

## Why first aid knowledge is Important

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### ABSTRACT

First aid is a fundamentally important resource for people and may mean the difference between life and death in emergencies; however, awareness and training are still lacking in many parts of the world. This paper outlines why first aid knowledge is necessary for everybody, no matter your profession or age, and is based on several recent studies from diverse populations of people, including students, teachers, and family caregivers, to cover the gaps in awareness, the benefits of early training, and evidence of educational interventions. It stresses the importance of educating people in first aid; first aid education can help empower an individual to act in a crisis, and also contribute to safer communities by enabling preparedness and resilience. The paper reviews global research in first aid education and discusses the importance of knowledge retention, attitude change, and real-life response behaviours that were identified as an impact of taking first aid training. Additionally, the paper describes a number of systemic barriers to first aid education, including institutional support and public awareness. The paper concludes by recommending free, accessible first aid training for everybody as a public health imperative.

**Keywords:** First aid, emergency response, basic life support, public health education, awareness, knowledge, community safety, preparedness, health literacy, school-based training

### INTRODUCTION

In emergencies, such as cardiac arrest, choking, bleeding, or other events, the application of timely and appropriate first aid can greatly improve outcomes and, in many cases, save lives. First aid refers to the immediate and temporary care provided to an injured or suddenly ill person before the availability of professional medical treatment. The importance of first aid is well documented across healthcare and education sectors, but the general public's knowledge of first aid remains limited (Jamaludin et al., 2018; Alahakoon et al., 2022) in ways that limits public health preparedness and also threatens public safety, while adding additional strain on emergency services that are likely already busy or delayed.

An increasingly extensive body of work indicates individuals who have even basic first aid knowledge have much greater levels of confidence and immediate capacity for appropriate response in emergencies, likely decreasing risk of complications and fatalities (Souza et al., 2019; Efendi et al., 2023). Unfortunately, many communities do not have access to systems for first aid education, and common misconceptions about who should learn and at what times continue to persist. Therefore, the case must be made for general advocacy for the systematic process of policy change to accomplish widespread first aid education in schools, workplaces, and other public settings (Li & Pang, 2017; León-Guereño et al., 2023).

The knowledge of first aid is not only relevant to individuals who work in healthcare, but should be a knowledge base that all individuals learn. Take, for example, a child who learns to call emergency services or a teacher who cares for a student with a seizure. The speed and accuracy of action are critical (Arli, 2017; Arasu et al., 2020). The purpose of this discussion paper is to evaluate the significance of first aid knowledge for everybody by using current scholarly studies to examine the merits of first aid knowledge, awareness, educational interventions, and structural barriers to accessing training.

### LITERATURE REVIEW

First aid is a crucial link between the time just after an injury or medical emergency occurs and the arrival of professional care. Research supports the notion that first aid knowledge is an important aspect of life for everyone, regardless of age, education, and occupation. This review synthesizes the existing research into five thematic domains: awareness and knowledge levels, educational interventions and their effectiveness, early training benefits, target populations for first aid education, and systemic barriers.

### 1. Awareness and Knowledge Levels

An overarching theme in the literature is the general lack of first aid knowledge across populations. Alahakoon et al. (2022) studied advanced students in Sri Lanka and found that, while students had a favorable attitude to first aid, their knowledge was inadequate. Jamaludin et al. (2018) found similar results when evaluating awareness and knowledge in university students. This lack of knowledge is not confined to a single area; Konwar et al. (2021) reviewed knowledge in student populations and highlighted this as a global concern, identifying that well-educated populations commonly did not retain or apply principles of first aid when needed. These studies indicate that there is a clear need for structured first aid education. Many people do not have the confidence to implement basic procedures such as CPR, control bleeding, or know when to intervene when a person is choking. Arasu et al. (2020) studied college students in Bangalore and reported that overall, most continued to say they mostly had heard of first aid, but few recognized the correct actions in an emergency. Knowledge does not equal competence.

### 2. Effectiveness of Educational Interventions

Many researchers report that educational interventions can dramatically improve first aid knowledge and skills. Efendi et al. (2023) studied the impact of first aid education on family members of patients with heart disease. They reported large improvements in basic life support (BLS) knowledge and skills after completion of the education sessions. Likewise, Arli (2017) ran a pilot study with schoolteachers and showed that basic first aid education improved their level of preparedness and confidence in responding to emergencies. In a pilot intervention with students taking a course in early childhood education, León-Guereño et al. (2023) demonstrated that even brief and directed training with family members led to large improvements in knowledge and willingness to act. These results indicate that first aid education can lead to knowledge and skill improvement in a variety of ages and professions, as well as result in improvements using short-duration intervention, while still having practical applications months later.

