013:26, 215; Burns & Grove, 2009:696). A descriptive design contributes to a researcher's quest to give a real picture or detail of a situation, a social setting or relationship. This type of design focuses on "how" and "why" questions (Brink *et al.*, 2018:96-97; Burns *et al.*, 2013:66; De Vos *et al.*, 2011:87) and is used to develop theory, identify problems with current practices, justify current practices, make judgements or determine what others in similar situations are doing (Burns *et al.*, 2013:26).

In this study, the researcher used a descriptive research design to give an accurate report of the findings related to students' perceptions of a rural learning platform. Moreover, the researcher used the selected design to describe the issue explored during the data collection process.

2.2.3. Contextual design

A study is contextual in nature when the findings are trustworthy if applied to the situation in which the study was done (Jooste, 2009:460). Contextual research is conducted in natural a setting, which is sometimes referred to as field settings, where studies are uncontrolled, or it is done in real-life settings. Conducting a study in a natural setting means that the researcher does not manipulate or change the environment for the purpose of the study (Burns *et al.*, 2013:373).

Qualitative studies are always contextual, as the data is only valid in a specific context (Polit & Beck, 2013:392). In addition, qualitative research places emphasis on exploring and understanding "the meaning individuals or groups ascribe to a social or human problem" (Creswell, 2014:4). This statement is echoed by Holliday (2007:1-5).

To address the purpose of the current study, a contextual design was applied to assist the researcher to obtain a better understanding of the phenomenon under exploration, the setting or context, and the participants' actions from their own perspectives (Brink, Van der Walt & Van Rensburg, 2006:64). Qualitative researchers emphasise the social, constructed nature of reality, the intimate relationship between the researcher and what is studied, and the situational constraints that shape inquiry. These researchers emphasise the value-laden nature of inquiry. They seek answers to

questions that emphasise how social experience is created and given meaning (Denzin & Lincoln, 2016:10).

In this study, data was collected within the students' learning and teaching environment. The rural environment, together with a structured programme to facilitate IPE and collaborative practice, served as the study context. Observing their body language and behaviour during the focus group interviews enabled the researcher to see how these students behaved within the specific environment (Creswell, 2013:175). Participants were actively involved in collaborative practice activities structured within an interprofessional education paradigm.

The researcher determined health sciences students' perceptions after they had collaborated on a rural learning platform for one week, or a minimum of 40 hours. The findings of this qualitative study are context-bound and, therefore, cannot be generalised, since every study is conducted by establishing specific interactions or relationships with specific participants (Polit & Beck, 2013:202).

2.3. RESEARCH METHODOLOGY

Research methodology refers to a set of procedures and techniques that a researcher uses to create a project's research information or evidence. The evidence is obtained by looking at the data sources, that is, who or what will be the source of data in this inquiry, how this information will be sourced from the potential participants, and how this data or evidence will be processed and converted into useful research findings (Burns *et al.*, 2013:64). The research methodology includes aspects such as the research technique, population and sampling, data gathering and analysis, trustworthiness, and ethical issues.

2.3.1. Research technique

Research techniques are used to structure a study, and to gather and analyse information in a systematic manner (Polit & Beck, 2013:764). Only one research technique, namely, focus group interviews, was used to gather data.

2.3.1.1. Focus group interviews

A focus group interview is an interview with a group of individuals who were assembled to answer questions on a given topic (Polit & Beck, 2013:754). Focus group interviews are convenient for making first-hand observations of the process of people discussing issues with their peers (Babbie, 2007:309).

2.3.1.2. **Strengths and weaknesses of a focus group technique**

The strength of relying on focus groups is its ability to produce concentrated amounts of information on precisely the topic of interest. Focus groups are also reliant on interaction in the group. The comparisons that participants make regarding their own and other participants' experiences and opinions are valuable sources of insight into complex behaviour and motivation (Morgan, 1997:13-15). A group may provide a stimulating and secure setting for members to express ideas without fear of criticism. The energy of the group has the potential to uncover important constructs, which may be lost with data generated from individuals.

The group also helps uncover dynamic emotional processes, which determine behaviour to a large extent. Focus groups create a fuller, deeper understanding of the phenomenon being studied and stimulate spontaneous exchanges of ideas, thoughts and attitudes in the"security of being in a crowd'' (Nyamathi & Shuler, 1990:1284).

On the other hand, focus groups can be quite costly to implement, and require researchers who are skilled in group processes. If the group facilitator is unskilled, expressions of only the active participants may be voiced, which creates the risk of more passive participants being unduly influenced or inhibited by active participants. Another criticism of focus groups cites participants' social posturing or desire to be polite and fit in with the norm, or else their forced compliance (De Vos *et al.*, 2011:374).

The focus group interview was considered appropriate for the collection of data in this study. The choice of focus group interviews was also indicated because the views of participants on a specific issue were required. A skilled facilitator managed the focus group interviews and participants were urged to provide honest feedback.

2.4. STUDY POPULATION

A group of people, documents, events or specimens that the researcher is interested in collecting information or data from, constitutes a study population (Moule & Goodman, 2009:391). In addition, the population of a study is defined as the total number of persons or objects that possesses some common characteristics that are of interest to the researcher (Brink *et al.*, 2018:206).

In this study, the target population, which is also referred to as the accessible population (Polit & Beck, 2013:177), refers to 340-370 fourth-year health sciences students registered in the Faculty of Health Sciences (UFS).

2.4.1. Unit of analysis

The object of a study that researchers are intending to induce their conclusion from, is known as the unit of analysis (Botma *et al.*, 2010:51-52). Individuals, or groups, organisations and social artefacts are typically considered units of analysis (De Vos *et al.*, 2011:93). Purposive sampling was suitable for selecting the unit of analysis from 360 fourth-year health sciences students who:

- Were registered in the Faculty of Health Sciences, University of the Free State, who complied with the inclusion criteria and who chose to participate in the focus group interviews. Participation in the focus group interviews was not compulsory and students could choose to take part after reading the information sheet; and
- Were most likely to provide rich information regarding the perceptions of their collaborative practice.

2.4.2. Explorative interview

A qualitative research expert with ample experience of facilitating focus group interviews managed the explorative interview, which was scheduled after students' exposure in a collaborative practice environment during 2017. A group of 8-12 students participated after providing consent. The explorative interview was conducted in order to establish if the stated research question was clear, applicable and

understandable. The research question did meet the criteria, and the data of the explorative interview group was included in the main study.

2.5. DATA COLLECTION

Data collection refers to the process through which information is obtained from the research participants. In this study, the researcher was interested in fourth-year health sciences students' perceptions. Data collection took place within a collaborative practice environment by means of focus group interviews, which was considered to be an appropriate qualitative research technique (Creswell, 2013:177). The Health Sciences Research Ethics Committee, the heads of Schools (Allied Health, Medicine and Nursing), and the vice-rector (Academic), all at the University of the Free State, gave the researcher permission to conduct the study.

A list of the names and the contact information of the students who met the selection criteria was obtained from the rural health coordinator. Thereafter, an almost equal number of students from each profession was included in each focus group interview. In total, 51 students (8-12 participants per group) participated. The researcher planned to collect the data at least one week post collaborative practice exposure.

The researcher ensured that the focus group interviews took place in a relaxed and non-threatening environment at a health sciences faculty's facility in Trompsburg, to encourage participants to share their points of view, perceptions, wishes and concerns without pressuring participants to vote or reach consensus (Bloor & Wood, 2006:89; Krueger & Casey, 2009:2-6).

The venue was spacious enough to accommodate the participants. It was also located away from possible environmental noise that could interfere with the audio recordings. The audio recorders were in a good working condition. Other arrangements, including availability of stationery and refreshments for participants, were made. The necessary information and consent forms were available and handed out by the facilitator before each focus group interview.

The focus group interviews were conducted in English by an expert in the field of qualitative research, and with previous experience in conducting focus group interviews. The facilitator, who not known to participants, welcomed them and explained the purpose of the study, the participants' rights to voluntary participation,

and the right to withdraw from the study without any negative consequences. Participants were asked to indicate their decision to participate by signing the informed consent forms.

Measures were taken to ensure that the participants' information remains confidential. These measures included the following:

- Non-participants were informed about the interviews and requested to avoid disturbing the process (De Bord, Burke & Dudzinski, 2013:1-2).
- The venue door was closed for the duration of the focus group interviews.
- A participant-specific code, for example, participant 1, focus group 2 (P1FG2) was used during the focus group interview analysis and no name list that links the code to the name of a participant exists (Kling, 2013:196-198).

Between 8 and 12 participants were interviewed in a focus group interview, which was structured in such a way that the group could interact freely, share their perceptions, and thereby provide information, which would be impossible to achieve with other methods of data collection (Burns *et al.*, 2013:152). Groups provide a sense of safety in numbers to those who are anxious (Burns & Grove, 2009:513). In qualitative research, the research question is crucial (Burns *et al.*, 2013:720). Students were asked to address the following open-ended research question:

> Tell me about your learning experiences in Trompsburg or Springfontein during your placement for collaborative practice in these areas.

Probing questions were used to clarify meanings and/or to stimulate thoughts in order to obtain dense data. The facilitator used communication techniques such as probing, paraphrasing, clarification, reflection, encouragement and summary to encourage discussion and to ensure a free flow of communication.

2.5.1. Probing

Probing is a verbal or non-verbal way of eliciting the most useful information from the participants. The purpose of probing is to deepen responses to a question, to increase the richness of the data being obtained and to give the participants cues about the level of response that is desired. In addition, it is a technique for persuading the

participants to give more information about the issue under discussion (De Vos *et al.*, 2011:345-346). The facilitator used this technique to enable the students to provide more useful and detailed information regarding collaborative practice in the rural area. The facilitator repeatedly said, “could you please tell me more about what you said earlier?”

2.5.2. Paraphrasing

Paraphrasing refers to verbal responses through which the researcher enhances meaning by stating the participant’s words in another form with the same meaning (De Vos *et al.*, 2011:345). In this study, paraphrasing stimulated the participants to elaborate what they had said. The facilitator used this technique to achieve better understanding.

2.5.3. Clarification

Clarification embraces a technique that was used to obtain clarity about unclear statements. This technique was used by the facilitator to refine vague information provided by participants, into more precise statements, for example, questions such as, “could you tell me more about…”, or “you seem to be saying…’’, and “is this what you said?”, were asked (De Vos et al., 2011:345).

2.5.4. Reflection

Reflection involves processes of thinking back on something important a person just said, in order to obtain more detail from the participant (De Vos et al., 2011:345). The facilitator communicated her understanding of participants’ perceptions regarding the phenomenon. Furthermore, the facilitator listened carefully to meaning as well what was said, and sought to formulate the implicit message and reflect it back, using statements such as, “’you are feeling frustrated about…’’, and “it sounds as if you are really not happy about…’’.

2.5.5. Encouragement

Encouragement was used to pursue the participants' lines of thought: "I find that fascinating! Tell me more" (De Vos *et al.*, 2011:345). In this study, the technique proved to be useful.

2.5.6. Summarising

This communication technique was used to sum up the participants' ideas, thoughts and feelings, in order to confirm that the message was understood (De Vos *et al.*, 2011:345). The summary had a structuring function, and stimulated the participants to give more information. During the interview, summarising was used as a prompt to help participants to elaborate further on their stories. At the end of the interview, summarising was used to achieve closure.

2.5.7. Data saturation

In focus group interviews, saturation of data is an important measure of the number of group interviews that should be scheduled (Burns & Grove, 2009:361). Because focus groups were considered as the unit of analysis, the researcher decided on the number of groups to include (Mertens, 2015:383).

At least five focus groups consisting of 8-12 participants each were scheduled in order to meet focus group interview criteria. An additional group, selected according to the same criteria, was added to ensure data saturation. In this study, new data emerged from sixth focus group In total 51 participants contributed to the interviews.

Throughout the focus group interviews, the researcher acted as assistant during the session, by handling logistics and taking field notes, to avoid forgetting crucial aspects, to describe the communication dynamics during the interviews, and to increase the credibility of the data collected.

The scheduled interviews, facilitated after the participants' daily activities, were convenient for them, and lasted about 35 to 45 minutes.

2.6. STRATEGIES TO ENHANCE TRUSTWORTHINESS

Trustworthiness is the degree of confidence qualitative researchers have in their data and data analysis, and is assessed using the criteria of credibility, conformability,

dependability and transferability (Bless, Higson-Smith & Sithole, 2013:236; Polit & Beck, 2013:394). Research findings are considered to be trustworthy when there has been some rigor in performing the study. It is, therefore, critical that rigor is ensured in qualitative research (Merriam, 2009:209). In this study, the researcher adopted Guba and Lincoln's (1994:105-107) criteria for trustworthiness, namely, credibility, conformability, dependability and transferability.

Credibility determines the extent to which the findings of the study are accurate; for example, in the current study, whether the findings are a true reflection of what the students stated regarding their exposure to collaborative practice in Trompsburg and Springfontein (De Vos *et al.*, 2011:233; Du Plooy-Cilliers *et al.*, 2014:259). Credibility is applied to evaluate the integrity and quality of a study, more specifically, the accuracy and confidence in the truth of the data gathered (Polit & Beck, 2013:378). An appropriate research question, research design, data collection and analysis methods contribute to credibility.

Confirmability means that the data is not "figments of the researcher's imagination", that the researcher ensures that the source of data is traceable, and that a detailed description of the data gathering and interpretation process is available (Mertens, 2015:272). Confirmability means that the link between the data collected and its interpretation is noticeable and strong (Du Plooy-Cilliers *et al.*, 2014:259).

Dependability refers to stability over time, and could be addressed through a dependability audit. Such an audit confirms the quality and appropriateness of the research or enquiry process followed (Mertens, 2015:272). Integration between the data collection and analysis methods and the theory derived from the processes, relates to quality or dependability (Du Plooy-Cilliers *et al.*, 2014:259).

Transferability is enabled when thick descriptions of the time, place, context and culture are given, and multiple cases are used (Mertens, 2015:271). The ability to apply the findings in other contexts or to other participants indicates transferability (Brink *et al.*, 2015:173; Du Plooy-Cilliers *et al.*, 2014:258). The decision whether these findings are transferable, and whether aspects of this study have application value in other contexts, lies with those who wish to apply findings in another context.

Triangulation is done by gathering data from multiple sources, by means of various methods and by using "multiple lenses" to study the findings (Marshall & Rossman,

2011:40). Triangulation could also include time triangulation, which involves collecting data on a phenomenon at different points in time. Method triangulation involves using multiple methods of data collection related to a phenomenon, such as interviews, observation, and document review (Mertens, 2015:271; Polit & Beck, 2013:543).

Refer to Table 2.1 for applications of criteria to ensure trustworthiness.

Table 2.1: Application of criteria to ensure trustworthiness

CRITERIA	APPLICATION
Credibility	The proposed research was subjected to a rigorous process, during which ethics approval to conduct the study was provided by the Health Sciences Research and Ethics Committee at the University of the Free State. The researcher adhered to the proposed research strategy, which included the research question and the research methodology. The truth value of the current study was reflected in a participant-oriented approach that was adhered to during data gathering (Botma *et al.*, 2010:230). The focus group facilitator adhered to the ethical principles set out in the written consent form that was signed by the participants. Credibility was, furthermore, ensured through data triangulation (Botma, Van Rensburg, Heyns & Coetzee, 2013:32-43; Mertens, 2015:269). The researcher obtained data during focus group interviews and acted as an observer during the data gathering sessions. The observations included taking field notes and controlling distractions. Discussions of the transcribed focus group interviews were scheduled with the expert who facilitated the interviews, to confirm the accuracy of the transcribed information. Data captured on the audio recorder, the field notes written by the researcher, and a review of literature to support findings, were used to achieve triangulation. Performing a literature review during the data analysis phase enabled the researcher to compare findings with that of previous studies (Polit & Beck, 2013:106). Member checking is the act of returning to the participants to determine whether they recognise the findings (Streubert & Carpenter, 2011:48). Agreement between participants that the transcriptions of their interviews are accurate, improves trustworthiness (Du Plooy-Cilliers *et al.*, 2014:258). In this study, the researcher was not able to review transcriptions with participants, due to the time lapse between the transcriptions being concluded and the availability of the participants. However, the researcher and the facilitator confirmed that the transcriptions were accurate.
Confirmability	The researcher is confident that:

	• Chapter 2 contains a detailed description of the proposed processes and methods to collect, analyse and interpret data; • The processes and methods stipulated were followed throughout the study; • The tables and figures used to present the findings will contribute to the confirmation of findings; and • The recordings made during the focus group interviews will serve as evidence. These recordings are stored safely but are available in the case of queries.
Dependability	The researcher adhered to the research process as described. The steps related to the data analysis was followed, and the transcriptions were reviewed several times to ensure that accurate interpretations were made.
Transferability	The researcher opted for purposive sampling to select fourth-year health sciences students with first-hand experience of collaborative practice and learning. New focus group interviews were conducted until no new information emerged during the interviews and saturation of data could be ensured. A detailed description of the research methods and processes were given.
Triangulation	An expert facilitator obtained data from various groups of health sciences students through focus group interviews. Field notes were taken by the researcher and formed part of the discussion of the findings. The researcher, the facilitator and supervisor confirmed that Figure 3.1 represents a realistic picture of the participants' perceptions. Literature was used to support the findings.

