Attitudes and Perceptions of first year students towards Interprofessional Education in the Faculty of Community and Health Sciences at the University of the Western Cape.

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ABSTRACT:

The setting for this study was the University of the Western Cape, Faculty of Community and Health Sciences, first year undergraduate students. All students who participated in the compulsory interprofessional programme were from the following disciplines: Occupational Therapy; Physiotherapy; Psychology; Social Work; Natural Medicine; Dietetics; Human Ecology; Sports Sciences and Nursing.

The objectives of this study were to measure the attitudes and perceptions of first year students who participated in an undergraduate interprofessional programme. The attitudes and perceptions were further measured in relation to the specific lecturers involved, the age of the students, their gender, race, background as well their specific discipline.

This was primarily a quantitative study incorporating two qualitative questions in which 657 students were issued with a questionnaire designed to determine their attitudes and perceptions towards interprofessional education. A sample size of 264 students resulted in 95% confidence intervals with a maximum precision of 5%. The questionnaire was adapted, with permission, from Cameron; Rennie; DiProspero; Langlois & Wagner (2009). MS Excel was used to capture the data and STATISTICA version 9 (StatSoft Inc. (2009) STATISTICA (data analysis software system), www.statsoft.com.) was used to analyze the data from the questionnaires. Descriptive statistics was used to describe the main features of the sample of this study and summary statistics was further used to summarize the findings of this study in order to communicate the bulk of the information as simple as possible.

Two open-ended questions were included at the end of the questionnaire and this was used to triangulate the data.

The Kruskal-Wallace test was used to measure the results, whereby a p-value of <0.05 indicated statistical significance. Of all the factors used to measure the attitudes and perceptions of students, the following three were significant: Gender; Race and Discipline. No other factors impact on the attitudes and perceptions of students towards interprofessional education.

Student attitudes and perceptions towards interprofessional education were found to be very positive. The findings revealed that the most significant factor in the study was the lack of understanding of various disciplines participating in the programme and their understanding of the relevance of the teaching approach (interprofessional) as well as their specific role in the health care team. This clearly illustrated the need to recommend to the co-ordinating unit of the programme that this be defined more clearly for the students and specifically the Sports Sciences students.

(See Appendix D for Afrikaans version)

Declaration

I, the undersigned, hereby declare that the work contained in this assignment is my original work and that I have not previously submitted it, in its entirety or in part, at any university for a degree.

Signature: .....…..... Date: ……..…….....

Dedication

This research assignment is dedicated to my soulmate, friend and wife, Sylnita who is always inspiring me to go beyond the norm.

Acknowledgements:

I would like to take this opportunity to thank the following individuals for their assistance and support during this period of my research:

1. I would like to thank God the Almighty for giving me the strength, health and perserverance to complete this research process.
2. My wife, Sylnita, and children, Arian and Gemma for encouraging me during the times when I wanted to give up.
3. My parents, Charles and Shirley, for affording me the opportunity of a tertiary education, paving the way for further studies.
4. My colleagues Firdouza, Nariman and Cornelia, who assisted me in various ways.
5. My supervisor, Prof. de Villiers, who believed in me and supported me during this process.
6. The examiners of this research assignment, for their time and input thereby allowing me to further learn through this process.

I appreciate all the help and support and promise to use my findings to further the development of Interprofessional Education at the University of the Western Cape and beyond…

Abbreviations:

ANOVA	Analysis of Variance
AUCD	The Association of University Centers on Disabilities
CAIPE	Centre for the Advancement of Interprofessional Education
FCHS	Faculty of Community and Health Sciences
IPE	Interprofessional Education
IPL	Interprofessional Learning
IPOC	Introduction to the Philosophy of Care
ITLU	Interdisciplinary Teaching and Learning Unit
SU	Stellenbosch University
UWC	University of the Western Cape
WHO	World Health Organization

Definitions:

The following definitions of key terminology used in this research assignment is clarified to understand the context of the study:

1. Attitudes:

   "Someone's opinions or feelings about something, especially shown by their behaviour." (Macmillan English Dictionary, 2002)

2. Perceptions:

   "A particular way of understanding or thinking about something." (Macmillan English Dictionary, 2002)

3. Interprofessional Education (IPE):

   "IPE occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care… and includes all such learning in academic and work-based settings before and after qualification, adopting an inclusive view of "professional" (CAIPE, 2006).

1. INTRODUCTION

In order to understand the progression from a multiprofessional approach to an interprofessional approach to learning, it is important to understand the developments in the Faculty of Community and Health Sciences (FCHS) towards adopting this approach. Myburgh (1992:13) mentions three significant attempts at UWC to develop a greater unity among all health and welfare departments. The first attempt was called, the UWC Medical School enquiry, the second attempt was the creation of a new Faculty of Community and Health Sciences and the third attempt was the 1988 workshop on a Health report from the 1988 Building a People's University Conference.

These above-mentioned attempts in-turn gave rise to the Health and Welfare Mission Project (HWMP) which was a collaborative project of the Faculties of Dentistry, Community and Health Sciences and the School of Pharmacy. The HWMP initiated several activities in an attempt to include a wide spectrum of health and welfare personnel to address important health personnel developmental issues. Myburgh (1992:14) further highlights activities that the HWMP gave rise to: the first interfaculty workshop, a series of seminars around Educating for Health, an interfaculty curriculum symposium, joint faculty task groups, symposium on personnel choices, lay personnel education, national study tour for staff, USA-Brazil study tour, Community Partnerships Project (CPP), women and health discussions, research investigations around implementing a community-based health system in SA, HWMP newsletters, implementation of a School of Public Health (SOPH) and various other activities.

Myburgh (1992:21) comments on the progress made by the HWMP in meeting its outcome. He mentioned that all activities that were planned for was undertaken and even at the start of this project some of these activities were not even anticipated like the weekly newsletter which became a channel to improve communication among all in the UWC health and welfare sector. Another activity not originally planned for was three Joint Faculty Board meetings that were attended by all staff in the health and welfare sector at UWC. This provided an ideal opportunity to propagate and test various ideas centered on collaborative activities and curricula. The second

unplanned event was which took up a significant amount of time was discussions around the development of the Western Cape School of Public Health.

A Joint Faculty Task Group and the HWMP made the following proposals for a Shared Curriculum and Shared Practice that will help the reader understand the current interlprofessional status at UWC. The proposal for a Shared Curriculum were as follows: all first year students within the health and social sciences disciplines should undertake a common course; students were to be selected on the basis of the amount of intake per discipline, with the option of changing disciplines during the early years of the programme; a non-discipline option should be available to some students which would allow them to entera specific discipline later on; all departments to offer up credits for future interprofessional learning courses; a problem-based learning approach should be widely adopted; interprofessional learning should be supported by experiential learning in teams and a ‘step-ladder approach’ be adopted to educate personnel.

Most of the suggestions from the Joint Faculty Task Group and the HWMP had been adhered to. It lead to the development of the Interprofessional Core Courses Unit (ICCU) responsible for the co-ordination and planning of common modules across the faculties of Community and Health Sciences and Dentistry and Oral Health. Each department have a specific intake total per year with possibilities of changing courses during their early years of study. Departments have offered up credits for interprofessional modules during years one to three and a fourth year module was piloted during 2007. Problem-based learning has been adopted and implemented widely at UWC and some of the interprofessional modules are supported by a practical element comprising of health care teams. Education for personnel is provided by the ICCU each year, but these skills are lost each year when they take up different annual responsibilities in their respective home departments.

In terms of the proposal for Shared Practice by the Joint Faculty Task Group and the HWMP: from the first year of study, a practical experiential learning component be included with exposure to the health and welfare problems in the communities; the first year course should equip students team working skills; the third and fourth year levels should focus more on sharing site placements to promote interprofessional

team activities; development of sites for interprofessional learning should be identified and existing ones should be strengthened; the Kelloggs Community Partnerships Project should be seen as vehicle for initiating this process and finally the philosophy of experiential learning should be carried across all levels of care.

