4.3.4 Section C and Section D

Section C focused on the advanced life-support skills performed by A&E nurses in life-threatening situations (*performance frequency*) and Section D focused on the advanced skills essential for A&E nurses in life-threatening situations to be included in the curriculum (*importance*). By combining the analyses of Sections C and D the researcher would get an integrated representation, enabling her to reflect simultaneously on how often advanced life-support skills are performed by A&E nurses in life-threatening situations and whether A&E nurses regard these as essential skills to be included in the curriculum. The data is reflected in figures (graphs), followed by statistics presented by means of tables.

These two sections were evaluated by assessing the variables for Section C with the correspondent variables for Section D. The mean scores for these variables were provided graphically. Spearman's correlation was used to determine whether there were relationships between the variables for these sections (see Annexure D – Spearman correlation between the variables in Section C and Section D) and to indicate when a relationship was established.

In determining whether there is a difference between the state hospitals and private hospitals pertaining to the frequency of performance and importance of the skills, statistics were provided in figures (graphs) and tables. **Only where differences were noticed were they discussed** and illustrated by means of a graph.

Note: In certain cases, although the Chi-square is large, more than 20,0% of the cells have expected frequencies less than five (5). The Chi-square may in these cases not be a valid test.

4.3.4.1   ***Assessment and recording*** C1_1 to C1_4; D1_1 to D1_4

This section provides the results and analysis of the four (4) skills that fall within the assessment and recording section: primary assessment, medical history taking, secondary assessment and recording.

Figures 4.11 and 4.12 illustrate the four (4) skills visually by indicating the mean score for each variable.
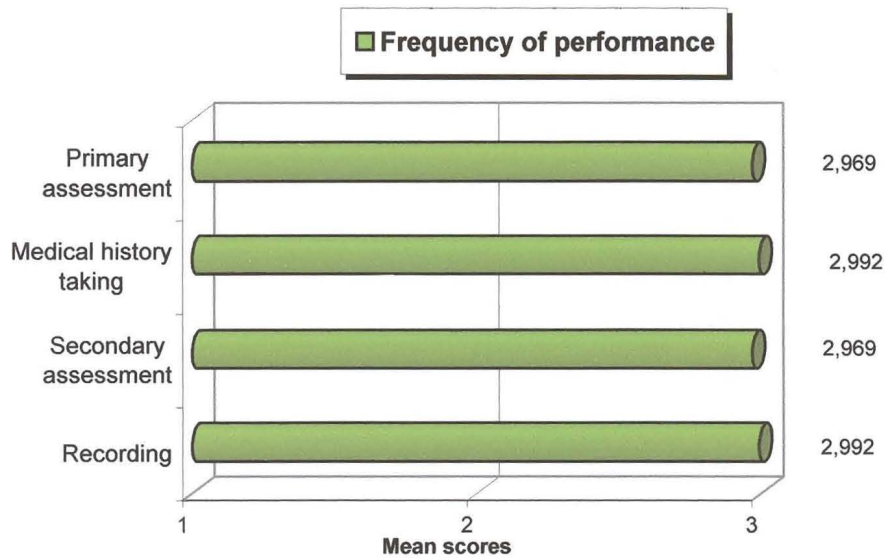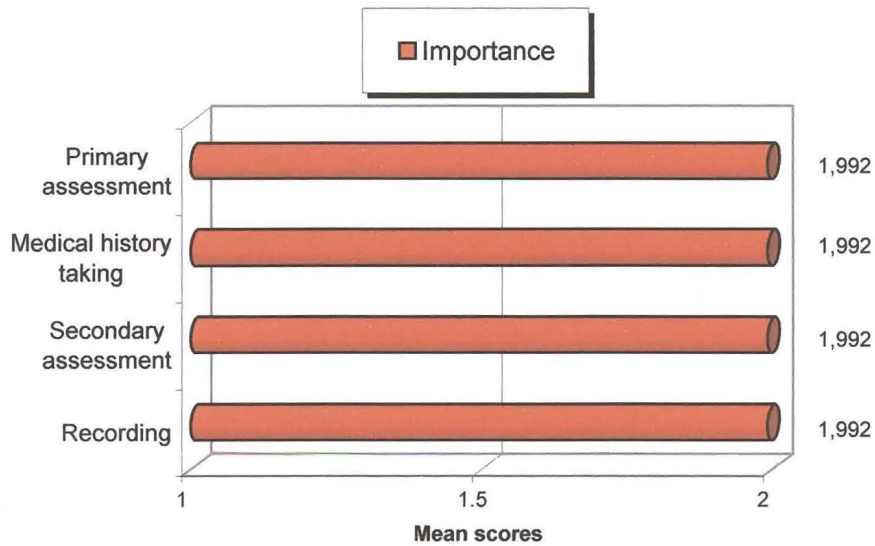