2.7. ETHICAL CONSIDERATIONS

The researcher obtained approval to conduct the study from the Health Sciences Research Ethics Committee (HSREC No.UFS-HD2017/0069) and other relevant stakeholders (refer to Annexures A, B). Health sciences students granted written consent to participate in focus group interviews (refer to Annexure C).

To apply the principles of respect for people, justice and beneficence further (Botma *et al.*, 2010:17; Ponterotto, 2013:19-32), the following measures were implemented.

2.7.1. Respect for people: Autonomy and confidentiality

Respect for people includes preserving anonymity and confidentiality. It refers to the agreement between the researcher and the participant that the privacy clause in the

participants' agreement will not be breached (Anney, 2014:272-281; Botma *et al.*, 2010:17; Winter, 2018:210–222). Refer to Table 2.2.

In qualitative studies, especially when FG are used the principle of anonymity cannot be upheld, due to the face-to-face interaction of the interviewer with the participants (Glogowska, Young & Lockyer, 2011:17-26).

2.7.2. Justice

The principle of justice requires fair treatment of participants. This entails that the researcher must adhere to the research protocol and to the information given in the information leaflet (Botma *et al.*, 2010:19; Murgic, Hébert, Sovic & Pavlekovi, 2016:435-444). Refer to Table 2.2.

2.7.3. Beneficence/non-maleficence

Beneficence or non-maleficence requires that researchers do good and, above all, do not cause any harm to participants (Brink *et al.*, 2018:29). This requirement relates to weighing the benefits of the study against the risk. Participants should benefit from the study and not be exposed to risks. Refer to Table 2.2.

Table 2.2: Application of ethical principles

ETHICAL PRINCIPLE	APPLICATION
Anonymity and confidentiality	Participants were informed about anonymity not being possible, but that a participant-specific code would be used and that no names will be linked to any transcriptions of the interviews or other related documents. The focus group interviews took place in a private room and at a scheduled time. To ensure confidentiality, the data collected from participants would only be made available to those directly involved in the research. The researcher respected a participant's decision to participate or to withdraw from the study.
Justice	Participants were informed in advance about the purpose of the study and the arrangements for the focus group interviews. Furthermore, students were treated with respect, by respecting their feelings and their feedback during the focus group interviews. Importantly, information on where to lodge a complaint related to the study was made available in writing (Botma *et al.*, 2010:20; Knoche, 2014:71).

	Participants were informed that the findings of the study would be disseminated at different academic platforms, such as conferences and workshops, as well as in an article in a peer-reviewed, accredited journal.
Beneficence/non-maleficence	The researcher believes that students benefitted from the focus group interviews, since they could gain insight into how their colleagues felt about collaborative practice and learning. No risks were anticipated or encountered. Each focus group interview session lasted 35 to 45 minutes; the time was limited, to reduce existing pressure caused by curriculum workloads of both the interviewer and the students.

2.8. DATA ANALYSIS

Data analysis refers to a process of bringing order, structure and meaning to the mass of collected data (De Vos *et al.*, 2011:397; Polit & Beck, 2013:507). In qualitative research, data analysis is conducted simultaneously with data collection; the two steps typically go hand in hand in order to build a coherent interpretation of the findings (De Vos *et al.*, 2011:405). Therefore, the focus group interviews were scheduled over six weeks, one session per week, to allow for this type of analysis. Following each interview, the researcher and an independent transcriber transcribed the audio-recorded data. Transcription is the process of converting audio recordings and/or field notes into text data to ease the process of data analysis (Creswell, 2008:648).

The researcher independently replayed the audio recording, and reread the transcriptions to verify the credibility of the transcripts, and to become familiar with and immerse herself in the raw data (Grove, Burns & Gray, 2013:280-281).

An independent co-coder with experience of coding qualitative research organised the rich data available in the transcribed interviews systematically. The data was analysed together with the field notes, using the steps for qualitative data analysis (Creswell, 2013:186; Picker, Skjott Linneberg & Korsgaad, 2019:1-6). A diagrammatic representation of steps followed is provided in Figure 2.1, as described in Creswell (2013:98).

The researcher kept the three types of codes in mind, as explicitly listed by Burns and Grove (2009:522), Creswell (2013:198), and Brink *et al.* (2018:188). Coding in qualitative research is as important as numbers in a quantitative study. Coding provides credibility when presenting the data to the team and stakeholders (Elliot, 2018:2850-2861).

- Descriptive codes: Classify elements of the data using terms that describe how the researcher is organising the data. Descriptive codes remain close to the terms used by the participants in the interview.
- Interpretative codes: Developed later, after the researcher has sorted out statements and when meaning has been assigned to the statements, for example, feelings, emotions, physical and spiritual issues.
- Explanatory codes: Developed much later, when theoretical ideas from the study have emerged. This refers to the unravelling of the meaning inherent in the situation. These codes connect the data to the emerging theory.

Each record is coded and corresponding text is linked to the relevant code (Castleberry & Nolen, 2018:807-815; Mohajan, 2018:23-48. Considering that data analysis in qualitative research is not a separate process, but commences simultaneously with data collection, themes emerged during the verbatim transcription of the audio-recorded focus group interviews (Brink *et al.,* 2008:184). Separate field notes were organised and linked to the transcripts. It is important to take note of minority opinions and comment on them (Kitzinger, 1995:301).

The researcher and the study supervisor reached consensus about the themes and subthemes the researcher had identified. A consensus discussion was essential to establish the research findings' credibility (Polit & Beck, 2013:325-329).

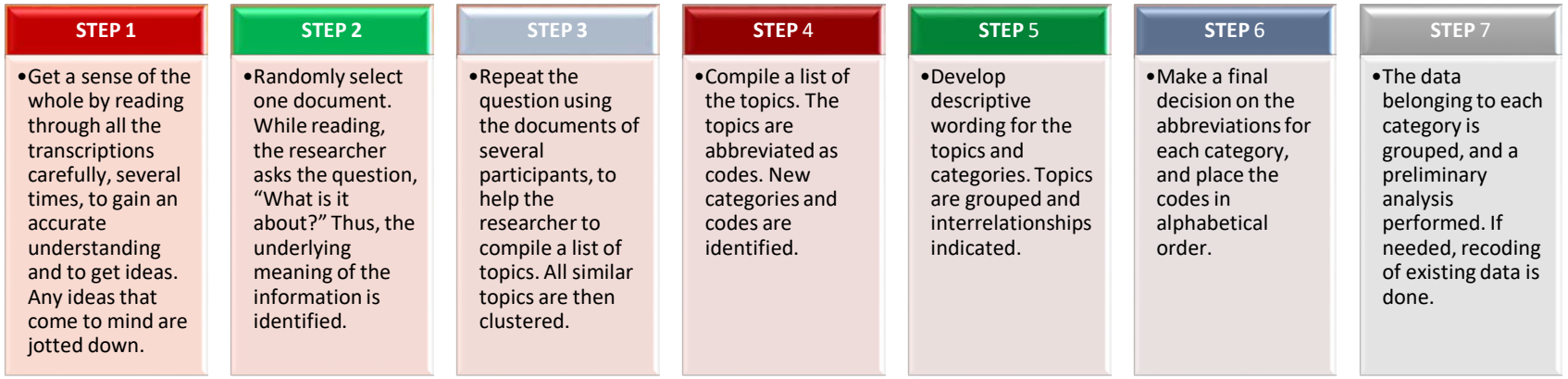

Figure 2.1: Data analysis steps according to Tesch, 1992:117 cited in Creswell, 2013:89

2.9. VALUE OF THE STUDY

The findings, conclusions and recommendations of the study could:

- Be considered by the faculty of health sciences to improve its collaborative practice learning programme;
- Enhance the Faculty of Health Sciences' understanding of students' needs when they are placed in rural areas;
- Serve to guide programme and curriculum adjustments in the different schools of this faculty of health sciences;
- Benefit both the communities served and the Department of Health by an improved collaborative practice learning programme that involves students in rural issues, including service delivery;
- Enable students to master professional competencies though an improved collaborative practice learning programme;
- Be published in accredited scientific journals and add to the body of knowledge regarding collaborative practice on a rural learning platform; and
- In conclusion, be beneficial to the communities involved, the faculty of health sciences and its students, the different schools in the faculty of health sciences, and the Department of Health. An improved collaborative practice programme for rural areas could enable students to master key professional competencies and improve health outcomes.

2.10. MEASURES TO ADDRESS LIMITATIONS

Table 2.3: Measures taken to address study limitations

LIMITATION	MEASURES TAKEN
In some group interviews, nursing students were in the majority	The facilitator's aim was to ensure that each participant, including those representing other professions, was given a fair opportunity to respond to the research question.
Students' exposure to collaborative practice for one week might have been too short for students to have an in-depth experience of collaborative practice.	The facilitator used different interview techniques to ensure that the participants had ample time to reflect on their collaborative experience.

2.11. CONCLUSION

The researcher concluded that a qualitative design was suitable to address the study purpose and to obtain rich data. The clearly defined methodology provided the necessary framework for the researcher to conduct the research. Meticulous attention was paid to issues related to keeping participants' feedback confidential.

CHAPTER 3: DESCUSSION OF FINDINGS

3.1. INTRODUCTION

The purpose of this chapter is to describe the findings obtained from the focus group interviews regarding perceptions of health sciences students' collaborative practice on a rural learning platform. the same question was posed to all participants of six focus group interviews. the facilitator allowed time for each participant to respond to the question. the researcher was responsible for taking field notes during each interview, to enrich the data collected. data was transcribed and analysed by the researcher and the supervisor using Tesch's (1992:117) qualitative, open coding method as described in paragraph 2.8. a consensus meeting was held between the researcher and her supervisor to agree on themes and categories that had been identified and to allow for further refinement. the consensus proved to be essential to enhance the credibility and dependability of research findings (Polit & Beck, 2013:325-329).

3.2. PROFILE OF PARTICIPANTS

A total of 51 health sciences students participated in the study, of whom 14 were male. The majority (n=37) were female. The largest number of participants was studying nursing (n=14) followed by physiotherapy (n=12), occupational therapy (n=10), medicine (n=9) and dietetics (n=6).

3.3. FINDINGS AND DISCUSSION

Themes, categories, and statements that were relevant to the purpose of the study were extrapolated from the verbal transcriptions of participants' responses. In the last column of each statement, the specific codes of participants, F (focus group), followed by the focus group number to which the participant belonged, P (participant), followed by the number that was allocated to the participant within a specific group, who more or less supported a statement or statements, were added (refer to Table 3.1)

The themes and categories will be discussed according to the sequence in which they appear in Figure 3.1 a and b, and Table 3.1. Statements per theme, category and sub-category will be discussed using relevant literature. To maintain the structure, the

themes and the categories, and the statements from participants, as well as by the literature, will be discussed in the same sequence as indicated in Table 3.1. It should be noted that some statements were classified under different themes or categories because their meanings overlapped. The inclusion of literature to discuss the statements can be seen as an effort by the researcher to improve the trustworthiness of the findings.

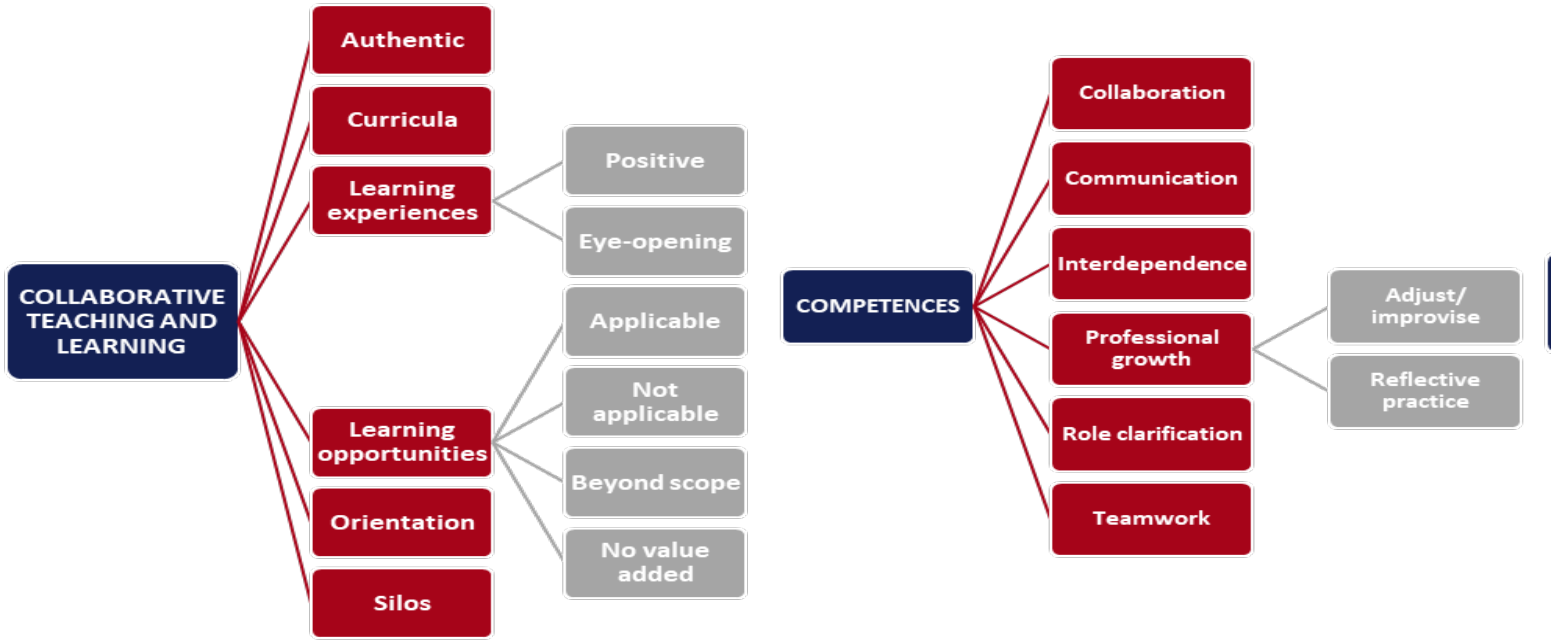

Figure 3.1a: Diagrammatic representation of the themes, categories and sub-categories

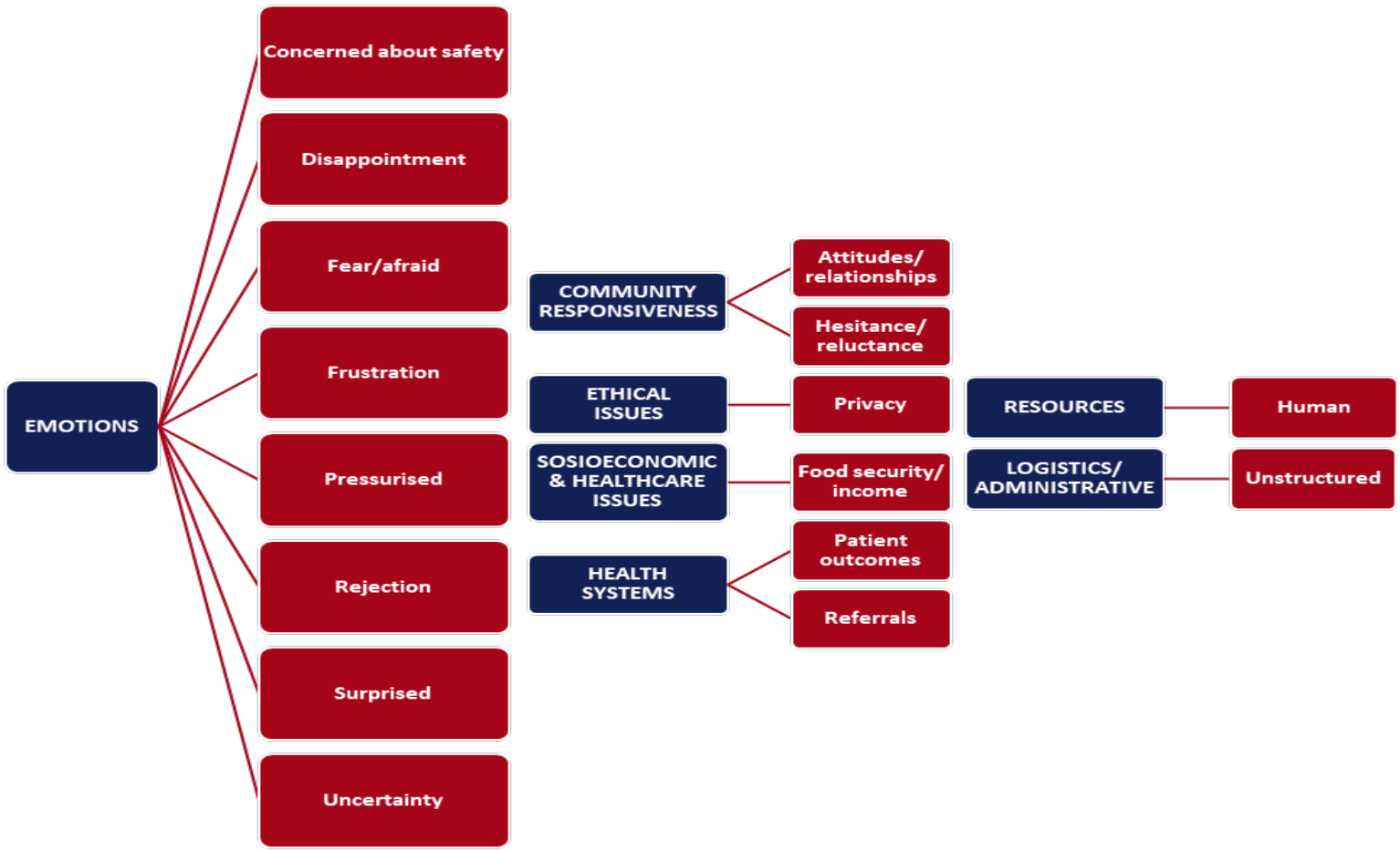

Figure 3.1b: Diagrammatic representation of the themes, categories and sub-categories