The Faculty of Community and Health Sciences (FCHS) at the University of the Western Cape (UWC) has nine departments/schools which comprise of: Dietetics; Human Ecology; Occupational Therapy; Physiotherapy; Psychology; Social Work; Natural Medicine; Nursing and Sports, Recreation & Exercise Science. (See Appendix A).

The FCHS aims to develop interprofessional undergraduate and postgraduate courses in community care as well as more practice-based interprofessional courses in the natural and social sciences at undergraduate level. As a result, the module Health, Development and Primary Health Care was the first interprofessional core course implemented in the faculty in 1999. This was followed by the module Introduction to Philosophy of Care at first year level, Interdisciplinary Health Promotion module at second year level, a research module called Health and Ill Health module at third year level and an Interprofessional Community Based Practice module implemented in 2007 as a pilot phase.

The objective of these courses is to train students for interprofessionalism. However, it is unclear whether the courses merely succeed in grouping students together across disciplines or whether students do indeed learn from each other. This is one of the questions which this study will attempt to answer.

The interprofessional module used for the purposes of this study is called, Introduction to the Philosophy of Care (IPOC). This core course was developed to introduce students to, and facilitate their understanding of care as a social practice and to recognize different moral arguments about care (See Appendix D for module descriptor). Further, it is hoped that the students will begin to reflect on ideas or courses of action, as well on the decisions and choices they make in their own lives, both for themselves and for those who are placed in their care. This module views

care holistically in order to see, perceive and understand its various dimensions and values at a basic level.

By doing so, the students can develop a deeper understanding of care. This understanding will help them to develop competent skills and pride in the manner in which they render care and, in so doing, fulfil the needs and rights of their clients.

This point of departure is critical for caregivers and health care providers, especially when one considers the quality of care that the students will be expected to provide once qualified. Care receivers are dependent on the quality of care received, and thus on the quality of the students' judgement. The quality of the students' future care depends not only on their technical skills, the availability of resources and the knowledge of their discipline but also on their skills in dealing with moral issues and moral dilemmas. Often technical and moral problems cannot be dealt with in isolation of each other. They are joined in the understanding the practitioner has of the client and her/his social context and in the choices that are the outcome of that understanding. Care is provided in larger social structures, which are influenced by power relations and by policy making.

The specific outcomes of this module will enable students to:

- Analyse and describe 'care' as a social practice and understand their position as a future health care professional in the larger social power constructs, e.g. gender, class and race, and the impact of policy on these constructs.
- Demonstrate knowledge of some basic moral concepts, ethics and human rights relevant to service provision and an awareness of the ethical responsibilities of health care workers in South Africa.
- Demonstrate the ability to analyse and the skills needed when dealing with moral dilemmas in day to day caring practices.
- Demonstrate skills and professional conduct such as punctuality, participation and attendance when working in interprofessional groups.

The main teaching methods in this module are lectures, small group work and a group assignment based on a visit to an institution of 'care'. Students are assessed through an assignment which they have to present as a group during the last class of this module, as well as through an examination at the end of the year. All students

complete a course evaluation at the end of the module which is analysed and the feedback provided to each lecturer. This feedback is also used to inform amendments to the module for the following year.

In 2006, the researcher was assigned with the responsibility to convene this interprofessional module in the faculty and through this engagement with the module, the researcher began reflecting as to whether the module was indeed interprofessional in nature since students were grouped together from various disciplines but no content on interprofessional education was included in the course. In 2008 the researcher incorporated a specific section on team work and interprofessional education leading, ultimately, to determining the perceptions and attitudes of students towards the interprofessional module offered in the faculty. The researcher embarked on this study to determine whether or not the faculty needs to make any changes to its existing first year interprofessional module based on students' perceptions and attitudes.

2. LITERATURE REVIEW

Interprofessionality is not a new term or concept. The World Health Organization (WHO) clearly supports interprofessional education and practice and has documented this from as early as 1978 (WHO, 1978). Larson (1995) and WHO (1978) claim that the healthcare movement towards interprofessionality started more than twenty years ago and has definitely strengthened up till present. Advocators of collaborative interprofessional practice emphasize that interprofessional education is the key to providing high quality healthcare (Cody, 2001:276). It is in this light that my study developed. As Convener of Interprofessional modules, during the period 2006 to 2011, employed in the Interprofessional Teaching and Learning Unit (ITLU), the researcher was curious about the perceptions and attitudes the students had towards the interprofessional modules at a first year level and what factors impacted on these attitudes and perceptions.

High quality health care attributed to effective interprofessional working by health care professionals is largely influenced by their attitudes towards their own and other professional groups. There is, however, very little known about the interprofessional attitudes of students in health care professions (Hind; Norman; Cooper; Gill; Hilton; Judd & Jones, 2003). The following review of the literature will highlight studies related to attitudes and perceptions to students to interprofessional education (IPE) globally to support this study.

2.1 Interprofessional Education

McKimm & Brake (2011) are of the opinion that when talking about working together in an academic context the literature uses various terms interchangeably and as a result can become confusing. They further explain that a lot of the original literature as well as literature produced by the UK Centre for the Advancement of Interprofessional Education (CAIPE) who has been highly influential in taking forward the IPE agenda, prefers using the term Interprofessional Education (IPE). The authors go on to explain IPE as follows: “IPE occurs when two or more professions learn with, from and about each other to improve collaboration and the quality of care… and includes all such learning in academic and work-based settings before

and after qualification, adopting an inclusive view of “professional” (CAIPE, 2006). This definition best describes the focus of the module used for this study.

2.2 Reasons for Interprofessional Education

The Faculty of Community and Health Sciences (FCHS) is committed to education that promotes interprofessional teamwork from its mission statement. This commitment gave rise to an Interdisciplinary Teaching and Learning Unit (ITLU) to promote IPE on all year levels. The first year IPE module related to this study stems from the ITLU. An educational process whereby students are provided with structured learning opportunities for shared learning is referred to as interprofessional learning. The main outcomes for such learning is to facilitate students to attain knowledge, skills and professional attitudes which they would not necessarily effectively acquire in traditional learning environments (Horsburgh; Lamdin & Williamson, 2001).

2.3 First Year Exposure to IPE

Cooper & Spencer-Dawe (2006:604) suggest that first year students who learn together in an integrated manner will eventually learn to work together collaboratively in practice. Begley (2009:276) supports this notion idea by saying that “it is important to introduce collaborative working early from the first year of studies so that students can learn to develop more positive attitudes towards each other before they become “inflexible in their own professional identity.” The ITLU has identified common curriculum content that can be taught collaboratively to foster interprofessional teamwork among all health and welfare disciplines. This content covers broad areas like health; development; primary health care; and philosophy of care. There are many advantages for students by grouping them together across disciplines to facilitate learning in teams.

2.4 Learning in Teams

Wright & Lindqvist (2008: 447a) state that Interprofessional Learning (IPL) is best suited for Interprofessional Education (IPE) as it facilitates “real teamworking” both on an individual level (individuals understanding their specific role within a team) and as part of a team (all team members functioning as a whole towards specific goals). Cradock cited in Wright & Lindqvist (2008:447b) further mentions that students are

more likely to learn about each other's' roles and their own role within a team by working in this manner. Knowles cited in Wright & Lindqvist (2008:447c) says that Adult Learning Theory played an important part in the development of IPL and as students, they need to feel part of this process in shaping their learning. The IPE curriculum facilitated by the ITLU at UWC encompasses a variety of teaching methods to foster teamwork. These methods are small group work, presentations, discussions, reflective learning,pre-readings and individual site visits for data collection for their assignments. There is a strong sense of building on the knowledge blocks of what students already know with an added element of learning across various disciplines.

