

# Investigation of First Aid Legal Awareness

## -- Take A Medical College as An Example

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### Abstract

**Objective:** To understand the knowledge of first aid knowledge and relevant legal awareness. **Methods:** 200 students were surveyed. **Results:** Only 36.13% had cardiopulmonary resuscitation (CPR) and 32.46% had EMID certificates. 43.87% were completely unaware of first aid laws. Lecture is the most important way for subjects to obtain first aid knowledge (82.23%) **Conclusion:** undergraduates of North Sichuan Medical University have a poor grasp of first aid knowledge, shallow awareness of first aid law, and it is urgent to popularize relevant knowledge.

### Keywords

College students; First aid; Health education; Social first aid exemption; Legal awareness.

## 1. Introduction

Introduction: Nowadays, the epidemic has been repeated, the level of public health has declined, and the sudden rate of accidents has increased. When accidents occur, the masses lack of the knowledge of first aid and laws about it. College students serve as the main group of pre-hospital first aid because of their enthusiasm and strong sense of justice. [1] Therefore, it is of great significance to investigate the knowledge of first aid and the legal awareness of first aid. [2-3] In April 2022, this survey randomly researched full-time undergraduate of North Sichuan Medical College about their awareness of first aid knowledge and laws related.

## 2. Objects and Methods

### 2.1. Object

The questionnaire survey of the college students from North Sichuan Medical College was conducted in the form of the "questionnaire star" online questionnaire distribution. The survey subjects are mainly distributed in the first to the fourth grade. A total of 163 questionnaires were recovered and 155 in them were efficient, with a response rate of 95.09%.

### 2.2. Methods

The survey on the First Aid Knowledge and Legal Consciousness of College Students was designed after referred to first aid training of the Red Cross Society of China. First of all, 50 college students were randomly selected from North Sichuan Medical University for pre-survey to determine our research direction, which end up being first aid experience, first aid willingness, storage of knowledge about first aid, having received first aid training or not, first aid certificate holding and first aid legal awareness. Further questionnaires were randomly distributed in North Sichuan Medical College, with a total of 163 questionnaires distributed. The resulting data was entered using Excel and the experimental results were processed by SPSS.

### 3. Survey Results and Analysis

#### 3.1. Basic Information of the Survey Respondents

A total of 652 questionnaires were issued, and 620 valid questionnaires were collected. Among them, 284 men and 336 women, 18.95%, 39.22%, 18.95%, 14.38%, 8.5%. Medical-related specialties accounted for 51.61%, and non-medical specialties accounted for 48.39%.

#### 3.2. Results

##### 3.2.1. Knowledge of First Aid Knowledge

**Table 1.** Statistics (Are you a medical-related major)

title	name	5. Are you a medical-related major		amount to	X <sup>2</sup>	check X <sup>2</sup>	P
		yes	deny				
11. Do you know about the automatic external defibrillator (AED)?	Know it, but will not use it	132	112	244	7.487	7.487	0.024**
	Will use	180	144	324			
	hear nothing of	8	44	52			
13. Have you got a first aid certificate	yes	112	36	148	16.779	16.779	0.000***
	deny	160	148	308			
	(skip)	36	116	164			
31. Is the correct position of the injured and patient when performing unarmed CPR?	Lie on your back on a hard plane	184	136	320	2.813	2.813	0.421
	Lie on your back on a more comfortable soft bed	36	64	112			
	prone position	24	36	60			
	lateral position	64	64	128			
36. The ratio of chest compressions and artificial respiration in patients with cardiac arrest is:	30 presses and then 2 blows	172	124	296	6.972	6.972	0.137
	30 Press and then 1 blow	104	96	200			
	Press 5 presses and then 1 blow	16	16	32			
	hear nothing of	4	28	32			
	15 Press and then 2 blow	24	36	60			
43. After the fracture occurs, should the bone fracture be fixed?	Looseness is appropriate not to affect blood circulation	208	180	388	0.879	0.879	0.928
	As loose as possible	44	52	96			
	Don't know how to do it	8	4	12			
	As tight as possible	56	60	116			
	It's beautiful	4	4	8			
	Know but did not understand the specific regulations in detail	96	32	128			
Do you know the laws of first-aid protection	Know the specific laws and regulations	108	112	220	9.337	9.337	0.009***
	do not understand	116	156	272			