Table 3.1: Themes, categories, sub-categories and statements of participants

THEME	CATEGORY	STATEMENT	PARTICIPANT
1. COLLABORATIVE LEARNING AND TEACHING	Authentic	The actual patient is key, not having paper patient because as student you can do theory and everything in class but when you get a real patient is going to change, almost 90%, and I think that makes your approach the whole experience more focused, bring more exposure, use real patient as an example.	F1P3
		You come here in a rural area you have to wonder because your red bag does not have everything you need, so we have to do diabetic food screening with a toothpick [alternative for a monofilament] and you have to improvise that is not good, and I think this is real life, focus more on IPE.	F1P4
	Curricula	The other thing is that I think the medical students must be taught about the community and cultural diversity, if you come into someone else house you can't just sit down and the way they should do greetings or the way they should greet in other culture. I think they need orientation as we student nurses we had.	F2P10
		I know they [referring to IPE programme designers and curricula related to different schools of the health sciences faculty] want to learn us something about the community but since we have been doing it we started from first year I did not learn anything new regarding how community work is been done or what you supposed to do on patient and what is expected from us, honestly I did not learn anything about community, without sounding rude.	F6P1

	Learning experiences	Sub-category: Positive I really gained lot of experience when it comes to communication because the way we communicated. I could see that in each of every profession we need each other because I was able to see that if I could not know about pharmacology the medical students were there to help us, if we didn't know anything about diet, the dieticians were there to help us. So we were able to see that we need each and everyone in this medical/nursing profession. It was great because you know most of the time we are considered as low cognitive as nursing students but through IPE I feel like I am as important as a medical student. We have learned a lot from each other as different professions.	F2P3 F2P5 F4P8 F3P6
		I feel like it was a good learning experience opportunity because throughout the years of our training as different profession we got to do things like knowing how to do blood pressure so when we came here we just reminded ourselves of all the years of training that we have been doing so we didn't like learning anything new as I said it was just a reminder and you could see how much knowledge you have accumulated and we can put it now to work with communities doing community work.	F2P1
		The interprofessional interaction was the best part for me.	F3P1
		I will start of by saying initially it was a challenge internally for ourselves because we didn't know what to expect and it was kind of experience to work with other professions, but I think the feeling was mutual amongst all of the students here and sees it is just we thought we going to have difficulties working as group and difficulties working together and understanding	F5P1

		our placement among one another but then it was not a problem eventually it just worked.	
		I think the IPE sessions sounded a bit negative for us coming from the facilitators but the experience was very good.	F5P2
		Then we got here I did not experience any of those, it was quite easy to work with other professions, we thought it was going to be a negative experience than the positive one.	F5P2
		It was a good experience for me personal. Just the exposure to the rural environment we are able to work without much assistance and resources we never had rural exposure.	F6P3
		Basically summarised more or less how I feel as well, but I mean I want to say, I did experience that it was nice forming relationship with other professions especially with home visits. Also it was nice seeing patients not only assessing physically but emotional part, the environment where they come from, and getting an idea as a healthcare worker when I see patient at the district hospital, I know where they are coming from and I get an idea of where I'm sending them to. The care and the delivery of the health education I have to give them that was quite nice for me although I have done it and seen it in second year, but it was nice to do it again.	F6P8
		Sub-category: Eye-opening Yes I didn't realise that's how many kids at school who needs to be referred because after we screen to follow up needed in order to refer.	F4P1
		Sub-category: Applicable	F2P1

	Learning opportunities	I feel like it was a good learning experience opportunity. It was actually a good opportunity to us as medical students, they have made students to do things, for example we never do glucose testing we just let professional nurses do it on their own. We already know this things but we don't have chance to implement things. We have studied through the years up until now that we don't do them on a regular basis. Okay actually we feel if facilitator can give space to reflect competency.	F2P2 F2P3 F2P4 F3P5 F3P6 F4P2 F4P3
		And for me it was really good experience in our first year we knew what to expect when we came to Trompsburg. We knew what to do when we got the community, we knew how to approach the community, and it was a really good experience for me to be here and being with other students from different schools.	F2P3
		Sub-category: Not applicable I agree with my colleague here during the screening it's thrown into the OT [occupational therapy], she must do depression and anxiety screen but that's not we can all do.	F1P6
		Especially when you do midwifery you understand Ma'am if they bring us here [referring to rural platform] and say each morning there is a bus that goes to Jagersfontein [nearby town] we could deliver at least three babies a day then I would be out of my bed not sleeping knowing that it's my specialty that I am doing and our outcomes are met, because we learn and help the community and the rural areas take something from it.	F6P6

		Sub-category: Beyond scope. I have a suggestion, opinion or whatever you can call it about the screening books, because it really frustrating to sit there and go through the lesson because not all of us have the ability to interview I don't have proper interview skills.	F1P7
		Sometimes handling depression and anxiety may be bit beyond the scope of practice, so I think the ideal situation would be more social workers and I think that would be real solution towards the problems even the psychologist but the problem is when are going to have those resources in this town.	F4P5
		Sub-category: No value added I know they want to learn us something about the community but since we have been doing it, we started from first year I did not learn anything new regarding how community work is been done or what you supposed to do on patient and what is expected from us, honestly I did not learn anything about community, without sounding rude.	F6P1
		We started learning about community in second year so we know what is about; we are doing things that we know. This week it was a challenge since other professions were not here.	F6P2
		We continuously meet at the hospital, we may not specific be told by someone that this is a nurse but we meet and see each other speak to each other and ask each other this is not a new experience.	F6P2

		I think it was more doing things funny and entertaining however it's not been link to patient learning. As a person it just been fun because we went out yesterday and take photos walk around town that is not really changing patient minds it was just entertaining them no link of learning.	F6P5
		Ma'am how I feel is we do second-year community work if they can bring second-years nursing students so that can learn how to do haemoglobin, medical students have done more advanced stuff, as nurses we come from theater now we are here everyone has had enough. It is end of the year almost end of your degree and now you change someone's mind set it's not possible, I understand the whole thing of learning the community learning where people coming from.	F6P6
	Orientation	Apart that we were well orientated prior we came here, we had sessions that are helpful and we knew we are going to come here with a specific objective, so we didn't just came here and ask ourselves what are we going to do so the orientation we did prior to come here and also working together with different professional groups and also knowing that I'm going to be here with medical students and the dietitians, physios. I won't just be here with all the nurses am going to be separated from my group, am going to be separated from my group too and learn something new from the other group.	F2P4
		Yes, I think the only negative we can actually outline of this IPE session we were not well oriented to fill the booklets right and now when we got here the first day we were just briefly explained and we had to go to schools and start writing so we felt a bit confused and sometimes difficult to like what I do here [negative] so it would be nice for them to implement how to fill	F2P7

		in the booklets prior in the IPE sessions that we had before coming here and how to do data capturing as we can see we are struggling to still capture anything.	
	Silos	I really enjoyed working together in different professions usually if you study physio we go as physios [alone] to a specific hospital, you encounter certain situation and you wonder what would a nursing student do, or what would a medical student do, how can we help each other… nice to work with other professions.	F1P1 F1P2 F1P5 F1P6
2. COMPETENCIES	Collaboration	You encounter certain situation and you wonder what would a nursing student do, or what would a medical student do, how can we help each other…nice to work with other professions.	F1P1 F1P2 F1P5 F1P6
		This times we have been here, we have noticed with the screening we noticed each other's role and where everyone fits in, and nice to work with other professions to give patient best care because every profession is there to add knowledge, working together will break the wall because doctors don't speak to physios and the nurses if you ask help they ignore you. We know now where to go and ask for help multidiscipline.	F3P6 F3P3
		It was a good experience for me personal, for me the good side of what this whole week is about was actually along medical staff issues if I could say I have seen life outside your normal life opening sort of your views of life, we had long discussions sort of things in life so that was very nice.	F6P4 F6P6 F6P7

		It’s to start to work in a progression and busy learn and to get to know new people and you kind like get respect for each other in your professions but specifically in Trompsburg you don’t get that do that much the whole week, but the interprofessional interaction was the best part for me.	F3P1
		Working as a team shows how other person works and what they need from you and you can give feed back to the guys even before they go and see the patient.	F2P4
		I think was sceptical about IPE but at the end of the week I saw the need of getting to know each other as doctors and other professions.	F3P2
		I was able to see that if I don’t know anything about pharmacology the medical students were there to help, if we did not know about diet the dieticians were there to help.	F2P3 F2P4
	Communication	I think it is a problem to the patient because there is no interaction. There is like in some cases it happened when the patient is still busy talking you are busy ticking, you cannot get lot of information finishing a sentence and the person just cut off and close it. To them is not important the thing is as an occupational incoming, I know how much information you can get just to chart, and learn that skill to, and know what it is important. You kind like know what questions you should ask and then you elaborate and get much more information much more valid one through that and from the list and its very tiring to them as well. It is good that we know that, but we are not here to solve that.	F1P4 F1P6 F1P5

		I really gained lot of experience when it comes to communication because the way we communicated I could see that in each of every profession we need each other because I was able to see that if I could not know about pharmacology the medical students were there to help us, if we didn't know anything about diet, the dieticians were there to help us. Therefore, we were able to see that we need each and everyone in this medical/nursing profession.	F2P3
		Another problem that we faced at times we had to do follow ups so you would find that maybe the patient was referred to go to the social worker or dietician so we know when we have come in and follow up that patient you find that did not go so then we thought wouldn't it be efficient if may be the social worker students should also be part of the IPE sessions and maybe can do the social worker working here, and whatever the counselling they are supposed to do because sometimes the patient go on a whole year like we had a patient who had with a suicidal attempt and it was an urgent referral but it had been a year had passed and only now we have follow him up and he still had not gone to the social worker or to anyone to receive help. So maybe if the social worker and psychology students from the university it can be quite a big team that we can also help our community because we are few months to be qualified as optometrist and other professions like dietitians, OTs [occupational therapists] and it would be nice if we can do that here instead of referring them and expanding the IPE, there is a lot more to integration work that dieticians, OTs, nurses, medical students, the team is bigger than that.	F2P10 F2P7 F3P4
	Interdependence	We know now where to go and ask for help multidiscipline approach is very important. I think that was important to adjust	F1P1

		and help each other. We fell into their positions like their professions nicely, like everyone knew what to do exactly and everyone was willing to help with all other, and we learn from each other as well. Yes, I also gained like some most of the things like learning to work with other professions I think that was important to adjust and help each other.	F1P10 F1P2 F1P4 F4P3
		I don't want to speak for some of the medical students but we never had experience like this, this is the first time we have or experience this.	F6P3
	Professional growth	Sub-category: Adjust/improvise There was sometimes were we had to adjust because we had a specific plan, going out to the community and at times we had to change that plan because according to the community. Typical example yesterday we went out knowing the community speaks Sotho [referring to language barrier], but when we got there they wanted Afrikaans speaking students and we had to adjust to that and have the Afrikaans student talk. But it was quite nice to see how we all work together and we can still function when there was a change in the community.	F1P1 F1P2 F2P3 F2P4 F2P5 F3P2 F3P5 F1P6, F1P7
		Secondly we did not have white projector so most of the time we used laptops just to talk to the community group so we had to adjust to that.	F2P7
		Sub-category: Reflective practice With more than I thought I would and also to see really for me it was easy to say to someone what meal do you eat and don't	F4P1

		even ask is the food at home or ask the reason why they don't want to attend referrals. It is better just to go to the community and see where they live and what struggles they have, you can think what it may be but you won't know up until you go and look for yourself.	
	Role clarification	This times we have been here, we have noticed with the screening we noticed each other's role and where everyone fits.	F1P5 F2P1 F3P2 F3P3
		That was very nice, we are so delighted it was fun [hullabaloo and laughing] there was no pedestals I think like usually you will see other profession feel lower than others but here we work as equal no one felt lower than others and did the same type of work.	F4P8
	Teamwork	It also showed me that working in a team, give better understanding of each profession.	F2P1 F2P2 F2P3 F2P4 F2P5 F3P5 F4P1 F4P2 F4P3 F4P4

			F4P5 F4P6 F4P7
3. EMOTIONS	Safety concerns	Yes, I thought I would feel a little bit more unsafe because I come from back there, the rural area are bit unsafe and even the people work at our place says they are little afraid of to walk at night at homes and to their homes, so I came with negative connotations with the safeness and neatness and these people are happy and they thought me to become a better person and challenged me to become a better person I have learned a lot from them.	F5P3
	Disappointment	For me I think it was a great experience but what we did this week I can say is not what I expected, because we used to working very hard and we used to make a difference because for us to go into the communities and not screening the learners, I feel like we did nothing because at the end of the day I don't know the results will be afterwards, like we did screen the diabetic patients and we even referred, but I feel like even themselves they don't understand the objectives.	F3P3
	Fear/feeling afraid	Yes, I think I was like somehow afraid going to the rural area as well because like I have known it but I have a different picture in mind.	F5P3
	Frustrations	Especially when you do midwifery you understand Ma'am if they bring us here and say each morning there is a bus that goes to Jagersfontein, we could deliver at least three babies a day then I would be out of my bed not sleeping knowing that it's my specialty that I am doing and our outcomes are met,	F3P2 F4P3 F4P4 F6P1

		because we learn and help the community and the rural areas take something from it. The thing for us we also want to see that change, we are working and screening different people and referred them but we don't know whether are they going to be seen by the doctors because we are only here for a week as they are expecting us to give them a long-term solution that was something that was frustration, lack of information and planning as to what we should do and say. I have a suggestion, opinion or whatever you can call it about the screening books, because it really frustrating to sit there and go through the lesson because not all of us have the ability to interview I don't have proper interview skills. They sit there with a book and okay Maria how about this and this I feel it will be interesting to see if we go without book in our head know what supposed to do, with the basic screening of the food, blood sugar and everything, sit with the patient and do intervention and after wards come fill in the book and see what you actually got from the interview. And that we do at the university you got out and evaluate the patient afterwards you fill the forms, now is just that you feel that you did not learn everything because everything was in front of you.	F6P2 F6P4 F6P5 F6P6
	Pressured	Not above but advanced, our advance it's to deliver the babies and we stress that our outcomes we need to be finished end of October now we sit the whole week taking pillows going to the community we feel bit pressurised, frustrated otherwise second years could have intact and learn a lot.	F6P1 F6P5 F6P4 F6P6 F6P7

		We are writing exams next week and we are here doing this.	F6P7
	Rejection	Because she was referred and she did not go, and lot of patients they are reluctant when we go to the home visits they make excuses that they are not there and they kind of avoiding us and I don't know it is probably because of the history that students are coming and nothing happens. They get all this kind of screening and questions and I think this is frustrating to the patient as well. There is only one social worker for Trompsburg and Springfontein [whole district] and it is very difficult for her to see everyone, we asked question about depression and the social worker hasn't seen anyone.	F3P4
	Surprised	When I got there, I realised that these people homes are neat and streets are clean better it's like more better than in my town, and I could see the proud faces of the people of Trompsburg as well, yhaaa, I love this small community and I think that was me to see the proudness they have in their town to accept us in their homes and everything they were really kind and it was one kind of a hospitable experience.	F5P3
	Uncertainty	I think with our previous IPE experiences at the university with four Wednesday afternoons they are all kind of prepared us that "listen, this is going to be difficult we are not going to get along, we don't know how this is going to go".	F5P2
4. COMMUNITY RESPONSIVE-NESS	Attitudes/ relationships	Yes, we learned a lot especially friendliness yesterday I was walking around in Mandela Square area and because we have to do the survey we asked them all the numbers in Mandela Square area, it was like every single person we passed greeted us and some of them even stopped and say well let me take you to that house and it was like two or three blocks	F5P3 F6P4 F6P5

		away they walked all the way to assist us even though they were busy with their own things when we got to them their hospitality was very good.	
	Hesitance/ reluctance	The results we know it's a process to a patient - listen this is your date we will see you at the clinic - we feel like every week it seems they are doing the same thing but nothing has changed. With regard to the follow up we did on Monday the woman was so hesitant to open up and being honest with us.	F3P3
		A lot of patients they are reluctant when we go to the home visits they make excuses that they are not there and they kind of avoiding us and I don't know it is probably because of the history that students are coming and nothing happens. They get all this kind of screening and questions and I think this is frustrating to the patient as well.	F3P4 F3F4 F3P5
5. ETHICAL ISSUES	Privacy	The other thing is like the ethical thing must be improved when we go to the schools to do assessment it must be private or a class where we can take the leaners individually, because some of them they feel very ashamed, like they can't read and chat and their friend started laughing at them, they read up where others have read.	F2P8
		Screening of the kids amongst others it's not good because some kids were laughing if others could not do the right things.	F4P2
6. SOSIOECONOMIC AND HEALTHCARE ISSUES	Food security/ income	Others when you give them referral letter but there is a transport issues and it's very expensive to travel here to Bloemfontein to go and see the specialist, and most of them are unemployed and survive on pension money.	F3P4

