

## **Title**

A qualitative study exploring adolescents' perspective about Mental Health First Aid Training Programmes promoted by nurses in upper secondary schools

## **Abstract**

Mental Health First Aid Training Programmes are educational interventions that aim to disseminate basic first aid skills in the community. Adolescents in the context of their secondary school education are a particularly appropriate population for literacy promotion interventions. This study explores adolescents' perspectives on Mental Health First Aid Training Programmes promoted by nurses in Portuguese upper secondary schools. A qualitative and exploratory study was conducted. Data were collected through semi-structured interviews with 12 adolescents who participated voluntarily and with the consent of their parents. Data were analysed using content analysis. Fourteen themes were identified around three main areas: i) Relevance of training programmes, ii) Content of training programmes and iii) Intervention methods of training programmes. The results obtained indicate that adolescents consider Mental Health First Aid Training Programmes in school relevant and necessary. Adolescents identified the content they deemed most appropriate and how it could be taught. These results can guide the development of training programmes. Nurses should take the lead in implementing these interventions in schools. Adolescents can take a more active role in mental health issues by improving their literacy.

**Keywords:** Adolescent; Education; First Aid; Mental Health; Nursing.

## **Introduction**

A mental health problem is a broad term that includes both mental disorders and the symptoms of a mental disorder that do not yet justify the diagnosis of a disorder (Kitchener et al., 2017). In 2016, mental and addictive disorders affected more than 1 billion people globally, causing 7% of all global burden of disease as measured in Disability-Adjusted Life Years and 19% of all years lived with disability (Rehm & Shield, 2019). Silva et al. (2020) found a high worldwide prevalence of common mental disorders among adolescents (25.0-31.0%). Furthermore, the COVID-19 pandemic appears to have increased mental health problems of the global population (Wu et al., 2020). This high prevalence of mental health problems increases the likelihood of people having contact with individuals with these problems (Morgan et al., 2018). In turn, it is more likely that these individuals would seek professional help at the suggestion of others (Cusack et al., 2004; Wong et al., 2014). Therefore, mental health first aid skills seem to be essential. Mental health first aid is the support given to a person in a crisis or with a mental health problem until the person receives professional help or the crisis is resolved (Kitchener et al., 2017).

Providing first aid requires people to take an active role in the health of others. In turn, citizens can become more actively involved in their personal and community health, improving their health literacy (World Health Organization [WHO], 2016). Mental health literacy involves five components: knowledge of how to prevent mental disorders, recognition of when a disorder is developing, knowledge of help-seeking options and treatments available, knowledge of effective self-help strategies, and knowledge and skills to provide first aid and support others (Jorm, 2012). Mental Health First Aid Training Programmes are important to promote the last component. These educational intervention programmes aim to disseminate basic first aid skills in the community (Kitchener & Jorm, 2017), training individuals to aid people with mental health problems. They are different from crisis interventions because they do not include the therapist's direct actions towards people with mental health problems and/or in crisis.

## **Background**

Numerous studies described various interventions with the concept of "Mental Health First Aid Training Programmes". Therefore, a comprehensive literature review on these intervention programmes was performed (Costa et al., 2020). These authors mapped these interventions, identifying their characteristics, participants, and implementation contexts. One of the findings indicated that Mental Health First Aid Training Programmes seem suitable for adolescents in upper secondary schools (Costa et al., 2020).

The school is indicated as an appropriate context to intervene in the literacy promotion (Directorate-General for Health [DGS], 2018; McDaid, 2016). In Portugal, upper secondary education became universal, free and compulsory, following Law No. 85/2009. Thus, the school has people from a wide age range and diverse economic, social, and cultural backgrounds. In upper secondary education, students are expected to acquire multiple factual and theoretical knowledge, cognitive and practical skills necessary to perform tasks and solve problems, assume responsibilities, and adapt behaviour to circumstances (European Commission, 2018).

In Portugal, upper secondary school students (10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grades) are normally aged 15 to 18 (European Commission, 2019). People who are 10 to 19 are called adolescents (Organisation for Economic Co-operation and Development / WHO, 2020). Adolescents are expected to be in the formal operational stage of cognitive development (Halpenny & Pettersen, 2014). At this phase, people have logical and systematic reasoning and hypothetical-deductive thinking, enabling the assimilation and accommodation of learning (Halpenny & Pettersen, 2014). From the perspective of psychosocial development, these are in the stage of identity acquisition/confusion (Ferrer-Wreder & Kroger, 2020). Adolescents reflect on their current roles and the roles they will play in the world, achieving a sense of identity (Ferrer-Wreder & Kroger, 2020). Therefore, this is an important moment for them to incorporate the role of "the first aider".

Different studies describe and evaluate classroom-based Mental Health First Aid Training Programmes for students aged 15–18 years. Using this type of training, Hart et al. (2016) found improvements in mental health literacy, confidence to help, intentions to seek help, attitudes and health of the participants. Also, Guajardo et al. (2019) reported positive effects on the mental health literacy and helping intentions of a group of students after receiving Mental Health First Aid Training. Likewise, Hart et al. (2020) found increased recognition of problems and improved aid intentions in a group of students after receiving training on mental health. However, no studies were found that described this type of intervention in the Portuguese upper secondary education setting.

Mental Health First Aid Training Programmes address mainly pathologies (Costa et al., 2020). These interventions entitle their participants to informal diagnostic practices, where all problems can be seen as disorders (DeFehr, 2016; Costa et al., 2020). Thus, they can promote the medicalisation and psychiatrisation movement of human suffering (DeFehr, 2016). Therefore, Costa et al. (2020) suggest that nurses could develop these training programmes, addressing mental health nursing problems (e.g., "anxiety" instead of the medical diagnosis of "anxiety disorder"). The concept of "mental health nursing problems" seems to refer to mental

health problems that represent nursing diagnoses. Nursing diagnoses are descriptive labels of patients' health states assigned by nurses (International Council of Nurses [ICN], 2019). These can be found, for example, in the International Classification for Nursing Practice (ICN, 2019). This terminology is a reference for Portuguese nurses and their information systems (Ordem dos Enfermeiros, 2007).

