## *Riscos & Desafios* (Risk & Challenges) Program in pandemic times: the students' voice

Maria Paula Santos<sup>1</sup>, Gizela Cardoso<sup>2</sup>, Paula Silva<sup>1</sup>, Carla Rocha<sup>2</sup>

- <sup>1</sup> University of Porto, Faculty of Sport, Research Centre in Physical Activity, Health, and Leisure (CIA-FEL), Portugal
- <sup>2</sup> Centro de Respostas Integradas do Porto Ocidental, Divisão de Intervenção nos Comportamentos Aditivos e Dependências, Administração Regional de Saúde do Norte, Portugal

Corresponding author: Maria Paula Santos msantos@fade.up.pt

## Abstract

**Background:** Preventive interventions are important to delay the onset of high-risk behaviors for young people's health. Regarding emerging adulthood, successful preventive programs are important to avoid high-risk alcohol consumption among university students. *Riscos & Desafios* (Risk & Challenges) Program is an extracurricular, comprehensive, and multi-component competence enhancement-based preventive intervention designed for students attending the first year of higher education.

**Goals:** This paper aims to give voice to the procedural assessment made by students and to describe the implementation of the Program at the Faculty of Sport of the University of Porto in the second semester of the 2019/2020 school year. This implementation of a previous validated program was innovative twofold, since it has a curriculum infusion format through an optional curricular unit, and because it was developed during the period of lockdown due to COVID-19 pandemic.

**Methods:** This is a mixed-method study that focus on the implementation of the *Riscos & Desafios* Program during the second semester of 2019/20 academic year. This evaluation of the *Riscos & Desafios* Program was done with a post-program survey, followed by univariate analysis of frequency. Complementary, an inductive analysis of qualitative data of student's reflexive reports was carried out, using the QSR-NVIVO 12<sup>®</sup>.

**Results:** Twenty-three first-year students who participated in the *Riscos & Desafios* Program constituted the target group of the intervention. Most of the participants were male (n=16) aging between 17 to 21 years. Most attended all the eight sessions and 96% of them participated in seven or more sessions. At the end of the implementation, 23 post-program filled-in questionnaires, and 18 structured reflection reports, were obtained. Most of the students rated the program as very good. Several categories emerged from the thematic analysis of the 18 reports, namely (1) perceived competencies, developed in the program, including the promotion of the social support network, interpersonal and communication skills, problem-solving skills, and their importance, as factors to protect against the development of risk behaviors, (2) personal positive impacts of the program attendance and (3) gains and losses with the transition to online learning format.

**Discussion:** Students' considerations about the experience with the *Riscos & Desafios* Program not only reinforced the importance and pertinence of this experience in their life trajectory, but also brought to light its relevance at this pandemic moment.

Keywords: Health promotion, Prevention program, Addictive behavior, Higher education, Curriculum infusion, Emerging adulthood

### Introduction

It is well recognized that young people can face several new experiences in the transition to adult roles. Years of higher education constitute a crucial period of development, when students make the change from late adolescence to emerging adulthood, usually defined as the ages of 18 to 29 years (Arnett, 2000). Since this time presents significant physical, psychological and social transitions, it is an essential period in the life course, when the possibilities of greater life satisfaction coexist with the possibility of onset or

Received: 06 March 2021

Last revised: 20 September 2023

Accepted: 30 April 2023 worsening of psychopathologies, such as depression, anxiety, schizophrenia (Schulenberg et al., 2004), and substance use (Larimer & Cronce, 2007). This condition of risk (and opportunity) establishes the need for the creation, implementation and evaluation of intervention programs oriented to this age group. The social contexts experienced at these ages, such as entry to higher education, may imply greater freedom and less social control and may involve a higher risk of health risk behaviors, including substance use (Catalano et al., 2012). This can be understood as a context that facilitates the students' personal development, and should promote their integration and academic, personal, social and affective adjustment (Rocha, 2015). The literature also mentions that the first year of higher education is where the highest rates of abandonment and failure occur, which may be associated with the difficulties experienced by young people in this transition phase (Almeida et al., 2002).

Preventive interventions are then important to delay the onset of high-risk behaviors for the health of young people. Regarding emerging adulthood, successful preventive programs are described to avoid high-risk alcohol consumption among university students (Larimer & Cronce, 2007; Layland et al., 2019). Recently, Patrick et al. (2010) positively evaluated the effectiveness of alcohol-free social programs as a strategy for decreasing alcohol use among college students. Moreover, targeting positive attitudes regarding healthy behaviors during the first year may be particularly important for later transitions (Hultgren et al., 2019). The Riscos & Desafios Program (Risks & Challenges Program; R&DP) is an extracurricular, comprehensive, and multi-component competence enhancement-based preventive intervention. The R&DP is designed for students attending the first year of higher education and comprises a set of eight sessions, two-hours per week, implemented in a group format (Rocha & Becoña, 2017; Rocha, 2015). The R&DP addresses cognitive, attitudinal, emotional, behavioral, and social contents related to alcohol and other psychoactive substances use (e.g., communication, problem solving and decision making, emotional regulation, assertiveness, college adaptation, positive relations, risk perception, normative beliefs). These skills are trained using a combination of interactive techniques including group discussion, dynamic games, demonstration, brainstorming, among other training strategies. The R&DP handbook (Rocha, 2019) has detailed plans for the sessions, supporting texts, worksheets and informative guides for students. R&DP facilitators can be university staff from the students support office or university teachers. To implement the R&DP, facilitators must attend a specific training R&DP specifically defined for this purpose.