2.5 Characteristics of learners towards IPE

Mostly positive responses and reactions are noted to any prior IPE curriculum or activities by students (Carpenter, 1995 & Tunstall-Pedoe; Rink & Hilton, 2003). The authors frequently noted positive attitudes by students when invited to participate in an opportunity to interact with another discipline. The researcher noticed common reactions at UWC when orientating first year students at the beginning of their academic year. These responses were in the form of questions and comments by the learners.

It was found that the more matured and experienced students are the more susceptible they are to IPE than compared to younger inexperienced students (Carpenter 1995 & Tunstall-Pedoe; Rink & Hilton, 2003). The researcher can relate to this statement by the authors as the more matured students at UWC who participate in the IPE module tend to have different priorities than the younger students. They are more serious, tend to get tasks done more promptly, and use their interpersonal skills and experiences to interact with students from their own discipline as well as across other disciplines.

The literature suggests that there is very limited evidence of students having prior experience to IPE, as a result their attitudes are not easily influenced by forthcoming IPE events (Kilminster; Hale, Lascelles; Morris; Roberts; Stark; Sowter; Thistlethwaite, 2004). It was also found in another study that students found it difficult to justify spending time on IPL when it was not being assessed (Morison; Boohan,

Jenkins & Moutray, 2003). In both cases at UWC, students are assesses on the first year IPE module as it captured as a compulsory component in the university year book. As a first year student, in many cases, this will be their first exposure to learning in interprofessional teams, resulting in an openness to this experience.

3. AIM AND OBJECTIVES OF THE STUDY

The primary aim of this study was to determine the attitudes as well as the perceptions of first year students towards interprofessional education (IPE) at the Faculty of Community and Health Sciences at the University of the Western Cape, after completion of a module on interprofessional education.

The secondary aim for this study was to determine any possible influences of the demographic profile of first year students, in the Faculty of Community and Health Sciences, on their attitudes and perceptions towards IPE, at the University of the Western Cape.

The objectives of the study were to determine:

- The attitudes of first year students towards interprofessional education after the completion of a module on interprofessional education;
- The perceptions of first year students towards interprofessional education after the completion of a module on interprofessional education;
- Whether gender plays a role in attitudes and perceptions of students towards IPE;
- The possible role of the lecturer in influencing students' perceptions and attitudes towards IPE;
- If differences in age is a factor in how students perceive IPE;
- If race influences the attitudes and perceptions students have towards IPE;
- Whether there are differences in disciplinary backgrounds in preparing students for IPE;
- To make recommendations regarding IPE to the Faculty of Community and Health Sciences at UWC.

4. METHODS

4.1 Methodology

This research study followed a quantitative methodology as this inquiry is highly predictive in nature (Worral, 2000). This methodology relies on statistics and is very focussed on testing the strength and persistence on distinct measures and the relationships that exist among them. It measures how two or more variables is of value to each other in a very narrow, limited or specific context (Tewksbury, 2009). The author further explains that quantitative research investigates how a person knows something and how that knowledge can be interpreted into a values. In this research study the researcher wanted to measure student's attitudes and perceptions towards IPE by issuing them with a questionnaire whereby they have a rank their understanding and experiences of IPE by using a like-it scale which was presented numerically.

Two open-ended qualitative questions were added to the end of the questionnaire to allow students the opportunity to express and attitudes or perceptions not captured in the questionnaire as a back-up to data in the event that the statistics revealed no significance. Qualitative methodology further allows for a depth of understanding of issues that is not possible statistically (Tewksbury, 2009). This research study had no pre or post test structure and did not want to measure the changes in attitudes and perceptions through IPE curriculum. The questionnaire was however initially tested with one of the fourteen classes to determine how students interpreted the questionnaire, the time taken to complete and the comprehensiveness of information filled in. The only problem identified was that students had difficulty with the term "collaboratively" and for this reason, the researcher had to change some of the statements in the questionnaire to only include terms like: "teams" and "teamwork" as it was found that students immediately understood what was meant by the statements when the lecturer used these words.

The aim of the study was to understand what students' attitudes and perceptions are through engagement with an interprofessional module. The results of this study will be used to determine whether or not the curriculum needs to change to meet the interprofessional objectives of the module.

4.2 Selection and Description of Participants

The total number of students registered for the module for the year of this study was 657.See Appendix A for the numbers of students in the various disciplines. A random sample size of 264 was used, which was essentially based on the objectives, to describe the attitudes and perceptions of 1st year students at UWC to interprofessional community and health sciences modules. A sample size of 264 students resulted in 95% confidence intervals with a maximum precision of 5%, assuming a finite population correction of 657 students. This confidence interval was used to indicate the reliability of the sample size selected from the total number of students. Students were randomly sampled, stratified according to discipline. Although this was the original plan, assuming that all questionnaires would be returned, only 395 (60%) questionnaires were returned to the researcher. 40% of this total was randomly selected from each discipline, as planned in the research proposal to make up the sample size of the study. This was done by the researcher without looking at any data beforehand. The only criteria for the participants were that they needed to be registered for the first year interprofessional module and were not excluded on the basis of age, gender, race, discipline or background.

4.3 Technical Information and Statistics

The data was collected using a questionnaire. A questionnaire designed by Cameron, Rennie, DiProspero, Langlois, Wagner, Potvin, Dematteo, LeBlanc, & Reeves, (2009:222-223) was adapted with their permission for this study (See appendix B). The changes incorporated was to formulate the questions in a user friendly format (table) together with a likert scale, together with two open ended questions. The original questionnaire by the above-mentioned authors were not in a table and did not have a likert scale, nor open-ended questions. As a measure of validity for the adaptations to this questionnaire, it was compared to a similar done by Cameron, Rennie, DiProspero, Langlois, Wagner, Potvin, Dematteo, LeBlanc, & Reeves in 2009 (Eby, 1993). MS Excel was used to capture the data and STATISTICA version 9 [StatSoft Inc. (2009) STATISTICA (data analysis software system), www.statsoft.com.] was used to analyse the data.

Summary statistics was used to describe the variables. Distributions of variables were presented with histograms and or frequency tables. Medians or means were used as the measures of central location for ordinal and continuous responses and standard deviations and quartiles as indicators of spread.

Relationships between two continuous variables were analysed with regression analysis and the strength of the relationship measured with the Pearson correlation (Sotos, Vanhoof, Noortgate & Onghena, 2009) and Spearman correlation (Altman, 1991), as the continuous variables were not normally distributed. One continuous response variable was related to several other continuous input variables, multiple regression analysis was used and the strength of the relationship measured with multiple correlations.

The relationships between continuous response variables and nominal input variables were analysed using appropriate analysis of variance (ANOVA). For completely randomized designs the Mann-Whitney test (von Stortch, 1999) or the Kruskal-Wallis test (Lowry, 2000) was used and for repeated measures the Wilcoxon- or Friedman tests (Zimmerman & Zumbo, 1993) was used. Both tests were used in this study to double check the analysis of the data and subsequent variations in the findings.

The relation between two nominal variables was investigated with contingency tables and likelihood ratio chi-square tests. A p-value of $p < 0.05$ represented statistical significance in hypothesis testing and 95% confidence intervals were used to describe the estimation of unknown parameters.

Two open-ended questions were included at the end of the questionnaire to facilitate understanding of the results during the analysis of the study. This also allowed for participants to express any other views not covered in the questionnaire. This information was also used to triangulate the data. Common themes were identified through colour-coding and relevant participant quotations were selected to support the findings.

