

A Descriptive Study to Assess the Knowledge and Practices Related to Crash Cart System among Nursing Students at Guru Gobind Singh Medical Hospital District Faridkot, Punjab

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Abstract: *In an emergency, Crash cart is a transportable emergency cart that reduces fatality rates and saves time. This study aims to evaluate nursing students' understanding and utilization of the crash cart system after they have finished their clinical rotation. A descriptive research methodology was used to gather data from 120 nursing students who had finished clinical rotations at GGSMC & Hospital in Faridkot, Punjab, utilizing a self-structured instrument and checklist. The majority of students had good knowledge of the crash cart system, as evidenced by the excellent knowledge of 3 (2.5%), good knowledge of 77 (64.2%), and average knowledge of 40 (33.3%); accordingly, the mean score for adequate level of practice was 21.83, the median was 22.00, and the standard deviation was 3.214, followed by the mean score for inadequate level of practice 11.83, 12.00 for the median, and a standard deviation of 3.214. As a result, fourth-year B. Sc. Nursing students had sufficient experience using the crash cart system. According to the study's findings, the majority of nursing students had adequate practice in using crash carts and had a good knowledge of the crash cart system.*

Keywords: Nursing students, Crash cart, knowledge, practice

1. Introduction and Background of the study

A medical or physical emergency is a sudden, serious issue. An emergency is a problem that has to be treated right away according to clinical judgment or the opinions of family members because, if untreated, it might have terrible implications on one's life. In light of this, a Crash cart is a small, portable cart that contains a variety of medical aid items that are mostly utilized in circumstances where life is at risk and that also aid in handling situations that have a significant impact on an individual's quality of life.

Time is viewed as a very important component during emergency phase. A portable and well-organized cart known as a "CRASH CART" can help healthcare professionals handle the situation when dealing with cardio-pulmonary arrest by identifying the patient's needs and the availability of all medical equipment and medications, which are vital during emergency.

A crash cart being a necessary component of every emergency in a hospital is therefore significant. However, it is believed that a lot of hospitals are not making the best use of crash carts. Mostly Health care personnel are typically confused while making plans during emergencies or crises, but on the other side, a very well-organized crash cart can save a load of effort in a stressful scenario.

A key issue in the hospital that is degrading the health of the patients is the disorderly emergency cart or crash cart. Therefore, student nurses will work as staff nurses in the long term to work separately as a staff in the hospital. as a result, student nurses should have adequate knowledge and skill using all of the equipment's present on the crash cart and about all of the medications on the crash cart system to provide high-quality care.

Objective of the study

- 1) To assess the knowledge of students regarding crash cart system.
- 2) To assess the practices of students regarding crash cart system.
- 3) To find out the association between knowledge and practices regarding crash cart system.

Description of tool

Part 1

Section A: Socio-demographic profile

Section B: Self-structured knowledge questionnaire

Part 2: Self-structured practice checklist

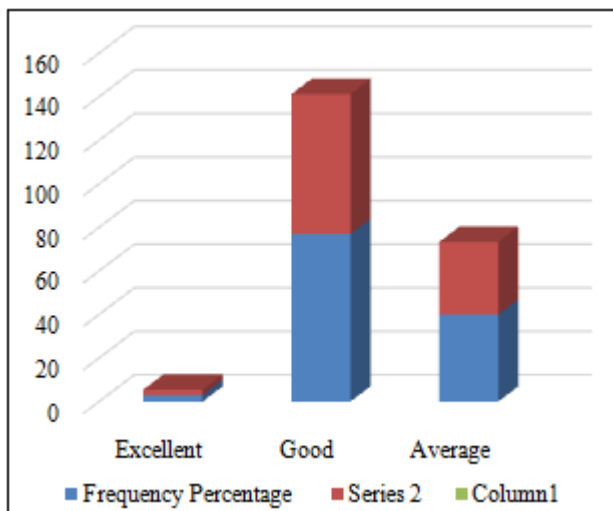
2. Analysis and Interpretation

Table 2: Percentage distribution of B. Sc. (N) 4th yr. students as per socio demographic variable with knowledge, N=120

S. No.	Variables	Knowledge					
		Excellent	%	Good	%	Average	%
1	Age						
	a) 19 - 20 years	0	0	8	47.1	9	52.9
	b) 21 - 22 years	3	3.4	60	69.2	25	28.4
	c) 23 - 24 years	0	0	9	60	6	40
2	Gender						
	a) Male	0	0	2	66.7	1	33.3
	b) Female	3	2.6	75	97.4	39	33.3
3	Area of Working						
	a) Medicine	0	0	19	52.8	17	47.2
	b) Surgery	1	5.6	11	61.1	6	33.3
	c) Gynecological Department	0	0	38	76	12	24
	d) Pediatrics Department	0	0	3	60	2	40
	e) Psychiatric Department	0	0	5	71.4	2	28.6
	f) ICU	2	50	1	25	1	25
4	Source of Information						
	a) Health Personnel	0	0	7	9.1	3	30
	b) Mass media	0	0	18	23.4	6	25
	c) Class teaching	1	5.6	11	14.3	6	33.3
	d) Seminar/Workshop	0	0	1	1.3	3	71
	e) Books and Journals	0	0	2	2.6	4	66.7
	f) Clinical Experience	2	3.4	38	49.4	18	31
5	Trained for additional courses						
	a) Basic life support	3	2.8	70	90.9	34	31.8
	b) Advanced cardiac life support	0	0	7	9.1	3	2.5
	c) Advanced trauma life support	0	0	0	0	3	2.5