The process of developing and evaluating a healthier intervention can be guided by the UK Medical Research Council (Richards & Hallberg, 2015). One step includes modelling the interventions, and their potential participants should be considered (Richards & Hallberg, 2015). Thus, this study aims to explore the perspective of adolescents about Mental Health First Aid Training Programmes promoted by nurses in Portuguese upper secondary schools. The research questions are: “What is the relevance that adolescents attach to these training programmes?”; “What is the opinion of adolescents about the contents of these training programmes?”; “What is the opinion of adolescents about the intervention methods of these training programmes?”.

## Methods

### Design

We carried out a qualitative exploratory study. The study report was guided by the *Consolidated criteria for reporting qualitative research (COREQ) checklist* (Tong et al., 2007).

### Selection of participants

The participants are Portuguese upper secondary school students. A non-probabilistic snowball sampling was used to select the participants. Thus, it was possible to access adolescents with ease/efficiency, speed and low cost (Frey, 2018; Johnson, 2014). First, one student was directly selected by the researchers using the following inclusion criteria: a 15 to 18 years old adolescent, enrolled in Portuguese upper secondary education (target of the intervention), with membership in a student association (more likely to meet colleagues with different characteristics). Then, an invitation to the student to participate in the study was sent via e-mail. After participating, the student was asked to forward the invitation to two schoolmates with different personal characteristics. After those two students had participated in the study, they were asked to invite other students. The process continued until reaching the total number of participants. Figure 1 illustrates the recruitment process.

Potential study participants were asked to fill out an informed consent and a sociodemographic characterisation form online. The telephone number of each adolescent was requested, and their availability for an interview was surveyed. In addition, their legal guardians were asked to fill in authorisation for the minors to participate in the study. There was no prior relationship between the investigators and the participants. The participants did not receive compensation for their participation.

### Data collection

Semi-structured, in-depth and individual interviews were carried out. This type of interview allows participants to answer in a focused, systematic and comprehensive way to pre-defined questions about the topic (Kallio et al., 2016). In addition, the data collection was carried out in the native language of the researchers and study participants (European Portuguese).

The interview guide was developed in response to the objective of the study and the research questions (Kallio et al., 2016). The interview guide was pretested by applying it to 4 Portuguese upper secondary school students. The students reported that the interview guide was

understandable, clear, unambiguous, well-structured, without bias, and did not need any changes. Supporting information 1 includes the interview guide used.

The first author performed the data collection. The participants' availability was considered. The data collection took place via a telephone call. Thus, the social distancing required by the COVID-19 pandemic was respected. The interviews lasted 43 minutes on average. The data collection took place in March and April 2021. The interviews were audio-recorded for a reliable report of their content. The audio recordings were transcribed immediately after the interview. The transcripts were returned to the participants for comments and/or corrections.

After analysing the data from each interview, the recruitment of new participants was considered. We recruited participants until no new relevant knowledge was being added. According to Saunders et al. (2018), data saturation refers to the extent to which new data repeats what was expressed in previous data. Therefore, data saturation was obtained and discussed among investigators.

### **Data analysis**

The collected data were subjected to content analysis (Graneheim & Lundman, 2004; Graneheim et al., 2017). Thus, the transcriptions of the audio recordings were considered units of analysis. The analysis focused on the manifest and latent content of the meetings. The text under analysis was classified deductively in the following content areas: relevance, contents, and intervention methods of training programmes. The content analysis was performed by the first author and verified by the other authors. There were no disagreements in the process, and no software was used.

Firstly, the text under analysis was read several times to get a sense of the whole. Then, the text was divided into meaning units. In turn, the meaning units were condensed and labelled with a code. The International Classification for Nursing Practice (ICN, 2019) was consulted to facilitate assigning a "label" to each described mental health problem. The various codes were compared based on their differences/similarities and classified into subcategories and categories. Finally, the underlying meanings of the categories formed themes at an interpretive level. The participants provided positive feedback on the results.

### **Ethical considerations**

In the present study, all ethical assumptions contained in the Declaration of Helsinki (World Medical Association, 1964) and the Oviedo Convention (Resolution of the Assembly of the Republic No. 1/2001) for research with human beings were fulfilled. The ethics committee of the University of Barcelona approved the research proposal to carry out the study (Institutional Review Board: IRB00003099).

Informed consents were collected from all participants and authorisations from legal guardians. They were notified of the right to voluntarily participate and withdraw from the study at any time without penalty. In addition, they were advised of the right to access, rectify, limit processing, and delete your data.

Each student's data was coded with the letter S and a number to preserve confidentiality. Moreover, the data was stored in a computer and external disk (with login credentials) used exclusively for this study.

## **Results**

Twelve adolescents participated in the study. The percentage of male and female adolescents was the same (50%). They were single and aged 15 to 18 years old (mean: 16.42 years, SD = 1.08). According to the Family Social Notation - Adapted Graffar (Amaro, 1990), 42% of adolescents were Middle class, 50% Upper Middle Class, 8% Upper class. Only 8% of the adolescents were also workers. The percentage of students in the 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> grades was the same (33%), and 17% had repeated at least one school year. The percentage of students in Arts, Sciences and Technology, Socioeconomic Sciences, and Languages and Humanities was the same (25%). The aspects related to mental health and health literacy are shown in Table 1.

Fourteen themes were identified in response to the research questions (Table 2). The codes and categories that support each theme can be consulted in the material Supporting information 2.

### **Relevance of training programmes**

The adolescents revealed that programmes can be important due to “Relevance of mental health”. The high prevalence of problems among young people and the importance of mental health “especially considering the pandemic” (S9) were described.

In addition, these training programmes focus on “Mental Health Competencies”. According to the interviewed adolescents, these programmes can influence mental health knowledge, mental health awareness, mental health capacity, autonomy in mental health, confidence in mental health, attitude towards mental health and relationships with people with mental health problems. Each of these competencies can be illustrated by exemplar quotes (Table 3).



