

KNOWLEDGE AND ATTITUDES TOWARD FIRST AID AMONG THE GENERAL POPULATION: A CROSS-SECTIONAL STUDY

Aleksandra Filipowska, Katarzyna Mostowska, Magdalena Gibas-Dorna, Szymon Michniewicz, Stanisław Manulik, Jolanta Chmielowiec, Krzysztof Chmielowiec, Bartłomiej Czyżniewski



INTRODUCTION

Sudden cardiac arrest is one of the greatest health threats facing modern society. Every year, there are millions of cases of SCA worldwide, with only a small percentage of victims receiving immediate assistance. Immediate first aid can significantly improve survival rates and outcomes in emergency situations, but studies conducted around the world indicate persistent gaps in public knowledge and preparedness. Despite extensive public awareness campaigns, fear of making mistakes, low confidence levels, and insufficient training remain major barriers. Assessing public knowledge, attitudes, and perceived competence is critical to identifying educational gaps and developing effective training strategies.

AIM

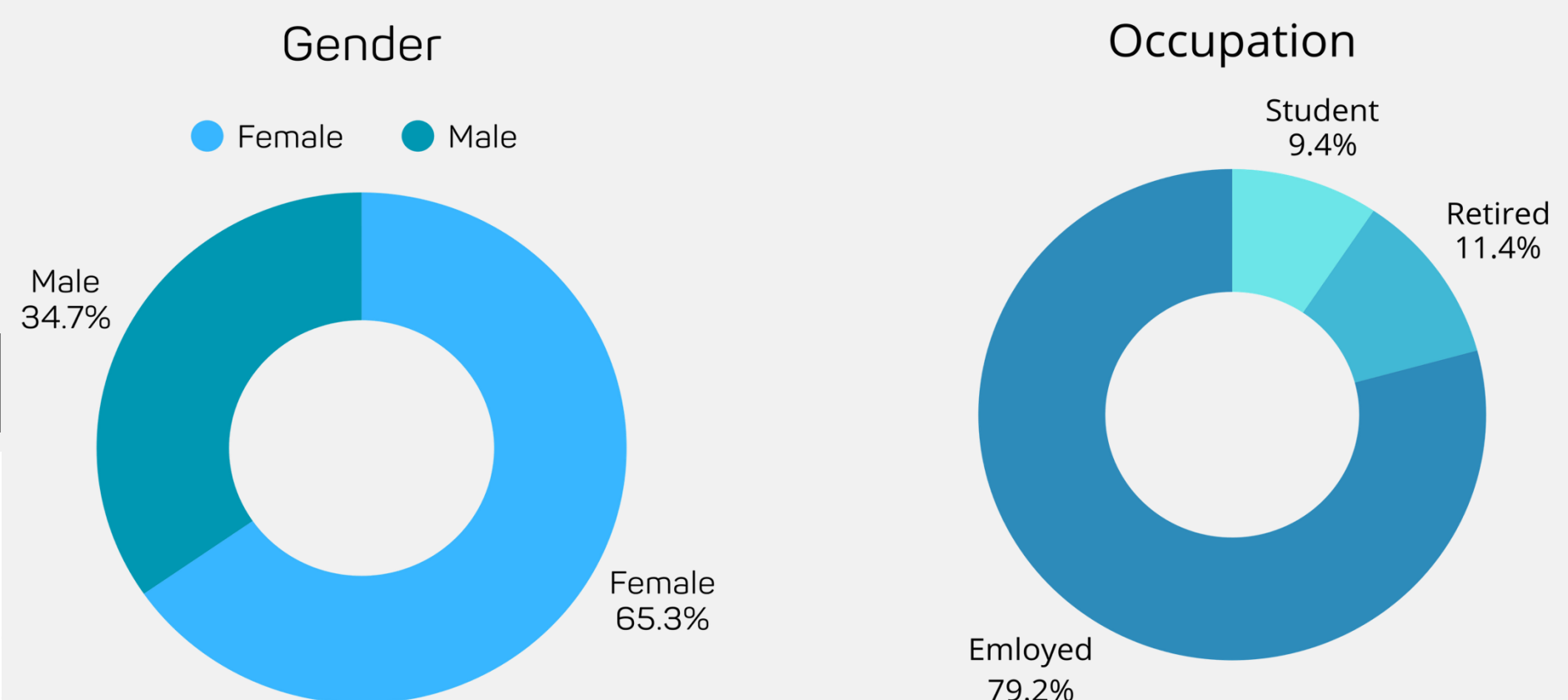
The aim of the study was to assess the level of knowledge and readiness to provide first aid among adults and to identify factors influencing these results.