Figure 4.11 - Assessment and recording

Figure 4.12 - Assessment and recording

Table 4.9 reflects the *frequency of performance* of advanced life-support skills pertaining to assessment and recording. Note that the majority of the respondents indicated that they frequently perform the skills.

Table 4.10 reflects the *importance* of these skills to be included in the curriculum and the majority of the respondents indicated that they agree that these skills are important and should be included in the curriculum.

The degree of relationship between the frequency of performance and importance of the skills to be included in the curriculum as indicated by the Spearman correlation (see Annexure E – Spearman correlation between the variables in Section C and Section D) illustrated the following:
- o Primary assessment indicated a highly significant Spearman correlation coefficient (r_s 0,233)
- o Secondary assessment indicated a significant Spearman correlation coefficient (r_s 0,211)

Table 4.9 – Frequency of performance of advanced life-support skills (%) – C1_1 to C1_4

Skills	State hospitals						Private hospitals						Total						X^2	df†
	Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Assessment and recording																				
Primary assessment (ABCDE)	0	0,0	0	0,0	32	100,0	0	0,0	4	4,3	90	95,7	0	0,0	4	3,2	122	96,8	1,403	1
Medical history taking	0	0,0	0	0,0	32	100,0	0	0,0	1	1,1	93	98,9	0	0,0	1	0,8	125	99,2	0,343	1
Secondary (head-to-toe) assessment	0	0,0	2	6,1	31	93,9	0	0,	2	2,1	92	97,9	0	0,0	4	3,2	123	96,9	1,239	1
Recording	0	0,0	0	0,0	33	100,0	0	0,0	1	1,1	93	98,9	0	0,0	1	0,8	126	99,2	0,354	1

†   Degrees of freedom
* $p < 0,05$
** $p < 0,01$

Table 4.10 – Importance of advanced life-support skills (%) – D1_1 to D1_4

Skills	State hospitals				Private hospitals				Total				x^2	df[†]
	Disagree		Agree		Disagree		Agree		Disagree		Agree			
	N	%	N	%	N	%	N	%	N	%	N	%		
Assessment and recording														
Primary assessment (ABCDE)	1	3,3	31	96,9	0	0,0	94	100,0	1	0,8	125	99,2	2,961	1
Medical history taking	1	3,1	31	96,9	0	0,0	94	100,0	1	0,8	125	99,2	2,961	1
Secondary (head-to-toe) assessment	1	3,2	30	96,8	0	0,0	94	100,0	1	0,8	124	99,2	3,057	1
Recording	1	3,2	30	96,	0	0,0	94	100,0	1	0,8	124	99,2	3,057	1

† Degrees of freedom
* $p < 0,05$
** $p < 0,01$

4.3.4.2 Safety within pre-hospital environment
C2_1 to C2_10; D2_1 to D2_10

This question will be analysed in three parts because the actions are related to each other, and to simplify the figures.

a) Part 1 C2_1 to C2_3; D2_1 to D2_3

Part 1 provides the results and analysis of performance of the first three skills pertaining to safety within the pre-hospital environment: rescue, extrication and scene safety.