The adolescents expressed the “Opportunity for mental health training in schools”. School is a learning setting (“because we are at school to learn things that can be useful later.” (S8)). However, adolescents perceived a lack of mental health training. S4 stated that “Usually, we don't learn about mental health at school.”. Although almost half of the adolescents had already experienced a mental health problem and most had contact with people with mental health problems, none had participated in a Mental Health First Aid Training Programme (Table 1).

Finally, the adolescents expressed the “Opportunity for nurses to respond to the training need in mental health”. They identified the lack of mental health training, and nurses can play an important role in mental health education in schools. S2 stated, “As (nurses) often go to schools to teach about other subjects, they could also talk about this (mental health first aid).” and added, “And nurses also study about mental health”.

### **Contents of training programmes**

The adolescents revealed that the programmes can address the “Physical and relational approach to the person helped”. The physical approach refers to accompanying the person, including taking them to a different and safe place and touching them. For example, S10 mentioned that “being close to the person (with mental health problems)” and “hugged him/her” can be actions to be taught in the programmes. The relational approach involves the expression of availability and the establishment of a relationship for help. For instance, S5 said that “it makes sense to show these people that we are there for them.” S7 indicated that “we have to get along with the person or try to make them feel that they can trust us.”.

The participants verbalised that these training programmes can address the “Assessment of the person, the problem and resources for help”. The adolescents mentioned that the general assessment of the person and the situation should be explored (e.g., “First, I would have to find out what is going on” (S2)). The assessment of the problem and help resources should also be addressed. S9 indicated that “I would try to understand the problem” and “I would try to understand the consequence (of the problem)”. S5 added, “we have to find the cause of the problem”. S11 said that “I would assess whether (the person with mental health problems) spoke to someone”.

According to the adolescents, “Mental health problems” are content to be addressed in training programmes. S5 stated that this type of programme “should address the main mental health problems”. The mental health problems described by the adolescents were emotional, cognitive, behavioural, and relational (Table 4).

For the adolescents, the theme “Influencing factors of mental health and prevention strategies for mental health problems” was reported as an important content of the training programmes. From the adolescents' perspective, mental health can be influenced by the individual's characteristics, general health status or other health problems, family, community and social interaction, the individual's culture and lifestyle, and environmental factors. The individual's characteristics include congenital alterations, genetics, hormonal regulation, gender, age, personality, sexual orientation, skin colour. For example, S7 suggested that “age may be a risk factor (for dementia). We are all at risk, but it is more frequent in older people.”. Physical health was referred to as protective of mental health problems and physical problems as a risk factor. For instance, S5 stated, “Physical well-being protects our mental health” and “Mental health problems can be caused by changes in the brain”. Mental health problems were listed as risk factors for other mental health problems. S9 said, “I think fear can also lead to anxiety.”. The influence of family interaction, community interaction and social interaction on mental health was highlighted. For example, S7 indicated, “Social pressure is (a risk factor) for anxiety”. Concerning the individual's culture and lifestyle, self-knowledge, physical exercise, food, sleep schedules, management of work and rest, leisure activities, daily activity, religion, culture, education, and mental health knowledge were described as influencing factors in mental health. For instance, S1 said, “I think if people have an idea of mental health problems, how to help and how to prevent them, they can prevent problems.”. In addition, the environmental influences considered by the adolescents were: economic status, personal growth and development, experiences, everyday stimuli, everyday events, adverse events. S5 stated, “Our environment influences the person we are and the problems we have.”. In addition to the influencing factors, S4 noted that the programmes should address “how to deal with situations... that result in certain problems later on.”.

In the theme “Helping others focused on identifying, alleviating and solving the problem”, S1 highlighted that “it should be taught... when the other needs help.”. In addition, all participants considered different ways to help. S5 mentioned that “each strategy (of help) is applicable depending on the type of personality (that the person being helped has)”. Actions to raise awareness of the situation, to project a positive state, to avoid the problem and causes, to alleviate the person's problem, to respond and solve the mental health problem were reported. Exemplar quotes in Table 5 illustrate these actions.

Participants described that the training programme can address the theme “Referral to formal and informal help resources”. This referral to formal resources comprises actions to refer specialised professionals and actions to seek specialised professionals. S10 said, "it is important to forward it to a professional", and S4 stated, “I was probably also looking for help from someone more specialised in the area.”. Adolescents listed help from conventional therapy professionals: psychologists, psychiatrists, general practitioners/family doctors, nurses, mental health nurses. Participants also mentioned the potential help of alternative therapy professionals: non-specific therapy professionals, Reiki professionals and coaches. S10 suggested remote help (“Phone and internet platforms can be helpful resources”).

Regarding the informal resources of help, the adolescents highlighted the importance of help from the family, from the social network, people who have experienced the problem, and professionals from different areas (such as teachers, religious ministers). The importance of help from significant people of the person with a mental health problem and people known by the aider was described. S4 added, “Preferably, help resources with a good level of knowledge in this area (mental health) should be considered.”. S9 defended the continuity of contact between the person who helped and the person who was helped (“I would try to communicate daily”).

Concerning “Self-help and seeking help for oneself”, S1 stressed that “we help others, but we also have to know when we need help”. Adolescents suggested different strategies to address in training programmes. S5 explained that "(Self-help strategies) depend a lot on the person and the personality". S1 understands that “we have to see what we suggest to others and learn and reflect on strategies for ourselves.”. The self-help strategies described considered the processing of the situation, the avoidance of negative stimuli, leisure activities and healthy lifestyles (Table 6). S7 emphasised that “It may be necessary to talk to a professional” in case the aider “gets too involved” or “is hurt”.

### **Intervention methods of training programmes**

In the theme “Varied training strategies enhance learning”, the following were described: expository methods such as lectures; interactive methods such as discussions, debates and quizzes; educational methods through contact with people with mental health problems and with people who helped others with mental health problems; demonstration methods; and experimental learning methods such as role-plays, games and group work. The strategies to be used depend on the participants, namely their preferences and their courses. Adolescents report that expository strategies may have little effectiveness because they do not capture the

participants' attention. Expository strategies should be used to present the background of the theme. S4 recommends merging different strategies.

