

4.2.3 Compilation of the questionnaire

Following the analysis of the qualitative data obtained from the FGI, a questionnaire was compiled to enable the researcher to continue with the empirical phase of the research.

The questionnaire consisted of 5 different sections:

- Section A – Demographical information
- Section B – Context
- Section C – Advanced life-support **skills performed** by A&E nurses in life-threatening situations
- Section D – Advanced **skills essential** for A&E nurses in life-threatening situations to be included in **curricula**
- Section E – Attitudes and values of the A&E nurse

Section A was not based on the qualitative data, but additionally incorporated in the questionnaire by the researcher. This section would be used to describe the sample and determine characteristics that might influence the frequency of skills performed by respondents and their perceptions regarding the essential advanced skills that had to be included in the curriculum. Table 4.6 – Layout of Section A of questionnaire – explains the layout of the first section of the questionnaire.

Table 4.6 – Layout of Section A of questionnaire

Question no	Topic	Description of question	Researcher's rationale
1.	Gender	The respondent had to mark the appropriate box: -male or female	The data would be used to describe the gender of the sample population.
2.	Age	Various age group options were provided: -younger than 25 years -25-29 years -30-34 years -35-39 years -40-44 years -45 years or older	The data obtained would be used for describing the sample population in terms of age. A perception of the researcher was that mainly the younger registered nurses worked within the emergency care environment due to -burnout and -increased physical activities. The researcher therefore asked this question to determine the average age of the respondents. It was also important for designing a curriculum, because learning styles sometimes differ, showing a correlation with age.
3.	Province employed	The researcher provided the respondent the option of all the provinces of SA to indicate where he/she was then employed.	The researcher would use this information to describe the sample in terms of the province he/she was then working in. The information would be used to indicate the distribution of A&E nurses throughout SA.

Table 4.6 – (continued)

Question no	Topic	Description of question	Researcher's rationale
4.	Present professional status	The question provided the following options: –A&E nurse (trained) –A&E nurse (student) –A&E nurse (lecturer)	The researcher would use the information to describe the qualifications of the respondents relevant to A&E nursing and aimed to ensure that all the respondents fell within the selection criteria. Questionnaires completed by respondents not falling within one of these categories were not used.
5.	Experience in number of years	The researcher provided various options: –Less than 2years –2-3 years –4-5 years –6-7 years –8-9 years –10 years or more	The researcher would use this information to describe the experience of the respondents in number of years.
6.	Hours on average of work per week	The question provided various options: –Not applicable –Up to 12 hours/week –13 - 24 hours/week –25-36 hours/week –37 -48 hours/week –More than 48 hours/week	This would lead to an assumption that A&E nurses working 12 hours or less per week would render a smaller input in this research – especially when completing Section C.

Table 4.6 – (continued)

Question no	Topic	Description of question	Researcher's rationale
7.	Type of hospital the respondent was then working in	The question provided different options: –Not applicable –Provincial hospital –Private hospital/clinic –Military hospital –Other (please specify)	The researcher would use this information to provide an indication as to the distribution of A&E nurses on different levels of care throughout SA. This information would also be used to determine whether there was a difference between the respondents working in the government sector and respondents working in the private sector regarding the skills performed and essential skills to be included in the curriculum.
8.	Accredited level of the emergency care unit	The question provided the following options incorporating different levels used for emergency care unit accreditation: –Not applicable –Level I (highest) –Level II –Level III (lowest) –Other (please specify)	The researcher would use this information to determine on which level the respondents worked. The information could then be used to indicate the distribution of A&E nurses with regard to the different emergency care unit levels throughout SA.
9.	Types of patients managed	This question involved various options concerning the obvious emergencies that were managed in the emergency care environment.	The researcher aimed to establish the types of patients managed in the emergency care environment within the SA context.

Table 4.6 – (continued)

Question no	Topic	Description of question	Researcher's rationale
10.	Independent decisions	Various options were provided in order to find out to what extent the respondents make independent decisions within the emergency care environment.	The researcher aimed to establish whether A&E nurses were expected to make independent decisions within the SA context and how often this was expected of them.
11.	Registered as a midwife or accoucheur	The respondent had to indicate whether he/she was a midwife or accoucheur or none of these.	The researcher aimed to determine what percentage of A&E nurses were not midwives or accoucheurs. The researcher further aimed to determine whether the midwife and accoucheur regarded the inclusion of supportive management for obstetric emergencies to the same extent as the respondents not registered as either of the above-mentioned practitioners. (See Annexure D – Questionnaire, special circumstances).