Results from the effectiveness assessment study show R&DP had significant preventive effects in the intervention group when compared to control group in students' self-reported consumption and in risk or protecting factors against psychoactive substance use (Rocha, 2015). Specifically, there were significant differences between the groups in students' selfreported alcohol consumption, depression level and in personal and interpersonal dimensions of academic experiences. In addition, there were evident gains in the intervention group over time in: expectations/motivations for alcohol or cannabis consumption, tension and anger, personal and interpersonal dimensions of academic experiences, self-esteem, and depression. On the other hand, students in the control group showed an increased perception of availability of substances between baseline and follow-up evaluations, a situation that did not occur in the intervention group, suggesting that the experience of the R&DP had a protective effect also at this level. When consumption behaviors were compared between groups, results suggested significant preventive effects up to six months after the intervention at the level of recent consumption of beer and spirit drinks. This was one of the main objectives of the intervention, as it contemplated a direct action on the consumption of alcohol, both at a preventive level and at the level of risk-reduction and minimization of harm associated with consumption (Rocha, 2015).

The SARS-COV-2 pandemic has imposed important contingency measures in several countries worldwide. While increased social distancing between individuals may involve little disruption to the day-to-day, the closure of schools, recreational activities and workplaces can have major consequences for education, health and well-being, and personal and social economy. Some groups seem to have been particularly vulnerable at this level, including sick people, healthcare professionals, informal caregivers, children and young people, and groups at risk for SARS-CoV-2 infection (Direção-Geral da Saúde [DGS], 2020; United Nations [UN], 2020b).

In view of the COVID 19 pandemic situation and the intervention recommendations from health authorities, namely the General Health Directorate and the Portuguese Order of Psychologists (OPP, 2020a), it is important that mental health responses meet the specific emerging needs. In this context, the prevention of addictive behavior and dependence among young people should be considered an essential response, and this may trigger various difficulties at the personal and social level, both due to the coronavirus disease itself or due to the exceptional measures adopted in different contexts. The promotion of personal and social skills is of particular importance, by supporting the adaptation processes to these new realities and by strengthening the personal response to emerging crisis situations. In this context, the development of life skills (e.g. emotional self-regulation, communication, interpersonal relationships, problem solving, etc.) through the R&DP, scientifically validated and implemented in different institutions of higher education (Rocha et al., 2018), and now adapted to a virtual application format, constitutes an added value, enabling to enhance existing synergies and promote health and psychological well-being of higher education students.

According to the United Nations policy, there was an urgent need to expand online mental health intervention during the pandemic by SARS-CoV-2 (United Nations [UN], 2020b). The limitations imposed by contingency plans lead to the need to use digital intervention tools, depending on the context and needs of the person and/or groups (UN, 2020a, 2020b). It should be noted that some consensus seems to be growing about the effectiveness (and cost-effectiveness) of online tools for situations, mainly when this is the most feasible way to ensure access to interventions at early stages of psychological impairment or suffering (Velde et al., 2020). On the other hand, it has been highlighted its utility in periods of greater vulnerability or challenge and among groups of increased risk (Ordem dos Psicólogos Portugueses [OPP], 2020b). Within the context of such contingencies, it emerges the need/opportunity to introduce innovations that can help to improve performance in mental health care.

The United Nations also considered adolescents and young people as a risk group throughout the pandemic, since it surprised them at a central stage in the development of resources for an adaptive trajectory at mental health level (UN, 2020b). Many higher education students have suffered the impact of closing their educational institutions, changing routines, cutting face-to-face contact and isolation, not taking exams, changing forms of teaching/learning, lowering their economic expectations, and increasing uncertainty about the future, among other stressful factors. As a result, there was an increased risk of non-adaptive "changes in behavior (e.g., increased irritability and conflict), mood (e.g., depression or euphoria), sleep (e.g., insomnia or hypersomnia), or diet (e.g., binge eating or anorexia), as well as increased risk for anxiety symptoms, or decreased motivation or academic performance (e.g., lack of interest in academic tasks, learning difficulties, and risk of academic abandonment)" (Ordem dos Psicólogos Portugueses [OPP], 2020b). Preliminary data from an international study on the well-being of higher education students in times of COVID-19 (Velde et al., 2020) point to high levels of stress resulting from adaptation to pandemic containment measures, namely increased workload and less clear study expectations. Most students report a decrease in the quality of education, point to gaps in the information about implemented pandemic-related measures, and describe themselves as concerned about successfully ending the school year. Financial difficulties, strong feelings of loneliness, decreased contacts with family and friends, and symptoms of depression were also reported, particularly significant in some subgroups (Velde et al., 2020). Thus, the need for a mental health service offer that includes specific actions aimed at this population seems to be consensual.