Note: \*\*\*, \*\* and \* represent the significance levels of 1%, 5% and 10%, respectively

Only 36.13% of people knew and knew cardiopulmonary resuscitation (CPR), and 32.46% held first aid certificate. About 51.61% knew the correct position during freehand CPR, and 60% knew the correct position of chest compressions. 43.87% knew the correct frequency of chest compressions, 41.29% the correct depth, and 47.74% the correct ratio of chest compressions to artificial respiration. The analysis showed that the medical major and non-medical major in AED understanding, the degree of first aid knowledge and emergency certificate holding,

statistical significance (P value <0.05), grade related to first aid knowledge, statistical significance (P value <0.05).

**3.2.2. Attitude for First Aid Knowledge**

The survey results show that 99.35% of people think it is necessary to learn about first aid and get trainings about it, 54.91% hope to carry out regular first aid training, and 34.19% think it is unnecessary to carry out regular first aid training only occasionally. The analysis found that different grades had significant differences in their willingness to attend first aid training, first aid experience, and first aid certificate holding (P-value <0.05).

**Table 2. Statistics (Grade in place:)**

title	name	4. Grade in place:						amount to	X <sup>2</sup>	check X <sup>2</sup>	P
		sophomore	senior	Big five	freshman	junior	(skip)				
11. Do you know about the automatic external defibrillator (AED)?	Know it, but will not use it	104	32	28	40	36	4	244	19.053	19.053	0.040**
	Will use	100	56	24	64	80	0	324			
12. Have you ever learned and trained in first aid knowledge?	hear nothing of	36	0	0	12	0	4	52	11.786	11.786	0.038**
	yes	160	76	24	92	100	4	456			
13. Have you got a first aid certificate	deny	80	12	28	24	16	4	164	19.238	19.238	0.037**
	yes	76	24	8	20	20	0	148			
19. Do you think first-aid training and attend training should be organized regularly?	deny (skip)	84	52	16	72	80	4	308	26.554	26.554	0.033**
	I hope to organize regular training and are willing to attend	80	12	28	24	16	4	164			
32. What you think are the chest compressions are:	cannot be designated as	12	4	0	0	4	0	20	32.735	32.735	0.036**
	Do not want regular training, only one occasional participation is enough	52	40	12	36	68	4	212			
36. The ratio of chest compressions and artificial respiration in patients with cardiac arrest is:	Not willing to attend the training	8	8	12	8	16	0	52	37.389	37.389	0.011**
	Midpoint of the connection between the two nipples	156	44	40	68	56	8	372			
Do you know the laws of first-aid protection	The fifth intercostal left margin of the sternum	24	16	0	36	12	0	88	16.878	16.878	0.077*
	In the middle of the sternum	36	28	4	8	48	0	124			
Do you know the laws of first-aid protection	Apex of heart	20	0	8	4	0	0	32	16.878	16.878	0.077*
	hear nothing of	4	0	0	0	0	0	4			
Do you know the laws of first-aid protection	30 presses and then 2 blows	120	40	8	44	80	4	296	16.878	16.878	0.077*
	30 Press and then 1 blow	76	36	20	40	28	0	200			
Do you know the laws of first-aid protection	Press 5 presses and then 1 blow	16	0	12	4	0	0	32	16.878	16.878	0.077*
	hear nothing of	16	0	0	12	0	4	32			
Do you know the laws of first-aid protection	15 Press and then 2 blow	12	12	12	16	8	0	60	16.878	16.878	0.077*
	Know but did not understand the specific regulations in detail	68	12	16	24	8	0	128			
Do you know the laws of first-aid protection	Know the specific laws and regulations	56	48	20	36	60	0	220	16.878	16.878	0.077*
	do not understand	116	28	16	56	48	8	272			