Upon delivery of the intervention, the adolescents described a “preferably face-to-face intervention”. They reported that a face-to-face delivery is more effective, with a better relationship between trainer and trainee and greater attention capture. The adolescents stated that it is difficult to concentrate and acquire knowledge in a virtual intervention. However, a virtual intervention can be safer and more accessible. Thus, S6 mentioned, “I think that virtual interventions should be seen as an alternative or a complement to the face-to-face interventions”.

Finally, S1 stated that the “Awareness of the school community enhances learning”. This student indicated, "I think it is important to train young people, but also try to raise awareness among older people". S1 also explained, "they learn and are more understanding in certain situations.". However, "separate interventions" (S1) should be carried out using different methods of intervention.

## Discussion

This study aimed to explore the adolescents' perspective on Mental Health First Aid Training Programmes promoted by nurses in Portuguese upper secondary schools. Our results show that Mental Health First Aid Training is relevant and necessary for adolescents in a school education setting. Furthermore, they identified the most appropriate content, how it should be taught, and the relevance of nurses promoting these training programmes.

First and foremost, it should be noted that the relevance attached to mental health issues by the participants is understandable because mental health and the high prevalence of problems are considered priority areas of Portuguese and international policies (DGS, 2017; WHO, 2013). The adolescents indicated that Mental Health First Aid Training Programmes can be important to their mental health competencies. Mental health literacy levels are low worldwide (Tay et al., 2018). In Portugal, pioneering studies by Loureiro et al. (2013, 2015) supported this trend in youth. Loureiro et al. (2013, 2015) assessed the level of mental health literacy of 4938 young Portuguese people regarding depression and schizophrenia. In both studies, it was found that a significant percentage of the participants failed to recognise the mental health problem described in a vignette, some important aid resources and interventions were not considered useful, and there was some difficulty in identifying appropriate first aid strategies. Therefore, interventions that improve mental health literacy are relevant (Loureiro et al., 2013; Loureiro et al., 2015; Tay et al., 2018). The adolescents also confirmed the opportunity for mental health training in schools. The WHO (2018) emphasises the relevance of community-based mental health interventions, and it suggests the school as a universal and low-cost option to improve mental health literacy. Furthermore, the adolescents expressed that the nurses can respond to their mental health training needs. Nurses play key roles in health literacy and can lead public education actions (Tay et al., 2018; WHO, 2018).

Concerning the content of training programmes, the adolescents reported that the physical and relational approach to the person to be helped must be addressed in this training programme. This approach can be seen as establishing a therapeutic relationship between the aider and the person helped. Moreno-Poyato et al. (2020) explain that this relationship aims to improve the health situation of the person being cared and it is closely related to taking a perspective (cognitive empathy) of the person who helps. Zhao et al. (2014) add that establishing a connection and proximity between the agents of an interaction also involves positive facial expression, mutual attention and behaviour coordination with the other person. The adolescents indicated that the assessment of the person with the mental health problem should be addressed in training programmes. This assessment can make it possible to understand the

need and adequacy of aid. They also mentioned that mental health problems should be taught. The problems described were cognitive, emotional, behavioural, and relational, as in Costa et al. (2020) review. These authors refer to Mental Health Training Programmes addressing mainly pathologies (e.g., schizophrenia, anxiety disorder, obsessive-compulsive disorder, disruptive behaviour disorder). In this study, the interviewees' reports allowed the attribution of non-pathological labels. The adolescents explored several factors influencing mental health. These factors are in line with those described by Dahlgren and Whitehead (2007). According to these authors, individual factors (age, gender and genetic factors), lifestyles, social and community support networks, economic, environmental and cultural aspects are determinants of health.

Knowledge of influencing factors can facilitate the avoidance of modifiable risk factors and the promotion of protective factors. The adolescents highlighted that helping others focused on identifying, alleviating, and solving the problem should be addressed in training programmes. People who are not aware of their problems may need help identifying and recognising them (e.g., in the case of delusions and hallucinations). According to Meleis (2010), awareness is the key to achieving a new state of health stability. Moreover, an aware person may want to respond to the problem but needs help to solve or minimise it. Community members can help the person with a mental health problem to overcome the situation, providing support, information, and advice (Meleis, 2010). Another content described in the interviews was the referral to formal and informal help resources. If the problem is not resolved after the help of an aider, it may be necessary to mobilise other help (Kitchener et al., 2017). Non-professional resources can develop an informal helping relationship with the person with the mental health problem. There is a tendency to look for informal sources of help rather than professional help (Jorm, 2012). Formal resources can be important as they have advanced and certified mental health skills. However, there is often a lack of knowledge about available health professionals and treatments and negative beliefs about them (Jorm, 2012). The adolescents reported that training programmes should address self-help and seeking help. People can vary their position in mental health at different times in their lives (Kitchener et al., 2017). Therefore, they must know adaptive and non-adaptive self-help strategies to adopt conscious behaviours. When people experience mental health problems, they may need to seek help. Mental health literacy can favour demand (Jorm, 2012).

According to the adolescents, varied training strategies can enhance their learning. Townsend (2014) refers to advantages for each of the different methodologies: expository strategies promote considerable amounts of information to large groups; demonstrations activate the senses and clarify underlying principles; discussions can lead to continuous feedback and are

flexible and encourage networking; the use of simulated environments, games, activities, and role-playing enable a more transferable practice; contact-based education allows active learning and bypasses defences. The intervention should preferably be in-person, according to the opinion of the interviewees. The literature describes numerous advantages and disadvantages for face-to-face and virtual education. Galy et al. (2011) explained that face-to-face intervention can have a better impact than e-learning intervention, as online students may lose focus and miss deadlines for different tasks.