4.3 RESULTS AND ANALYSIS OF THE QUANTITATIVE DATA

4.3.1 Introduction

The empirical phase of this research included the national survey conducted by means of the distribution of the questionnaire. The results and analysis of the quantitative data thus obtained, will now be described according to the principles explained in Chapter 2 (see 4.4.4.5 – Data analysis).

Each of the five sections will be discussed individually, except for Sections C and D which will be discussed simultaneously. The result of each variable will be reported on. Please refer to the questionnaire (Annexure D).

412 copies of the questionnaire were distributed. 132 respondents completed the questionnaire, representing a response rate of 51,0% (see rationale 5.3.1 – Distribution and return of questionnaire). Some respondents did not complete all the questions. The N value (expressing the number of respondents completing each question) will be indicated at each individual variable.

Next to each heading, the numbers of the questions relevant to the theme are indicated in a block e.g. A1_1 to A1_2

4.3.2 Section A – Demographical information

Section A focused on the demographical information regarding the respondents.

4.3.2.1 Gender A1_1 to A1_2

Question 1 concerns the gender of the respondents. All the respondents completed this question, thus N = 132. 116 females (87,9%) and 16 males (12,1%) accounted for the total population. The data is illustrated in Figure 4.1.

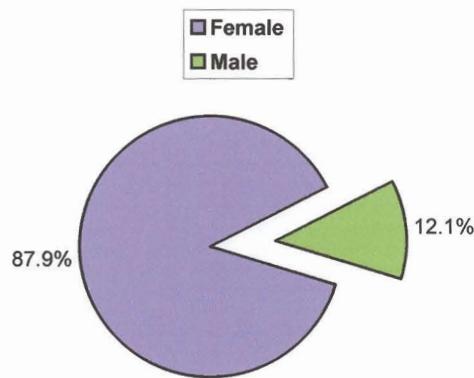


Figure 4.1 - Gender

The majority of the respondents involved in the emergency care environment were female (87,9%).

4.3.2.2 ✓ Age A2_1 to A2_6

Question 2 concerns the age of the respondents. This question was included to monitor the average age of A&E nurses within the emergency care environment. All the respondents completed this question, thus N = 132. Three (3) respondents (2,3%) were younger than 25 years, 36 respondents (27,3%) were between 25 and 29 years old and 37 respondents (28,0%) were between 30 and 34 years old. 27 respondents (20,5%) were between 35 and 39 years old, 18 respondents (13,6%) were between 40 and 44 years old and 11 respondents (8,3%) were older than 44 years. The data is illustrated in Figure 4.2.

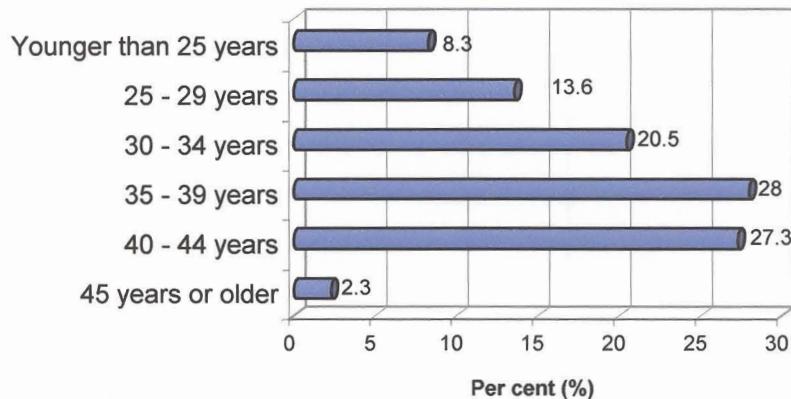


Figure 4.2 - Age

The majority of the respondents were between 25 and 44 years old.

4.3.2.3 Employment A3_1 to A3_92

Question 3 determines the different provinces in which the respondents were then working and all the respondents completed this question, thus N = 132. The data is illustrated in Table 4.7.



Table 4.7 – Provinces where employed

Province	Frequency	Percentage
Eastern Cape	5	3,8%
Free State	6	4,6%
Gauteng	86	65,2%
KwaZulu-Natal	27	20,5%
Limpopo (Northern Province)	1	0,8%
Mpumalanga	2	1,5%
Northern Cape	Nil	0,0%
North-West	1	0,8%
Western Cape	4	3,0%
	N = 132	

The majority of the respondents were then employed in Gauteng and KwaZulu-Natal.