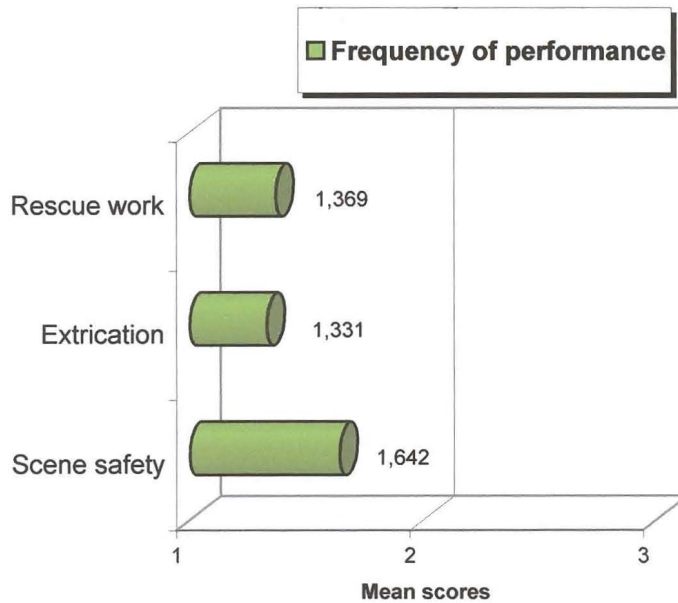Figures 4.13 and 4.14 illustrate the skills visually by indicating the mean score for each variable.

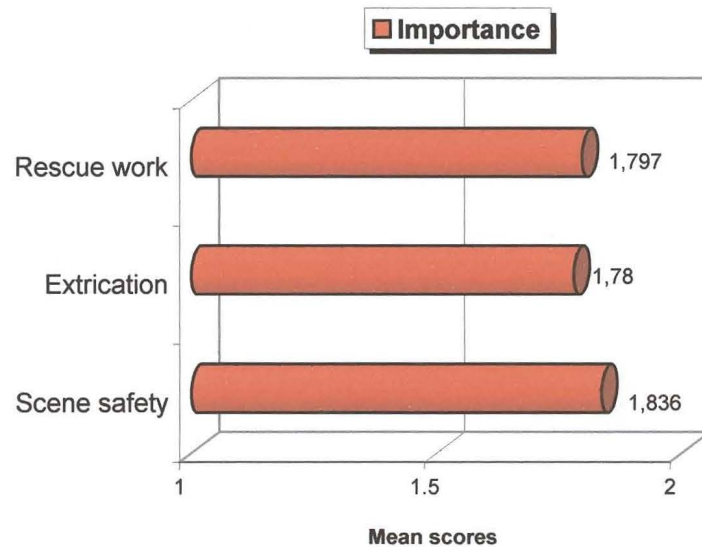**Figure 4.13 - Safety within pre-hospital environment (Part 1)**

Figure 4.14 - Safety within pre-hospital environment (Part 1)

Table 4.11 reflects the *frequency of performance* of advanced life-support pertaining to these three skills. Note that the majority of the respondents indicated that they perform these skills seldom or never.

Table 4.12 reflects the *importance* of these skills to be included in the curriculum. Note that the majority of the respondents indicated that they agree that these skills are important and should be included in the curriculum.

b)   *Part 2* C2_4 to C2_6; D2_4 to D2_6

Part 2 provides the results and analysis of performance of three skills pertaining to safety within the pre-hospital environment: hazmat precautions, prioritisation of patient management and use of extrication devices.