On the other hand, e-learning allows for more flexibility and no need to travel to school (Naveed et al., 2017). Furthermore, e-learning strategies can be safe, as they allow for emergency distance learning in the face of natural disasters or situations that require distance (Hodges et al., 2020). The adolescents also highlighted that the awareness of the school community enhances learning. According to Spier et al. (2018), schools, families and community settings play vital roles in learning. Therefore, it is important to involve the entire school community in education and raise awareness inside and outside the school about the subjects to be taught.

### **Limitations**

The recruitment of students in schools was hampered by the COVID-19 pandemic (school interruptions and online classes). Thus, we opted for a non-probabilistic snowball sampling. The participants suggested other students join the study. The social relationships of the participants conditioned the characteristics of the sample and the corresponding responses. Therefore, there is a risk that the characteristics of the sample are homogeneous and specific. However, the suggestion of adolescents with different personal characteristics was requested to avoid this risk of bias. This strategy allowed us to obtain a sample with diversified characteristics. It should be noted that this study used a small sample size due to its qualitative methodology. Survey data collection may be relevant in future studies to obtain a perspective on these training programmes that can be extended to the rest of the population.

### **Conclusion**

Adolescents were interviewed about the relevance, content and intervention methods of Mental Health First Aid Training Programmes promoted in upper secondary schools. These programmes were shown to be relevant for their focus on mental health and mental health

competencies. In addition, the possibility for nurses leading these interventions in schools to meet the adolescents' educational needs was highlighted.

The approach and assessment of the person with a mental health problem, the way of assistance and the referral to help resources were described as contents to be addressed in the programmes. Factors influencing mental health, mental health problems, self-help and problem prevention strategies, and seeking help were also considered.

The adolescents expressed that these programmes should take place in person (preferably) and should use varied training strategies. They stressed that their learning can be promoted with the awareness of the school community.

### **Relevance for clinical practice**

This study provides an exploratory view of the perspective of adolescents about Mental Health First Aid Training Programmes promoted by nurses in Portuguese upper secondary schools. The relevance attached by the participants seems to give the "green light" to the development of training programmes promoted by nurses. Therefore, this study evidences the development of these interventions as a new research direction.

Potential contents of these training programmes were reported. Thus, future constructed interventions can be more in line with what adolescents need to learn. Guidelines regarding intervention methods were also described. Therefore, the dynamisation of the intervention can be improved.

This study highlights the perspective of potential participants in these training programmes (adolescents/upper secondary education students). In developing an intervention, it may be relevant to explore the facilitators' perspective (nurses). Qualitative studies must be carried out for this purpose.

This report stresses the potential autonomous role of nurses in mental health work. Implementing these training programmes can enhance adolescents' mental health competencies and foster a more active role in health issues. Furthermore, it also shows the importance of highlighting these interventions in nursing education curricula.

Mental Health First Aid Training Programmes can address mental health nursing problems, emphasising the discipline's body of knowledge. Furthermore, they can promote the identification, assistance and/or adequate and timely referral of people with mental health



problems, without any mistaken attribution of “medical labels”. Therefore, they can improve mental health literacy and, at the same time, combat the psychiatrisation of human suffering.

## References

- Amaro, F. (1990). Adapted Graffar Scale (*in portuguese*). In: A. Costa, F. Leitão, J. Santos, J. Pinto, & M. Fino (1998), *Functional curriculum (in portuguese)*. Lisbon: Instituto de Inovação Educacional.
- Costa, T. F. O., Sampaio, F. M. C., Sequeira, C. A. C., Ribeiro, I. M. O. C., & Parola, V. S. O. (2020). Review of Mental Health First Aid Programs. *Western Journal of Nursing Research*. <https://doi.org/10.1177/0193945920980743>
- Cusack, J., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2004). Who influence men to go to therapy? Reports from men attending psychological services. *International Journal for the Advancement of Counselling*, 26(3), 271-283. <https://link.springer.com/content/pdf/10.1023%2FB%3AADCO.0000035530.44111.a8.pdf>
- Dahlgren, G., & Whitehead, M. (2007). *European strategies for tackling social inequities in health: Levelling up Part 2*. Copenhagen: WHO Regional Office for Europe. [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0018/103824/E89384.pdf](http://www.euro.who.int/__data/assets/pdf_file/0018/103824/E89384.pdf)
- DeFehr, J. N. (2016). Inventing mental health first aid: The problem of psychocentrism. *Studies in Social Justice*, 10(1), 18-35. <https://doi.org/10.26522/ssj.v10i1.1326>
- Directorate-General for Health [DGS] (2017). *National Mental Health Program – 2017 (in portuguese)*. Lisbon: DGS. [http://nocs.pt/wp-content/uploads/2017/11/DGS\\_PNSM\\_2017.10.09\\_v2.pdf](http://nocs.pt/wp-content/uploads/2017/11/DGS_PNSM_2017.10.09_v2.pdf)
- Directorate-General for Health [DGS] (2018). *Health Literacy Action Plan 2019-2021 – Portugal*. Lisbon: DGS. <https://www.dgs.pt/documentos-e-publicacoes/plano-de-acao-para-a-literacia-em-saude-2019-2021-pdf.aspx>
- European Commission (2018). *National Qualifications Framework*. [https://eacea.ec.europa.eu/national-policies/eurydice/content/national-qualifications-framework-60\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/content/national-qualifications-framework-60_en)
- European Commission (2019). *Organisation of the Education System and its Structure*. [https://eacea.ec.europa.eu/national-policies/eurydice/printpdf/6151\\_en](https://eacea.ec.europa.eu/national-policies/eurydice/printpdf/6151_en)
- Ferrer-Wreder, L., & Kroger, J. (2020). *Identity in adolescence: The balance between self and other* (4<sup>th</sup> edition). London: Routledge.
- Frey, B. B. (Ed.). (2018). *The SAGE encyclopedia of educational research, measurement, and evaluation*. Sage Publications. <https://dx.doi.org/10.4135/9781506326139.n636>

Graneheim, U., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse education today*, 24(2), 105-112. <https://doi.org/10.1016/j.nedt.2003.10.001>

Graneheim, U. H., Lindgren, B. M., & Lundman, B. (2017). Methodological challenges in qualitative content analysis: A discussion paper. *Nurse Education Today*, 56, 29–34. <https://doi.org/10.1016/j.nedt.2017.06.002>