The impact of the COVID-19 pandemic is also felt in additive behavior and dependencies. The European

Monitoring Centre for Drugs and Drug Addiction (EMCDDA), through a methodology for determining trends in the use of psychoactive substances, points to a general decrease in drug use or some forms of drug use in Europe during the first three months of the pandemic. Regarding alcohol, however, it points to an increase in its consumption in general, associated with an increase of consumption of prescribed drugs. As far as cannabis is concerned, the 2020 EMCDDA report indicates that some occasional users may have stop consuming or reduced their use, while those with more regular or intensive usage patterns may have increased it (European Monitoring Centre for Drugs and Drug Addiction [EMCDDA], 2020). In Portugal, a study on Addictive Behaviors in Times of COVID-19 – Alcohol (Serviço de Intervenção nos Comportamentos Aditivos e nas Dependências [SICAD], 2020) indicates important changes in the alcohol consumption pattern. Data were collected between April and May (period of mandatory lockdown) with 950 respondents aged 18 vears or older. Of these, it is highlighted that 96% had a previous pattern of non-problematic consumption and that only 8% are in the age group between 18 and 24 years. It was found that 21% of the individuals started drinking more, 37% maintained the same level of consumption and 42% started drinking less. The increase in alcohol consumption is mainly attributed to longer free time and to the fact that it facilitates states of mood of relaxation or excitement, which is consistent with the associations identified with stress levels or concern about the financial impact. On the other hand, the decrease is mostly attributed to changes in sociability, particularly among younger people, who tend to drink more in festive, collective, contexts (Serviço de Intervenção nos Comportamentos Aditivos e nas Dependências [SICAD], 2020). In the same vein, Velde et al. (2020) found a positive evolution in the adoption of healthy lifestyles among young higher education students, reporting a sharp reduction in alcohol consumption, frequency of excessive alcohol consumption, cannabis use and tobacco consumption during the COVID-19 pandemic. Physical activity behavior has also changed, with an increase of the proportion of young people who exercise almost daily and those who almost never exercise. Results also indicate that during the lockdown related to the COVID-19 pandemic, there was some worsening of consumption of alcohol among individuals who reported to have or have had previous problems related to this type of consumption. It will be important to consider that the period of return to "normality" may enhance the development of risk behaviors among young students, associated with a perception of the low risk of falling ill, visible, for example, in the difficulty reported by some in complying with the distance measures (Velde et al., 2020). Moreover, the alcohol consumption of higher education students is very prevalent (Carapinha & Calado, 2017, 2019) and occurs mainly in the recreational context and within the company of peers.

It is important to prevent a potential increase in consumption and promote the maintenance of gains at the level of lifestyles, particularly in times of academic transition. In this context, and since higher education students are identified as a risk group in terms of psychic vulnerability (not only in pandemic times), it is also essential to ensure a preventive response to the promotion of mental health and addictive behaviors and dependencies. Since the general and specific objectives off the R&DP meet these identified needs (Rocha, 2019) this program is not only useful; there is a need to invest in its implementation, considering different application formats: face-to-face, virtual or mixed. The development of the R&DP, by allowing a space for integration and secure socialization, by preventing and raising awareness of risk, by promoting the adoption of pro-health behaviors, and by developing fundamental personal and social skills for psychological resilience in crisis situations, represents a highly relevant tool of psychological intervention. This paper aims to give voice to the procedural assessment made by students and to describe the implementation of the R&DP at the Faculty of Sport of the University of Porto (FADEUP) in the second semester of the 2019/2020 school year. This singular implementation of the already previously validated R&DP (Rocha, 2015) was innovative twofold, because it was carried out in curricular format in the context of an optional course created for this purpose, and because it was developed during the period of lockdown related to COVID-19 pandemic.

## Methods

This is a mixed-method study that focus solely on implementation of the R&DP during second semester of 2019/2020 academic year. Mixed quantitative/qualitative data were collected and analyzed sequentially for two purposes: (1) to provide further explanation of the quantitative findings related to R&DP strategies and activities; 2) to examine the extent to which students voice support the quantitative data. When taken together, the results of these analyses inform further refinement of the R&DP.

The R&DP was implemented as an optional curricular course, called "Program for the Development of Personal and Social Skills: Risks & Challenges". The implementation took place in a face-to-face format during the first three sessions. After that, all face-toface classes were suspended at the University of Porto. The R&DP team considered that the sessions should be nevertheless provided to students, by adapting them to an online learning format. This process was carried out through intensive monitoring and supervision meetings preceding each session, held in e-learning mode through synchronous sessions (Zoom<sup>®</sup> platform). This delivery format was previously discussed in a Zoom® meeting with students, who expressed their agreement and availability to keep participating in the sessions and complete the R&DP.

#### Post-R&DP survey

To carry out a procedural evaluation of the implementation of the R&DP and, additionally to the orally evaluation spontaneously expressed by the different actors throughout its implementation, the R&DP includes six process evaluation forms: (1) Facilitator's Form; (2) Student Registration Form; (3) Attendance / Summary Form; (4) Session Implementation Form, allowing the analysis of the degree of implementation and filled in after each session, by the facilitator; (5) Post- R&DP survey, which aims at a global evaluation of the implementation, by participants, at the 8th session of the R&DP, considering issues related to the organization and to the general personal opinion about the R&DP, as well as a survey of the most positive aspects and of those that should be improved, and (6) Evaluation of the R&DP and the Group Form, completed by the facilitator at the end of the R&DP's implementation, allowing a global evaluation of its development and implementation. The conditions of informed consent and anonymity were respected. The data (corpus) that support the findings of this study are available from the corresponding author, upon reasonable request.