Figures 4.15 and 4.16 illustrate the skills visually by indicating the mean score for each variable.
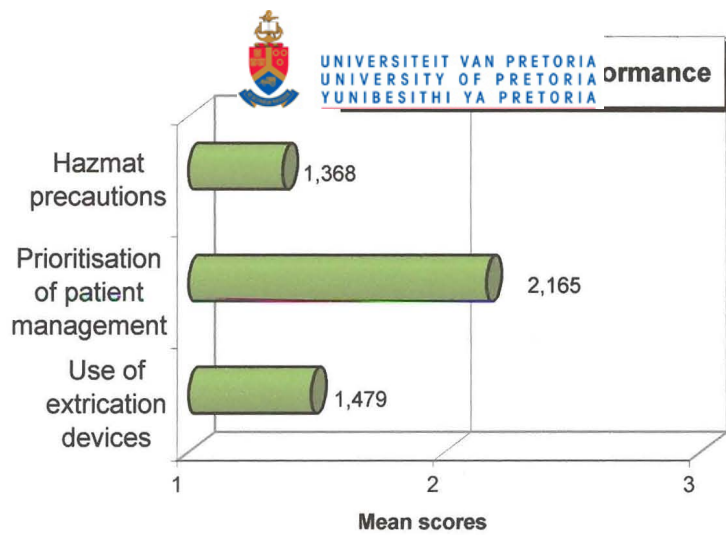
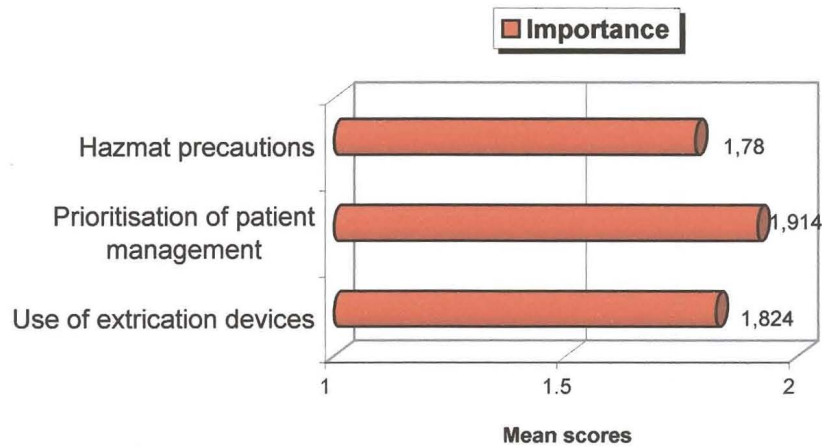**Figure 4.15 - Safety within pre-hospital environment (Part 2)**

Figure 4.16 - Safety within pre-hospital environment (Part 2)

Table 4.11 reflects the *frequency of performance* of advanced life-support pertaining to these skills. Note that the majority of the respondents indicated that they perform skills pertaining to both hazmat precautions (78,1%) and use of extrication devices (69,8%) seldom or never, but that more than half of the respondents (55,4%) indicated that they frequently perform skills pertaining to prioritisation of patient management within the pre-hospital environment.

Table 4.13 reflects the *importance* of these skills to be included in the curriculum. Note that the majority of the respondents indicated that they agree that these skills are important and should be included in the curriculum.

c)   *Part 3* C2_7 to C2_10; D2_7 to D2_10

Part 3 provides the results and analysis of performance of four skills pertaining to safety within the pre-hospital environment: crisis intervention, conflict management, debriefing and counselling skills.

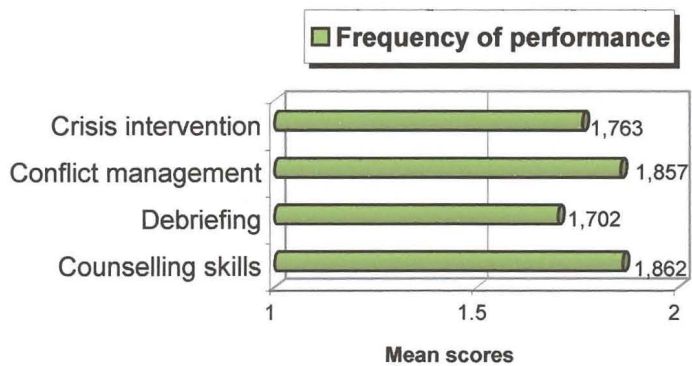Figures 4.17 and 4.18 illustrate the skills visually by indicating the mean score for each skill.

Figure 4.17 - Safety within pre-hospital environment (Part 3)
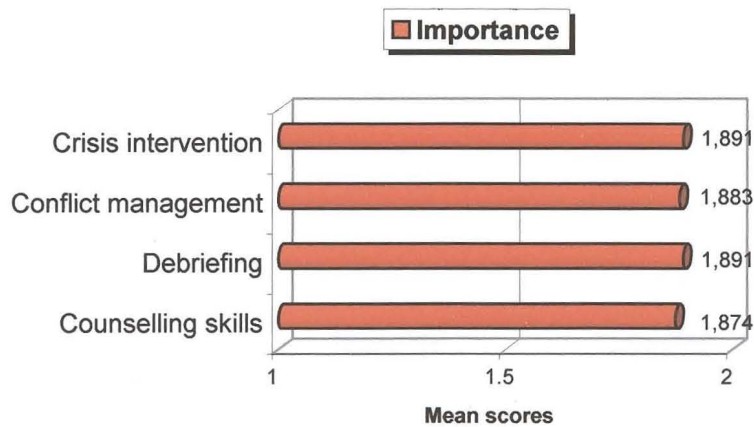