MATERIAL AND METHODS

An online cross-sectional survey was conducted via Google Forms among 202 adults. The questionnaire included socio-demographic items, attitude statements rated on a 5-point Likert scale, and a 10-question single-choice knowledge test (score 0–10; 0–3 = low, 4–6 = average, 7–10 = high). Data were analysed in MS Excel 365 and STATISTICA 13.3 using the Chi-square test at $p \leq 0.05$.

DEMOGRPHIC CHARACTERISTICS OF THE STUDY GROUP

The study involved 202 respondents aged 18 to 83 ($M = 42.37$, $SD = 14.86$), with the largest age group being 41–60 years old (45.5%, $n = 92$). More than half of the respondents (65.3%, $n = 132$) were women. The dominant group were working people (79.2%, $n = 160$). These were people studying or working in a non-medical field (75.2%, $n = 152$). More than half of the respondents had undergone first aid training (65.3%, $n = 132$).



While most participants understood the basics of CPR, less than half knew AED locations — a critical gap for public readiness.

RESULTS

Statement	Agree	Disagree	No opinion
Knows how to help an infant/child in cardiac arrest	52,6%	42,5%	9,9%
Always calls for help even if able to perform CPR	92,1%	6,5%	1,5%
Untrained person can start CPR with compressions only	73,8%	15,8%	10,4%
Knows how and when to use AED	56,4%	34,6%	8,9%
Knows AED location nearby	48,0%	39,6%	12,4%

Barrier: 87.6% of respondents admitted fear of making a mistake is the main reason for hesitation.

Motivation: 87.1% expressed willingness to attend free CPR training.

Scenario	Feels confident (%)	Not confident (%)	No opinion (%)
Helping a stranger who is not breathing	56,4	34,1	9,4
Helping a relative who is not breathing	72,7	19,3	7,9
Faster to start CPR on adult vs child	51,0	30,2	18,8

Variable	Medical (%)	Non-medical (%)
Knowledge – help child in cardiac arrest	74,0	38,8
Belief: compressions-only CPR acceptable	76,0	69,1
Know how/when to use AED	82,0	48,0
Know AED location	66,0	42,1
Ready to help stranger	80,0	48,6
Willing to attend CPR training	78,0	90,1

Medical professionals reported higher competence, but non-medical participants showed greater willingness to learn.

Training doubles or triples practical readiness and AED awareness across all measured parameters.

Variable	Trained (%)	Untrained (%)
Knows how to help infant/child in cardiac arrest	57,6	28,6
Always calls for help	97,0	82,9
Believes compressions-only CPR possible	81,8	58,6
Knows how/when to use AED	70,5	30,0
Ready to help stranger	66,7	37,1
Ready to help relative	79,5	60,0
Knows AED location nearby	54,5	35,7

CONCLUSIONS

The willingness to provide first aid depends on gender, age, industry, and first aid training, with the following observations:

- Women show slightly greater willingness than men.
- Younger people are more willing to provide first aid than older people.
- People working in the medical industry are more willing to provide first aid than people outside the industry.
- First aid training significantly increases willingness to provide first aid.

REFERENCES

1. Beesems SG, Koster RW. Accurate feedback of chest compression depth on a manikin on a soft surface with correction for total body displacement. Resuscitation 2014; 85:1439-43.
2. Campbell, S. (2012). Supporting mandatory first training in primary schools. Nursing standard, 27(6), 35-39
3. Olasveengen, T. M., Semeraro, F., Ristagno, G., Castren, M., Handley, A., Kuzovlev, A., Monsieus, K. G., Raffay, V., Smyth, M., Soar, J., Svavarsdottir, H., & Perkins, G. D. (2021). European Resuscitation
4. Council Guidelines 2021: Basic Life Support. Resuscitation, 161, 98–114.
5. Perkins GD, Graesner JT, Semeraro F, et al. (2021). European Resuscitation Council Guidelines 2021 executive summary. Resuscitation