#### Written reflexive report

In this implementation, due to its characteristics, students provided also a written reflexive final report, sharing their opinions on the experience of participation, their reflections about competencies addressed in each session, and which ones they considered most relevant and useful in vocational and professional life. Students were also asked to write their opinion on the transition to the online learning format, during the course. An inductive approach, with thematic analyses, of these qualitative data was carried out, i.e., categories were not imposed prior to their recovery and analysis, but rather emerged from the data themselves. This form of thematic analysis is data-driven (Braun & Clarke, 2006; Willig, 2014).

The analysis and codification processes were conducted with QSR-NVIVO 12<sup>®</sup>. Since 'coding is not just labelling, it is linking' (Saldaña, 2009), the use of this software allowed ranking of the coding tree, organizing emerging categories and assisting in the exploration of relationships between them, enhancing the process of inductive (open coding) analysis.

Data were analyzed independently by two researchers, one of them having a primary responsibility, as codebook editor. The results of this process were compared and discussed until an interpretive convergence was obtained. The procedures for analysis and discussion of the results were followed by other researchers (coauthors) to promote triangulation. Indeed, analysis constitutes a reciprocal action between the data and who studies them, and the cultural components that configure the interpretative act (Denzin & Lincoln, 2000). The information presented in this paper results from a continuous circulation between the information obtained and the

theoretical frame of reference. Credibility and confirmability were, therefore, guaranteed by the triangulation of analysis from different researchers that reduce the effect of researcher bias, and by the presentation, in the results section, of negative case, i.e., participants' perspectives that differ or appear not to support the main body of evidence.

#### Results

Post-R&DP survey

Most of the twenty-three first-year students who participated in the R&DP were male (n=16); the mean age at the beginning of the intervention was 18 years (ranging from 17 to 21 years).

Adherence to the R&DP was very positive, since most of the students attended all the 8 sessions and 96% of them participated in seven or more sessions (only one student attended six sessions). At the end of the implementation, 23 post- R&DP questionnaires and 18 structured reflection reports were obtained. All the answers from the post- R&DP survey addressed to students were organized according to the pre-established categories.

Most of the students evaluated in a very positive way the different dimensions – General opinion on the R&DP, Opinion regarding the R&DP organization, and Opinion regarding the training team, as can be seen in the Figures bellow. Likewise, most of the students rated the R&DP as "very good".

These data corroborate the positive face-to-face assessment provided by participants throughout the R&DP's implementation. Most of the students emphasized orally the importance of the applied nature of the R&DP, and expressed that the addressed topics, as well as the competences developed through the R&DP, were in accordance with their needs and adapted to their daily realities, helping them to cope more adequately with various real-life problems. It was also stressed that the R&DP was of convenience during the COVID-19 pandemic. They also mentioned that the experience of the R&DP was very relevant for the development of useful personal and social skills, both for academic and personal lives, and in strengthening the network of relationships among the group members. The usefulness of the materials used during the eight sessions was also emphasized.

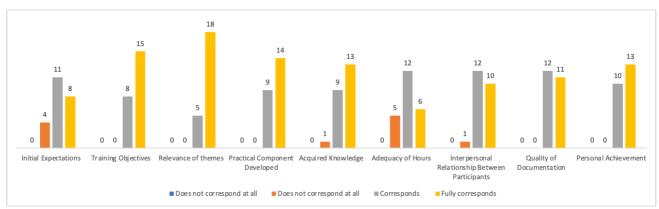


Figure 1. General opinion about the Risks & Challenges Program (n)

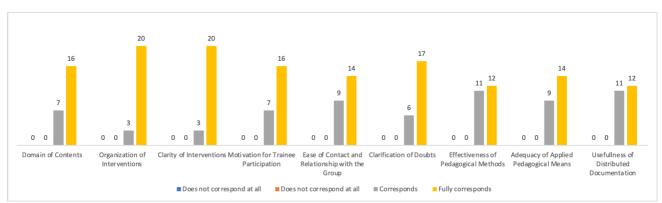


Figure 2. Opinion Regarding the training team (n)

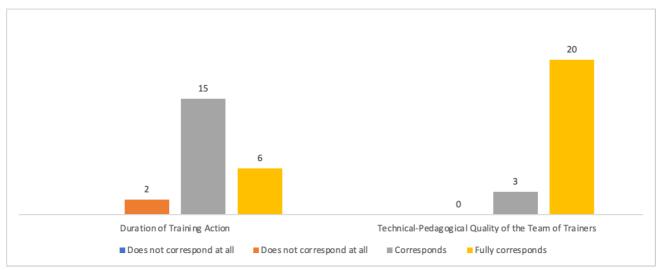


Figure 3. Opinion regarding the organization of the training action (n)

#### **Reflection reports**

Several categories emerged from the thematic analysis of the 18 written reflexive reports, namely (1) competencies developed in the R&DP and their importance as protection factors against development of risk behaviors, (2) personal impacts of the R&DP attendance and (3) transition to online learning format by suspension of face-to-face activities at the university, due to the contingency plan related to COVID-19.