4.3.2.4 Professional status A4_1 to A4_4

Question 4 determined the present professional status of the respondents and all the respondents completed this question, thus N = 132. 75 respondents (56,8%) were trained A&E nurses, 33 respondents (25,0%) were student A&E nurses and six (6) respondents (4,6%) were A&E nursing lecturers. 18 respondents (13,6%) indicated that they were not one of the above mentioned. The researcher went through each of the questionnaires completed by these respondents and it was then evident that the 18 respondents (13,6%) who indicated "other" were trained A&E nurses as well as either unit managers, trauma coordinators, critical care nurses or working in a different environment at the time. The total number of trained A&E nurses for the purpose of this research are 93 respondents (70,4%). The data is illustrated in Figure 4. 3.

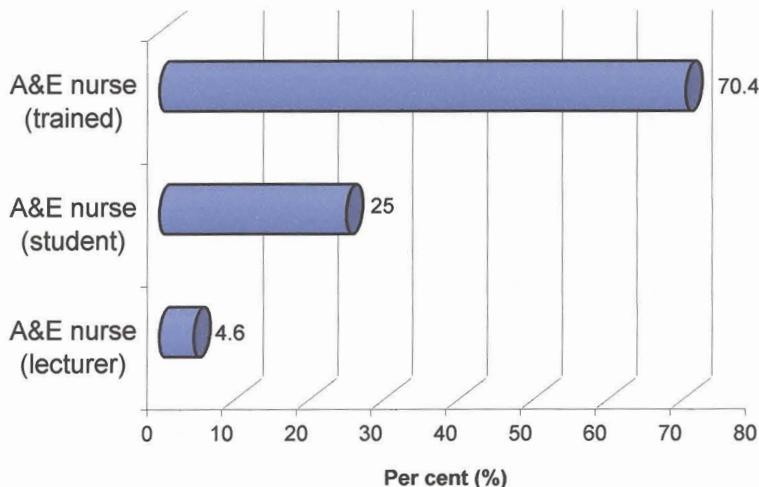


Figure 4.3 - Professional status

It is evident from the above figure that the majority of the respondents were trauma-trained A&E nurses, followed by student A&E nurses and lecturers.

4.3.2.5 Experience A5_1 to A5_6

Question 5 determined in number of years the experience of the respondents in the emergency care environment and all the respondents completed this question, thus N = 132. Ten (10) respondents (7,6%) indicated that they had less than two (2) years experience, 24 respondents (18,2%) indicated that they had two (2) to three (3) years experience, 31 respondents (23,5%) had four (4) to five (5) years experience and 26 respondents (19,7%) had six (6) to seven (7) years experience. A further 14 respondents (10,6%) had eight (8) to nine (9) years experience and 27 respondents (20,5%) had more than 10 years experience. The data is illustrated in Figure 4.4.

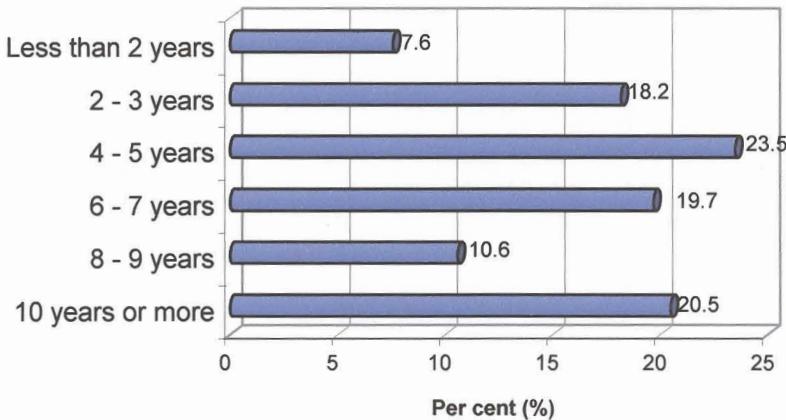


Figure 4.4 - Years experience

It is evident from the above figure that the respondents who completed the questionnaire had a vast amount of clinical experience within the emergency care environment. 67 respondents (50,8%) had more than five (5) years experience within the emergency care environment.