4.4 Ethical considerations

Ethical approval was obtained from FCHS, UWC (to determine the attitudes and perceptions of students towards IPE with the intention of making adjustments to the current IPE curriculum if needed) and from the Faculty of Health Sciences, University of Stellenbosch (SU) for the research as a Masters' research assignment at SU. The ethical reference number is: N11/04/128. Informed consent for participation in the study was then obtained from the participants and they were assured of confidentiality as well as preservation of anonymity (Appendix C). Participants were introduced to the research study at the start of the third term, before the start of the IPE module and towards the end of the module were reminded by their facilitators who asked them to volunteer to fill in the questionnaire at the end of the module as well as the consent forms if they agreed. All questionnaires were then sent to the co-ordinating office and delivered to the researcher. Participants were not required to provide names on the questionnaire thereby assuring their anonymity and only the researcher had access to the questionnaires once completed. Participants were informed that they had the right not to complete the questionnaire if they did not want to participate for whatever reason. The data was used immediately by the researcher to analyse the data for the purposes of completing the research study. This study was funded by the researcher and no additional funds were sought.

5 RESULTS

5.1 Demographic results

A total number of ten lecturers out of fourteen submitted their class evaluations for this study. The following disciplines returned completed questionnaires, namely Dietetics, Human Ecology, Occupational Therapy, Physiotherapy, Social Work, Psychology, Natural Medicine, Sports Science and Nursing. All students were in their first year of study. The response rate was 60% as 395 questionnaires were returned of the 657 that was planned (see methodology). A total of 265 questionnaires were randomly selected from the returned questionnaires for the study, comprising 40% of the total number of students. The researcher ensured that 40% of each discipline was represented in the sample size of the study.

The ages of the respondents ranged from 17 years to 48 years with a mean age of 21.2 years. The race distribution of the respondents was 44% black, 47% coloured, 6% white and 2% Indian. Seventy-three percent (73%) of the respondents were female and 27% male. Thirty percent (30%) were from rural backgrounds (a rural area was defined as a countryside location with a low population density where most of the land is used for agriculture [Wikipedia, 2010]) and 70% from an urban origin.

5.2 Quantitative data

Students across all disciplines were asked to rank their attitude on interprofessional education using a Likert scale as follows: (1) Strongly Agree, (2) Agree, (3) Neutral, (4) Strongly Disagree and (5) Disagree. Table 1 shows the mean score for each of these questions for all participants.

NO.	ATTITUDES	Mean score
a	Interprofessional education promotes improved working relationships in healthcare teams.	1.61
b	Interprofessional education promotes the understanding of other professionals' views on health and welfare matters.	1.67
c	Interprofessional education promotes improved care for patients.	1.73
d	Interprofessional education is a team-building activity.	1.76
e	I have little to learn from other professionals/disciplines.	2.23
f	Interprofessional learning is not relevant for my professional development.	1.96
g	I am worried about showing my ignorance in an interprofessional setting.	3.26
h	I believe interprofessional education can promote teamwork.	1.66
i	I believe interprofessional education can facilitate a holistic approach to health and social care.	1.74
j	I believe interprofessional education can help clarify roles and responsibilities of other professionals.	1.73
k	I believe interprofessional education can help me gain an under-standing of other professionals within the team.	1.69
l	I believe interprofessional education can promote positive attitudes of the other professionals within the team.	1.77
m	I believe interprofessional education can develop individual professional roles within the interprofessional team.	1.86
n	I believe interprofessional education can help me work more effectively in a team.	1.71

Table 1: Mean Scores for Interprofessional Attitudes of all Students

This table demonstrates that the majority of questions ranked more strongly in terms of student attitudes for IPE and only 1 question ranked neutral in terms of the students' attitudes towards IPE.

Students furthermore ranked their perceptions on interprofessional education using a similar Likert scale as above. Table 2 shows the mean score for each of these questions for all participants.

NO.	PERCEPTIONS	Mean score
a	Individuals in my profession are well trained.	2.11
b	Individuals in my profession are able to work closely with individuals in other professions.	1.96
c	Individuals in my profession demonstrate a great deal of autonomy (self-rule).	2.23
d	Individuals in other professions respect the work done by my profession.	2.19
e	Individuals in my profession are very positive about their goals and objectives.	1.84
f	Individuals in my profession need to cooperate with other professions.	1.93
g	Individuals in my profession are very positive about their contributions and accomplishments.	1.85
h	Individuals in my profession may depend upon the work of people in other professions.	2.52
i	Individuals in other professions think highly of my profession.	2.75
j	Individuals in my profession trust each other's professional judgment.	2.20
k	Individuals in my profession have a higher status than individuals in other professions.	3.31
l	Individuals in my profession make every effort to understand the capabilities and contribution of other professions.	2.18
m	Individuals in my profession are extremely competent.	2.20
n	Individuals in my profession are willing to share information and resources with other professionals.	1.94
o	Individuals in my profession have good relations with people in other professions.	1.90
p	Individuals in my profession think highly of other related professions.	2.27
q	Individuals in my profession work well with each other.	1.84
r	Individuals in other professions often seek the advice of people in my profession.	2.23

Table 2: Mean Scores for Interprofessional Perceptions for all Students

This table illustrates that the majority of questions ranked more strongly in terms of student perceptions towards interprofessional education and only 1 question ranked neutral in terms of the students' perceptions towards IPE.

The Cronbach Alpha test was used as a reliability scale for the study and the criteria was that it must be 0.7 or higher. The reliability of the questionnaire used for attitudes was 0.869062 and for perceptions, 0.864971, indicating that the questionnaire was suitable for the study.

The mean score for all the questionnaires related to the attitudes of students towards interprofessional education was 1.8843 which translates to "strongly agree-agree" category on the above-mentioned Likert Scale (see figure 1).

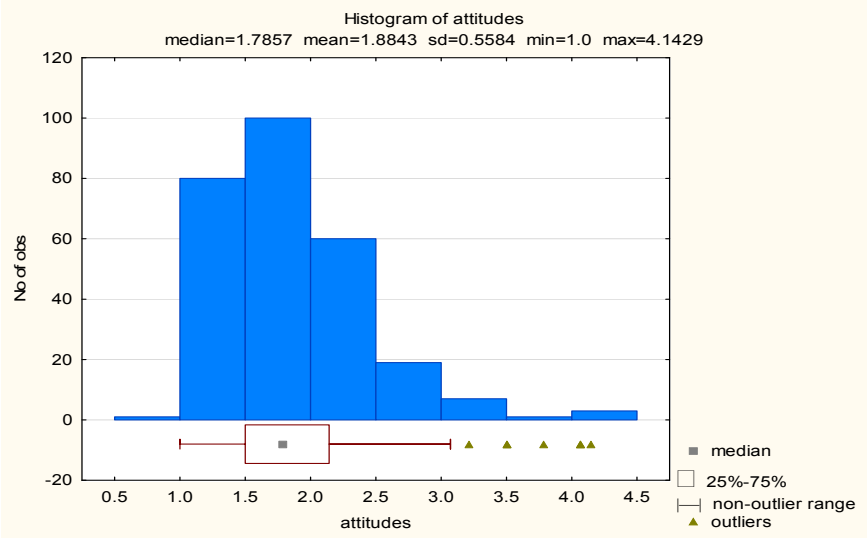

Figure 1: Mean score of students' attitudes towards interprofessional education.

The mean score of all the students' questionnaires for the perceptions of students towards interprofessional education was 2.1921. According to the Likert Scale used, this relates to the category "Agree". The study therefore shows that students' attitudes and perceptions towards interprofessional education were positive.