Note: \*\*\*, \*\* and \* represent the significance levels of 1%, 5% and 10%, respectively

**3.2.3. Legal Awareness of First Aid Protection**

According to the survey, 43.87% of people do not understand the first aid protection law, 99.35% believe that first aid personnel should receive legal protection, and 61.29% believe that the existing laws need to be further improved. Some 76.61% are willing to give first aid to an emergency under a detailed law. According to the chi-square test, gender, medical-related major, first aid knowledge learning and first-aid related laws, which were statistically significant (P value <0.05), while grade and first aid experience (P value > 0.05).

**Table 3. Statistics (Do you know the laws of first-aid protection)**

title	name	Do you know the laws of first-aid protection			amount to	X <sup>2</sup>	check X <sup>2</sup>	P
		Know but did not understand the specific regulations in detail	Know the specific laws and regulations	do not understand				
1. Your gender:	man	36	136	112	284	10.297	10.297	0.006***
	woman	92	84	160	336			
	sophomore	68	56	116	240			
	senior	12	48	28	88			
4. Grade in place:	Big five	16	20	16	52	16.878	16.878	0.077*
	freshman	24	36	56	116			
	junior	8	60	48	116			
	(skip)	0	0	8	8			
5. Are you a medical-related major	yes	96	108	116	320	9.337	9.337	0.009***
	deny	32	112	156	300			
6. Have you ever had a cardiac arrest incident?	deny	108	184	248	540	1.804	1.804	0.406
	yes	20	36	24	80			
12. Have you ever learned and trained in first aid knowledge?	yes	100	184	172	456	6.939	6.939	0.031**
	deny	28	36	100	164			
13. Have you got a first aid certificate	yes	56	36	56	148	17.619	17.619	0.001***
	deny	44	148	116	308			
	(skip)	28	36	100	164			

Note: \*\*\*, \*\* and \* represent the significance levels of 1%, 5% and 10%, respectively

## 4. Discussion and Suggestions

### 4.1. Surface Mastery of First Aid Knowledge Among College Students

The awareness of first aid knowledge among undergraduates of North Sichuan Medical University is at the middle level on average. The main ways for college students to obtain first-aid knowledge are traditional ways such as academic lectures, newspapers and books. According to the survey, more students in the school have received first aid training, but the overall level of first aid knowledge is not high, and the number of students with first aid certificate is small. We believe that this is related to a single form of first aid training and a low audience acceptance rate.[4]Students in this school have a high degree of awareness of cardiopulmonary resuscitation (CPR) but a low degree of mastery, which indicates that students have a limited understanding of CPR and a poor grasp of the details. It is suggested that the school pay attention to the depth and details of first aid knowledge teaching, and carry out diversified first aid training to mobilize the enthusiasm of students.

### 4.2. Medical College Students in Master Degree and Legal Consciousness Is Better Than the Medical Students

Through analysis, we found that the medical students were more active in getting a first-aid certificate, learning about it and legal consciousness than the medical students. It may come from their interest in first aid knowledge and professional belief, more active in understanding first aid related law, combined with knowledge in learning, more profound memory. We should

put more emphasis on pre-hospital first aid and stimulate students' enthusiasm and sense of mission.

### 4.3. First Aid Protection Popularity

Through analysis, we found that the medical students were more active in getting a first-aid certificate, learning about it and legal consciousness than the medical students. It may come from their interest in first aid knowledge and professional belief, more active in understanding first aid related law, combined with knowledge in learning, more profound memory. We should put more emphasis on pre-hospital first aid and stimulate students' enthusiasm and sense of mission. [2]

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