Additionally, many students mentioned that participating in this optional course was felt as a good, positive, surprise. Since it was the first time R&DP was part of the academic offer, it was not possible to listen to the opinions from other students who had attended it beforehand; so, it was by suggestion of colleagues or by reading the course syllabus that students selected this optional course. Students reported they started the course without expectations, but many reported the proposed contents and activities far exceeded what they assumed would be an optional course.

"Effectively, I started the school year in this curricular unit without a clear idea of what was waiting for me, without great expectations. However, after this semester I can transmit information to someone so that high expectations would be created, given that the [R&D]program surprised immensely, by the positive" (ref8 E)

"In my case and, I think, in the case of all my colleagues, we were a little undecided whether choosing this discipline had been the best decision or not, since we didn't really know 'what we were getting into'. However, as the sessions went on, aspects such as the type of topics addressed, the way they were transmitted to us and the group's interaction, especially during the activities, were enlightening about the excellent performance that this course would have throughout the semester" (ref13 E)

# (1) <u>Competencies developed in the R&DP and their importance as protection factors against development of risk behaviors</u>

Students reported that the skills developed during the R&DP were considered of great importance for their life trajectory, considering academic and personal life and already looking at the professional career. The activities proposed for the development of the various competencies were referred to be crucial for an individual reflection, an analysis of how they currently operate, react, and behave, facing different situations in their daily lives.

"Over the course of the 16 hours, we developed different skills and all of them, both personal and social, I consider useful and applicable to vocational and professional life" (ref26 EI)

"... all of them (competencies) were very enriching, making me visualize and reflect on certain actions and attitudes that I have myself and that are not the most appropriate" (ref14 EI)

Personal and interpersonal skills were developed using a combination of interactive techniques, such as group discussion, role-playing, behavioral training, brainstorming, among others. All competencies were mentioned in the students' reflection reports, though some appeared more often, suggesting a higher impact on students, such as assertiveness, emotional states, and time management.

"At this moment, I have this objective to try to be as assertive as possible in any situation that appears to me and to be able to face it in the best possible way, without any of the parties being harmed (ref12 IP)

"... and of all (the competencies) addressed [in the R&DP], there is none that is not important or essential for vocational and professional life; however, the most significant for me was undoubtedly the outdoor session, where we worked the emotional states" (ref29 FP) "The [R&D]program made me think more about the way I use my time, making me more able to identify and characterize activities of my day-to-day, in terms of the relative urgence and importance of them, giving me greater ability to use time for more important activities, while excluding others that I previously thought were relevant" (ref35 FP)

Students starting the university career are often confronted with a set of situations not yet experienced, triggering insecurity, that potentiates the adoption of risky behaviors. The R&DP aims to get young people to acquire knowledge to identify problems, proposing activities that simulate concrete situations of their daily life.

"Now, with the entry into college, several challenges emerged, such as leaving home and entering a completely new world, where I did not know everything and everyone. (...) This [R&D]program brought me the security and confidence I lacked, the ability to move on and not be afraid to take risks, to give my opinion, my contribution" (ref15 Pr)

"I had some difficulties in adapting, and this course, or this [R&D]program, helped me a lot; in all classes, we performed activities together, we learn not only how to live, but how to 'survive' in this environment... that can sometimes be quite hostile" (ref26 IP)

The inherent challenges in this new academic trajectory are present, as well as the difficulties in keeping up with the requirements of the college life. The skills they trained withing the R&DP sessions are mentioned as promoters of better self-knowledge and behavior control.

"The goal of this optional course is much more than filling students with information to paste into the test and forget the subject soon after; it is rather the development of life skills that makes us grow at different levels and see various situations with different perspectives" (ref12 Pr)

"All of them (the sessions) marked a little this beginning of life that is college" (ref.21 IP)

"It was a great activity and something I like to put more into practice, because it relieves sensations such as anxiety and stress, extremely present in university life" (ref10 IP)

"... because I started thinking about the way I should speak and act, since I also learned to distinguish the various types of behaviors and in this way, I began to think more about assertiveness" (ref20 IP)

#### (2) Personal impacts of the R&DP attendance

Students expressed the multiple, but all relevant, impacts of 16-hours sessions of the R&DP – in the way of reflecting, facing new challenges, relating to others, while considering their own behaviors.

"Once again, it also left me to reflect on life, because often we do not always value what we have..." (ref31 IP)

"... through the various interactive activities, I have become a better and more conscious and thoughtful person in the face of the situations I come across in my daily life" (ref52 IP)

The contents and the activities that were promoted throughout the R&DP, the role of facilitators and the collaboration from colleagues, the spaces used within the faculty, and the use of the online components, all these facets favored learning. And this was understood as useful for various dimensions of the future life of these students. The impacts vary between students, from the reflection achieved that allows to act more fairly with others and to properly value the people's characteristics, to a better self-knowledge and value of interpersonal relationships.