7. HEALTH SYSTEM	Patient outcomes	To give patient best care because every profession is there to add knowledge.	F1P1 F1P2 F1P3
	Referrals	Another problem that we faced at times we had to do follow-ups so you would find that maybe the patient was referred to go to the social worker or dietician so we know when we have come in and follow-up that patient you find that did not go, so then we thought wouldn't it be efficient if may be the social worker students should also be part of the IPE sessions and maybe can do the social worker working here, and whatever the counselling they are supposed to do because sometimes the patient go on a whole year, like we had a patient who had with a suicidal attempt, and it was an urgent referral, but it had been a year had passed and only now we have follow him up and he still had not gone to the social worker or to anyone to receive help.	F2P10
		Most of them were referred previously but they couldn't attend their appointments and we have to refer them again and you start wondering would they go for the next one so then there system they might be a room for improvement but that's not something on personal level.	F4P2
		Yes they did for not attending the previous ones I saw the most they were unsure why they were referred and didn't know the specific dates that was not communicated properly to them, when they should go and as we have discovered that transport is a big problem, lack of transport to the facility.	F4P2

8. RESOURCES	Human	There is only one social worker for Trompsburg and Springfontein [whole district] and it is very difficult for her to see everyone, we asked question about depression and the social worker hasn't seen anyone.	F3P4
		There is no definite date to go and see a social worker because the social worker is not always here, so to give them a date to go and see a social worker is also a problem.	F4P2
		There is a clinic here they can handle the load for the social worker who is not being here, because there is a lot of kids who are being referred, I think when you look at the community seeing how it's going on it reflect on the social needs of the children at the schools, according to our scales they all need to be referred.	F4P3
		Transport it's not applicable on social worker because social worker will come here now and then so but there is not enough social worker to handle the problem or load that's where the social worker problems come in. we would that suggest that one permanent social worker that would see patients per day, than a social worker who comes on a specific day and see patients per week so too much demand versus supply isn't balancing.	F4P4
		I would suggest that healthcare workers need extra training to help with social work even if it just provide counselling , just to have more responsibility and be able to achieve more without social worker input.	F4P5
		Health care providers can still handle the situation it is just that is not enough money that is why the child is not well nourished,	F4P6

		being abounded etc., or just do follow up and relieving some of the work load on the social workers.	
9. LOGISTICS/ ADMINISTRATION	Unstructured	We did not screen lot of people because many people are on holidays and home visit were not properly organised infrastructure is not qualitative , I was very skeptical about it but at the end of the week I saw the need of getting to know each other as doctors and other professions.	F3P2
		I don't know is it the planning of the whole thing and they were seen last year and its only now we are coming back and doing follow ups and every week they have students doing the same thing, and seeing the patient and referring them but radically working on the programme and make it to be more effective.	F3P4
		We would like to see more professions not only students nurses and medical students so they were no other professions, so that would have been so nice to have teachers, social workers and see what each professions are capable of doing in their fields because we learn theoretically but theory and practical is not always put together [integration], may be sometimes they go two-two in groups and like weeks there is four [suggestion by student] different professions in that group and given first aid kit [laughing] on campus with a medicine cabinet for students [laughing].	F4P8

3.4.1 THEME 1: COLLABORATIVE TEACHING AND LEARNING

Teaching can be defined as showing deep intelligence and processes (Salifu, Gross, Salifu & Ninnoni, 2019:72-83). Teaching can also be defined as engagement or collaboration with students to empower them with understanding (Weinberger & Shonfeld, 2018: 127-135; Jaramillo-Baguerizo, Valcke & Vanderlinde, 2019:352-362).

The aim of teaching is not only to transmit information, but also to transform students, from passive recipients of other people's knowledge, into active constructors of their own and others' knowledge (Bada, 2015:66-70; Sun & Chen, 2016:157-190). Educators need not only to possess sufficient knowledge related to subject matter, but should also realise how students learn and know how to assist them to become active learners who construct their own knowledge. A high standard of teaching, then, demands dedication and well-structured learning activities (Sun & Chen, 2016:155).

Learning is described as both a process and a consequence that result in an evident and persisting change in knowledge or behaviour. Knowledge is gained by, for example, systematic study, instruction, scholarship, and experience (Botma *et al.*, 2015:499-502). Sun and Chen (2016:150) argue that learning is a continuous, lifelong process of mastering, through which we are strengthened and advanced. Real indicators of actual learning can be seen when performance resembles the learned tasks or actions, and when performance is transferred to new tasks and circumstances (Botma *et al.*, 2015:499; Botma & MacKenzie, 2016:317-328).

In this study, the first theme, teaching and learning, consisted of six categories and six sub-categories, namely, authentic, curricula, learning experiences (positive and eye-opening), learning opportunities (applicable, not applicable, beyond scope and no value added), orientation and silos.

3.3.1.1. Category: Authentic

The statements of two participants (F1P3 and F1P4) were categorised as authentic teaching and learning. They stated that:

> The actual patient is key, not having paper patient because as student you can do theory and everything in class but when you get a real patient it is going to

change, almost 90%, and I think that makes your approach and the whole experience more focused, bring more exposure, use real patient as an example (F1P3).

You come here in a rural area and you have to wonder because your red bag [medical equipment] does not have everything you need, so we have to do diabetic food screening with a toothpick [alternative for a monofilament], and you have to improvise. I think this is real life, focus more on IPE (F1P4).

The participants appreciated the exposure to patients in within their real-life environments, and the challenge to use their knowledge and skills to improvise in order to render healthcare. However, to be able to function effectively in such authentic settings, it is important that higher education institutions apply instructional theories focus on authentic tasks that enable learners to integrate the knowledge, skills and attitudes they need, coordinate individual skills that comprise complex tasks, and apply school learning to live or work settings (Rule, 2006:27.Rahmah, 2016: 2527-6492., Ha Le, Janssen & Wubbels,2018:103-122). Authentic modes of learning encourage students to explore, to discuss, and to give meaning to constructs, concepts or relationships that involve real-world problems relevant to the learner (Manninen, 2016. 308-311; Wiggins & McTighe, 2010:21). Collaborative practice activities, where students engage with cases that mimic real life and which, therefore, prepare students for clinical placements, signify authentic learning (Zhang, Hirschi, Dik, Wei & You, 2018:222-232).

Any interaction, course, programme, or other experience in which learning takes place, whether it occurs in traditional school or classroom academic settings, or non-traditional settings, that is, outside-of-school locations or outdoor environments, or whether it includes traditional educational interactions where students learn from teachers and professors, or non-traditional interactions, where students learn through games and interactive software applications, could be classified as authentic (Elliott-Johns, 2015:49).

3.3.1.2. Category: Curricula

The concept of curriculum, in Latin, *curere*, means to run and refers to a course to be run (Bruce, Klopper & Mellish, 2011:166). Curriculum development consists of four

stages of interaction, namely, curriculum design, curriculum dissemination, curriculum implementation, and curriculum evaluation (Bruce *et al.*, 2011:166; Jacobs, Vakalisa & Gawe, 2012:32).

According to Meyer, Lombard and Wolhuter (2010:10), some studies conclude that, to activate a teaching and learning plan, a decision must be made on a course of action that is structured and consistent. The same authors stipulate that the setting up and supervising such a development will depend on successful curriculum design (Meyer *et al.*, 2010:10). As this study was conducted with fourth-year students as participants, they voiced their concerns regarding their profession-specific curriculum. Two participants responded as follows:

> *I know they [referring to IPE programme designers and curricula related to different schools in the health sciences faculty] want to learn us something about the community but since we have been doing it, we started from first year, I did not learn anything new regarding how community work is been done or what you supposed to do on patient and what is expected from us, honestly I did not learn anything about community, without sounding rude (F6P1).*

> *The other thing is that I think the medical students must be taught about the community and cultural diversity, if you come into someone else house you can't just sit down and the way they should do greetings or the way they should greet in other culture. I think they need orientation as we student nurses had (F2P10).*

The participants' feedback highlights two important issues namely, the alignment of the curriculum requirements with learning experiences, and the inclusion of relevant content into curricula. Universities and colleges should begin incorporate issues related to cultural diversity as they seek to prepare students to serve a diversity of clients and communities (Nirta & Roh, 2019:173-176).

3.3.1.3. Category: Learning experiences

Learning experiences are the events and activities from which students learn by experience (Lerner, Lerner, Bowers & Geldhof, 2019:305-306). According to the South African Nursing Council, learning experiences are opportunities used by students to achieve learning outcomes, and which focus on the application of theory in an

authentic, work-based context (Republic of South Africa, 2006). Impact is evident in students' increased knowledge and skills as a result of their experiences, opportunities to communicate with other students representing other professions, opportunities that encourage respect for different opinions, and ownership of the learning process (Kang, 2018:735-741).

a) Sub-category: Positive

The feedback from participants in this study was categorised as positive and eye-opening. No fewer than 11 participants (F2P3, F2P5, F4P8, F3P6, F2P1, F3P1, F3P6, F5P1, F5P2, F6P3 and F6P8) responded on a positive note. Three participants (F2P5, F4P8 and F3P6) supported a statement made by participant F2P3, who,

> *Gained a lot of experience when it comes to communication because of the way we communicated. I could see that in each of every profession we need each other because I was able to see that if I could not know about pharmacology the medical students were there to help us, if we didn't know anything about diet, the dieticians were there to help us. So we were able to see that we need each and everyone in this medical/nursing profession. It was a great experience to work with doctors, dietitians, it was great because you know most of the time we are considered as low cognitive as nursing students but through IPE I feel like I am as important as a medical student. We have learned a lot from each other as different professions (F2P3).*

Strong statements to describe their learning experiences were made by participants F3P1, F5P1, F6P8:

> *The interprofessional interaction was the best part for me (F3P1).*

> *Initially it was a challenge internally for ourselves because we didn't know what to expect and it was kind of experience to work with other professions, but I think the feeling was mutual amongst all of the students here and sees it is just we thought we going to have difficulties working as group and difficulties working together and understanding our placement among one another but than it was not a problem eventually it just worked (F5P1).*

> *Basically summarised more or less how I feel as well, but I mean I want to say, I did experience that it was nice forming relationship with other professions*

especially with home visits. Also it was nice seeing patients not only assessing physically but emotional part, the environment where they come from, and getting an idea as a healthcare worker when I see patient at the district hospital, I know where they are coming from and I get an idea of where I'm sending them to. The care and the delivery of the health education I have to give them that was quite nice for me although I have done it and seen it in second year, but it was nice to do it again (F6P8).

Participants perceived their collaboration as positive. They gained experience, learned from each other, and realised the value of each profession.Over the last decades, research has demonstrated that collaborative learning can promote academic and social education outcomes. Researchers stipulate, for example, that, through collaborative learning and practice, students could develop an understanding of their own professional identity, and recognise overlapping of different functions (Baker & Casser, 2019:2-10). In addition, students become better equipped to solve real-life interprofessional challenges and build an interprofessional network during their training (Alexander, 2019:30). Overall, collaborative learning could assist students to change their attitudes and perceptions, and cultivate interpersonal group and organisational relations, resulting in improved healthcare outcomes (Baker, Haldane, Chuah, Srivastava, Singh, Koh & Seng, 2019:1-5). Furthermore, the commitment to working collaboratively is enhanced by a common idea shared by the members of the group (Clayton, Halverson, Sathe & Malin, 2018:888-889).

b) Sub-category: Eye-opening

Eye-opening refers to an experience from which you learn something surprising or new (Woolner, 2010:12). A participant stated:

Yes I didn't realise that's how many kids at school who needs to be referred because after we screen to follow up needed in order to refer (F4P1).

This realisation by the participant can be classified as "eye-opening", as the participant suddenly learnt or understood something that was not previously known (Beck, Bodur, Walker-DeVose, Town & Smith, 2018:19-37), and student interactions transformed attitudes and dispositions. Previous research found that students realised that there is an increasing need for collaborative patient care. Institutions training healthcare professionals, therefore, have an obligation to provide their students with effective

collaborative training models (Casser, 2019:3-4). Studies have also shown that students value the opportunity to serve patients in interdisciplinary settings. Collaborative practice improves students' understanding of health disparities and social responsibility, improves their clinical decision-making skills, and increases their awareness of their own professional growth. Collaborative experiences open their eyes to innovative ways of providing healthcare in the future (Passmore, Persic, Countryman, Rankine, Henderson, Hu, Nyhof-Young & Cott, 2016:391-397).

3.3.1.4. Category: Learning opportunities

Opportunities to learn that are created in the clinical teaching setting or health service environments enable students to achieve their learning objectives (Republic of South Africa, 2006:7). In addition, it involves students learning from and with students from different professions (Barr & Low, 2012:1-10). Learning opportunities occur when students have significant experiences with other professions and gain a better understanding of where they fit in on the care continuum, and relations amongst each other are improved (Le, Janssen & Wubbels, 2018:103-122). In this study, participants F2P3, F2P4, F3P5, F3P6, F4P2 and F4P3 supported the statements made by participants F2P1 and F2P2:

> *I feel like it was a good learning experience opportunity. It was actually a good opportunity to us as medical students, they have made students to do things, for example we never do glucose testing we just let professional nurses do it on their own. We already know this things but we don't have chance to implement things. We have studied through the years up until now that we don't do them on a regular basis. Okay actually we feel if facilitator can give space to reflect competency (F2P2).*

Collaboration provided several participants with a good learning experience, and the opportunity to apply their knowledge and practice their skills. However, a participant stated that facilitators should allocate time for them to reflect on their competency. the other hand, several students mentioned, in previous studies, that learning with others provided more opportunities for, for instance, developing different perspectives, social interaction, and applying instructional strategies (Matthews, 2017:45-59).

a) Sub-category: Applicable

Learning opportunities were sub-categorised as applicable, not applicable, beyond scope, no value added, orientation, and silos. Two participants (F2P2 and F2P3) viewed the learning opportunity as applicable, that is, capable of being applied, relevant to the situation, or appropriate (Thibaut, Ceuppens, De Loof, De Meester, Goovaerts, Struyf, Boeve-de Pauw, Dehaene, Deprez, De Cock, Hellinckx, Knipprath, Langie, Struyven, Van de Velde, Van Petegem & Depaepe 2018: 2). The following statements clarified to the researcher that, for some participants, the timing of the collaborative practice was applicable, since they managed to integrate theory and practice, and considered it important to adjust and to help students from the other professions. Statements by six participants (F2P2, F2P4, F3P5, F3P6, F4P2 and F4P3) could be related to those of participants F2P1 and F2P3:

And for me it was really good experience in our first year we knew what to expect when we came to Trompsburg. We knew what to do when we got the community, we knew how to approach the community, and it was a really good experience for me to be here and being with other students from different schools (F2P3).

Yes I also gained like some most of the things like learning to work with other professions I think that was important to adjust and help each other, but apart that we were well orientated prior we came here (F2P4).

b) Sub-category: Not applicable

Something that does not apply could be referred to as not applicable (Barker & Farr, 2017:514-538). Participants F1P6 and F6P6 made statements that could be interpreted as meaning that learning opportunities were not applicable:

I agree with my colleague here during the screening it's thrown into the OT [occupational therapy], she must do depression and anxiety screen but that's not we can all do (F1P6).

Especially when you do midwifery you understand Ma'am if they bring us here [referring to rural platform] and say each morning, there is a bus that goes to Jagersfontein [nearby town] we could deliver at least three babies a day then I would be out of my bed not sleeping, knowing that it's my specialty that I am

doing, and our outcomes are met, because we learn and help the community and the rural areas take something from it (F6P6).

In this study, a few participants failed to see the collaborative practice as an opportunity to learn, because they were worried about their midwifery outcomes, therefore, for them, it was waste of time. The timing was not applicable. Previous studies highlight that students become less interested in collaborative projects when they are overloaded with academic subjects (Le *et al.*, 2018:103-122). Considering the learning aspects, students were, in general, not satisfied with the academic atmosphere and academic self-perception, although they were happy with social interaction (Le *et al.*, 2018:115).

c) Sub-category: Beyond scope

The scope of practice of a profession refers to the assessment, diagnosis and treatment techniques that are specific to a certain profession (Geyer, 2016:51-52; Republic of South Africa, 2006), which permits members to perform these actions through their registration with their regulatory body, such as the Health Professions Council of South Africa or the South African Nursing Council. Even though there can be areas of overlap between professions, the range of responsibility, for example, the type of patients, caseload and practice guidelines, determines the boundaries within which a physician or other professional conduct their practice. Participant F4P5 voiced the following about the scope of practice:

Sometimes handling depression and anxiety may be bit beyond the scope of practice, so I think the ideal situation would be more social workers and I think that would be real solution towards the problems even the psychologist but the problem is when are going to have those resources in this town (F4P5).