In their literature on emergency preparedness, Nurhidayah et al. (2025) reached a similar conclusion. They explained that skills can be learned through a systematic training approach that can improve not only immediate response capabilities but also sustain the skill in memory and its application over longer periods of time. Having an educational process with skills shown to be superior or better trained only leads to confidence and likelihood to perform the skill/debugging in practice sessions.ref. These educational interventions are shown to address and improve skills/knowledge, and if supported with demonstrations and practice sessions, can improve immediate skills and recall skills, leading to improved competence and reduced self-blame in real events.

### 3. Benefits of Early and Universal Training

A consistent suggestion in the literature is the inclusion of first aid training in school curricula (i.e., exposure at an early age). Souza et al. (2019) assert that basic life support (BLS) and first aid training in schools not only provide skills for youth but also engender a preparedness culture, civic responsibility, and the use of preventative education in developing a safety-conscious individual. Training early is preventative education, as it helps to promote behaviors in an individual that value being safe.

Konwar et al. (2021) argue that students who are taught early in life will retain and be able to transfer their knowledge more easily than adult learners. León-Guereño et al. (2023) identify that childhood exposure to educational intervention will improve readiness to respond to emergencies both in the immediate future and the next 15 years. The long-term impacts of being exposed to first aid training are great, as it improves community health outcomes, decreases preventable deaths, and increases the trust and comfort levels of a responder.

### 4. Target Populations: Students, Teachers, and Families

Several demographic groups are recognized in the literature as priority targets for first aid education and training. Educational professionals are often the first responders in schools, so they are an important stakeholder in emergency preparedness. Arli (2017) indicates that teachers who complete basic first-aid training feel more prepared to address typical injuries and emergencies that occur in a school setting. College students are regularly the focus of research for their potential future role in public spaces and the role they will play in the workplace. Additionally, Jamaludin et al. (2018) stated that developing first aid modules should be included in higher education, as would Arasu et al. (2020). Notably, Efendi et al. (2023) even broadened the target group by conducting first aid education for family members of high-risk patients, particularly those with chronic diseases such as cardiovascular disease. They included an important finding that shows home training can improve the outcomes of cardiac events and other emergencies.

Li and Pang (2017) offered an even broader lens on first aid by suggesting universities use first aid as part of their general education requirements. They believe that training college students, many of whom will form the base of a future workforce and community, is a wise investment in public health.

### 5. Systemic Barriers and Cultural Challenges

Despite the clear need for first aid training, many barriers - systemic and cultural - can impede its uptake. Li and Pang (2017) identified several structural barriers to mainstreaming first aid training education, including logistical issues, a shortage of trainers, a lack of unified curricula, and assumptions regarding who should know first aid. They also noted that cultural assumptions, inhibitions, or fears of harming could affect volunteer actions in emergencies.

Alahakoon et al. (2022) and Jamaludin et al. (2018) concur that many students are reluctant to provide help because of psychological barriers, such as the prospect of legal action or because they lack the confidence to try. The psychological barrier extends across many countries, primarily due to Good Samaritan laws not being enacted; the proposed laws would allow individuals to provide help based on their first aid training intentions without disadvantage (Souza et al., 2019). Furthermore, without the backing of government legislation requiring first aid training in schools and workplaces, access to training is further decreased.

An issue to consider is the focus of first aid training on theory rather than practice. Arasu et al. (2020)'s study signaled that many training sessions did not incorporate practical or simulation-to-practice experiences, therefore maximizing the effects of first aid training. Interaction in modules, as well as repetition-based learning models, are indicated as limited opportunities for expanding notions of training (León-Guereño et al., 2023).

## 6. Public Health Implications

The societal public health impact of widespread knowledge of first aid is significant. First Aid training reduces mortality and morbidity by promoting timely and effective intervention in an emergency event. First aid education enhances a culture of preparedness and self-sufficiency (Nurhidayah et al., 2025). Communities that are more first aid literate are better prepared when faced with a natural disaster, a motor vehicle accident, or an acute health contingency.