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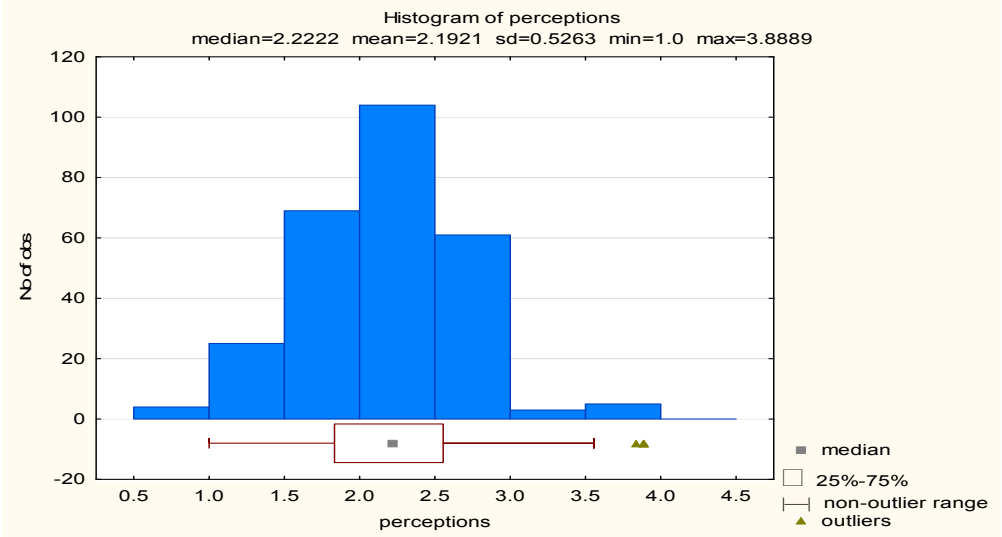

Figure 2: Mean score of students' perceptions towards interprofessional education

The study further explored various factors that could impact on the attitudes and perceptions of students towards interprofessional education. The following factors were used to measure the impact on students' attitudes and perceptions towards interprofessional education: (i) lecturer; (ii) age; (iii) race; (iv) gender; (v) background and (vi) discipline. The following p-values were found, where $p<0.05$ will represent a statistical significance in testing the data:

Attitudes:

(i) Lecturer

A total number of 10 lecturers out of a total of 14 participated in the study. One of the aims of the study was also to determine whether the lecturers influenced the attitudes of students towards IPE. The non-significant p-value of 0.32, indicated no difference in the mean attitudes of the students. The ANOVA was used to compare mean attitudes between lecturers with no significance.

(ii) Age

When comparing age with attitude a negative correlation of -0.14 (p=0.02) was found, indicating that older students are more susceptible to IPE than younger students (see Figure 3).

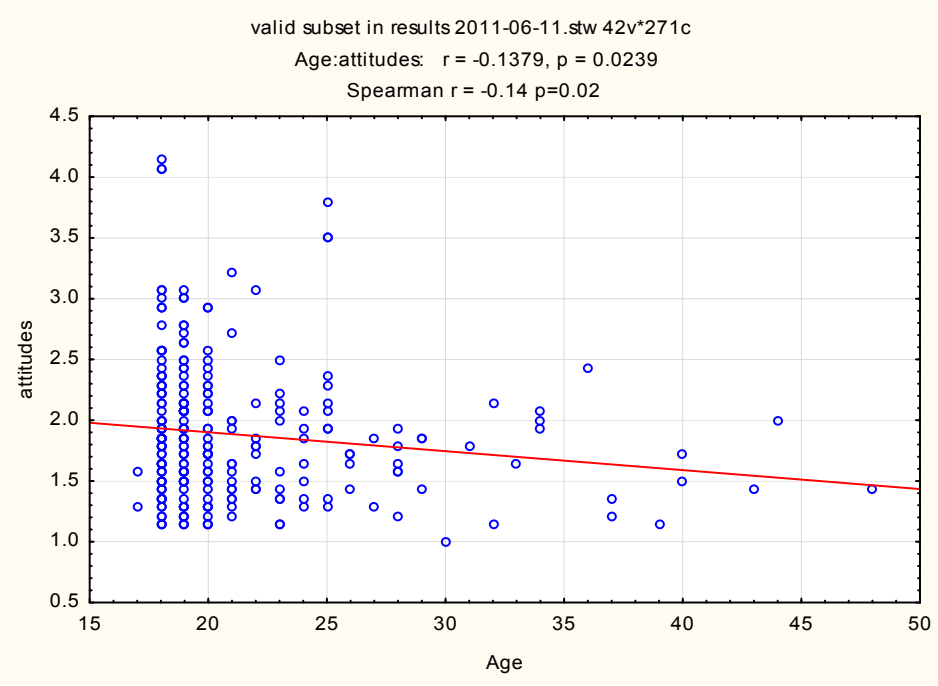

Figure 3: Attitudes of Students Towards IPE in Relation to Age

(iii) Race

Race was included in this study as most of the Black students tended to come from rural areas while the White and Coloured counterparts came from urban areas. Rural areas in South Africa is seen as previously disadvantaged areas and for this reason the research wanted to determine whether race in relation to being previously disadvantaged had an impact on attitude and perception to IPL. The sample group consisted of 44% Blacks, 47% Coloureds, 6% Whites and 2% Indians. The non-significant p-value of 0.06, indicated no difference in the mean attitudes of the students, it must be taken into account that the mean score is quite close to the midpoint of p=0.05. This can be attributed to the white students being more inclined to IPL than black and coloured students.

(iv) Gender

73% of the sample size was females and 27% males. The p-value of 0.04 indicated significance in the mean attitudes of the students. The females scored slightly better than the male students in the study indicating a more positive attitude (see Figure 4).

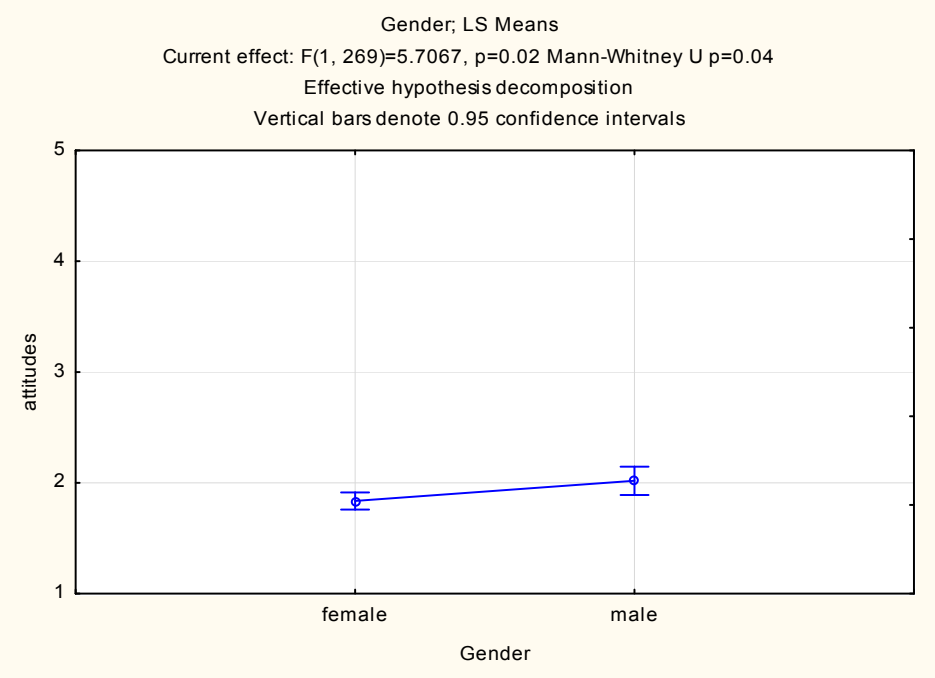

Figure 4: Gender Differences in Attitudes and Perceptions Towards IPE

(v) Background

The sample size consisted of 30% of students from a rural background and 70% urban. The non-significant p-value of 0.92 found indicated that there was no difference in the mean attitudes of the students. The ANOVA was used to compare mean attitudes between rural and urban with no significance found.