The students' roles and responsibilities cannot extend beyond the scope of their practice. Students should understand that they are accountable to society, their employer, the regulatory body and, ultimately, to individuals. They should strive to master new skills, but also consolidate and build on existing skills (Treadwell, Van Rooyen; Havenga & Theron, 2017:1-7). Professional standards are vital to any profession, because they promote and guide the clinical practice of professionals (Hinojosa, Kramer & Royeen, 2017:11-13).

d) Sub-category: No value added

Several participants (F6P1, F6P2, F6P5 and F6P6) were sure that no value had been added to their education and training by collaborating with other students. Considering the participants' feedback, it seemed that exposing them to collaborative practice in their fourth year might be too late:

> *I know they want to learn us something about the community but since we have been doing it, we started from first year I did not learn anything new regarding how community work is been done or what you supposed to do on patient and what is expected from us, honestly I did not learn anything about community, without sounding rude (F6P1).*

> *We started learning about community in second year so we know what is about; we are doing things that we know. This week it was a challenge since other professions were not here (F6P2).*

> *I think it was more doing things funny and entertaining however it's not been link to patient learning. As a person it just been fun because we went out yesterday and take photos walk around town that is not really changing patient minds it was just entertaining them no link of learning (F6P5).*

A few studies report no relationship between students' perceptions of the learning environment and their academic activities (Clayton *et al.*, 2018:888

3.3.1.5. Category: Orientation

Orientation refers to the trends and behaviours that express individuals' desire to pursue or apply themselves to a specific occupation and, together, orientation affects individuals' decision-making processes with respect to occupational choice (Algadheeb, 2015). Furthermore, orientation refers to an introductory process involving newly appointed staff, which plays an important part in their continuous socialisation in an organisation. The main objectives of orientation are to ensure that new employees are committed, that their anxiety levels are minimised, that they understand what the organisation's expectations are, and that they are informed about what they can expect from their jobs and the organisation. Orientation is commonly followed by individualised training related to a position (Van der Wal-Maris, Beijaard, Schellings & Geldens, 2018:375-393).

Hollins (2009:15-27) emphasises that orientation is an endeavour by an organisation to assist students to successfully transit from their former environment into the college environment. According to the author, orientation leads to higher retention rates, compared to that of students who are excluded from orientation. Students who are oriented are more likely to seek help from tutors when needed, because they are familiar with the programmes and services offered. Furthermore, they have established personal connections with the faculty, staff and other students. These students are able to connect and interact with others (Hollins, 2009:15-27).

One participant (F2P4) commented positively on the orientation that they had received, opposed to participant F2P7's negative experience:

> *Apart that we were well orientated prior we came here, we had sessions that are helpful and we knew we are going to come here with a specific objective, so we didn't just came here and ask ourselves what are we going to do so the orientation we did prior to come here and also working together with different professional groups and also knowing that I'm going to be here with medical students and the dietitians, physios. I won't just be here with all the nurses am going to be separated from my group, am going to be separated from my group too and learn something new from the other group (F2P4).*

> *Yes I think the only negative we can actually outline of this IPE session was that we were not well oriented to fill the booklets right, and now when we got here the first day we were just briefly explained and we had to go to schools and start writing, so we felt a bit confused, and sometimes difficult to like what I do here, so it would be nice for them to implement how to fill in the booklets prior in the IPE sessions that we had before coming here, and how to do data capturing as we can see we are struggling to still capture anything (F2P7).*

According to Muller (2009:309), orientation should outline the job description, objectives and outcomes, and clearly state the responsibilities that are expected of an employee on a daily, weekly and monthly basis. Policies, procedures and standards should be discussed, and ward rounds taken in order to familiarise the newcomer with the geographical layout of the nursing unit. Considering the views of participants in the current study, it seems that the orientation programme for students had a positive effect on *their collaborative practice.*

3.3.1.6. Category: Silos

A silo refers to operating in isolation from others, and could involve a system, process, or department (Brienza, Long, Dann & Wolff, 2018:473-474). Participant F1P1 voiced concern relating to working in silos, and was supported by three participants (F1P2, F1P5 and F1P6). This participant stated,

> *I really enjoyed working together in different professions usually if you study physio we go as physios [alone] to a specific hospital, you encounter certain situation and you wonder what would a nursing student do, or what would a medical student do, how can we help each other… nice to work with other professions (F1P1).*

Students are educated in their own profession only (Towle, 2016:341). Therefore, in order for the faculty of health sciences, (UFS) to initiate collaborative practice between professions, a module to facilitate collaboration was introduced in 2014. So, while qualified professionals are expected to work together effectively, they are never given the opportunity to do so and to practise this skill as students, as education maintains the so-called silo approach (Olenick & Allen, 2013:150).

The tendency of healthcare faculties to educate their students in isolation from, or even in competition with each other, interferes with the graduates' ability to engage in collaborative practice and provide care that is holistic and patient-centred. Furthermore, the graduates have missed out on opportunities for experiences that bring students from multiple health professions together to learn from and with each other, exchange the knowledge, science and points of view of their various disciplines and contribute to a more holistic understanding of the human person (Kalb & O'Conner-Von, 2018:1-2).

3.4.2. Theme 2: Competencies

Competencies refers to the combination of observable and measurable knowledge, skills, abilities and personal attributes that contribute to enhanced student performance and ultimately positive result in academic success (Lacoste, 2018:93). Botma (2016:4) and Krathwohl, Bloom and Masia (1964:3) indicate that competencies are dependent on the capacity of the student to integrate knowledge from all disciplines in order to identify the problem, understand the theory related to the

problem, and the response, treatment and care of the patient, and then applying all of this integrated knowledge in a practical event or situation in a real life setting or simulation (Republic of South Africa, 2006). Furthermore, competencies, in the most general terms, are “things” that an individual must demonstrate to be effective in a job, role, function, task, or duty. These “things” include, for example, job-relevant behaviour, what a person says or does that results in good or poor performance, motivation, how a person feels about a job, and technical knowledge and skills (Sevin, Hale, Brown & McAuley, 2016:8-121; Vazirani, 2010:1-6).

Competence is demonstrated by the performance of the person, and should illustrate incorporation of foundational and procedural knowledge in a specific context when rendering healthcare to the advantage of the healthcare consumer. A competent practitioner, furthermore, has the ability to reflect on thinking processes and develop metacognitive knowledge in this manner (Botma & McKenzie, 2016:3-4).

Health sciences faculties implement various interventions to facilitate the development of interprofessional core competencies, which include the identification of roles and responsibilities, patient-centred care, professional ethics and interprofessional communication (Bardid, 2016:179). In reference to the above, other authors argue that, in addition to being competent regarding skills, participants in learning show personal growth in relationships, through the study of jobs and roles (Vazirani, 2010). For example, participants from FG1 verbalised that there is a great deal of tension in hospital setups regarding inputs/points of view, and healthcare workers do not speak to each other.

The theme competencies consisted of seven categories, namely, collaboration, communication, decision-making, interdependence, professional growth (adjust/ improvise, reflective practice), role clarification and teamwork. Students portrayed their achievement of key competencies through statements related to these categories. Through their verbalisations, it became clear that each profession knew how to respond to a given situation (F1P1, F1P2, F1P5, F1P6 F3P3, F3P6, F5P1 and F5P3).

3.4.2.1. Category: Collaboration

Collaboration occurs when students work interdependently in groups to achieve shared learning goals (Schoening, Selde, Goodman; Tow, Selig, Wichman, Cosimano

& Galt, 2015:1). According to the WHO (2010b:13), collaborative practice occurs when health workers from different professions work with patients, their families and the community to provide services of the highest quality in all healthcare settings. Aase and Schibevaag (2014:170), however, explain that collaborative practice can be a situation of two or more people working together to create or achieve the same thing (De Boer, Du Toit, Bothma & Scheepers, 2012:185-196; Dow *et al.*, 2017:677-678). In this study, it was noted that participants in all six transcribed focus group interviews verbalised perceptions regarding collaborative practice during their collaborative learning. This is the evident from statements such as the following:

> *You encounter certain situation and you wonder what would a nursing students do, or what would a medical student do, how can we help each other, and… nice to work with other professions (F1P1).*

Students identified the benefits embedded in the opportunities to learn from one another (Gould, Lee, Berkowitz & Bronstein, 2015:373). Most students noted that this was their only collaborative experience with other disciplines, although some participants were about to complete their studies as fourth-year students.

Collaboration was manifested in the statements of almost all the participants, who referred to it as enabling workers to associate productively with other teammates, providing that successful collaboration requires a shared spirit and admiration (De Boer *et al.*, 2012:236-251; Dow *et al.*, 2017: 85, Doyle, 2018:1). In addition, other authors state that collaboration improves communication (Lumague, Morgan, Mak, Hanna, Kwong, Cameron, Zener & Sinclair, 2006:246-253), respect for other professions (Lumague *et al.*, 2006:249; Snyman, Van Zyl, Müller & Geldenhuys, 2016:285-328), and better use of professionals' skills (Reeves *et al.*, 2013:193). Participant F6P4 indicated that collaboration was a good experience that enabled different views on life through discussions:

> *It was a good experience for me personal, for me the good side of what this whole week is about was actually a long medical staff issues if I could say I have seen life outside your normal life opening sort of your views of life, we had long discussions sort of things in life so that was very nice.*

International research shows that most undergraduate healthcare education programmes address the understanding of professional roles. Collaborative learning

offers students the opportunity to develop cognitive skills, such as analysing and problem-solving, and pro-social behaviour, such as empathy and helping behaviour (Aase & Schibevaag, 2014:170). Participant F3P1 reflects on the development of respect for other professions and the value of collaboration:

> *It's to start to work in a progression and busy learn and to get to know new people and you kind like get respect for each other in your professions but specifically in Trompsburg you don't get that do that much the whole week, but the interprofessional [collaborative] interaction was the best part for me (F3P1).*

Researchers on collaborative learning conclude that working together as a team contributes to cognitive learning as well as pro-social and emotional development (Järvelä, Volet & Järvenoja, 2010:1-2). Slotte, Palonen and Salminen (2014) state that collaborative learning is a valuable teaching strategy in higher education, because it prepares students for jobs where they work in teams.

The effectiveness of collaborative learning depends largely on how core aspects, such as interdependence, individual accountability and interaction, are designed and implemented (Fransen, Kirschner & Erkens, 2016:1103-1113). Collaboration is only possible when the different professions have a deeper understanding of the similarities and differences between professions (Delunas & Rouse, 2014:103; Lidskog, Lofmark, & Ahlstrom, 2007:387-399). This means that students need to have opportunities to engage with professions other than their own in order to share their values and knowledge and to understand their respective roles and functions. Students are satisfied with the opportunity to learn about other professions' roles in face-to-face learning opportunities (Curran, Carlson & Celotta, 2013:49-71). When students learn to collaborate by means of collaborative practice, negative attitudes and stereotypes may decline, causing the focus to be on effective teamwork and building good relationships and patient-centred care (Olenick & Allen, 2013:150). Achieving a holistic approach to patient care requires inputs from many health professionals. An interprofessional approach requires effective teamwork, as professionals share their expertise in order to achieve their shared goal (Buring, Bhushan, Brazeau, Conway, Hansen & Westberg, 2009:60).

In the current study, some participants (F1P2, P5 P6 and P6) pointed out that they perceived an evolved understanding for each other as a result of collaborative

learning. F3P6 stated that they derived benefits from the chance to become aware of and overcome prejudices: F2P4 described collaboration as follows:

> *Working as a team shows how other person works and what they need from you and you can give feed back to the guys even before they go and see the patient (F2P4).*

In addition, learning from each other was an advantage described in most focus group interviews. Participants F2P1, F2P2, F2P3, F2P4, F3P2 and F3P5 reported that they benefited from the knowledge of other health professionals, which complemented their own expertise. They saw enrichment and broadening of their own perspectives resulting from an exchange on others point of view:

> *I think was sceptical about collboration but at the end of the week I saw the need of getting to know each other as doctors and other professions (F3P2).*

The statement above was supported by participant F2P3, who verbalised that,

> *I was able to see that if I don't know anything about pharmacology the medical students were there to help, if we did not know about diet the dieticians were there to help (F2P3).*

These findings are supported by Brewster, Sparrow, Vernon and Houldsworth (2011), who explain that competence is the integrated validation of knowledge, skills, values, and attitudes that outline the scope of practice of a particular health profession, as applied in specific healthcare settings. It is, therefore, clear that collaborative practice interventions could facilitate the development of competencies of students, which they could apply as graduates to enhance the health status of populations.

The application of collaboratie activities in community settings may, thus, assist in improving the patient experience, by providing holistic care and assisting in improving the health of the community. Participant F2P10 expressed a strong belief that working together taught them about the scope of the profession of the other healthcare professionals in their group (Homeyer, Hoffmann, Hingst, Oppermann & Dreier-Wolfgramm, 2016:8).

3.4.2.2 Category: Communication

Communication is a two-way process of reaching mutual understanding, in which participants not only exchange information, new ideas and feelings, but also create and share meaning (Gilley, Gilley & McMillan, 2010:88; Mash, Blitz, Kitshoff & Naudé, 2010:389). Is seems that participant F1P7 realised that communication becomes more difficult when assessing patients' health status.

> *I think it is a problem to the patient because there is no interaction. There is like in some cases it happened when the patient is still busy talking you are busy ticking, you cannot get lot of information finishing a sentence and the person just cut off and close it. To them is not important, the thing is as an occupational incoming, I know how much information you can get just to chart, and learn that skill to, and know what it is important. You kind like know what questions you should ask, and then you elaborate and get much more information, much more valid one through that, and from the list. It is very tiring to them as well. It is good that we know that, but we are not here to solve that.*

However, one participant's feedback was that communication was not a problem; this participant focused on the importance of communication:

> *I really gained lot of experience when it comes to communication because the way we communicated I could see that in each of every profession we need each other because I was able to see that if I could not know about pharmacology the medical students were there to help us, if we didn't know anything about diet, the dieticians were there to help us. Therefore, we were able to see that we need each and everyone in this medical/nursing profession (F2P3).*

In team functioning and collaborative practice, communication is considered to be a key skill for improving patient safety (Claramita, Riskiyana, Pratidina, Susilo, Huriyati, Wahyuningsih & Norcini, 2019:191-204). The ability to use communication techniques to enhance team functioning and deal with barriers that interfere with communication is necessary to optimise teamwork. In contrast, poor communication in healthcare teams is associated with healthcare delays, which may harm the patient. Therefore, communication skills training is necessary for undergraduate and postgraduate students, to prepare graduates to be able to work in collaboration.

3.4.2.3. Category: Interdependence

Interdependence describes the set of complementary relationships that two or more parties rely on to manage required (hard) or opportunistic (soft) dependencies in joint activities for overall success (Guidroz, Wang & Perez, 2012:69-79; Bradshaw, Feltovich, Hoffman, Johnson & Woods, 2014:47). In addition, the word interdependence means to foster cooperation within groups. Students need to have a reason for working together. Furthermore, students are collaborative when they structure positive interdependence among group members and are committed to the group goal. Such a disposition is vital for successful teams, whether in sports, drama, business, hospital operating rooms or academic pursuits. Positive interdependence is considered to be an important attribute of classroom cooperation (Collazos, Guerrero, Pino & Ochoa, 2003:356-370).

In this study, health sciences students of a university had to practise together in an collaborative programme that had been established in 2014 to facilitate collaboration. The statements by two participants, F1P10 and F1P4, could be interpreted as supportive of interdependence (Collazos *et al.*, 2003:356-370). Participants F1P1 and F1P2 made the following statements:

> *We know now where to go and ask for help as a multidiscipline approach is very important (F1P2).*

> *Yes, I also gained like some, most of the things, like learning to work with other professions. I think that was important to adjust and help each other. We fell into their positions like their professions nicely, like everyone knew what to do exactly and everyone was willing to help with all other, and we learn from each other as well (F1P2).*

The statements above indicate how participants could experience interdependence positively, and how participants could perceive interdependence: They see it as an opportunity to build positive relations with others. When working on complementary information, individual students access only one part of the information. Therefore, students are dependent on their partner to access the rest of the information. It might be expected that learning will be limited in the case of poor information transmission. At the same time, complementarity between partners legitimates reliance on the partner and enhances cooperation (Gruber, 2000:345–354). Currently, the WHO

(2009:13) requires education and health systems to work together and to coordinate strategies for human resources in health.