Figure 4.18 - Safety within pre-hospital environment (Part 3)

Table 4.11 reflects the *frequency of performance* of advanced life-support skills pertaining to safety within the pre-hospital environment regarding these skills. Regarding crisis intervention it is evident that the majority of the respondents indicated that they perform this skill seldom/never or periodically, although 27,2% indicated that they frequently perform this skill. The respondents indicated that they frequently perform conflict management (33,9%), debriefing (25,6%) and counselling skills (33,6%), although the majority indicated that they perform these skills seldom/never or periodically.

Table 4.12 reflects the *importance* of these skills to be included in the curriculum. Note that the majority of the respondents indicated that they agree that all four skills are important and should be included in the curriculum.

The degree of relationship between the frequency of performance and importance of the skills to be included in the curriculum as indicated by the Spearman correlation (see Annexure D – Spearman correlation between the variables in Section C and Section D) for Part 1 illustrated the following:

o Rescue indicated a highly significant Spearman correlation coefficient (r_s 0,245)

o Extrication indicated a highly significant Spearman correlation coefficient (r_s 0,324)

o Scene safety indicated a highly significant Spearman correlation coefficient of (r_s 0,303)

o Hazmat precautions indicated a highly significant Spearman correlation coefficient (r_s 0,383)

o Prioritisation of patient management indicated a highly significant Spearman correlation coefficient (r_s 0,332)

o Use of extrication devices indicated a highly significant Spearman correlation coefficient (r_s 0,271)

o Conflict management indicated a highly significant Spearman correlation coefficient (r_s 0,243)

- o Debriefing indicated a highly significant Spearman correlation coefficient (r_s 0,299)

- o Counselling skills indicated a highly significant Spearman correlation coefficient (r_s 0,293)

Table 4.11 – Frequency of performance of advanced life-support skills (%) – C2_1 to C2_10

Skills	State hospitals						Private hospitals						Total						X^2	$df^†$
	Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Safety within pre-hospital environment																				
Part 1																				
Rescue	23	71,9	4	12,5	5	15,6	64	74,4	14	16,3	8	9,3	87	73,7	18	15,3	13	11,0	1,085	2
Extrication	23	82,1	2	7,1	3	10,7	65	75,6	12	14,0	9	10,5	88	77,2	14	12,3	12	10,5	0,917	2
Scene safety	18	60,0	4	13,3	8	26,7	54	62,8	9	10,5	23	26,7	72	62,1	13	11,2	31	26,7	0,191	2
Part 2																				
Hazmat precautions	21	75,0	1	3,6	6	21,4	64	78,1	7	8,5	11	13,4	85	77,3	8	7,3	17	15,5	1,600	2
Prioritisation of patient management	12	40,0	0	0,0	18	60,0	32	36,8	6	6,9	49	56,3	44	37,6	6	5,1	67	57,3	2,183	2
Use of extrication devices	23	79,3	2	6,9	4	13,8	57	66,3	13	15,1	16	18,6	80	69,6	15	13,0	20	17,4	1,942	2
Part 3																				
Crisis intervention	15	51,7	6	20,7	8	27,6	42	49,4	20	23,5	23	27,1	57	50,0	26	22,8	31	27,2	0,102	2
Conflict management	12	38,7	6	19,4	13	41,9	42	50,0	16	19,1	26	31,0	54	47,0	22	19,1	39	33,9	1,421	2
Debriefing	17	58,6	5	17,2	7	24,1	47	53,4	18	20,5	23	26,1	64	54,7	23	19,7	30	25,6	0,257	2
Counselling skills	16	51,6	6	19,4	9	29,0	41	46,6	16	18,2	31	35,2	57	47,9	22	18,5	40	33,6	0,400	2