Table 5: Association of the mean knowledge score based on the study subjects' various characteristics

S. No.	Characteristics of study subjects	Knowledge Score		Chi - square	df	P value
		Mean	SD			
1	Age					
	19 - 20	19.59	4.691	4.929	4	0.295 ^{NS}
	21 - 22	21.34	3.536			
	23 - 24	20	5.542			
2	Gender			0.80	2	0.961 ^{NS}
	Male	21.33	7.095			
	Female	20.91	3.969			
3	Area of Working			45.682	10	0.00*
	Medicine	19.83	3.692			
	Surgery	20.06	4.518			
	Gynecological Department	21.76	3.56			
	Pediatrics Department	20.06	4.037			
	Psychiatric Department	20.57	4.685			
ICU	25.25	6.292				
4	Source of Information			9.069	10	0.526 ^{NS}
	Health personnel	21.8	3.824			
	Mass media	20.54	3.203			
	Class teaching	21.22	4.622			
	Seminar/workshop	17.75	5.315			
	Books & journal's	18.83	1.722			
	Clinical experience	21.28	4.213			
5	Trained for Additional Course			6.480	4	0.166 ^{NS}
	Basic life support	21.23	3.937			
	Advanced cardiac life support	19.5	3.408			
	Advanced trauma life support	14.67	4.041			

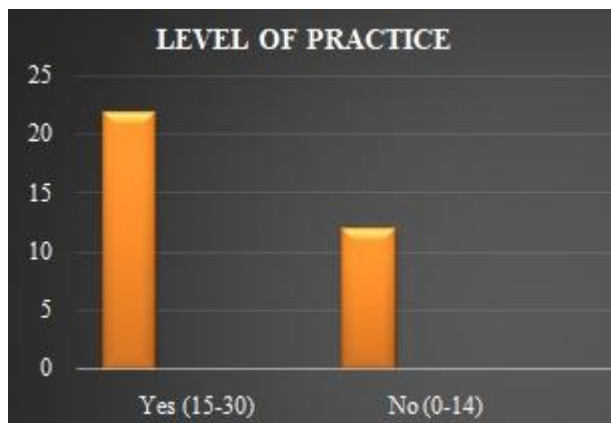


Objective 2: To assess the practices of students regarding crash cart system Percentage distribution of B. Sc. (N) 4th year students as per socio demographic variable with practices.

S. No	Characteristics of study subjects	Level of Practice				Chi square	df	p value
		Yes (Adequate Practice)	%	No (inadequate Practice)	%			
1	AGE					2.068	2	0.356 ^{NS}
	19 - 20	16	13.3	1	0.83			
	21 - 22	80	66.6	8	6.66			
	23 - 24	12	10	3	2.5			
2	GENDER					1.861	1	0.172 ^{NS}
	Male	2	1.66	1	0.83			
	Female	106	88.3	11	9.16			
3	AREA OF WORKING					6.871	5	0.230 ^{NS}
	Medicine	33	27.5	03	2.5			
	Surgery	17	14.16	01	0.83			
	Gynecological Department	46	38.33	04	3.33			
	Pediatrics Department	03	2.5	02	1.66			
	Psychiatric Department	06	5	01	0.83			
ICU	03	2.5	01	0.83				
4	SOURCE OF INFORMATION					6.239	5	0.284 ^{NS}
	Health personnel	10	8.33	00	00			
	Mass media	20	16.66	04	3.33			
	Class teaching	18	15	00	00			
	Seminar/workshop	03	2.5	01	0.783			
	Books & journal's	06	13.33	00	00			
Clinical experience	51	42.5	07	5.83				
5	TRAINED FOR ADDITIONAL COURSE					0.343	2	0.843 ^{NS}
	Basic life support	96	80	11	9.16			
	Advanced cardiac life support	09	7.5	01	0.83			
	Advanced trauma life support	03	2.5	00	00			

Table 7: Mean, median and standard deviation of practice score of study subjects regarding crash cart system, N=120

Practice score	N	Maximum obtained score	Minimum obtained score	Mean score	Median	Standard deviation
YES (Adequate)	108	28	16	21.83	22.00	3.214
NO (Inadequate)	12	14	08	11.83	12.00	2.329



Objective 3: To find out the association between knowledge and practices regarding crash cart system.

Knowledge	Practice		Total	Chi - square	df	p - value	Significant at the level<0.05
	Yes	No					
Excellent (31 - 40)	3	0	3	0.855	2	0.652	Non - significant
Good (21 - 30)	68	9	77				
Average (11 - 20)	37	3	40				

3. Conclusion

According to the study's findings,

- The majority of B. Sc. Nursing fourth - year students demonstrated appropriate understanding of and practice with crash cart systems, with a mean score of 20.93, median of the distribution of scores being 21.00, and a standard deviation of 4.025.
- The mean score for a sufficient degree of practise was 21.83, the median was 22, 000, and the standard deviation was 3.214.
- Chi - square was calculated to investigate the relationship between knowledge and practice. The association between knowledge and practice was determined to be non - significant at the 0.05 level with a chi - square value of 0.855 and a p - value of 0.652. Therefore, it was determined that there is no correlation between nursing students' understanding and practice of the crash cart system.

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