Galy, E., Downey, C., & Johnson, J. (2011). The effect of using e-learning tools in online and campus-based classrooms on student performance. *Journal of Information Technology Education: Research*, 10, 209-230. <http://jite.org/documents/Vol10/JITEv10p209-230Galy975.pdf>

Guajardo, M. G. U., Kelly, C., Bond, K., Thomson, R., & Slewa-Younan, S. (2019). An evaluation of the teen and Youth Mental Health First Aid training with a CALD focus: an uncontrolled pilot study with adolescents and adults in Australia. *International Journal of Mental Health Systems*, 13, 1-15. <https://doi.org/10.1186/s13033-019-0329-0>

Halpenny, A. M., & Pettersen, J. (2014). *Introducing Piaget: A guide for practitioners and students in early years education* (1<sup>st</sup> edition). Abingdon: Routledge.

Hart, L. M., Cropper, P., Morgan, A. J., Kelly, C. M., & Jorm, A. F. (2020). teen Mental Health First Aid as a school-based intervention for improving peer support of adolescents at risk of suicide: Outcomes from a cluster randomised crossover trial. *Australian & New Zealand Journal of Psychiatry*, 54(4), 382-392. <https://doi.org/10.1177/0004867419885450>

Hart, L. M., Mason, R. J., Kelly, C. M., Cvetkovski, S., & Jorm, A. F. (2016). 'teen Mental Health First Aid': a description of the program and an initial evaluation. *International journal of mental health systems*, 10, 1-18. <https://doi.org/10.1186/s13033-016-0034-1>

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (27 March 2020). The difference between emergency remote teaching and online learning. *Educause review*. [http://www.cetla.howard.edu/workshops/docs/The%20Difference%20Between%20Emergency%20Remote%20Teaching%20and%20Online%20Learning%20\\_%20EDUCAUSE%20\(2\).pdf](http://www.cetla.howard.edu/workshops/docs/The%20Difference%20Between%20Emergency%20Remote%20Teaching%20and%20Online%20Learning%20_%20EDUCAUSE%20(2).pdf). Accessed: 14 June 2021.

International Council of Nurses [ICN] (2019). *International Classification for Nursing Practice: ICNP. Version 2019*. <https://www.icn.ch/what-we-do/projects/ehealth/icnp-browser>

Johnson, T. P. (2014). *Snowball sampling: introduction*. Wiley StatsRef: Statistics Reference Online. <https://doi.org/10.1002/9781118445112.stat05720>

- Jorm, A. F. (2012). Mental health literacy: empowering the community to take action for better mental health. *American psychologist*, 67(3), 231-243. <https://doi.org/10.1037/a0025957>
- Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2016). Systematic methodological review: developing a framework for a qualitative semi-structured interview guide. *Journal of Advanced Nursing*, 72(12), 2954-2965. <https://doi.org/10.1111/jan.13031>
- Kitchener, B., Jorm, A., & Kelly, C. (2017). *Mental Health First Aid Manual* (4<sup>th</sup> edition). Melbourne: Mental Health First Aid Australia.
- Kitchener, B. A., & Jorm, A. F. (2017). The role of Mental Health First Aid training in nursing education: A response to Happell, Wilson & McNamara (2015). *Collegian*, 24(3), 313-315. <https://doi.org/10.1016/j.colegn.2016.06.002>
- Law No. 85/2009 of August 27. *Diário da República No.166, Series I*. Assembly of the Republic. <https://dre.pt/application/conteudo/488826>
- Loureiro, L. M., Jorm, A. F., Mendes, A. C., Santos, J. C., Ferreira, R. O., & Pedreiro, A. T. (2013). Mental health literacy about depression: a survey of portuguese youth. *BMC psychiatry*, 13(1), 1-8. <https://doi.org/10.1186/1471-244X-13-129>
- Loureiro, L. M. J., Jorm, A. F., Oliveira, R. A., Mendes, A. M. O. C., Santos, J. C. P., Rodrigues, M. A., & Sousa, C. S. F. (2015). Mental health literacy about schizophrenia: a survey of portuguese youth. *Early Intervention in Psychiatry*, 9(3), 234-241. <https://doi.org/10.1111/eip.12123>
- McDaid, D. (2016). *Investing in health literacy. What do we know about the co-benefits to the education sector of actions targeted at children and young people*. Copenhagen: World Health Organization. <https://apps.who.int/iris/bitstream/handle/10665/331987/Policy-brief-19-1997-8073-eng.pdf?sequence=1&isAllowed=y>
- Moreno-Poyato, A. R., Rodríguez-Nogueira, Ó., & MiRTCIME. CAT working group (2020). The association between empathy and the nurse–patient therapeutic relationship in mental health units: a cross-sectional study. *Journal of Psychiatric and Mental Health Nursing*. <https://doi.org/10.1111/jpm.12675>
- Morgan, A. J., Ross, A., & Reavley, N. J. (2018). Systematic review and meta-analysis of mental health first aid training: Effects on knowledge, stigma, and helping behaviour. *PloS one*, 13(5), e0197102. <https://doi.org/10.1371/journal.pone.0197102>
- Meleis, A. (2010). *Transitions theory: Middle range and situation specific theories in nursing research and practice*. New York: Springer Publishing Company.