"I feel that, from that day on, I was able to think twice before answering someone, trying to be as correct and fair as possible under all the circumstances" (ref32 IP)

"Since classes in the garage, passing through the garden and ending in Zoom, I have been reflecting and growing inwardly, being able to implement various changes in my day-to-day and change my interaction with others" (ref35 IP) Interpersonal relationships were much requested throughout the R&DP, and in a phase of adaptation to a unpreviewed context (the pandemic), the ability to know how to communicate and be able to establish new relationships were fundamental for, and in the immediate future, a better integration in the academic environment; and decisive, in the long term, in the potential professional areas.

"... and I was able to grow my ability to communicate... and I don't remember other course I participated so much, and I feel that whenever I said something in class, I could be having a positive impact for some of my colleagues and teachers" (ref17 RS)

"This activity led me to open myself up more with people, to communicate more with others and to realize how they are, not just to stay in my closed corner... led me to explore more to be better..." (ref23 IP)

"... it [the R&DP] offered me extensive knowledge regarding interpersonal relationships and the way of approaching and communicating, which will be very useful in my professional life, as a coach or teacher" (ref1 RS)

It is interesting to note that change to online classes, through the Zoom<sup>®</sup> platform, did not decrease this perception of interpersonal competence gains. As a matter of fact, online activities, by imposing randomness in working groups, promoted additional challenges that, eventually, would not arise in face-toface sessions.

"In this format, the Zoom® platform is randomly making the groups, that is, we never knew who we were going to stay with, for the proposed activities; it was always a surprise. This. I think, was a positive aspect, because as in my case I almost always found someone I did not know, I established contact with people I had never spoken to, getting to know my colleagues a little better better and establishing new relationships" (ref7 RS) (3) <u>Transition to online learning format by suspension</u> of face-to-face activities at the university, due to the contingency plan related to COVID-19

The need to change to online format required an adaptation of the R&DP activities, ensuring anyway fidelity to the R&DP, its objectives, and orientations. Some participants reported that the distance-learning model required the use of the Zoom<sup>®</sup> platform, not promoting the environment nor the ideal conditions for the full development of the activities experienced up to that time.

"The classes had to move to a digital format, something that I consider less positive, since in this optional course contact with other people, and being physically present, was something crucial" (ref8 TE)

"It was a year marked by the switch from face-toface to online, but... however, the essence of the sessions was never lost" (ref12 TE)

"The passage from face-to-face classes to online classes,... I don't think it has influenced the dynamics of the group and, in some cases, some colleagues, because they are behind the computer, release some barriers and are more communicative. However, I am a person who greatly appreciates social contact and [I believe] that we learn from body postures, facial expressions... and all this took a bit of 'happiness' and fun to the [R&D]program... but this, in my opinion, happened in all courses" (ref11 TE)

So, students recognize that the imposed change from the face-to-face R&DP to online format did not cover the full potential of the [*R*&*D*]program, highlighting that personal contact, which allows reading the reactions of colleagues, and the triggering of emotions, are crucial for the proposed activities.

"There is nothing like personal contact in which we can live together and share our views and our experiences related to content in a more 'real' way" (ref17 TE)

"Without a doubt, I prefer the application of the [R&D]program in face-to-face format. The sessions that most marked me were the face-to-face sessions, not because the activities or themes were better or

worse, but because we were all together in the same space, and because there was a better involvement, and an exchange of emotions and reactions more fruitful and alive" (ref21 TE)

However, not all students understood the online format as less appropriate to the R&DP.

"This transfer to online classes did not diminished in any way the quality of the classes, since all the knowledge was possible to be transmitted clearly, and the activities remained amazing" (ref25 TE)

"Although the R&DP was thought to be done in faceto-face format, since nothing made us predict this situation, I think the transition from face-to-face format to online format did little harm to the R&DP" (ref16 TE)

The imposed social distance, changing students' personal and academic life, was even considered as a real first situation in which to apply the acquisitions from the R&DP.

"However, this obstacle in our way of life [the pandemic] turned out to be a challenge to train one's own assertiveness, the way we accept these difficulties, and the way we react" (ref20 TE).

"We must strive to be effective and honest with those who live with us and not let the problems, that this state [the pandemic] brought to us, affect our relationships..." (ref32 IP)

Specifically, the lockdowns due to the pandemic seem to have triggered the utility of using some of the skills learned in the R&DP, in addition to all the reflection and self-knowledge that the R&DP's activities promoted. Indeed, the competencies emerged in a context of social distancing, the closure of colleges and the prohibition of recreational and sports activities carried out in groups, putting at risk health and personal and social well-being.

"All the skills that have been transmitted to us throughout this [R&D]program have been important for our professional and personal career, and especially at this time [of pandemic], when we are at home for a longtime and we are obliged to adapt to new scenarios" (ref11 P)

The R&DP seems to have had a much wider reach, as some students well express:

"I've learned that we're good at something in life... and even when we're thinking 'Why don't I understand anything of this?', it's because we haven't found our vocation yet. We all have qualities we only need to know how to take advantage of them" (ref6 IP)

"I think this [R&D]program was beneficial to all of us. I would even say it was a kind of 'life training'" (ref3 Pr)

In sum, the students' written and extended considerations about the experience with the R&DP not only reinforced the importance and pertinence of the experience in their life trajectory, but also brought to light its relevance at the pandemic moment.