(vi) Discipline

The p-value of <0.01 here indicated a significant difference in the mean attitudes of students when compared across disciplines (see Figure 5). The letters in Figure 5 indicates whether pairwise differences are significant or not. This means that when the letters do not match each other, there is a significance between disciplines.

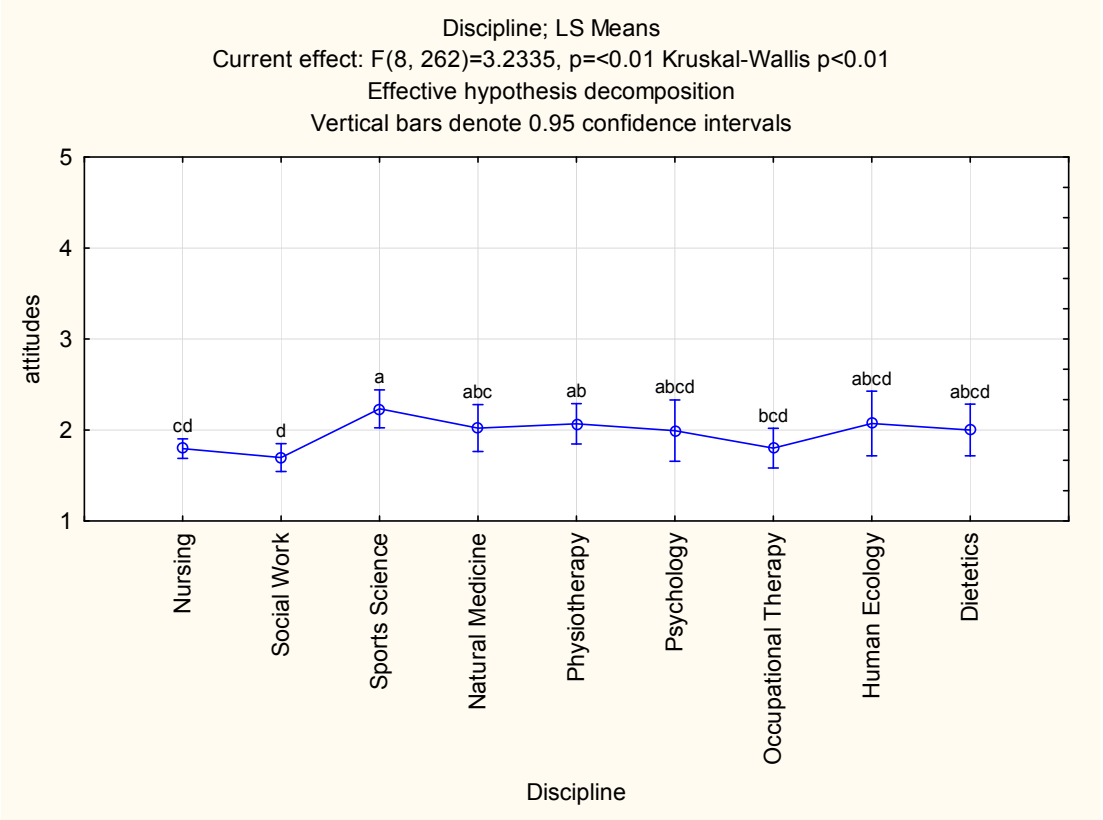

Figure 5: Mean Attitudes of students According to Discipline

Perceptions:

(i) Lecturer

The non-significant p-value of 0.17 indicated no difference in the mean perceptions of the students. The ANOVA was used to compare mean perceptions between lecturers with no significance.

(ii) Age

The age range in the study was 17 – 48 years. The non-significant p-value of 0.46 indicated no significance in the mean perceptions of the students.

(iii) Race

The study also sought to determine whether there was a difference in student perceptions based on race but the non-significant p-value of 0.99, indicated no difference in the mean perceptions of the students.

(iv) Gender

The non-significant p-value of 0.75 indicated no difference in the mean perceptions between male and female students.

(v) Background

The rural and urban backgrounds of students were compared, showing a non-significant p-value of 0.53 indicating no difference in the mean perceptions of the students.

(vi) Discipline

The non-significant p-value of 0.10 indicated no difference in the mean perceptions of the students across the various health professions.

5.3 Qualitative data

Two open-ended questions were asked at the end of the questionnaire namely “What did you learn from this module?” and “How can the module be improved?” The following common themes were identified, supported by relevant quotes from the results.

5.3.1 Teamwork

Students felt that they had learned from each other across disciplines. They had also learned to work within a team towards a common goal and learned about and understand the roles of other health professions. Communication skills were further developed by gaining more confidence to speak to someone from another profession. Respect was also earned for the other professions by discovering the roles they can play in an interprofessional team.

> *"I learned how to do teamwork and how well one should communicate with others..." [Occupational Therapy student]*

> "*...how to go about working with other professions." [Social Work student]*

> *"That in a profession we should work well together and understand other professions." [Natural Medicine student]*

5.3.2 Understanding the content

Most of the students felt that they had learnedt about the content of the module. They emphasised certain concepts that stood out for them as well as related these it to their professions. This is well illustrated by the following quotes:

> *"I have learnt how to take care of other people, Ubuntu, the rights that we have and many more." [Nursing student 1]*

> *"I learn a lot of things on this module, I know to define ethics and morals..." [Physiotherapy student]*

> *"I have learnt more about my values and norms." [Nursing student 2]*

5.3.3 Improvements

Most students had made no comments with regards to improvements to the module and were happy with how it was facilitated. Some students, however, felt that this method of learning (IPL) should be extended to other faculties or modules as well for consistancy. There were many positive comments from the students here as indicated in the quotes below:

> *"I see this module being absolutely outstanding, so I don't see any way in which this module can be improved." [Dietetic student]*

> *"It has to be introduced to other faculties so that they can be able to understand others and their values. The module is very clear to us." [Nursing student 3]*

> *"I'm quite happy with the way the module was laid and I'd really love to do the module again." [Psychology student]*

6. DISCUSSION

Bearing in mind that these were students in their first year of study and with limited knowledge of their disciplines, this study set out to determine the attitudes and perceptions of first year students towards interprofessional learning during their first exposure to interprofessional education, with the intention to make recommendations regarding interprofessional education at the Faculty of Community and Health Sciences at UWC if necessary

Some interesting results emerged in relation to demographic variables in the study. For instance the results revealed that the older the student, the more susceptible they are to IPE. These students are more mature and see the benefits of learning in this manner, thereby supporting the methodology of the curriculum. Anderson & Thorpe (2008) supports this by stating that matured students value IPE more but prefer to interact with students of a similar age. The attitudes of females were found to be more positive towards IPE than males in the study. This could be related to maturity levels among the sexes as it is found that females tend to mature faster than males. Reynolds (2003) supports this finding by stating that female students tend to be “connected students” who value the social aspects of learning environments, compared to their male counterparts. The fact that 73% of the participants were females could also be significant to the study as statistically they had a more positive attitude to IPE in general. Although the trend among the racial groups was not significant there was a small difference among attitudes of the various groups. White students were found to be slightly less positive to IPE compared to coloured and black students, the latter who were comparatively the same. However the white students formed a small group in the study and these results could therefore not be described as of any significance. There was no statistical significant difference found among the lecturers in influencing the attitudes and perceptions of students negatively as all lecturers participating in the IPE modules receive training before lectures commence. The training encompasses a morning session whereby content of the module is covered with special emphasis on an interprofessional approach as a teaching strategy. There were furthermore no statistically significant differences found between students from rural and urban origin as both were found to have positive attitudes and perceptions towards IPE.