Naveed, Q. N., Muhammad, A., Sanober, S., Qureshi, M. R. N., & Shah, A. (2017). A mixed method study for investigating critical success factors (CSFs) of e-learning in Saudi Arabian universities. *International Journal of Advanced Computer Science and Applications*, 8(5), 171-178. <https://pdfs.semanticscholar.org/19e8/f66075ed339990572c135e8c13a9a9df3af0.pdf>

Ordem dos Enfermeiros [OE] (2007). *Nursing Information System (SIE) - Basic architectural principles and main technical-functional requirements (in portuguese)*. Lisbon: OE. [https://www.ordemenfermeiros.pt/arquivo/documentosoficiais/Documents/SIE-PrincipiosBasicosArq\\_RequisitosTecFunc-Abril2007.pdf](https://www.ordemenfermeiros.pt/arquivo/documentosoficiais/Documents/SIE-PrincipiosBasicosArq_RequisitosTecFunc-Abril2007.pdf)

Organisation for Economic Co-operation and Development [OECD] / World Health Organization [WHO] (2020). *Health at a Glance: Asia/Pacific 2020: Measuring Progress Towards Universal Health Coverage*. Paris: OECD Publishing. <https://doi.org/10.1787/3ecfb683-en>

Rehm, J., & Shield, K. D. (2019). Global burden of disease and the impact of mental and addictive disorders. *Current psychiatry reports*, 21(2), 1-7. <https://doi.org/10.1007/s11920-019-0997-0>

Resolution of the Assembly of the Republic No. 1/2001 of January 3. *Diário da República No. 2/2001, Series I A*. Assembly of the Republic. <https://dre.pt/application/conteudo/235128>

Richards, D. A., & Hallberg, I. R. (Eds.). (2015). *Complex interventions in health: an overview of research methods*. Oxford and New York: Routledge.

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., ... & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualisation and operationalisation. *Quality & quantity*, 52(4), 1893-1907. <https://doi.org/10.1007/s11135-017-0574-8>

Silva, S. A., Silva, S. U., Ronca, D. B., Gonçalves, V. S. S., Dutra, E. S., & Carvalho, K. M. B. (2020). Common mental disorders prevalence in adolescents: A systematic review and meta-analyses. *Plos one*, 15(4), e0232007. <https://doi.org/10.1371/journal.pone.0232007>

Spier, E., González, R. L., & Osher, D. (2018). The role of the community in learning and development. In: G. Hall, L. Quinn, & D. Gollnick (Eds.), *The Wiley handbook of teaching and learning* (pp.79–105). Hoboken: John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118955901.ch4>

Tay, J., Tay, Y., & Klainin-Yobas, P. (2018). Mental health literacy levels. *Archives of Psychiatric Nursing*, 32(5), 757–763. <https://doi.org/10.1016/j.apnu.2018.04.007>

Tong, A., Sainsbury, P., & Craig, J. (2007). Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *International journal for quality in health care*, 19(6), 349-357. <https://doi.org/10.1093/intqhc/mzm042>

Townsend, M. (2014). *Essentials of psychiatric mental health nursing: Concepts of care in evidence-based practice* (6<sup>th</sup> edition). Philadelphia: F.A. Davis Company.

Wong, J., Brownson, C., Rutkowski, L., Nguyen, C. P., & Becker, M. S. (2014). A mediation model of professional psychological help seeking for suicide ideation among Asian American and white American college students. *Archives of suicide research*, 18(3), 259-273. <http://dx.doi.org/10.1080/13811118.2013.824831>

World Medical Association (1964). *Declaration of Helsinki – Ethical Principles For Medical Research Involving Human Subjects*. Helsinki: 18<sup>th</sup> General Assembly of the World Medical Association.

World Health Organization [WHO] (2013). *Mental Health Action Plan 2013-2020*. Geneva: WHO. [http://www.who.int/mental\\_health/publications/action\\_plan/en/](http://www.who.int/mental_health/publications/action_plan/en/)

World Health Organization [WHO] (2016). *Shanghai Declaration on promoting health in the 2030 Agenda for Sustainable Development*. Shanghai: 9<sup>th</sup> Global Conference on Health Promotion. <https://www.who.int/healthpromotion/conferences/9gchp/shanghai-declaration.pdf?ua=1>

World Health Organization [WHO] (2018). *Time to deliver: report of the WHO independent high-level commission on noncommunicable diseases*. Geneva: WHO. <http://apps.who.int/iris/bitstream/handle/10665/272710/9789241514163-eng.pdf?ua=1>

Wu, T., Jia, X., Shi, H., Niu, J., Yin, X., Xie, J., & Wang, X. (2020). Prevalence of mental health problems during the COVID-19 pandemic: A systematic review and meta-analysis. *Journal of affective disorders*. <https://doi.org/10.1016/j.jad.2020.11.117>

Zhao, R., Papangelis, A., & Cassell, J. (2014). Towards a Dyadic Computational Model of Rapport Management for Human-Virtual Agent Interaction. In: T. Bickmore, S. Marsella, C. Sidner (Eds.), *IVA 2014: Intelligent Virtual Agents*. Cham: Springer. [https://doi.org/10.1007/978-3-319-09767-1\\_62](https://doi.org/10.1007/978-3-319-09767-1_62)

Figure 1: Flow of recruiting participants for the study (“S” stands for “Student”; the numbers express the order of participation in the study)

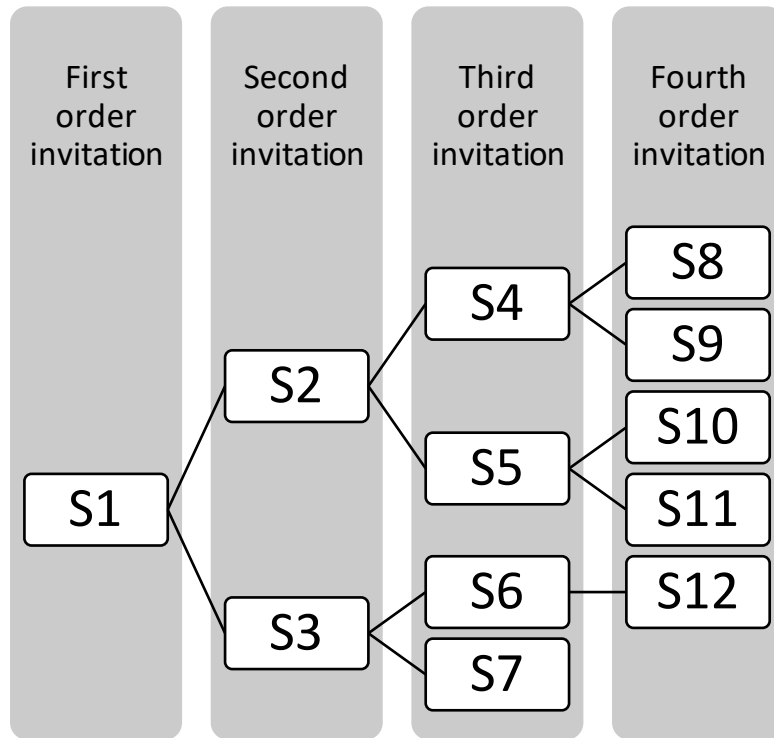


Table 1: Characteristics of the participants related to mental health and health literacy