## **Discussion and conclusion**

The students' discourse indicates that R&DP has successfully promoted the development of autonomy, the consolidation of their identity and self-esteem, as well as the adequate adjustment of students to the university and the consolidation of a supportive network among peers. Thus, it is not surprising that the procedural assessment carried out by participants reflects this reality, insofar as they expressed that the achieved changes contributed to their balance, wellbeing and consequent integration and success.

Important to highlight that the R&DP was intentionally designed to train and empower students in life skills considered to be essential to their psychosocial development and risk prevention (Rocha, 2019). For example, the intervention considers the promotion of the social support network among participants, the promotion of interpersonal and communication skills, and the work on themes such as positive interpersonal relationships and depression, and development of emotional and problem-solving skills, aiming to empowering young people to face the challenges they are experiencing and preventing against related risk behaviours. These competencies, when becoming a subject of education, turn to be identifiable by students and their application is meaningful. The knowledge of each competence and the intentionality of its function are useful perspectives in learning how to deal with behavior choices and, consequently, are assumed as protective factors of risk behaviors.

The procedural assessment described here is congruent with results from validation studies (Rocha et al., 2018; Rocha, 2015). In these previous studies, gains were reported on different psychological variables, namely in self-esteem, depression, personal and interpersonal dimension of academic experiences. Better results were also found on scales of anger and tension, and on emotional dysregulation, confirming the positive perception of behaviour change, expressed by the students after the R&DP's life skills promotion. There was also a significant reduction in the consumption of beer and spirits and in expectations regarding the consumption of alcohol and cannabis, in the experimental group when compared to the control group, which highlights the preventive effectiveness of the R&DP at the level of addictive behaviours and dependencies (Rocha, 2019; Rocha & Becoña, 2017).

The positive evaluation carried out by the first year students here involved is also coincident with the evaluation of other applications of the R&DP in different contexts and in other academic years, namely when carried out through curricular infusion strategies (Sousa et al., 2019). The insertion in the format of an optional curricular unit presented the advantages that allow overcoming some constraints, typically linked to the student enrolment process. These include a low motivation for the frequency of co-curricular activities, the perception of overload in terms of academic duties, low perception of risk (which is associated with reduced adherence to psychosocial promotion R&DP), the lack of knowledge about the development of personal and social skills and its relevance (idem), among others.

The evaluation of the R&DP by its participants is essential to ensure the quality and continuity of

preventive interventions with this target audience. In fact, the already cumulative experience from several years with the R&DP makes it evident that first year students participating in the R&DP consider it essential to have structured support responses that facilitate their adaptation process and the promotion of social support networks (Rocha et al., 2018; Rocha & Cardoso, 2017). In the COVID-19 pandemic, the participants reinforced this need. Indeed, during that period, the pandemic situation and the measures adopted by the different institutions to fight against the virus dissemination, intensified the difficulties of adapting to the context of higher education. The students' discourse revealed the positive impact, the transfer of learning, and the generalizability of competences to other contexts in the management of the challenges imposed by the pandemic. In addition, adapting this intervention to an online format was considered adequate (with both pros and cons) by participants.

The positive results achieved with the application of R&DP at first-year university students reinforces the need for action by decision-makers in the areas of health and education in developing responses to promote health and prevent risk. The context of higher education is a priority, since students have specific vulnerabilities associated with the moment of adjustment both to higher education and, most challenging, at exceptionally critic contexts such as the one of COVID-19 pandemic situation. The evidence shows that prevention integrated into school curricula promotes the health of students, can remove barriers to learning and, as such, promote academic success (Arria et al., 2015; Arthur et al., 2015; Caldeira et al., 2017). Thus, the implementation of prevention programs promotes greater involvement of students in academic life and, consequently, improve institutional success measures, such as retentions and graduations (Arthur et al., 2015; Rocha et al., 2018).

#### References

Almeida, L. S., Soares, A. P. C., & Ferreira, J. A. (2002). Academic Experiences Questionnaire (AEQ-r): Assessment of college students adjustment *Avaliação Psicológica*, *1*(2), 12.