3.4.2.4. Category: Professional growth

Professional growth is the process through which organisations or individuals engage in the process of learning to meet challenges and desired goals (Celal & Birsen, 2017:243-252). Professional growth produced sub-categories, namely, adjust or improvise, and reflective practice.

a) Sub-category: Adjust or improvise

Adjust means changing, altering or adapting (Maeland & Espeland, 2017:192-208), and improvise refers to inventing or making something, such as a speech or a device, at the time when it is needed, without already having planned it. In this study, for example, participants F1P6 and F1P7 pointed out that they had to adjust their specific plans for the day. However, they were abble to make the necessary adjustment based on the fact that they collaborated within the team:

> *There was sometimes were we had to adjust because we had a specific plan going out to the community, and at times we had to change that plan according to the community. Typical example, yesterday we went out knowing the community speaks Sotho [referring to language barrier] but when we got there, they wanted Afrikaans speaking students, and we had to adjust to that and have the Afrikaans student talk. But it was quite nice to see how we all work together and we can still function when there was a change in the community (F1P6).*

Previous studies indicate that students' understanding of improvisation requires risk-taking and creative thinking. However, opportunities to develop such skills are rarely supported or offered by education systems (Hains-Wesson, Pollard, Kaider & Young, 2019:435-452). Researchers suggest the need to design curricula to introduce and develop these capabilities through experiential learning opportunities (Hains-Wesson, Pollard & Campbell, 2017:84). In this study, the participants' ability to adjust or improvise could be seen as a step towards professiosnal growth:

b) Sub-category: Reflective practice

Reflective practice is seen as an established part of coaching education practice. It has become a "taken-for-granted" part of coaching, which is accepted enthusiastically

and unquestioningly, and is assumed to be “good” for coaching and coaches (Cushin, 2016:82-94; Liu, Avant, Aungsuroch, Zhang & Jiang, 2014:69-74) *P*articipant F4P1 reflected on his/her own practice of informing patients on what to eat without realising what challenges the patients’ were daily facing. The participant also aknowledge that, to provide relevant information, he/she requires insight into the patients’ situation within their communities. This insight will then inform his/her future practices:

> *With more than I thought I would and also to see really for me it was easy to say to someone what meal do you eat and don’t even ask is the food at home or ask the reason why they don’t want to attend referrals. It is better just to go to the community and see where they live and what struggles they have, you can think what it may be but you won’t know up until you go and look for yourself (F4P1).*

As reflective learning practice becomes part of their daily routine, students will be able to assess their practices, implement alternative methods of learning, and share best practices with others (Disu, 2017:1-10). In addition, this practice of reflection can also lead to a more personalised structure that promotes deep learning and growth that is competence-based, internally directed learning (Korthagen & Vasalos, 2010:529). Having the ability to reflect on experiences can enable students to build a range of strategies and skills that they can utilise when required (Jacob & McGovern, 2015:10-13).

3.4.2.5. Category: Role clarification

Role clarification refers to specifying each person’s responsibilities, ensuring appropriate implementation of professional roles, and optimising professional scopes of practice, thereby ensuring efficient patient management (Brault, Kilpatrick, D’Amour, Contandriopoulos, Chouinard, Dubois, Perroux & Beaulieu, 2014:1-9). During the focus group interviews, the participants reported that they had learnt a great deal about the roles of other professionals. Working in teams gives students a better understanding of the roles of the other healthcare professions. A statement made by F1P5, which was supported by F2P1, F3P2 and F3P3, was that,

> *This times we have been here, we have noticed with the screening we noticed each other’s role and where everyone fits (F1P5).*

Role clarification in a team requires a detailed understanding of one's own professional role, and those of others. Furthermore, effective role clarification processes are those that include both an organisational dimension, in which processes are set up to facilitate role clarification, and an individual dimension, in which professionals are able to communicate clearly all aspects of their roles. All the health sciences disciplines agree that role clarification processes must take patients into consideration (Golom & Schreck, 2018:1-2).

It has been noted that role clarity is a crucial issue for effective collaboration. Poorly defined roles can become a source of conflict in clinical teams and reduce the effectiveness of care and services delivered to the population. Lack of clarity about each practitioner's role creates confusion and leads to resistance to its integration (Matthews, Bialocerkowski & Molineux, 2019:1-10). Clarifying professional roles amongst team members can be an effective way to minimise power struggles, facilitate role integration, foster interprofessional collaboration, optimise professional scopes of practice and, thereby, ensure efficient patient care. Participant F4P8 stated:

> *That was very nice, we are so delighted it was fun (hullabaloo and laughing) there was no pedestals. I think like usually you will see other profession feel lower than others, but here we work as equal no one felt lower than others and did the same type of work (F4P8).*

Learners need to overcome prejudice, stereotypical views and discrimination of the group they do not belong to (Visser, Wilschut, Isik, Van der Burgt, Croiset & Kusurkar, 2018). Poor quality interactions between health professionals hampers their ability to collaborate (Visser *et al.*, 2018). Therefore, working together as different teams could strengthen students' practices (Matthews *et al.*, 2019:1-10).

3.4.2.6. Category: Teamwork

Teamwork is defined as a joint commitment to performing a collective action while in a certain shared mental state, and as the glue that binds team members together (Lauche, Langhorst, Dobos & Cramer, 2013:342-7; Mash *et al.*, 2010:122-126). Teamwork can also be defined as the knowledge of skills for and positive attitudes about collaborating with other healthcare professionals (Norful, De Jacq, Carlino & Pogbosyan, 2018:250-256).

In this study, teamwork seemed to be very important. Several participants (F2P2, F2P3, F2P4, F2P5, F3P5, F4P1, F4P2, F4P3, F4P4, F4P5, F4P6 and F4P7) expressed their experience of teamwork, and supported the following statements:

> *It also showed me that working in a team, give better understanding of each profession (F2P1).*
>
> *In addition also showed me to be working not only as a team but working in a team, it shows how other person works and what the need from you and what you can preliminary ask the questions so long before the actually come to you. You can give feedback to the guys even before they go and see the patient (F2P3).*

Participants F1P1 and F1P2 demonstrated a greater appreciation for each discipline's contributions in a holistic approach to patient care. In addition, they recognised the value of the collaborative processes of assessment and constructing an intervention plan.

Literature mentions a number of positive outcomes of facilitation and implementation of collaborative practice strategies (Reeves *et al.*, 2016:657). Teamwork is achieved when students are involved in education programmes in which respect, trust, communication, awareness and acceptance of other disciplines' roles are taught (Petri, 2010:76). It has been suggested that collaboration facilitates and promotes the ability to work together as qualified professionals, while positively affecting service delivery to communities and the value of providing students with interprofessional skills (Delisle, Grymonpre, Whitley & Wirtzfeld, 2016:777-786).

3.4.3. Theme 3: Emotions

Emotion refers to a multiple experiences of consciousness, bodily sensation, and behaviour that reflects the personal significance of a thing, an event, or a state of affairs (Cherry, 2018:1; Moors, Ellsworth, Scherer & Frijda, 2013:119-124). Furthermore, emotion is defined as a complex state of feeling that results in physical and psychological changes that influence thought and behaviour. Emotion is mainly defined as emotional experiences and responses, and is an important aspect of motivation, behaviour, and commitment in collaborative practice (Leisterer & Jekauc, 2019:3). Pleasant feelings concerning a specific task make it worthwhile to turn one's

attention to the task, while unpleasant feelings towards a task encourage people to avoid the task (Leisterer & Jekauc, 2019:3-5). Students need to learn how to release, control, and regulate their emotions (Hökkä, Vähäsantanen & Paloniemi, 2019:5-10). The significance of emotions in learning and working has attracted considerable attention in recent years. Emotions and learning have been of particular interest in studies on school learning, teachers, and students (Becker, Goetz, Morger & Ranellucci, 2018:15-26; Deng, Zhu, Li, Xu, Rutter & Rivera, 2018:441-453., Lassila, Jokikokko, Uitto & Estola, 2017:379-393). In addition, some researchers indicate that there is a wide range of different emotions, both on the positive and negative spectrum of students' emotional experience, and these emotions can be identified in group work (Olson, McKenzie, Millis, Patulny, Bellocchi & Caristo, 2019:128-144).

3.4.3.1 Category: Concerned about safety

The term safety refers to a condition of being safe or protected. Safety in the context of occupational health and safety means a state of being protected against physical, psychological, occupational danger, mechanical failure, damage, accidents, death, injury, or other highly undesirable events. Safety is also described as a condition where positive control of known hazards exists, in an effort to achieve an acceptable degree of calculated risk, such as a permissible exposure limit (United Kingdom, 1974). A participant who was concerned about safety but who changed his/her mind about the rural area stated,

> Yes, I thought I would feel a little bit more unsafe because I come from back there, the rural area are bit unsafe and even the people work at our place says they are little afraid of to walk at night at homes and to their homes, so I came with negative connotations with the safeness and neatness and these people are happy and they thought me to become a better person and challenged me to become a better person I have learned a lot from them (F5P3).

Research indicates that students are more likely to feel safe in learning environments when they have been informed of measures that have been taken to ensure their safety (Brown & McAuley, 2016:20-25; Lacoe, 2015:8-15). Students' safety has been a topic of concern for educators, parents, and researchers for decades. It is important for students to have a safe learning space, to ensure they have the best possible opportunity to succeed academically (Jacobson, Riesch, Temkin, Kedrowski & Kluba,

2011:149-159).On the other hand, it is necessary to discuss factors that influence student perceptions of safety, to determine best practices for creating a learning climate conducive to academic success (Jacobson *et al.*, 2016:150).

> *Yes, I thought I would feel a little bit more unsafe because I come from back there, the rural area are bit unsafe and even the people work at our place says they are little afraid of to walk at night at homes and to their homes, so I came with negative connotations with the safeness and neatness and these people are happy and they thought me to become a better person and challenged me to become a better person I have learned a lot from them (F5P3).*

3.4.3.2. Category: Disappointment

Disappointment is the feeling of unhappiness that follows failing to expectations or hopes (Chua, Gonzalez, Taylor, Welsh & Liberzon, 2009:2031-2040; Nerantzi & Thomas, 2019: 3-10).

> *For me I think it was a great experience but what we did this week I can say is not what I expected, because we used to working very hard and we used to make a difference because for us to go into the communities and not screening the learners, I feel like we did nothing because at the end of the day I don't know the results will be afterwards, like we did screen the diabetic patients and we even referred, but I feel like even themselves they don't understand the objectives (F3P3).*

Previous studies indicated that providing students with a discipline-specific context will help them understand the relevance and function of collaborative activities and how that contributes to their achieving the specific outcomes. Students often experience disappointment if their expectations are not met (Cannistraci, Kehm, Piepe, Speerscheneider, Farber & Storandt, 2018:225-228).

3.4.3.3. Category: Fear/being afraid

Fear is an emotional response induced by a perceived threat, which causes a change in brain and organ function, as well as in behaviour. Fear can lead us to hide, to run away, or to freeze on the spot. Fear may arise from a confrontation or from avoiding a threat, or it may come in the form of a discovery (Mahlanze & Sibiya, 2017).

One study found that some students are more likely to feel unsafe because cultural factors play a role in perpetuating fears faced by students from urban areas. They can feel confused about the dynamics of rural areas (ConnelI, 2018:124-136). Participant F5P3 expressed fear as follows:

> *Yes, I think I was like somehow afraid going to the rural area as well because like I have known it but I have a different picture in mind (F5P3).*

Fear can cause students to experience adverse responses, physiologically, cognitively, for example, obsessive thinking, replaying in their minds problematic incidents that occurred in previous years, and emotionally, by being easily agitated, overcome by excessive nervousness, frustration, and other negative feelings. Such levels of fear may result in inappropriate behaviour during collaborative practice (Koricich, Chen & Hughes, 2018:48).

3.4.3.4. Category: Frustration

Frustration is an emotion that occurs in situations where a person is blocked from reaching a desired outcome. In general, whenever we reach one of our goals, we feel pleased, and whenever we are prevented from reaching our goals, we may succumb to frustration and feel irritable, annoyed and angry (Olson *et al.*, 2019:128-144). Frustration is defined as the feeling of being stuck. Within learning contexts, frustration may be regarded as a non-optimal experience, because it can lead some learners to experience a sense of resignation (Lee, Rodrigo, Baker, Sugay & Coronel, 2011:175-184). Furthermore, frustration is the affective state that expresses annoyance and dissatisfaction (Banawan, Rodrigo & Andres, 2015:1-7). In this study, participants F3P2 and F4P4 agreed with F4P3, who stated the following:

> *The thing for us we also want to see that change, we are working and screening different people and referred them but we don't know whether are they going to be seen by the doctors because we are only here for a week as they are expecting us to give them a long term solution that was something that was frustration, lack of information and planning as to what we should do and say (F4P3).*

Frustration results from blocking of a person's motives, needs, drives, purposes or goals. A frustrating situation, according to Loeb, Dynarski, McFarland, Morris, Reardon

and Reber (2018:36), may be examined in terms of blockage and interference with goal attainment and of reward expectation. However, hindrance is not limited to the individual's activity in progress, but people also react to that which they are expecting or looking forward to. Baker, Gowda, Wixon, Kalka, Wagner, Salvi, Aleven, Kusbit, Ocumpaugh and Rossi (2012:126-133) explain that frustration experienced by students involves negatively-valenced affect, often combined with expressions of dissatisfaction or frustration is associated with poor learning gains.

3.4.3.5. Category: Pressured

Being pressured refers to the burden of physical or mental distress or the constraint of circumstance and the weight of social or economic imposition (Enriquez, 2011:476-500). Two participants voiced their feelings of feeling pressured:

> *We are writing exams next week and we are here doing this [collaborative practice] (F6P7).*

3.4.3.6. Category: Rejection

Rejection refers to a refusal to accept, approve, or support something (Chan, Cheung, Yeung, Woo, Kwok, Shum & Cheung, 2017:1-15). Participant F3P4 experienced rejection by patients during home visits:

*Because she was referred and she did not go, and lot of patients they are reluctant when we go to the home visits they make excuses that they are not there and they kind of avoiding us and I don't know it is probably because of the history that students are coming and nothing happens (F3P4).*Rejection is one of the barriers that demoralizing students during collaboration practice (Kaleva, Pursiainen & Hakola, 2019:15)

3.4.3.7. Category: Surprised

Surprise is an emotion that is usually induced by sudden events. It is one of the emotions that is usually visible on a person's face, and reactions include widening of the eyes, opening of the mouth, and gasping (Repko, Newell & Szostak, 2012:13). Participant F5P3 was surprised by the community:

> *When I got there, I realised that these people homes are neat and streets are clean better it's like more better than in my town, and I could see the proud*

faces of the people of Trompsburg as well, 'yhaaa' I love this small community and I think that was me to see the proudness they have in their town to accept us in their homes and everything they were really kind and it was one kind of a hospitable experience (F5P3).

3.4.3.8. Category: Uncertainty

Uncertainty is the condition in which something is not correctly or totally acknowledged (Petersen, Fortunato, Raj, Kimmo Kaski, Penner, Rungi, Riccaboni, Stanley & Pammolli, 2014:15316-21). In the current study, uncertainty was experienced by participant F5P2:

I think with our previous IPE [collaborative] experiences at the university with four Wednesday afternoons they are all kind of prepared us that "listen, this is going to be difficult we are not going to get along, we don't know how this is going to go" (F5P2).

3.4.4. Theme 4: Community responsiveness

Community can be defined as existing within geographical boundaries, which facilitate administration, planning and allocation of resources, and exert social control (Geyer, Mogotlane, Boshoff, Chauke, Matlakala, Mokoena, Naicker & Randa, 2016:150). In addition, Geyer, Mogotlane and Young (2015:157) argue that a community comprises people, environment or place, resources and services, and social systems in terms of relationships, whereas responsiveness refers to actual experiences of people during their interaction with the public sector. Participant F5P4, supported by F5P5, described community responsiveness as follows:

Yes we learned a lot especially friendliness yesterday. I was walking around in Mandela Square area and because we have to do the survey we asked them all the numbers in Mandela Square area, it was like every single person we passed greeted us and some of them even stopped and say well let me take you to that house and it was like two or three blocks away they walked all the way to assist us even though they were busy with their own things when we got to them their hospitality was very good (F5P4).

Responsiveness can be considered as an important aspect of interactivity, and the extent to which a response is viewed as satisfactory in terms of aptness and applicability to meet a specific information need. Other facets of interactivity include reciprocity, speed of response and non-verbal information (Nambisan, Gustafson, Hawkins & Pingree, 2016:87-97).

3.4.4.1. Category: Attitudes/relationships

Attitude is part of an individual character that reacts favourably or unfavourably to an object, person and event. It is determined by an individual's perspective on the outcome of the performed behaviour (Glanz, Rimer & Viswanath, 2015:97).

Attitude can be referred to as the organisation of an individual's beliefs related to an object, phenomenon or situation, which could be either positive or negative and which includes cognitive, affective and behavioural aspects (Gualdron, Mendoza & Zulima, 2011:295). Furthermore, attitude is described as a lasting group of feelings, beliefs and behavioural tendencies that are directed towards specific people, groups, ideas or objects. According to Mendezabal (2013:1-14), an attitude is a belief about something, and usually describes what we think is the proper way of doing something. The attitudes we feel very strongly about are usually called values. In this study, the attitudes of the participants were determined by means of the focus group interview. A statement by Participant F5P5 refers to attitudes and relationships:

> *We would like to see more professions not only students nurses and medical students so they were no other professions, so that would have been so nice to have teachers, social workers and see what each professions are capable of doing in their fields because we learn theoretically but theory and practical is not always put together [integration], may be sometimes they go two-two in groups and like weeks there is four different professions in that group (F5P8).*

3.4.4.2. Category: Hesitance/reluctance

Hesitance and reluctance are feelings you experience when you know that you should do something that you do not like doing (Menendez, Chen, Mudgal, Jupiter & Ring, 2015:1860-1865). Participants F3P3 and F3P4 experienced some community members exhibiting reluctance:

The results we know it's a process to a patient listen this is your date we will see you at the clinic, we feel like every week it seems they are doing the same thing but nothing has changed. With regard to the follow up we did on Monday the woman was so hesitant to open up and being honest with us (F3P3).