By referring to Tables 1 and 2 in the results section and reflecting on the mean scores for attitudes and perceptions, it appears that the students are fairly positive towards interprofessional education. The average score on the Likert scale ranged between 1.8843 and 2.1921. The categories 1 and 2 were “Strongly Agree” and “Agree” meaning that the students concur with the statements in the questionnaire. Table 1, statement ‘g’ has a mean score of 3.26 which relates to the ‘Neutral’category on the Likert scale. The question is around ignorance in an interprofessional setting and this could be that students want to understand other professions and not be ignorant of each other when coming into contact with each other. Table 2, statement ‘k’ has a mean score of 3.31 which students rated as ‘Neutral’. The statement refers to one profession having a higher status than another. These perceptions do exist among professions but by learning to work together in an interprofessional manner, students will learn that each profession is equally important in the healthcare team.

A most interesting result from this study is that a significant difference in attitude towards IPE exists among students from the various disciplines participating in the module. One of the reasons for this could be that students with the negative attitudes and perceptions don’t always see the relevance of the module in relation to their specific field of study. This is supported by students’ comments from the evaluation of the module that it is not clear to them why such a module is needed.

A second possible explanation for this could be problematic power relationships that exist among the disciplines [Onyett (2003:48-49)] in terms of one discipline feeling superior towards another (and passing on that opinion or perception to the students) which could have a negative impact on students working in an interprofessional team. This view was supported by some of the qualitative results where students felt that the module could be improved by students from other professions respecting and understanding the others as part of the health team.

Thirdly, students could become confused with their specific role in terms of their discipline within a specific context. A phenomenon referred to by Klein (1990:142) is the possible blurring of professional boundaries. When working in an

interprofessional team, the roles of each health professional is not always clear and it may happen that one person will take on a duty of another as discipline roles may overlap. This can cause be confusing to professionals in determining their specific role within a team. The two disciplines that stand out from this study in this regard are Sports Science and Physiotherapy. Students from these disciplines specifically alluded to this in the open responses as they indicated that they did not think the modules were relevant to their field of study, or alternatively they realised on reflection that other disciplines are also needed.

In conclusion, working in a team is indeed challenging. It is also time-consuming as well as confusing. Klein (1990:11) offers the following reasons for this namely that there tends to be general uncertainty about the concept of interprofessional education and a widespread unfamiliarity with interprofessional scholarships where only a small number of people access published work on the topic. He further states that there is a lack of a unified body of communication as many discussions around interprofessional education are taking place, but no coordinated or uniform understanding exists. UWC needs to pursue IPE despite the challenges but more widespread engagement with staff and students is required to prepared our future graduates.

7. LIMITATIONS OF THE STUDY

Attitudes and perceptions of students were the main focus of the study and therefore did not include teaching and learning practices of the module.

The study was also not able to measure what knowledge is gained interprofessionally during the module as no pre-questionnaire was done. The study only attempted to report on a snapshot of students who completed an interprofessional module at a particular time in their study career. This study was limited to first year students and its findings are confined to the module in question and cannot be generalised to a different module as another discipline which might not be listed here could introduce a completely different dynamic to the study. Another limitation was that only 60% of the questionnaires were returned and therefore it could impact on the results of the sample size that was selected for this study.

8. RECOMMENDATIONS FROM THE STUDY

It will be recommended to the faculty that the module continues as the attitudes and perceptions of students towards interprofessional education are very positive. A concerted effort needs to be made by the co-ordinating unit to emphasize the importance of this module and other interprofessional modules for all departments/schools in the Faculty of Community and Health Sciences. The role of each discipline needs to be clearly explained so that all students see the relevance of the module. A similar study should be conducted with the lecturers of this module to get an objective overview of interprofessional education in the faculty as a whole. Another study can be done with senior students to determine whether their attitudes and perceptions have been influenced in any way towards IPE. All results will be made available to all departments concerned in the faculty which will be followed up with a workshop on how to address the findings of the study in collaboration with the course convener of this module.

9. CONCLUSION

The main aim of this study was to determine the attitudes and perceptions of students towards an interprofessional module offered in the faculty of community and health sciences. The study revealed that students display positive attitudes and perceptions towards IPE which should be fostered and integrated into their succeeding years of study. Factors influencing attitudes and perceptions of students towards IPE were found to be age, race, gender and specific disciplines. It is hoped that, guided by the findings of this study, interprofessional education will not be taken for granted, but a concerted effort will be made by the module designers in the ITLU, to spend more time with the students in each discipline to ensure they understand the relevance of the module to their discipline as well as understanding their role in an interprofessional healthcare team.

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11. APPENDICES

APPENDIX A:

Faculty of Community & Health Sciences Departments/Schools:

	Total No. of Students	Total No. of Students in Study (40%)
Dietetics	32	13
Human Ecology	40	16
Natural Medicine	39	16
Nursing	239	96
Occupational Therapy	46	18
Physiotherapy	57	23
Psychology	20	8
Social Work	115	46
Sports, Recreation & Exercise Science	69	28
	657	**264**

APPENDIX B

INTERPROFESSIONAL EDUCATION QUESTIONNAIRE:

Date: …… Lecturer: ……

Discipline: …… Age: ……

Racial Group…… Gender: ……

Place of Birth: ……..…… Rural / Urban: ……..

Year of study: ……...

Please mark in the appropriate block: ***(1) Strongly agree***
(2) Agree
(3) Neutral
(4) Strongly Disagree
(5) Disagree

NO.	ATTITUDES	1	2	3	4	5
a	Interprofessional education promotes improved working relationships in healthcare teams.					
b	Interprofessional education promotes the understanding of other professionals' views on health and welfare matters.					
c	Interprofessional education promotes improved care for patients.					
d	Interprofessional education is a team-building activity.					
e	I have little to learn from other professionals/disciplines.					
f	Interprofessional learning is not relevant for my professional development.					
g	I am worried about showing my ignorance in an interprofessional setting.					
h	I believe interprofessional education can promote teamwork.					
i	I believe interprofessional education can facilitate a holistic approach to health and social care.					
j	I believe interprofessional education can help clarify roles and responsibilities of other professionals.					
k	I believe interprofessional education can help me gain an under-standing of other professionals within the team.					
l	I believe interprofessional education can promote positive attitudes of the other professionals within the team.					
m	I believe interprofessional education can develop individual pro-fessional roles within the interprofessional team.					
n	I believe interprofessional education can help me work more effectively in a team.					

NO.	PERCEPTIONS	1	2	3	4	5
a	Individuals in my profession are well trained.					
b	Individuals in my profession are able to work closely with individuals in other professions.					
c	Individuals in my profession demonstrate a great deal of autonomy (self-rule).					
d	Individuals in other professions respect the work done by my profession.					
e	Individuals in my profession are very positive about their goals and objectives.					
f	Individuals in my profession need to cooperate with other professions.					
g	Individuals in my profession are very positive about their contri-butions and accomplishments.					
h	Individuals in my profession may depend upon the work of people in other professions.					
i	Individuals in other professions think highly of my profession.					
j	Individuals in my profession trust each other's professional judgment.					
k	Individuals in my profession have a higher status than individuals in other professions.					
l	Individuals in my profession make every effort to understand the capabilities and contribution of other professions.					
m	Individuals in my profession are extremely competent.					
n	Individuals in my profession are willing to share information and resources with other professionals.					
o	Individuals in my profession have good relations with people in other professions.					
p	Individuals in my profession think highly of other related professions.					
q	Individuals in my profession work well with each other.					
r	Individuals in other professions often seek the advice of people in my profession.					

OTHER:

i. **What did you learn from this module?**

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ii. **How can the module be improved?**

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Adapted with permission from: Cameron, A.; Rennie, S.; DiProspero, L.; Langlois, S.; Wagner, Potvin, M.; Dematteo, D.; LeBlanc, V. & Reeves, S. (2009:222-223)

APPENDIX C:

CONSENT FORM:

I ……..(name & surname) agree to participate voluntarily in this study. I am aware that my participation is based on anonymity regarding reporting of the study and that I can withdraw from the study at any given time. I'm also aware that the information I provide will be strictly used for research purposes.