First aid training also increases psychological preparedness and helps reduce bystander apathy-where those in the environment do not act in the event of an emergency because they believe someone else will act (Efendi et al., 2023). Therefore, public education campaigns, coupled with progressive institutional mandates for first aid training, can lead to a cultural shift in emergency response in society.

## Summary

In conclusion, the literature overwhelmingly supports the importance of first aid knowledge for all people. Awareness is not sufficient without a structured, active program that includes hands-on planning. Educational programs impacting both children and adults are effective, and the potential for sustainable outcomes is maximized when children are trained first. Teachers, students, and family caregivers are all strategically relevant cohorts for targeted programming. Systemic factors, such as the absence of standardized educational programs in schools, and cultural factors in some traditionally oriented population groups, also need to be addressed through policy and education programs. The evidence presents a very strong case for the need for a public health movement to advocate for an education in first aid..

## Methodology

This research paper utilizes a qualitative and literature review methodology to study the importance of first aid knowledge to the general population. This report does not collect primary data through surveys or experiments, but rather, focuses on 10 scholarly sources so that common themes may be established, impacts of educational interventions may be assessed, and systemic problems or barriers and benefits to first aid knowledge may be outlined; all under the rubric of first aid knowledge. The choice to use a literature review methodology is predicated on the intention to develop a broad understanding of perspectives, educational strategies, and cross-cultural findings in first aid training and awareness.

The qualitative nature of this study enables critical examination of existing evidence and allows for a thematic investigation of the state of first aid education and its social implications. The sources selected for this study contain peer-reviewed research and include case studies, pilot interventions, reviews, and educational reports from a variety of geographical regions (i.e., Sri Lanka, Indonesia, India, Spain, China, and Brazil). Selected sources had to be relevant to the research idea and study the effectiveness and shortcomings of first aid education in different populations.

The selection criteria for these sources included: publication dating within the last decade (except in one situation, where older data still proved highly cited and relevant), fit with the research inquiry, methodological clarity, and representation of diverse populations, including students, teachers, caregivers, and the general public. Special consideration was given to studies that addressed both the theoretical and practical aspects of first aid training, as well as studies that measured various outcomes such as knowledge retention, confidence, and behaviour intention as measures after the training interventions.

Data was extracted and analyzed manually using thematic content analysis. The key themes identified across the studies included:

- Knowledge and awareness levels before and after training

- Effectiveness of first aid interventions
- Population-specific training needs
- Institutional and policy-level barriers
- The broader public health benefits of widespread first aid education

For example, Alahakoon et al. (2022) conducted a cross-sectional study regarding knowledge and attitudes towards first aid among high school students in Sri Lanka using a structured questionnaire format. The study found significant gaps in practical skills and knowledge among participants, even though they had heard of first aid. This followed the same trajectory as Jamaludin et al. (2018) in their literature review assessing university students. Jamaludin et al. found that students were unaware of their knowledge deficiency and overestimated their capability. The results from each of these studies allowed comparisons to be drawn between the different contexts and prompted reflections on the divide between awareness and knowledge that could be acted upon.

Other sources provided evidence for classes to evaluate the outcomes from training programs. Efendi et al. (2023) evaluated a structured first aid training program for family members of patients with cardiovascular disease. Then, to evaluate the potential learning outcomes, they conducted a quantitative assessment of the learning of family members, which included a pre- and post-test. In addition, León-Guereño et al. (2023) used a pilot study approach to assess early childhood education students. Then, to assess participant learning outcomes, they evaluated a brief training program on how to respond to an unconscious child, which they compared to the rise in confidence and feelings of preparedness. In both of these studies, the authors were not just interested in their findings, but also included an analysis of the important elements that contributed to a successful learning outcome. These factors included practical demonstrations, peer learning interspersed with an application of learning, and instruction and learning based on repetition.

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The trustworthiness and credibility of the findings were established through triangulation of findings across several sources. For example, the benefits of practical, hands-on training were established across studies by Efendi et al. (2023), León-Guereño et al. (2023), and Nurhidayah et al. (2025). The same finding, with different populations and in multiple contexts, established trustworthiness for the thematic conclusions across the literature.