†   Degrees of freedom
* $p < 0,05$
** $p < 0,01$

Table 4.12 – Importance of advanced life-support skills (%) – D2_1 to D2_10

Skills	State hospitals				Private hospitals				Total				x^2	df[†]
	Disagree		Agree		Disagree		Agree		Disagree		Agree			
	N	%	N	%	N	%	N	%	N	%	N	%		
Safety within pre-hospital environment														
Part 1														
Rescue	8	25,8	23	74,2	15	16,1	78	83,9	23	18,6	101	81,5	1,441	1
Extrication	9	30,0	21	70,0	16	17,2	77	82,8	25	20,3	98	79,7	2,293	1
Scene safety	8	25,8	23	74,2	10	10,8	83	89,3	18	14,5	106	85,5	4,246	1
Part 2														
Hazmat precautions	10	35,7	18	64,3	16	17,6	75	82,4	26	21,9	93	78,2	4,123*	1
Prioritisation of patient management	4	12,9	27	87,1	7	7,5	86	92,5	11	8,9	113	91,1	0,831	1
Use of extrication devices	9	31,0	20	69,0	12	13,0	80	87,0	21	17,4	100	82,6	4,976*	1
Part 3														
Crisis intervention	4	12,9	27	87,1	9	9,7	84	90,3	13	10,5	111	89,5	0,258	1
Conflict management	4	12,9	27	87,1	10	10,8	83	89,3	14	11,3	110	88,7	0,107	1
Debriefing	4	12,9	27	87,1	8	8,6	85	91,4	12	9,7	112	90,3	0,492	1
Counselling skills	6	19,4	25	80,7	9	9,8	83	90,2	15	12,2	108	87,8	1,984	1

†   Degrees of freedom
* $p < 0,05$
** $p < 0,01$

4.3.4.3   *Safety within hospital environment*
C3_1 to C3_7; D3_1 to D3_7

This question will be analysed in two parts because the actions are related and to simplify the figures.

a)   *Part 1* C3_1 to C3_3; D3_1 to D3_3

Part 1 provides the results and analysis of performance of the first three skills pertaining to safety within the hospital environment: hazmat precautions, prioritisation of patient management and use of extrication devices.

Figures 4.19 and 4.20 illustrate the skills visually by indicating the mean score for each variable.
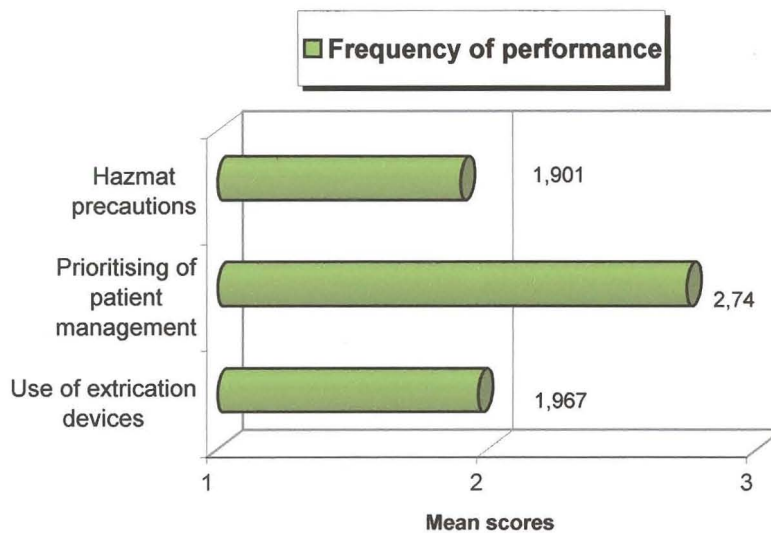