4.3.2.6 Hours on average work per week A6_1 to A6_6

Question 6 determined the average number of hours per week the respondents worked in the emergency care environment and all the respondents completed this question, thus N = 132. 12 respondents (9,1%) indicated that they did not work in the emergency care environment, one (1) respondent (0,8%) indicated that he/she worked up to 12 hours and six (6) respondents (4,6%) indicated that they worked between 13 and 24 hours per week. The majority of the respondents worked more than 24 hours per week and included 10 respondents (7,6%) working 25 to 36 hours per week, 84 respondents (63,6%) working 37 to 48 hours per week and 19 respondents (14,4%) working more than 48 hours per week. The data is illustrated in Figure 4.5.

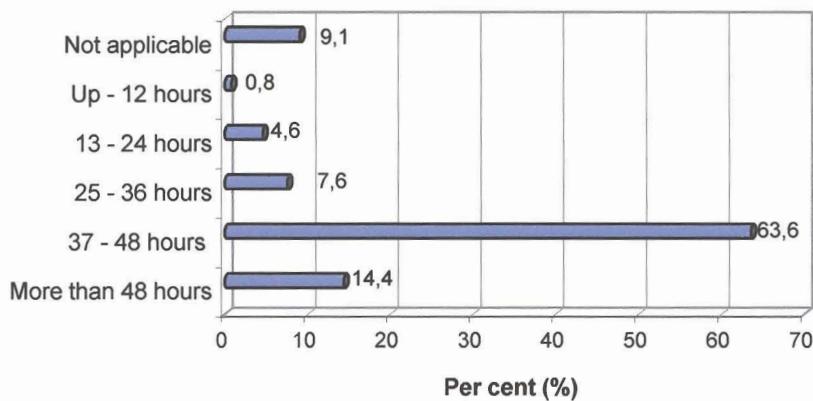


Figure 4.5 - Hours per week

The majority of the respondents had a full-time job within the emergency care environment and was working between 37 and 48 hours per week.

4.3.2.7 **Type of hospital** A7_1 to A7_5

Question 7 determined the type of hospital the respondents were then working in and all the respondents completed this question, thus N = 132. Four (4) respondents (3,0%) indicated that this question was not applicable, 28 respondents (21,2%) indicated that they worked in a provincial hospital, 95 respondents (72,0%) indicated that they worked in a private hospital or clinic and five (5) respondents (3,8%) indicated that they were working in a military hospital. The data is illustrated in Figure 4.6.

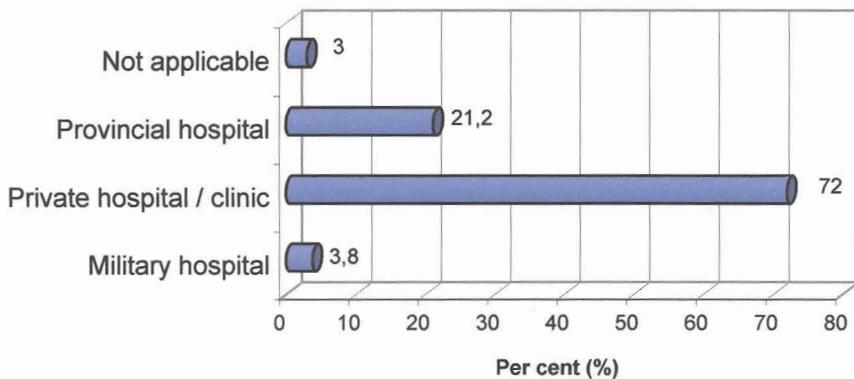


Figure 4.6 - Type of hospital

The majority of the respondents were working in private hospital or clinics, followed by provincial and military hospitals.

4.3.2.8 Accredited level A8_1 to A8_6

Question 8 concerned the accredited level of the emergency care unit where the respondents were then working and two (2) respondents did not complete this question, thus N = 130. 11 respondents (8,5%) indicated that this question was not applicable, which implies that they were not working in a hospital (but in other facilities, e.g. ambulance services), 61 respondents (46,9%) indicated that they were working in a Level I facility, 46 respondents (35,4%) indicated that they were working in a Level II facility and eight (8) respondents (6,2%) indicated that they were working in a Level III facility. Four (4) respondents (3,1%) indicated that they did not know the accredited level of the facility they were working in. The data is illustrated in Figure 4.7.