Questions	Answers	n (%)
Have you ever experienced mental problems/disorders?	No	7 (58%)
	Yes	5 (42%)
Did you look for help?	No	9 (75%)
	Yes	3 (25%)
Have you ever contacted people with mental problems/disorders?	No	3 (25%)
	Yes	9 (75%)
Did you provide them with any help?	No	9 (75%)
	Yes	3 (25%)
Have you ever participated in a first aid training programme?	No	8 (67%)
	Yes, I only participated in first aid training programmes for physical health problems	4 (33%)



Table 2: Themes obtained from the data analysis

Relevance of training programmes	Contents of training programmes	Intervention methods of training programmes
<ul style="list-style-type: none"> <li>• Theme 1: Relevance of mental health</li> <li>• Theme 2: Focus on Mental Health Competencies</li> <li>• Theme 3: Opportunity for mental health training in schools</li> <li>• Theme 4: Opportunity for nurses to respond to the training need in mental health</li> </ul>	<ul style="list-style-type: none"> <li>• Theme 5: Physical and relational approach to the person helped</li> <li>• Theme 6: Assessment of the person, the problem and help resources</li> <li>• Theme 7: Mental health problems</li> <li>• Theme 8: Influencing factors of mental health and strategies for the prevention of mental health problems</li> <li>• Theme 9: Helping others focused on identifying, alleviating and solving the problem</li> <li>• Theme 10: Referral to formal and informal resources for help</li> <li>• Theme 11: Self-help and seeking help for oneself</li> </ul>	<ul style="list-style-type: none"> <li>• Theme 12: Varied training strategies enhance learning</li> <li>• Theme 13: Preferably face-to-face intervention</li> <li>• Theme 14: Awareness of the school community enhances learning</li> </ul>

Table 3: Quotes that represent mental health competencies

<b>Mental Health Competencies</b>	<b>Exemplar quotes</b>
Knowledge	<i>"These programmes would be important because information and knowledge in mental health is never too much." (S7)</i>
Awareness	<i>"The programme makes us aware of mental problems" (S1)</i>
Capacity	<i>"it may be important to improve our capacity to help (people with mental health problems)." (S8)</i>
Autonomy	<i>"to be alone and not depend on others (to help people with mental health problems)." (S10)</i>
Confidence	<i>"(People with mental health problems) will be more confident in their recovery." (S6)</i>
Attitude	<i>"people won't look at mental health issues as a taboo" (S7)</i>
Relationship	<i>"It will even establish better bonds between people (who helped and who were helped)". (S6)</i>

Table 4: Mental health problems described by the participants

Emotional Problems	Cognitive Problems	Behavioural Problems	Relational Problems
- Depressed	- Impaired Memory	- Compulsive Behaviour	- Social Isolation
- Mood	- Impaired Attention	- Compulsive Eating Behaviour	- Impaired
- Sadness	- Impaired Concentration	- Impaired Eating Behaviour	- Socialisation
- Grief	- Dyslexia	[Anorexia]	
- Euphoria	- Dysphasia	- Bulimia	
- Stress	- Hallucination	- Alcohol Abuse	
- Anxiety	- Impaired Thinking	- Drug Abuse	
- Fear	- Impaired Learning	- Tobacco Abuse	
- Trauma	- Suicidal Ideation	- [Gambling] Abuse	
- Ambivalence	- Obsession	- Aggressive Behaviour	
- Anger	- Delirium	- Aggressive Behaviour	
- Jealousy	- Dementia	[Harassment]	
- Shame	- Confusion	- Violence	
- Loneliness	- Disturbed Personal Identity	- Violence [Cybernetics]	
	- Disturbed Body Image	- Violence [Sexual]	
	- Low Self Esteem	- Self Destructive Behaviour	
	- [Excessive] Self Esteem	- Self Mutilation	
		- Impaired Sexual Behaviour	
		- Insomnia	
		- Disorganised Behaviour	
		- Hyperactivity	

Table 5: Quotes that represent different actions to help others

Actions	Exemplar Quotes
To raise awareness (of the person with the mental health problem and their social network) towards the situation	<p><i>"(if I was anxious) I wanted at least people to tell me the reality." (S5)</i></p> <p><i>"I would talk to the people closest (to the person with mental health problems) so that they try to understand the other person's situation better and be more understanding with the person". (S11)</i></p>
To project a positive state	<p><i>"...I told him/her that everything would be fine..." (S11)</i></p>
To avoid the problem and causes	<p><i>"I was going to suggest that he/she avoids situations that provoke anger." (S3)</i></p>
To alleviate the problem of the person	<p><i>"I started to take a deep breath. I told him/her to follow my breathing" (S11)</i></p>
To respond to the mental health problem	<p><i>"Some kind of initial instruction of what should do." (S4)</i></p>
To solve the problem	<p><i>"Maybe it gave him/her advice on how to solve the problem." (S12)</i></p>

*Note: "him/her" or "he/she" refers to the person with mental health problems*

Table 6: Self-help strategies described by the participants

Strategies for processing the situation	Negative stimuli avoidance strategies	Leisure activities and healthy lifestyles
— Self-reflection	— Resumption of routine	— Relaxation activities
— Rationalisation	— Change of environment	— Distraction
— Monologue		— Leisure activities
		— Physical exercise and sports
		— Reading (including self-help books)
		— Listening to music
		— Painting and drawing
		— Religion
		— Regular sleep schedule
		— Food healthy
		— Socialisation