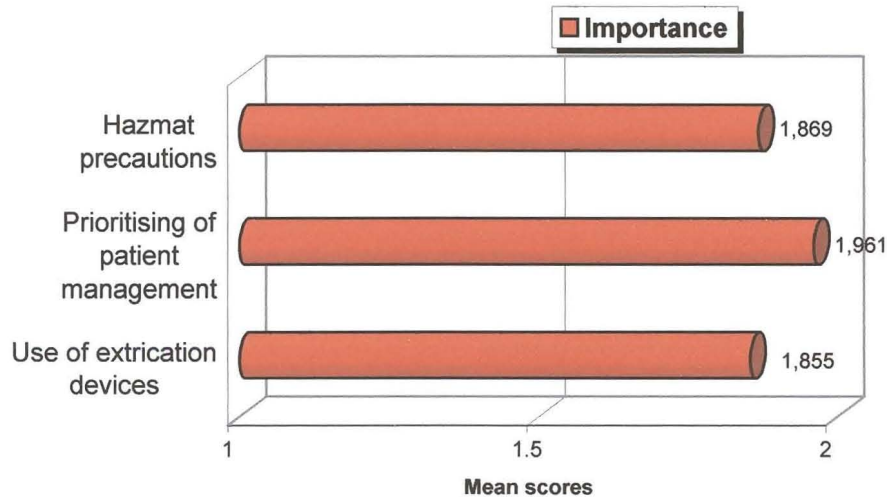*Figure 4.19 - Safety within hospital environment (Part 1)*

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Figure 4.20 - Safety within hospital environment (Part 1)

Table 4.13 reflects the *frequency of performance* of advanced life-support skills pertaining to safety within the hospital environment. Note that the majority of the respondents indicated that they frequently perform the skill prioritisation of patient management. Hazmat precautions were used seldom/never or periodically and only 36,9% indicated that they frequently use this skill. Similar findings pertaining to extrication devices were found and only 42,5% participants indicated that they frequently use this skill.

Table 4.14 reflects the *importance* of these skills to be included in the curriculum and the majority of the respondents indicated that they agree that these skills are important and should be included in the curriculum.

b)   Part 2 C3_4 to C3_7; D3_4 to D3_7

Part 2 provides the results and analysis of performance of four skills pertaining to safety within the hospital environment: crisis intervention, conflict management, debriefing and counselling.

Figures 4.21 and 4.22 illustrate the skills visually by indicating the mean score for each variable.
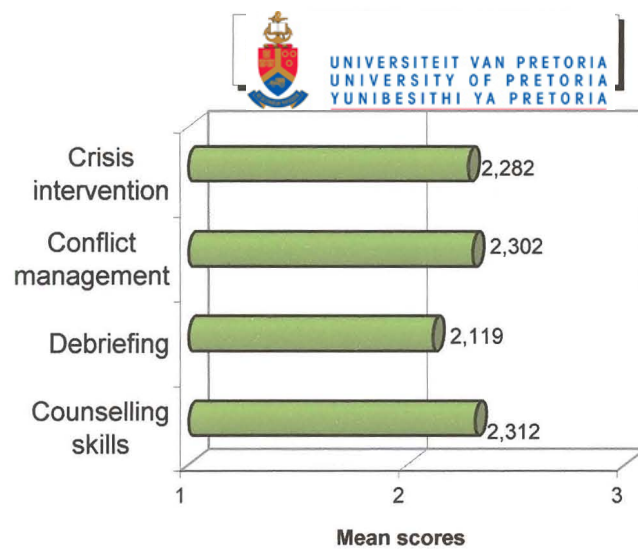
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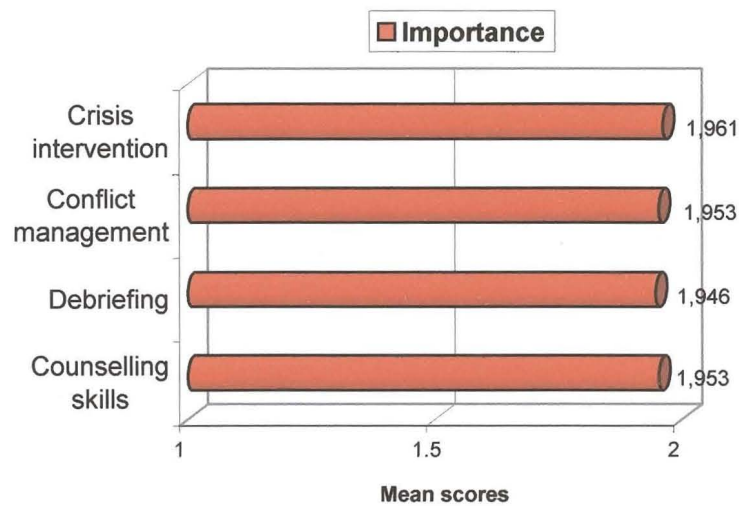**Figure 4.21 - Safety within hospital environment (Part 3)**

Figure 4.22 - Safety within hospital environment (Part 3)

Table 4.5 summarises the *frequency of performance* of advanced life-support skills pertaining to safety within the hospital environment. Note that the majority of the respondents indicated that they frequently perform the skills, except hazmat precautions (38,3), use of extrication devices (43,1) and debriefing (47,5).