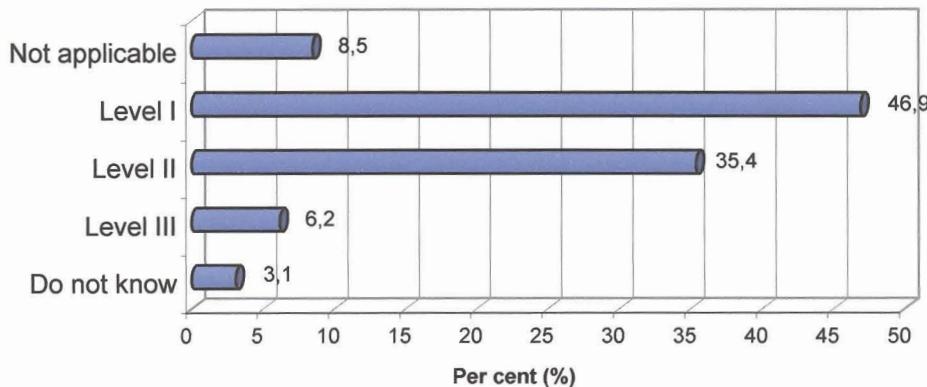


Figure 4.7 - Accredited level

The majority of the respondents were working in Level I and Level II hospitals.

4.3.2.9 Types of patients managed A9: 9_1 to 9_6

Question 9 determined the types of patients managed in the emergency care environment by the respondents. Each type of patient managed will be discussed individually. The data is illustrated in Figure 4. 8



A9_1 : Of the 132 respondents, 129 completed this question and three (3) did not, thus N = 129. All 129 respondents (100,0%) indicated that patients involved in **accidents / trauma** were treated in their emergency care environment.

A9_2 : Of the 132 respondents, 127 completed this question and five did not, thus N = 127. 124 respondents (97,6%) indicated that patients with **medical emergencies** were treated within the emergency care environment they worked in and three (3) respondents (2,4%) indicated that this was not the case.

A9_3 : Of the 132 respondents, 126 completed this question and six (6) did not, thus N = 126. 125 respondents (99,2%) indicated that **paediatric emergencies** were treated within the emergency care environment they worked in and three (3) respondents (0,8%) indicated that this was not the case.

A9_4 : Of the 132 respondents, 120 completed this question and 12 did not, thus N = 120. 95 respondents (79,2%) indicated that **primary health care patients** were treated within the emergency care environment they worked in and 25 respondents (20,8%) indicated that this was not the case.

A9_5 : Of the 132 respondents, 122 completed this question and 10 did not, thus N = 122. 120 respondents (98,4%) indicated that **occupational emergencies** were treated within the emergency care environment they worked in and two (2) respondents (1,6%) indicated that this was not the case.

A9_6 : Of the 132 respondents, 23 completed this question and 109 did not, thus N = 23. 22 respondents (95,7%) indicated that **other emergencies** were treated within the emergency care environment they worked in and one (1) respondent (4,4%) indicated that this was not the case.

The other emergencies included by the respondents were:

- Sexual assault patients (13 respondents)
- Gynaecology and obstetric emergencies (5 respondents)
- Surgical emergencies (2 respondents)
- Aggressive patients (1 respondent)
- Psychiatric emergencies (1 respondent)

The data of question 9 is illustrated in Figure 4.8.

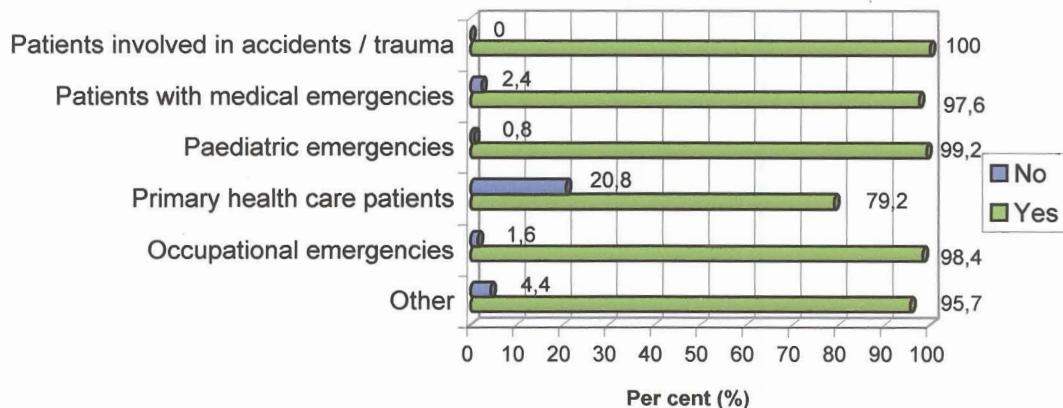


Figure 4.8 - Types of patients

The majority of the respondents indicated that they managed all the types listed in the questionnaire. Other types of patients were also mentioned that were not mentioned during the FGI.