A lot of patients they are reluctant when we go to the home visits they make excuses that they are not there and they kind of avoiding us and I don't know it is probably because of the history that students are coming and nothing happens. They get all this kind of screening and questions and I think this is frustrating to the patient as well (F3P4).

The relationship between the students and the community is crucial for person-centred care, because interpersonal relationships are considered essential for improving healthcare outcomes (Dawson-Rose, Cuca, Webel, Solis-Baez, Holzemer, Rivero-Mendez Sanzero-Eller, Reid, *et al.*, 2016:574).

Patients are more likely to disclose information if they trust the healthcare professional. Quality interactions may result in greater patient autonomy and shared decision-making. Patients who trust their providers may be prone to follow recommended instructions, and providers who respect patient experiences and knowledge may in a better position to build trusting relationships with patients (Allinson & Chaar, 2016:1-8). Healthcare providers are expected to act with honesty and integrity to maintain public trust in and uphold the reputation of the profession. Patients who experience healthcare professionals as being dishonest in any way, are likely to lose their respect and credibility towards professionals (Mohamed, Minhen, Bassem, Safadi, Robert, Etwal, Raad, Ramzi & Alami, 2018:1463-1470).

3.4.5. Theme 5: Ethical issues

Ethics is the branch of philosophy that deals with the dynamics of decision-making concerning what is right and wrong. Ethics refers to a system of principles that can critically change previous considerations about choices and actions (Gasparyan, Koroleva, Kitas, Yessirkepov & Voronon, 2018:247).

3.4.5.1. Category: Privacy

Privacy is a comprehensive concept that encompasses, for example, freedom of thought, control over one's body, solitude in one's home, control over information about oneself, and protection of one's reputation (Den Hartog & Lepak, 2019:2498-2537). Otherwise, privacy could be defined in terms of a person having control over the extent, timing, and circumstances of sharing oneself physically, behaviourally, or intellectually, with others. Even though privacy is not explicitly mentioned in the United States Constitution, many consider privacy a basic human right and maintaining confidentiality a professional obligation (Den Hartog & Lepak, 2019:2496). Participant F2P8 voiced concern about the privacy of learners:

> *The other thing is like the ethical thing must be improved when we go to the schools to do assessment it must be private or a class where we can take the leaners individually, because some of them they feel very ashamed, like they can't read and chat and their friend started laughing at them, they read up where others have read (F2P8).*

Previous studies report concern by participants regarding personal information that they reveal to others; they frequently confuse privacy, confidentiality, control, and security (Clayton *et al.*, 2018:887). People often require privacy as a condition for communicating freely. Privacy could also refer to anonymity, or the wish not to be identified or otherwise made known to be a member of a group or class of persons. A related concept that is frequently conflated with privacy is confidentiality, whereby a person shares information without making it widely available, and the recipient of the information is legally or ethically obligated to keep secret what has been communicated to them by the sharer (Clayton *et al.*, 2018:887-888). While privacy and confidentiality are analytically quite distinct, these terms are often used interchangeably in research settings and in casual conversation. Three notions, namely, the desire to be left alone, to be anonymous, and to be protected by confidentiality, relate to the way persons expect to be treated or regarded, and can be thought of as interests related to dignity (Clayton *et al.*, 2018:888-89).

3.4.6. Theme 6: Socioeconomic and healthcare issues

Socioeconomic status is defined as a measure of one's combined economic and social status, and is likely to respond positively to improved health outcomes. This definition focuses on the three standard measures of socioeconomic status, namely, education, earnings, and occupation (Szabo, Allen, Alpass & Stephens, 2017:998-1021). In addition, socioeconomics is concerned with the relationship between social and economic factors of society. Socioeconomic status is likely to influence health, through the capacity to purchase health-promoting resources and treatments, socialisation of early health habits, and continuing socialisation of positive health habits. These factors influence how a specific group or socioeconomic class behave in society, including their behaviour as consumers (Lemmi, Bantjies, Coast, Channer, Leon, McDaid, Palfrey, Stephen & Lund, 2016:774-783).

3.4.6.1. Category: Food security

Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Grobler, 2016:224-231). The concept of food security, together with the understanding of poverty, has evolved since the World Food Conference in 1974, and the argument surrounding food insecurity has shifted to the household level (Adato & Basset, 2012:34). In this study, half the community members were not working, and were dependent on social grants.

Most of them are unemployed and survive on pension money (F3P4).

3.4.7. Theme 7: Health systems

A health system is defined as two or more healthcare organisations that are affiliated with each other through shared ownership or a contracting relationship for payment and service delivery. Health systems' primary purpose is to promote, restore or maintain health (Hernández-Quevedo, Jakubowski, Maresso, Rechel, Richardson, Sagan, Williams & Nolte, 2018:1-14; WHO, 2010b:1-4). The terms health system and health sector are often used interchangeably, with the latter interpreted as restricted to the actions of the government. Health policy focuses on aspects of the health

system that fall under the responsibility of ministries of health, including the provision of personal health services by both state and non-state actors (WHO, 2010b:34).

3.4.7.1. Category: Patient outcome

Patient outcome refers to the status of a patient's adherence to treatment. An assessment of a patient's clinical outcome is an important aspect related to patient safety and satisfaction, and requires the assessment of the benefits, harms and risks of therapeutic options and a comparison between them (Hourani, Qusai & Shambour, 2017:321-333).

Participant F1P1 viewed the interprofessional teams' contribution to health outcomes as follows:

> *To give patient best care because every profession is there to add knowledge (F1P1).*

3.4.7.2. Category: Referrals

Referral refers to the process of directing or redirecting to an appropriate specialist or agency for definitive diagnosis. In addition, it is a written order from a primary care doctor for a patient to see a specialist or to get certain medical services. In many health maintenance organisations, patients need referrals before they can access medical care from anyone except the primary care doctor (Birtwistle, Ashcroft, Murphy, Gee, Poole & Watson, 2018:113-127). Referral of patients within the interprofessional team's scope was perceived as a problem by participant F2P10:

> *Another problem that we faced at times we had to do follow-ups so you would find that maybe the patient was referred to go to the social worker or dietician so we know when we have come in and follow up that patient you find that did not go, so then we thought wouldn't it be efficient if may be the social worker students should also be part of the IPE sessions and maybe can do the social worker working here, and whatever the counselling they are supposed to do because sometimes the patient go on a whole year, like we had a patient who had with a suicidal attempt, and it was an urgent referral, but it had been a year had passed and only now we have follow him up and he still had not gone to the social worker or to anyone to receive help (F2P10).*

3.4.8. Theme 8: Resources

3.4.8.1 Category: Human resources

The division of a company that is focused on activities relating to employees is referred to as the human resources division. These activities normally include recruiting and hiring new employees, orientation and training of current employees, employee benefits, and retention. The people who make up the workforce of an organisation, business sector or economy were formerly called personnel (Den Hartog & Lepak, 2019). Participant F3P4 stated:

> *There is only one social worker for Trompsburg and Springfontein [the whole district] and it is very difficult for her to see everyone, we asked question about depression and the social worker hasn't seen anyone (F3P4).*

3.4.9. Theme 9: Logistics/administrative

Logistics/ administrative is defined as a group of connected activities that are involved in freight transportation, distribution, warehousing and other logistics-related operations (Holl & Mariotti, 2017:139-150; Rivera, Sheffi & Knoppen, 2014, 285-294).

3.4.9.1. Category: Unstructured

Unstructured means lacking structure or not-formally-organised structure partners (Dana, Dawes & Peterson, 2013:512-520). Participants F3P2 and F3P4 responded as follows:

> *We did not screen lot of people because many people are on holidays and home visit were not properly organised infrastructure is not qualitative, I was very skeptical about it but at the end of the week I saw the need of getting to know each other as doctors and other professions (F3P2).*

> *I don't know is it the planning of the whole thing and they were seen last year and its only now we are coming back and doing follow ups and every week they have students doing the same thing, and seeing the patient and referring them but radically working on the program and make it to be more effective (F3P4).*

3.5. STATEMENTS MADE BY PARTICIPANTS THAT WERE CONSIDERED TO BE IRRELEVANT TO COLLABORATIVE PRACTICE

The findings of the study show that some of the participants could not differentiate between their placement in the clinic for community-based education and IPE. In their responses to questions about their perceptions of IPE, medical students' comments were related more to their work in the rural clinic, than to working with other professions. They mentioned that they are used to community-based education, where they are allowed to prescribe and work with patients, doing all that is required. In Trompsburg, however, they were spending two hours a day not being allowed to do anything for the patients. These students stated that it felt as if they were taking a big step back from where they wanted to be, and that it was waste of time. The students also commented that they were told to shut up, and have to sit with the registered nurses and watch them manage the patients. However, within the IPE programme, the students learn from different disciplines within a community-based approach. It was, therefore, not easy for the students to separate the two learning approaches. IPE in a rural environment does not take place in the hospital setting. Medical students mentioned that they were used to meeting each other in the hospital and working with each other. Participant F6P4's statement referred to the experience of community-based education, and not IPE:

> *Because I know with community-based education a lot as medical students and I think I can speak for all of us and say that was a waste of time because we are coming from a place previously we were at Botshabelo where we were allowed to prescribe, work with patients, we were doing everything, so now we are spending two hours a day doing not being allowed to do anything for ourselves its taking us far step back from where we will be (F6P4).*

3.6. SUMMARY OF THE FIELD NOTES TAKEN DURING EACH FOCUS GROUP INTERVIEW

3.6.1. First focus group

The first focus group's participants were unsure and they hesitated to answer questions. A facilitator had to use the probing technique and an ice breaker, and had

to speak Afrikaans. Eventually, everybody participated, however, their body language remained tense.

3.6.2. Second focus group

The atmosphere was not tense, and all members were free to communicate. The researcher believes that, perhaps, the previous group of participants had communicated with the second group regarding the study, therefore, participants were happy and enjoyed discussing the topic – they even laughed all the time, and the session was longer than that of the previous group.

3.6.3. Third focus group

The atmosphere was good and everybody laughed. Participants were very happy, compared to the two previous groups; they laughed all the time and spoke freely, without fear. Everyone expressed their ideas regarding the topic and gave suggestions.

3.6.4. Fourth focus group

Participants were happy, and the environment was conducive for everyone to share their opinions.

3.6.5. Fifth focus group

This was a very happy group, which laughed all the time and was willing to make suggestions and to participate. Application of critical thinking skills was noted during the discussion.

3.6.6. Sixth focus group

Participants were silent for few minutes after the facilitator posed the question. They seemed uninterested, not happy at all and full of complaints. They raised irrelevant issues. Atmosphere was tense.

3.7. CONCLUSION

The researcher concludes that the results of this study indicate that the potential of collaborative practice thoroughly transformed the students' understanding of the other professions' roles and responsibilities, communication and mutual trust. The students displayed relevant knowledge on fundamental teamwork principles relating to specific activities. A critical condition for developing these new insights was to feel confident in the learning environment. If the faculty of health sciences could put the study's recommendations into practice, student learning will be enhanced and they are likely to enjoy continuing to work collaboratively.

CHAPTER 4: DISCUSSION OF THE FINDINGS, RECOMMENDATIONS, AND CONCLUSION

4.1. DISCUSSION

In Chapter 3, the focus group interviews were analysed and integrated with findings of the literature. The findings of the study reveal that participants recognised the value of the opportunity to learn from one another. The collaborative practice and learning provided greater understanding of other disciplines' abilities, as well as a broader range of options for addressing complex health conditions, in general. Most participants noted that collaborative practice was their only interprofessional experience with other disciplines, although all participants were about to graduate. It was clear that participants find it useful to work together as team; overall, they indicated that communication is very important and central to ensuring the success of collaborative practice. Some participants had negative perceptions about certain aspects of the collaborative practice intervention.

It is clear that collaborative practice interventions could facilitate the development of competencies of students, which they could apply as graduates to enhance the health of the population. Not all the participants were happy about the orientation they had received, or the curriculum during the collaborative practice and learning experience. According to the researcher, there are number of factors that should be addressed to enhance collaborative practice within IPE.

4.2. RECOMMENDATIONS

The following recommendations are made by the researcher, and should be considered in order to address the issues that arose during focus group interviews, and to improve collaborative practice. The recommendations are specifically aimed at the Faculty of Health Sciences (UFS) collaborative programme developers and those responsible for the implementation of collaborative practice in a rural setting. However, it may be useful for other faculties that follows a collaborative approach.

4.2.1. Teaching and learning

4.2.1.1. Curricula

Curriculum revisions should include ample opportunities for students to work in collaborative teams. These opportunities should be available from their first year of study, throughout their training. Commencing collaborative practice at an early stage or level could encourage students to develop greater trust and respect for each other, in addition to supporting each other and correcting each other's mistakes.

The development of an collaborative module within existing programmes is advised. During development of the curricula/module, the researcher recommends involving students in the planning process, in order to identify the best approach to meeting their learning needs, and to ensure that the structured activities will reinforce collaborative practice relationships.

The collaborative placement of students on this rural platform should be extended to more than two weeks. This could enable students to manage follow-up visits and to ensure that patients who are referred are seen by different stakeholders, such as clinics and social workers.

4.2.1.2. Learning experiences

The developers of the collaborative programme and activities should proceed to build on the positive feedback and experiences of students. Refinement of the programme through regular quality assurance activities is recommended.

Attention should be paid to the students' request that more professions be included in the programme. Collaboration with other faculties should be prioritised.

4.2.1.3. Learning opportunities

The activities that are selected for collaborate practice and learning should be aligned with the scope of practice of the different professions and the level outcomes stated for the programmes.

A proper and clear orientation programme, which indicates what is expected of students, should be in place.

Competencies

The range of competencies required from an collaborative team seemed to have been addressed effectively and should, therefore, remain part of the existing programme. However, new developments with regard to the expansion of competencies should be considered and implemented.

4.2.1.4. Emotions

A well-structured programme, in which ample time is allowed for orientation of students, could ease the transition of students into a rural and collaborative practice setting.

4.2.2. Community responsiveness

Some form of acknowledgement for community members' contribution to the students' collaborative practice and learning experience, should be considered.

4.2.3. Ethical issues

The facilities should provide space that enables screening one patient at a time, to ensure privacy.

4.2.4. Socioeconomic and healthcare issues

Referral pathways that could be followed by collaborative practice teams should be established. Collaborative practice teams should take responsibility for monitoring patient referrals.

4.2.5. Resources

The presence of social workers, students and/or qualified staff is crucial to support collaborative practice activities. This should be negotiated by the rural health coordinator, with the provincial Department of Social Development and/or other faculties at the UFS.

4.2.6. Logistics/administration

The Faculty of Health Sciences should invite or extend the partnership to other schools, such as those housing social workers and psychologists, to the benefit of collaborative practice.

4.3 CONCLUSION

Collaborative practice through the application of interprofessional education principles offers ample research opportunities. Studies that include the voice of communities that receive healthcare services rendered through collaborative practice of students need to be initiated. The quest to structure collaborative opportunities based on best practice evidence will remain an impetus for further research.

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ANNEXURE A :

PERMISSION TO CONDUCT THE STUDY, HEALTH SCIENCES RESEARCH ETHICS COMMITTEE

UNIVERSITY OF THE FREE STATE
UNIVERSITEIT VAN DIE VRYSTAAT
YUNIVESITHI YA FREISTATA

UFS·UV
HEALTH SCIENCES
GESONDHEIDSWETENSKAPPE

IRB nr 00006240
REC Reference nr 230408-011
IORG0005187
FWA00012784

08 November 2017

NL MONA
SCHOOL OF NURSING
FACULTY OF HEALTH SCENCES
UFS

Dear NL Mona

HSREC 14/2017 (UFS-HSD2017/0069)
PROJECT TITLE: HEALTH SCIENCES STUDENTS' PERCEPTIONS OF COLLABORATIVE PRACTICE ON A RURAL LEARNING PLATFORM, XHARIEP DISTRICT

With reference to the letter dated 31 March 2017, this letter replaces the aforementioned letter.

1. You are hereby kindly informed that, at the meeting held on 28 March 2017, the Health Sciences Research Ethics Committee (HSREC) approved this protocol after all conditions were met.
2. The Committee must be informed of any serious adverse event and/or termination of the study.
3. Any amendment, extension or other modifications to the protocol must be submitted to the HSREC for approval.
4. A progress report should be submitted within one year of approval and annually for long term studies.
5. A final report should be submitted at the completion of the study.
6. Kindly use the **HSREC NR** as reference in correspondence to the HSREC Secretariat.
7. The HSREC functions in compliance with, but not limited to, the following documents and guidelines: The SA National Health Act. No. 61 of 2003; Ethics in Health Research: Principles, Structures and Processes (2015); SA GCP(2006); Declaration of Helsinki; The Belmont Report; The US Office of Human Research Protections 45 CFR 461 (for non-exempt research with human participants conducted or supported by the US Department of Health and Human Services- (HHS), 21 CFR 50, 21 CFR 56; CIOMS; ICH-GCP-E6 Sections 1-4; The International Conference on Harmonization and Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Tripartite), Guidelines of the SA Medicines Control Council as well as Laws and Regulations with regard to the Control of Medicines, Constitution of the HSREC of the Faculty of Health Sciences.