Table 4.6 summarises the *importance* of these skills to be included in the curriculum and the majority of the respondents indicated that they agree that these skills are important and should be included in the curriculum.

The degree of relationship between the frequency of performance and importance of the skills to be included in the curriculum as indicated by the Spearman correlation (see Annexure D – Spearman correlation between the variables in Section C and Section D) illustrated the following:

- o Hazmat precautions indicated a highly significant Spearman correlation coefficient (r_s 0,538)
- o Prioritisation of patient management indicated a significant Spearman correlation coefficient (r_s 0,188)
- o Use of extrication devices indicated a highly significant Spearman correlation coefficient (r_s 0,297)
- o Crisis intervention indicated a significant Spearman correlation coefficient (r_s 0,221)
- o Conflict management indicated a highly significant Spearman correlation coefficient (r_s 0,291)
- o Counselling skills indicated a significant Spearman correlation coefficient (r_s 0,231)

Table 4.13 – Frequency of performance of advanced life-support skills (%) – C3_1 to C3_7

Skills	State hospitals						Private hospitals						Total						X^2	df[†]
	Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently		Seldom / Never		Periodically		Frequently			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%		
Safety within hospital environment																				
Part 1																				
Hazmat precautions	6	25,0	8	33,3	10	41,7	43	51,8	9	10,8	31	37,4	49	45,8	17	15,9	41	38,3	8,939*	2
Prioritisation of patient management	1	3,2	0	0,0	30	96,8	10	10,9	5	5,4	77	83,7	11	8,9	5	4,1	107	87,0	3,656	2
Use of extrication devices	14	53,9	1	3,9	11	42,3	39	43,3	12	13,3	39	43,3	53	45,7	13	11,2	50	43,1	2,113	2
Part 2																				
Crisis intervention	7	24,1	5	17,2	17	58,6	20	22,0	24	26,4	47	51,7	27	22,5	29	24,2	64	53,3	1,005	2
Conflict management	3	9,7	9	29,0	19	61,3	21	23,1	26	28,6	44	48,4	24	19,7	35	28,7	63	51,6	2,862	2
Debriefing	11	35,5	2	6,5	18	58,1	30	33,0	21	23,1	40	44,0	41	33,6	23	18,9	58	47,5	4,402	2
Counselling skills	9	29,0	6	19,4	16	51,6	21	23,3	15	16,7	54	60,0	30	24,8	21	17,4	70	57,9	0,678	2

† Degrees of freedom
* $p < 0,05$
** $p < 0,01$

Table 4.14 – Importance of advanced life-support skills (%) – D3_1 to D3_7

Skills	State hospitals				Private hospitals				Total				x^2	df[†]
	Disagree		Agree		Disagree		Agree		Disagree		Agree			
	N	%	N	%	N	%	N	%	N	%	N	%		
Safety within hospital environment														
Part 1														
Hazmat precautions	6	22,2	21	77,8	10	11,0	81	89,0	16	13,6	102	86,4	2,242	1
Prioritisation of patient management	1	3,3	29	96,7	4	4,3	90	95,7	5	4,0	119	96,0	0,050	1
Use of extrication devices	4	14,8	23	85,2	13	14,0	80	86,0	17	14,2	103	85,8	0,012	1
Part 2														
Crisis intervention	1	3,2	30	96,8	3	3,2	91	96,8	4	3,2	121	96,8	0,000	1
Conflict management	2	6,5	29	93,6	3	3,2	91	96,8	5	4,0	120	96,0	0,645	1
Debriefing	3	9,7	28	90,3	3	3,2	91	96,8	6	4,8	119	95,2	2,146	1
Counselling skills	3	9,7	28	90,3	3	3,2	90	96,8	6	4,8	118	95,2	2,102	1

†   Degrees of freedom
* $p < 0,05$
** $p < 0,0$