4.3.2.10 *Independent decisions A10_1 to A10_6*

Question 10 indicated how often the A&E nurse made independent decisions in the absence of a doctor in the emergency care environment.

Of the 132 respondents, 121 completed this question and 11 did not, thus N = 121. 11 respondents (9,1%) indicated that they never made independent

decisions, four (4) respondents (3,3%) indicated that they made an independent decision at least once a year and five (5) respondents (4,1%) indicated that they made an independent decision at least once every six (6) months in the absence of a doctor. Nine (9) respondents (7,4%) indicated that they made independent decisions at least once a month, 19 respondents (15,7%) indicated that they made independent decisions at least once a week and 73 respondents (60,3%) indicated that they made independent decisions at least once a shift. The data is illustrated in Figure 4.9.

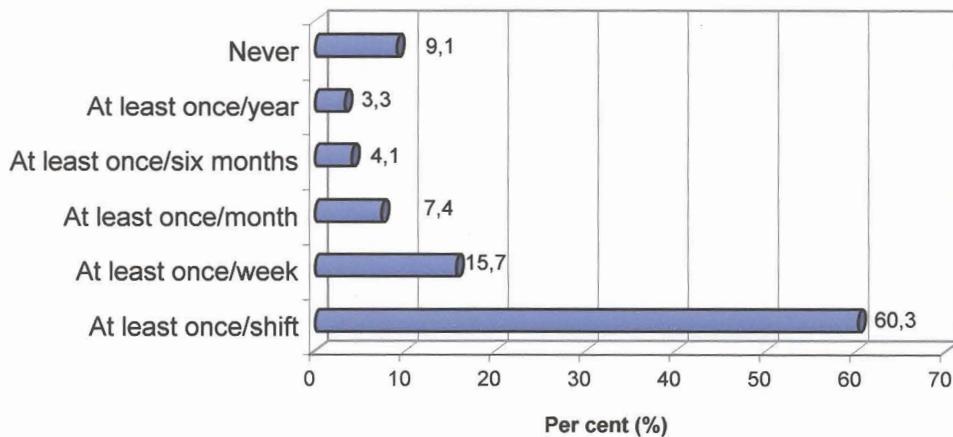


Figure 4.9 - Independent decisions

The fact that 60,0% of A&E nurses indicated that they made independent decisions at least once a shift indicates the important role these nurses play within the emergency care environment.

4.3.2.11 Midwife or accoucheur A11_1 to A11_2

Question 11 determined whether a respondent was either a midwife or an accoucheur or not one of these. This would enable the researcher to identify the needs of the midwife/accoucheur versus the non-midwife/non-accoucheur to include supportive and obstetric emergencies in the curriculum. 131 respondents completed this question and one (1) did not, thus N = 131. 111 respondents (84,7%) indicated that they were either a midwife or accoucheur



and 20 respondents (15,3%) indicated that they were not one of these. The data is illustrated in Figure 4.10.

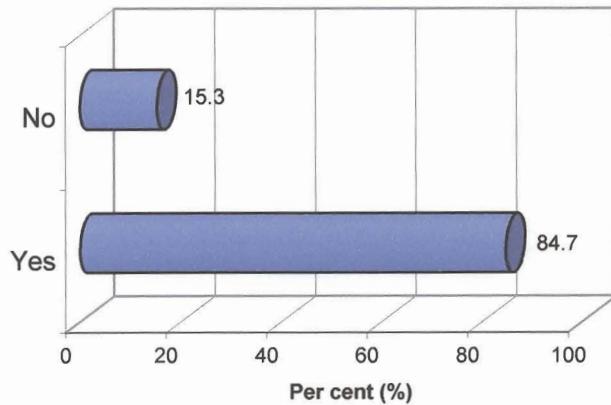


Figure 4.10 - Midwife or accoucheur

The majority of respondents (84,7%) indicated that they were midwives or accoucheurs.

4.3.3 Section B – Context

Section B focused on the current and previous clinical and non-clinical professional experience of the A&E nurse. This would help to define the “emergency care environment” within which the A&E nurse currently practises. The data is presented in Table 4.8.