Signed: ……

Date: ……..

Place: ……..

Discipline/Department: ……

APPENIX D:

OPSOMMING:

Die studie het plaasgevind by die Universiteit van die Wes-Kaap, in die Fakulteit van Gemeenskap en Gesondheidswetenskappe, met eerste jaar voorgraadse studente wat die verpligte interprofessionele program doen. Studente sluit in die volgende dissiplines: Arbeidsterapie; Fisioterapie, Sielkunde, Maatskaplike Werk, Natuurlike Medisyne, Dieetkunde, Menslike Ekologie, Sport en Verpleegkunde.

Die doelwitte van hierdie studie was om die houdings en persepsies van die eerste jaar studente wat deelgeneem het in 'n voorgraadse interprofessionele program te meet. Houdings en persepsies was gemeet met betrekking tot die ouderdom geslag, ras,agtergrond sowel dissipline van spesifieke studente. Daar was ook gekyk of die betrokke dosente ń invloed het op studente se houdings en persepsies teenoor die program.

Die studie was hoofsaaklik kwantitatiewe met n kwalitatiewe komponent. Vraelyse was uitgereik aan 657 studente om hul houdings en persepsies teenoor interprofessionele onderwys te bepaal. 'n Steekproefgrootte van 264 studente het in 95% vertrouensintervalle met 'n maksimum akkuraatheid van 5%. Die vraelys is aangepas, met toestemming, van Cameron, Rennie; DiProspero Langlois & Wagner (2009). MS Excel was gebruik om die data op te vang en Statistica weergawe 9 [StatSoft Inc (2009) STATISTICA (data-analise sagteware stelsel), www.statsoft.com] is gebruik om die data van die vraelyste te analiseer. Beskrywende statistiek is gebruik om te beskryf die belangrikste kenmerke van die steekproef van hierdie studie. Opsommingstatistiek is verder gebruik om op te som die bevindinge van hierdie studie met die doel om die grootste deel van die inligting so eenvoudig as moontlik te kommunikeer.

Twee oop vrae is ingesluit aan die einde van die vraelys en dit is gebruik om die data te trianguleer.

Die Kruskal-Wallace-toets is gebruik om die resultate, waar 'n p-waarde van <0,05 aangedui word statistiese betekenisvolheid te meet. Van al die faktore wat gebruik was om die houdings en persepsies van studente te meet, was die volgende drie beduidende: geslag, ras en dissipline. Geen ander faktore impakteer op die houdings en persepsies van studente in interprofessionele onderwys.

Studente se houdings en persepsies teenoor interprofessionele onderwys was beduidend positief. Die studie het bevind dat daar ń algemene gebrek aan begrip is vir die relevansie van die program. Dit sluit in hoekom die verskillende dissiplines aan die program deelneem as ook wat hulle spesifieke rolle in die gesondheidsorg span is. Die aanbeveling is dus dat die koördinerings eenheid van die program die kursus meer duidelik sal moet definieer om so doende die studente se kennis in terme van relevansie van die interprofessionele program uit te brei met spesifiek verwysing na die Sport studente.

APPENDIX E:

Module Descriptor: Introduction to Philosophy of Care

1. INTRODUCTION

1.1 Overview & purpose

The main purpose of this module is to introduce the students to some of the conceptual foundations which form the basis for sound ethical practice of health care professionals.

1.2 Module code: **Dietetics: DIE011**
School of Natural Medicine: NAT112
Physiotherapy: IPC116
Occupational Therapy: IPC111
Social work: HDP113
Sport, Recreation and Exercise Science: IPC115
Nursing: IPC114

1.3 Credit value: 5

1.4 Duration: Term

1.5 Module type: Faculty

1.6 SAQA level: 5

1.7 Pre-requisites: None

1.7 Co-requisites: None

1.8 Prohibited combinations: None

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2. OUTCOMES

2.1 Critical Crossfield Outcomes

Students will be able to:

a) identify and solve problems*
b) work in a team*
c) organize and manage themselves*
d) collect, analyze and evaluate information*
e) communicate effectively*
f) recognize problem solving contexts*
g) reflect on and explore effective learning strategies*
h) participate as a responsible citizen*
i) be culturally and aesthetically sensitive*

2.2 Specific Outcomes

- Analyse and describe ‘care’ as a social practice and your position as a future health care professional in the larger social power constructs, e.g. gender, class and race, and the impact of policy on these constructs.
- Demonstrate knowledge of some basic moral concepts, ethics and human rights relevant to service providing and an awareness of the ethical responsibilities of health care workers in South Africa.
- Demonstrate the ability to analyse and the skills needed when dealing with moral dilemmas in day to day caring practices.
- Demonstrate skills and professional conduct such as punctuality, participation and attendance when working in interdisciplinary groups.

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3. TEACHING METHODS

- Lectures
- Small Group Work
- Group assignment
- Visit to an institution of ‘care’.
- Individual reflective writing piece

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4. MAIN CONTENT

- Introduction to Morality and Ethics: What are they and why do they matter?
- Principle ethics and the ethic of care approach
- The elements of the ethic of care: attentiveness, responsibility, competence and responsiveness.
- Health and human rights and professional codes of ethics
- Solving moral dilemmas and group assignments

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5. STUDENT LEARNING RESOURCES

- One student manual compiled by the Interdisciplinary Core Courses Co-ordinator
- List of references, websites and recommended books is included and available in the UWC library.
- Additional readings and workbook available via e-teaching.

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6. STUDENT ASSESSMENT

Specific Outcomes	Assessment Criteria	Assessment Tasks
1. Analyse and describe 'care' as a social practice and your position as a future health care professional in the larger social power structures, e.g. gender, class and race, and how these are informed by policy making.	• Define care and understand the various dimensions of care. • Know the ethic of care approach and its four core values. • Understand some of the barriers to good care. • Describe the link between gender, race and class discrimination to the care process within SA social, political and health context and how this has been influenced by policy. • Apply the ethic of care approach to a South African case study.	Examination
2. Demonstrate knowledge of the basic moral concepts, ethics and human rights relevant to service providing and an awareness of the ethical responsibilities of health care workers in South Africa.	• Define morality and ethics and distinguish between the two. • Define values, and distinguish between the different types of valuing. • Understand the meaning and importance of ethics in daily life and its relevance to professional work. • Define moral judgments, ethical issues and ethical problems. • Understand the origin and basic and tenets of 'principle ethics'. • Describe the Human Rights Standards for health professionals, Batho Pele principles and the Patient Rights Charter.	Examination
3. Demonstrate the ability to analyse and the skills needed deal with moral dilemmas in day to day caring practices.	• Analyze the four elements of the ethic of care i.e. attentiveness, responsibility, competence and responsiveness through the use of case studies, small group and plenary discussions. • Determine the perceived nature of the ethical problem. • Gather as much sound information as possible. This includes medical, as well as legislation, social/psychological aspects relevant to the case. • Decide on the ethics approach that will best get at the heart of the problem. • Explore all the practical; alternatives and then decide what should be done and how best it could be done. • Act on the conclusions about what ought to be done	Assignment and examination.
5. Demonstrate skills and professional conduct such as punctuality, participation and attendance when working in interdisciplinary groups.	• Attendance of classes • Participation in group activities and plenary feedback sessions	Submission of the assignment on due date. Attendance and examination. Reflective writing piece.

7. ASSESSMENT OF STUDENTS

Students will be assessed by continuous assessment and exam.

Continuous assessment will contribute 60% towards the final mark. Of this 60%, 20% will be allocated towards an individual reflection task and 80% towards the group assignment. The examination will contribute 40% towards the final mark.