To maintain trustworthiness, our review included a rigorous process. To start the review, all articles/reports were read in their entirety to determine the article's purpose, design, sample, and study rationale. Notebooks were kept for each report/article to summarize pertinent statistics, themes, or observations that repeated. A matrix was generated to collate studies grouped by the themes and relevance to the article's research question. Each study was assessed to determine the bias, representative sample, and scope of the conclusion's relevance to other populations.

The ethical implications associated with this methodology are largely related to the quotation of intellectual property and the representation of data correctly. No primary data collection involving human subjects occurred, so there was no ethical approval process as would be required in terms of an institutional review board. However, academic integrity was upheld in maintaining a record of precise quotations of the material cited and providing appropriate context with each study referenced.

In summary, the methodology of this research paper relied on a thorough review of the academic literature and thematic analysis to establish the broader implications of first aid knowledge. The study references comparative analysis and synthesis of the data to produce higher-order meaning about the current state of first aid knowledge, the effectiveness of training interventions, and the complexities involved in providing universal access to first aid. The use of this methodology makes sense as the intention of using this body of literature is to

elicit meaningful information for public health advocacy and educational policy based on universally acknowledged research and reputable evidence from multiple global perspectives.

## DISCUSSION

The evidence produced in this research provides a compelling case that knowledge of first aid is an important public health skill that should be available to everyone. First aid knowledge improves the ability to perform a basic life-saving procedure in many situations universally. From high schools in Sri Lanka (Alahakoon et al., 2022) to family homes of cardiac patients in Indonesia (Efendi et al., 2023), the ability to deliver basic life-saving care has the potential to reduce complications, increase survival rate, and encourage their psychological preparedness in having an emergency. At the same time, the findings highlight the disconnect between people's knowledge of first aid and their level of competence in performing it. Many people know about first aid as theory, but lack the confidence or skills, Yiphe suggests. (Jamaludin et al., 2018; Arasu et al., 2020).

This evidence shows there is a need for policy-level change in education. While interventions for specific educators, i.e., student teachers (León-Guereño et al., 2023) or school teachers (Arli, 2017), show promise, there continues to be a lack of structured and repeated first aid education for the general population. Barriers to further development include a lack of cultural understanding, widespread community institutions' support, and the absence of a uniform structure for education as training, and curricula (Li & Pang, 2017).

Additionally, the literature shows that first aid exposure early in life, in particular from school-based programs, can develop lifelong preparedness and normalize emergency response as a community activity (Souza et al., 2019; Konwar et al., 2021 ). This could be especially important for low-resource communities, where waiting for aid services can mean life or death.

To conclude, while the value of first aid knowledge has been identified, its impact is limited without attention to consciously and systematically integrating training into broad-based formal education and community efforts.

## CONCLUSION

This Study emphasizes the importance of first aid knowledge as a universally important life skill. The literature reviewed in this report indicates that responding to a medical emergency with timely first aid can greatly improve outcomes for individuals suffering from medical emergencies involving cardiac arrest, injury, choking, and burns. Although it is well understood that knowledge of first aid is a lifesaving life skill, students, teachers, family members, and the general public show a lack of readiness and preparedness. A large percentage of individuals report positive attitudes toward learning first aid, although only a small percentage can demonstrate adequate competence to apply first aid in a medical emergency. The significantly lacking competence is attributed to inconsistent continued professional development, cultural stigma/misconceptions, and a lack of institutional support for consistent opportunities to learn first aid.

Evidence from studies around the world indicate that relevant first aid (how to fit it into the target audience) education, whether it be delivered as part of the school curriculum, delivered by the workplace as a course, or in community first aid education workshops, has a significant positive impact on knowledge gained, attitudes changed, intention to learn first aid, and actual competence to perform first aid in a medical emergency. The completion of safety training education early in life (preferably, during adolescence or early young adulthood) enhances that individual's preparedness, but it contributes to a collective, more resilient, and more responsive society. The availability of first aid education and training, and the quality of that training as these educators develop their confidence and competence, is variable according to local infrastructure, policies, and public awareness.

Developing as much collaboration as possible between educators and policymakers is critically important to address the gap that remains between first aid and public health policy. This can be achieved through the implementation of standardized practical first aid training as part of a public health strategy. Ultimately, this would provide every sector with appropriate means to respond when emergencies arise within their communities. Towards this end, universalizing first aid is not only an important public health emergency intervention it is a complete civic responsibility aimed at building empowered communities, saving lives, and increasing public health.

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