Table 4.8 – Clinical and non-clinical professional experience

Clinical practice within pre-hospital environment			
	Yes	No	N
Primary response (ambulance)	91 (73,4%)	33 (26,6%)	124
Inter-hospital transfers of the critically ill patient (ambulance)	79 (68,1%)	37 (31,9%)	116
Aviation medicine: primary response (helicopter)	30 (29,1%)	73 (70,9%)	103
Aviation medicine: secondary response (helicopter)	27 (26,5%)	75 (73,5%)	102
Aviation medicine: secondary response (fixed-wing aircraft)	23 (22,8%)	78 (77,2%)	101
Field hospital	27 (26,2%)	76 (73,8%)	103
Disaster management	61 (54,5%)	51 (45,5%)	112
Sports events	69 (60,5%)	45 (39,5%)	114
Primary health care clinics	60 (54,6%)	50 (45,5%)	110
Occupational health	31 (29,8%)	73 (70,2%)	104
Other (please specify)	6 (85,7%)	1 (14,3%)	7
Clinical practice within hospital environment			
Provincial hospital: accident and emergency unit	108 (87,8%)	15 (12,2%)	123
Private hospital/clinic: accident and emergency unit	108 (87,8%)	15 (12,2%)	123
Military hospital: accident and emergency unit	8 (8,8%)	83 (91,2%)	91
Outpatients department	71 (67,0%)	35 (33,0%)	106
Other (please specify)	6 (75,0%)	2 (25,0%)	8
Management			
Consultant	16 (16,5%)	81 (83,5%)	97
Managing a crisis	25 (25,0%)	75 (75,0%)	100
Disaster planning and management	52 (49,5%)	53 (50,5%)	105
Event management (e.g. sports events)	33 (31,7%)	71 (68,3%)	104
Liaison management	18 (18,8%)	78 (81,3%)	96
Managing an ambulance service	7 (7,2%)	90 (92,8%)	97
Marketing	24 (24,0%)	76 (76,0%)	100
Risk management	28 (28,6%)	70 (71,4%)	98

Table 4.8 – Clinical and non-clinical professional experience

Clinical practice within pre-hospital environment			
	Yes	No	N
Telephone triage	42 (38,9%)	66 (61,1%)	108
Other (please specify)	5 (83,3%)	1 (16,7%)	6
Education			
Lecturing with EMS (emergency medical service)	28 (27,7%)	73 (72,3%)	101
Lecturing A&E nurses	65 (56,0%)	51 (44,0%)	116
Educating community regarding health needs	78 (68,4%)	36 (31,6%)	114
Injury prevention campaign	38 (38,0%)	62 (62,0%)	100
Other (please specify)	12 (100,0%)	0	12
Research			
Honours degree (research for report)	9 (9,3%)	88 (90,7%)	97
Master's degree (research for dissertation)	4 (4,1%)	93 (95,9%)	97
Doctoral degree (research for thesis)	0	96 (100,0%)	96
Research projects (other than the three above)	42 (38,2%)	68 (61,8%)	110
Project development	17 (16,8%)	84 (83,2%)	101
Other (please specify)	9 (9,3%)	88 (90,7%)	97

The context within which the A&E nurse practises is summarised as follows:

- A&E nurses are working in a multifaceted environment, including clinical practice, management, education and research.
- Clinical practice:
 - A&E nurses are working in both the pre-hospital and hospital environment
 - Additional areas added to the pre-hospital environment include medical standby at e.g. rock concerts.
 - The hospital environment entails the accident and emergency care units in provincial, private and military hospitals, as well as the outpatient department.
 - A respondent added the accident and emergency care unit of a mine hospital, including pre-hospital exposure when mining accidents occur.
 - General wards, critical care units and a wound dressing clinic were also added to the list by respondents.
- Management:

- A&E nurses are involved in various management roles within the pre-hospital and hospital environment.
- Additional management roles added by respondents were unit managers and shift leaders.
- o Education:
 - A&E nurses play a role in the education of pre-hospital personnel and colleagues.
 - A&E nurses are involved in community education regarding health needs and injury prevention.
 - Education regarding cardiopulmonary resuscitation was added to the list by the respondents.
- o Research:
 - Only 10,0% of the respondents have been involved in postgraduate research projects up to a master's degree level. This could be due to the fact that this clinical speciality is relatively new.