**Data tables**

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| **Table 1:**  included studies per geographical region in alphabetical order | | |
| **Region** | **No. of studies** | **Countries** |
| Asia | 1 | India (1) *– lower middle1* |
| Europe | 7 | Austria (1), Italy (1), Slovenia (1), Spain (4) – *all high1* |
| **Total** | **8** |  |

**Table 1:** included studies per geographical region.

1 Respective income classifications as per definition of the World Bank (https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups)

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| **Table 2:** Included publications describing specifically tailored courses for specific populations (without comparing them to non-tailored courses) | | | | | | |
| Specific population ⊕ Course adaptations ⊕  Tailored to specific population ⊕  Non-tailored training being the comparator ⊖ | | | | | | |
| **Publication (author, year)** | **Country (study or corresponding author)** | **Publication type** | **Specific population (type, n, age)** | Course adaptations | **Assessed outcomes** | **Limitations, comments** |
| Jorge-Soto, 2017 [1] | Spain | Observational non randomized comparative study (research letter) | Down syndrome; n=27; 26.4±5.3 years | “Short and simple” course (“short and easy” lecture, “funny” video, hands-on training) tailored to participants with Down syndrome; chest-compression only CPR | Skills testing after the course; Time to defibrillation (74.5±15 seconds), “defibrillation objective” (reached by 63%), “quality objective” (reached by 47%) | Study compared participants with vs. without Down syndrome, but not a tailored vs. a non-tailored course; focused on AED use; no detailed information available (research letter) |
| Martinez-Isasi, 2019 [2] | Spain | Observational study (research letter) | Blind; n=27; age not reported | “Training adapted to the participants’ needs”; chest-compression only CPR | Skills testing after the course; 74.1% could  effectively defibrillate (after 65±27 seconds). Only 22.2% reached the right compression rate and depth. | No detailed information available (research letter) |
| Martinez-Isasi, 2021 [3] | Spain | Observational non randomized comparative study | Blind; n=29; 53.7±12.3 years | Trainers with special pedagogic training focused on blind people; training under direct supervision by an expert; student-trainer ratio <5/trainer; encouraging tactile contact with the materials; “explanation of the different techniques and steps, considering the blindness of participants”; chest compressions plus rescue breaths | Skills testing after the course; The chain of survival was sufficiently initiated, and chest compressions and rescue breaths were provided. Optimal chest compression depth was only achieved by 27.6%. | Study compared blind vs. blindfolded participants, but not a tailored vs. a non-tailored course |
| Rodriguez-Nunez, 2015 [4] | Spain | Observational study | Down syndrome; n=19; 23.3 (no SD reported) years | Adapted course “taking into consideration” a reduced attention span: playful video with comic elements and instructor-led training; chest-compression only CPR | Skills testing after the course; CPR quality: 20±25% of participants within correct chest compression rate range, 84±31% too shallow, 46±42% with an incomplete release, only 13±18% performed fully correct chest compressions | Study compared participants with vs. without Down syndrome, but not a tailored vs. a non-tailored course |
| Sandroni, 2004 [5] | Italy | Pre-post study | Deafness; n=9; no age reported | Initial lecture in sign language (translation provided by an interpreter on site), subsequent training without translation (but using gestures and lip reading); chest compressions plus rescue breaths | Skills testing before and after the course (none of the participants had prior CPR knowledge); safety was checked in 0 vs. 100% (before and after the course, respectively; p<0.001), a shock delivered in 78 vs. 100% (n.s.), the pads placed correctly in 89 vs. 100% (n.s.), and the durations until analysis (80±23.5 vs. 28.9±5.6 seconds; p<0.001)-, shock delivery (24.7±4.7 vs. 18.6±1.3 seconds; p=0.007)-, and the interval between AED on and first shock (101.6±28.4 vs. 47.8 vs. 5.4 seconds; p=0.001) were shorter after the course | Pre-post comparison, but no comparison of a tailored vs. a non-tailored course; rescue breath assessment not reported |
| Schnaubelt, 2021 [6] | Austria | Observational study | Refugees; n=147; 27.5 (22.5-32.5) years | Student-trainer ratio <5/trainer, translators for the native languages on site, initial lecture included basic anatomy and physiology, chest-compression only CPR | Knowledge testing after the course; Willingness to perform CPR increased from 25% before- to 99% after the course (p<0.001). When asked after the course: 98.6% felt better prepared for an emergency, 98.6% would perform CPR in a real situation, 87.1% knew the correct order and process of the chain of survival, 94.6% knew the correct emergency call number, 89.1% knew when to check for breathing, 89.1% knew correct chest compression details; 89.1% knew start and termination rules of BLS; 78.9% knew about the correct use of an AED, 98.0% would teach BLS to others | No skills tested; countries of origin very heterogenous; adults and minors mixed; opinions about before the course only assessed afterwards |
| Strnad, 2021 [7] | Slovenia | Pre-post study | Deafness; n=51; 53.6 (no SD reported) years | An occupational medicine specialist modified the BLS and AED protocol to meet the needs of deaf individuals. In brief: Asking another person to call 112 or sending a text message with crucial data / put AED into the visual field and focus on visual prompts; course accompanied by a sign language interpreter; chest compressions plus rescue breaths | Knowledge testing before the course and knowledge plus skills testing afterwards; the sum of correct knowledge answers was higher after the course (3.51±2.22 vs. 42.16±7.22); a correct chest compression rate was achieved by 41.2% of participants, a correct depth by 23%, and only 2% performed 100% correct chest compressions. 49% could provide adequate chest rise ventilations, and 21.6% performed a correct 30:2 approach. |  |
| Unnikrishnan, 2017 [8] | India | Observational study (research letter) | Speech and hearing impairment; n=6; 23.0±8.1 years | A “special education teacher” proficient in “total communication” on site parallel to the instructors; chest compressions plus rescue breaths | Identification of limitations in applications of the chain of survival for individuals with speech and hearing impairment; activating the EMS and following voice prompts of the AED were perceived as the major points; all participants “accurately” conducted BLS | No knowledge or skills assessment |

**Table 2:** Data extraction table with the publications grouped in two groups according to tailoring and comparing their course content. AED = automated external defibrillator; BLS = basic life support; CPR = cardiopulmonary resuscitation; SD = standard deviation