Yours faithfully

DR SM LE GRANGE
CHAIR: HEALTH SCIENCES RESEARCH ETHICS COMMITTEE
Cc: A Joubert

Health Sciences Research Ethics Committee
Office of the Dean: Health Sciences
T: +27 (0)51 401 7795/7794 | E: ethicsfhs@ufs.ac.za
Block D, Dean's Division, Room D104 | P.O. Box/Posbus 339 (Internal Post Box G40) | Bloemfontein 9300 | South Africa
www.ufs.ac.za

ANNEXURE B:

REQUEST FOR APPROVAL TO CONDUCT THE STUDY FROM HEAD OF SCHOOL AND VICE RECTOR

ANNEXURE A: PERMISSION VICE-RECTOR ACADEMIC

UFS·UV

HEALTH SCIENCES RESEARCH ETHICS COMMITTEE

APPROVAL FROM UFS AUTHORITIES

FOR PARTICIPATION OF STUDENTS/STAFF IN RESEARCH PROJECTS

Title, Initials, Surname:	Mrs. N.L. Dinthe	Staff/Student number	1999341942
Department/Institution:	School of Nursing		
Phone:	051-4012962/0783168028	E-mail address:	Dinthenl@ufs.ac.za
Supervisor(s):	Prof. A. Joubert	Phone:	0514013477

Protocol Title:	Perceptions of Health Sciences Professions Students Regarding Collaborative practice on a Rural Learning Platform, Xhariep District.

Who will be involved in the study? (tick ✓)	☐ UFS Personnel	✓ ☐ Students

INSTRUCTIONS:

I. Please attach the following to this form when requesting approval from the signatories:
   a. The study protocol; and
   b. The Health Sciences Research Ethics Committee (HSREC) application form.

II. Kindly note that it is the responsibility of the researcher(s) to ensure that all relevant signatures are obtained before this signed form is returned to HSREC Administration (D104) Francois Retief Building, Faculty of Health Sciences, UFS. The protocol may, however, be submitted for HSREC approval while signatures are being obtained.

III. Please choose either section A **OR** B below.

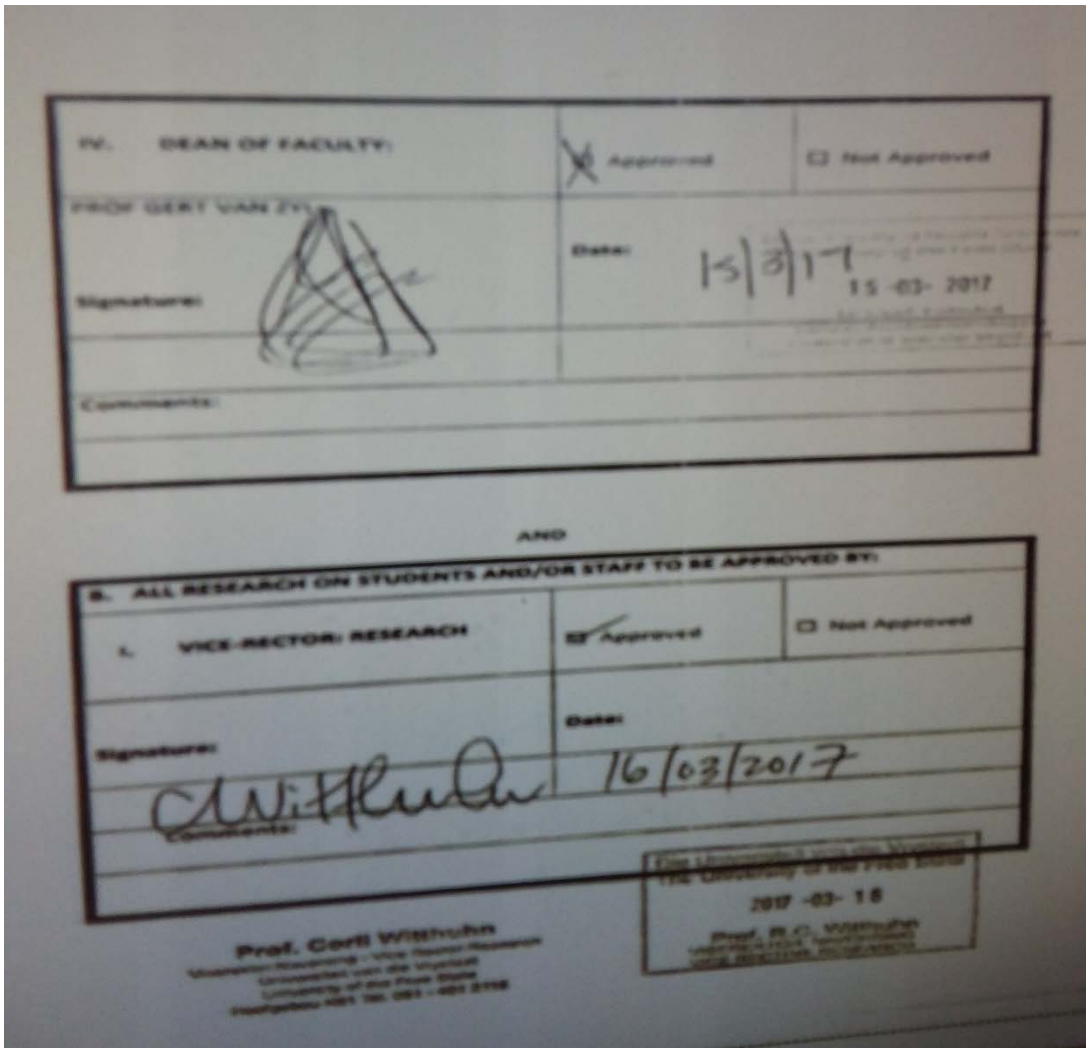
IV. Section C is **mandatory** for all research on campus.

A. FOR RESEARCH ON UFS STUDENTS AND/OR STAFF FROM A SPECIFIC FACULTY, BOTH THE FOLLOWING SIGNATURES MUST BE OBTAINED:		
I. HEAD OF SCHOOL (IF APPLICABLE):	☐ Approved	☐ Not Approved
PROF W KRUGER SCHOOL OF MEDICINE Signature:	Date: DEPARTMENT OF COMMUNITY HEALTH UNIVERSITY OF THE FREE STATE PROF. W.H. KRUGER HEAD OF DEPARTMENT 14-03-2017	
Comments:		

A. FOR RESEARCH ON UFS STUDENTS AND/OR STAFF FROM A SPECIFIC FACULTY, BOTH THE FOLLOWING SIGNATURES MUST BE OBTAINED:		
II. HEAD OF SCHOOL (IF APPLICABLE):	☒ Approved	☐ Not Approved
PROF MAGDA MULDER		

SCHOOL OF NURSING	Date:
Signature:	10/3/17 10-03-201
Comments:	

A. FOR RESEARCH ON UFS STUDENTS AND/OR STAFF FROM A SPECIFIC FACULTY, BOTH THE FOLLOWING SIGNATURES MUST BE OBTAINED:		
III. HEAD OF SCHOOL (IF APPLICABLE):	☒ Approved	☐ Not Approved
DR SANTIE VAN VUUREN SCHOOL OF ALLIED HEALTH Signature:	Date:	
Comments:		



IV. DEAN OF FACULTY: ☒ Approved ☐ Not Approved

PROF GERT VAN ZYL

Signature:

Date: 15/3/17 15-03-2017

Comments:

AND

B. ALL RESEARCH ON STUDENTS AND/OR STAFF TO BE APPROVED BY:

I. VICE-RECTOR: RESEARCH ☑ Approved ☐ Not Approved

Signature:

Date: 16/03/2017

Comments:

Prof. Carli Wilthuhn

2017 -03- 16

ANNEXURE C: CONSENT TO PARTICIPATE IN RESEARCH

PROJECT TITLE:

PERCEPTIONS OF HEALTH SCIENCES PROFESSIONS STUDENTS REGARDING COLLABORATIVE PRACTICE ON A RURAL LEARNING PLATFORM, XHARIEP DISTRICT

Dear Student

You were requested by Mrs. N.L. Dinthe to participate in the research study indicated above. You have been informed about the study. Your participation in this research is voluntary, and you will not be penalised or lose benefits if you decide not to participate or decide to terminate participation.

If you agree to participate, you will be given a signed copy of this document as well as the participant information sheet, which is a written summary of the research.

You may contact Mrs. N.L. Dinthe. At 0783168028 or 051-4012962 any time if you have questions about the research or if you are uncomfortable as a result of the research.

You may contact the Secretariat of the Health Sciences Research Ethics Committee at telephone number (051) 4017794/5 if you have questions about your rights as a research subject.

The research study, including the above information has been verbally described to me.

I understand what my involvement in the study means and I voluntarily agree to participate.

_____ _____

Signature of Participant Date

_____ _____

Signature of Witness Date

ANNEXURE D: INFORMATION DOCUMENT/SHEET

STUDY TITLE: PERCEPTIONS OF HEALTH SCIENCES PROFESSIONS STUDENTS REGARDING COLLABORATIVE PRACTICE ON A RURAL LEARNING PLATFORM, XHARIEP DISTRICT

Dear Student

Mrs Dinthe is researching on the above mentioned topic. The study aims exploring your perception regarding collaborative practice on a rural learning platform, as implemented by the Faculty of Health Sciences. I am specifically interested in finding out how students feel about collaborative learning.

I have opted for a qualitative study design; and a Focus Group Interview (focus group interview) will be used to collect data. Students registered in the Faculty of Health Sciences, will be considered to participate. However, only those who agreed to participate will finally be included in one of the three to four FGIs. The focus group interview lasting for about 60minutes per group will be conducted immediately after a collaborative practice exposure in Trompsburg in 2017. There will be no risk involved in the study since the FGIs will be conducted on the premises of the university.

Personal information will be kept confidential. However, biographic information of the cohort will appear in the research report and other publications. The findings of the study will be disseminated on different academic platforms and accredited journals.

The study findings might be beneficial to the three Schools within the Faculty, the Department of Health, the community and the students, as it might help to improve the current collaborative practice initiative of the FHS.

You may contact Mrs. Lucy Dinthe at 078 316 8028 or 051-4012962 any time if you have questions about the research or if you are uncomfortable as a result of the research.

Contact details of Secretariat and Chair: Health Sciences Research Ethics Committee, University of the Free State: For reporting of complaints/problems: Telephone number 051-4017794/5.

ANNEXURE E: TRANSCRIPTION OF SECOND FOCUS GROUP INTERVIEW

F: Facilitator

P: Participant

Facilitator introduced herself; the researcher explains the purpose and the reason for the focus group to the participants. Participants signed the consent form to participate voluntary in the focus group interview

Facilitator: Good morning I'm your facilitator in this focus group, thank you for being willing to participate and I'm going to pose a question and fall in as you wish just answer that , be assured that you have given us the permission to participate, whatever you are saying will remain between you and the researcher, and confidentiality will be maintained, no names will be mentioned and if we agreed on that the question that I want to ask is to tell me your perceptions on your learning experience here in Trompsburg? Anyone can start.

P1 I feel like it was a good learning experience opportunity because throughout the years of our training as different profession we got to do things like knowing how to do blood pressure so when we came here we just reminded ourselves of all the years of training that we have been doing so we didn't like learning anything new as I said it was just a reminder and you could see how much knowledge you have accumulated and we can put it now to work with communities doing community work.

P2 It was actually a good opportunity to us as medical students, they have made students to do things, for example we never do glucose testing we just let professional nurses do it on their own, we already know this things but we don't have chance to implement things we have studied through the years up until now that we don't do them on a regular basis. Okay actually we feel if facilitator can give space to reflect.

P3 And for me it was really good experience in our first year we knew what to expect when we came Trompsburg ,we knew what to do when we got the community, we knew how to approach the community and it was a really good experience for me to be here and being with other students from different schools. I really gained lot of experience when it comes to communication because the way we communicated I could see that in each of every profession we need each other because I was able to see that if I could not know about pharmacology the medical students were there to help us, if we didn't know anything about diet, the dieticians were there to help us. So

we were able to see that we need each and everyone in this medical/nursing profession.

Facilitator: So it is actually showed you that you should be working in a team.

P3 It also showed me to be working not only as a team but working in a team, it shows how other person works and what the need from you and what you can preliminary ask the questions so long before the actually come to you. You can give feedback to the guys even before they go and see the patient.

Facilitator: I see you are actually saying you've gained out of team working.

P4 Yes I also gained like some most of the things like learning to work with other professions I think that was important to adjust and help each other, but apart that we were well orientated prior we came here, we had sessions that are helpful and we knew we are going to come here with a specific objective, so we didn't just came here and ask ourselves what are we going to do so the orientation we did prior to come here and also working together with different professional groups and also knowing that I'm going to be here with medical student and the dietitians, physios I won't just be here with all the nurses am going to be separated from my group, am going to be separated from my group too and learn something new from the other group.

Facilitator: So the orientation worked for you, anything else?

P5 Yes it also worked to make this experience so nice

Facilitator: The experience was only positive?

P6 There was sometimes were we had to adjust because we had a specific plan, going out to the community and at times we had to change that plan because according to the community, typical example yesterday we went out knowing the community speaks (language barrier) Sotho but when we got there they wanted Afrikaans speaking students and we had to adjust to that and have the Afrikaans student talk, but it was quite nice to see how we all work together and we can still function when there was a change in the community.

Facilitator: So it also helped you to know having a plan that might not necessary fit every situation?

P7 Secondly we did not have white projector so most of the time we used laptops just to talk to the community group so we had to adjust to that.

Facilitator: So it actually helped you to be flexible?

P7 Yes I think the only negative we can actually outline of this IPE session we were not well oriented to fill the booklets right and now when we got here the first day we were just briefly explained to like and we had to go to schools and start writing so we felt a bit confused and sometimes difficult what I do here(negative) so it would be nice for them to implement how to fill in the booklets prior in the IPE sessions that we had before coming here and how to do data capturing as we can see we are struggling to still capture anything so they could have done that before hand it would save time.

Facilitator: In other words there are also lesson learned that some of the things could have been done at the University.

Silence

Facilitator: Anything else? Thank you for having participated in this group and the knowledge that we are learning from you now and I hope it will be helpful to the researcher and to the school.

Facilitator: Anything you remember?

P8 The other thing is like the ethical thing must be improved when we go to the schools to do assessment it must be private or a class where we can take the leaners individually, because some of them they feel very ashamed, like they can't read and chat and their friend started laughing at them, they read up where others have read. And the other thing I think the community was not sure, when we do home visits they should be asked whether they are willing to come to the university premises here or we should go to their homes because some of them feel ashamed of us coming to their homes others don't have enough chairs and feel that they don't need visitors so I think they should be asked if they are willing to come here for assessment.

Facilitator: So you feel the movement for the visit should also allow those of the communities that want to come this side?

P9 There is one thing administrative planning was not very good, for example two medical students were supposed to go to the clinic so they only starting in the clinic before us in the morning, the big 24 seaters' bus took the two medical students to Springfontein travel all the way to Trompsburg. So I think there is a lot of money wasted on where we can give one or more student a scholarship to achieve what they want to

achieve, because the bus drivers three to four times from Trompsburg to Springfontein.

Facilitator: So some ice should be put on the logistic?

P9 Yes I don't know but some changes can be made because someone told me where they pay 10.000 for petrol or diesel, if the entire is full we sitting with sixty students then it make sense because we will need that 24 seater's bus big vehicles are not necessary if we are less to save money

P10 The other thing is that I think the medical students must be taught about the community and cultural diversity, if you come into someone else house you can't just sit down and the way they should do greetings or the way they should greet in other culture. I think they need orientation as we student nurses we had.

P10 Another problem that we faced at times we had to do follow ups so you would find that maybe the patient was referred to go to the social worker or dietician so we know when we have come in and follow up that patient you find that did not go so then we thought wouldn't it be efficient if may be the social worker students should also be part of the IPE sessions and maybe can do the social worker working here, and whatever the counseling they are supposed to do because sometimes the patient go on a whole year like we had a patient who had with a suicidal attempt and it was an urgent referral but it had been a year had passed and only now we have follow him up and he still had not gone to the social worker or to anyone to receive help. So may be if the social worker and psychology students from the University it can be quite a big team that we can also help our community because we are few months to be qualified as optometrist and other professions like dietitians, OTs and it would be nice if we can do that here instead of referring them and expanding the IPE, there is a lot more to integration work that dieticians, OTs, Nurses, medical students, the team is bigger than that.

Facilitator: You suggesting there is an opportunity for expansion beyond the faculty?

Participant: Yes Ma'am

Facilitator: That's good we really have learned once more thank you very much for having participated in this.

ANNEXURE F: LETTER LANGUAGE EDITOR

Declaration

12 March 2020

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Student: Nompumelelo Lucy Dinthe

Thesis: Health sciences students' perceptions of collaborative practice on a rural learning platform, Xhariep District

I confirm that I edited this thesis, checked the references and recommended changes to the text.

Hettie Human

MA Language Practice