- Arnett, J. J. (2000). Emerging adulthood. A theory of development from the late teens through the twenties. *Am Psychol*, *55*(5), 469-480. <u>https://www.ncbi.nlm.nih.gov/pubmed/10842426</u>
- Arria, A. M., Caldeira, K. M., Bugbee, B. A., Vincent, K. B., & O'Grady, K. E. (2015). The academic consequences of marijuana use during college. *Psychol Addict Behav*, *29*(3), 564-575. https://doi.org/10.1037/adb0000108
- Arthur, M. W., Brown, E. C., Briney, J. S., Hawkins, J. D., Abbott, R. D., Catalano, R. F., Becker, L., Langer, M., & Mueller, M. T. (2015). Examination of Substance Use, Risk Factors, and Protective Factors on Student Academic Test Score Performance. *J Sch Health*, 85(8), 497-507. <u>https://doi.org/ 10.1111/</u> josh.12279
- Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77-101. ISSN 1478-0887 Available from: http://eprints.uwe.ac.uk/11735
- Caldeira, K. M., Arria, A. M., O'Grady, K. E., Vincent, K. B., Robertson, C., & Welsh, C. J. (2017). Risk factors for gambling and substance use among recent college students. *Drug Alcohol Depend*, *179*, 280-290. <u>https://doi.org/10.1016/j.drugalcdep.2017.06.024</u>
- Carapinha, L., & Calado, V. (2017). *Comportamentos Aditivos aos 18 anos. Inquérito aos jovens participantes no dia da defesa nacional – 2016.* Serviço de Intervenção nos Comportamento Aditivos e Dependências.
- Carapinha, L., & Calado, V. (2019). *Comportamentos Aditivos aos 18 anos. Inquérito aos jovens participantes no dia da defesa nacional – 2018.* Serviço de Intervenção nos Comportamento Aditivos e Dependências.
- Catalano, R. F., Fagan, A. A., Gavin, L. E., Greenberg, M. T., Irwin, C. E., Jr., Ross, D. A., & Shek, D. T. (2012). Worldwide application of prevention science in adolescent health. *Lancet*, *379*(9826), 1653-1664. <u>https://doi.org/10.1016/S0140-6736</u> (12)60238-4
- Denzin, N., & Lincoln, Y. (2000). Introduction: The Discipline and Practice of Qualitative Research. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 1-28). Sage Publications.
- Direção-Geral da Saúde. (2020) Norma DGS nº 011/2020de 18/04/2020. Portugal
- European Monitoring Centre for Drugs and Drug Addiction. (2020). EMCDDA trendspotter briefing - Impact of COVID-19 on patterns of drug use and drug related harms in Europe. <u>https://www.emcdda.europa.eu/system/files/publica-</u> tions/13130/EMCDDA-Trendspotter-Covid-19-Wave-2 1.pdf
- Hultgren, B. A., Turrisi, R., Cleveland, M. J., Mallett, K. A., Reavy, R., Larimer, M. E., Geisner, I. M., & Hospital, M. M. (2019). Transitions in drinking behaviors across the college years: A latent transition analysis. *Addict Behav*, *92*, 108-114. https://doi.org/10.1016/j.addbeh.2018.12.021
- Larimer, M. E., & Cronce, J. M. (2007). Identification, prevention, and treatment revisited: individual-focused college drinking prevention strategies 1999-2006. Addict Behav, 32(11), 2439-2468. <u>https://doi.org/10.1016/j.addbeh.2007</u>.05.006
- Layland, E. K., Calhoun, B. H., Russell, M. A., & Maggs, J. L. (2019). Is Alcohol and Other Substance Use Reduced When College Students Attend Alcohol-Free Programs? Evidence from a Measurement Burst Design Before and After Legal Drinking Age. *Prev Sci*, 20(3), 342-352. <u>https://doi.org/10.1007/s11121-018-0877-6</u>

- Ordem dos Psicólogos Portugueses. (2020a). Intervenção psicológica à distância durante a pandemia COVID-19. OPP. https://www.ordemdospsicologos.pt/ficheiros/documentos/intervena\_aao\_psicologica\_distancia\_durante\_pandemi acovid\_19.pdf
- Ordem dos Psicólogos Portugueses. (2020b). *Recomendações* para intervenção psicológica no ensino superior. Documentos de apoio à prática OPP | Covid-19. <u>https://www.ordemdospsicologos.pt/ficheiros/documentos/intervencao e</u> <u>nsino\_superior.pdf</u>
- Patrick, M. E., Maggs, J. L., & Osgood, D. W. (2010). LateNight Penn State alcohol-free programming: students drink less on days they participate. *Prev Sci*, *11*(2), 155-162. <u>https://doi.org/10.1007/s11121-009-0160-y</u>
- Rocha, C. (2019). Manual do Programa Riscos & Desafios. ARS Norte, IP.
- Rocha, C., & Becoña, E. (2017). Programa Riscos & Desafios: eficácia na prevenção do consumo de álcool em estudantes do Ensino Superior. *Revista da Associação Portuguesa de Adictologia*, 4, 5. <u>http://www.adictologia.com/images/ Revista</u><u>Adictologia N4 2017.pdf</u>
- Rocha, C., Becoña, E., & Cardoso, G. (2018). Risks & Challenges: Effectiveness Assessment of a Preventive Program on Addictive Behaviors and Dependencies amongst Students in Higher Education. *The Psychologist: Practice & Research Journal*, 1(1). <u>https://doi.org/ https://doi.org/10.33525/pprj.v1i1.46</u>
- Rocha, C., & Cardoso, G. (2017). Riscos & Desafios Program: process evaluation. Lisbon Addictions, Lisbon.
- Rocha, C. A. (2015). *Programa de Prevencao das Toxicodepêndencias no ensino superior* [Tesis Doctoral, Universidad de Santiago de Compostela]. Santiago de Compostela.
- Saldaña, J. (2009). The coding manual for qualitative researches. Sage.

- Schulenberg, J. E., Sameroff, A. J., & Cicchetti, D. (2004). The transition to adulthood as a critical juncture in the course of psychopathology and mental health. *Dev Psychopathol, 16*(4), 799-806. <u>https://doi.org/10.1017/s09545794040400</u> 15
- Serviço de Intervenção nos Comportamentos Aditivos e nas Dependências. (2020). *Comportamentos Aditivos em Tempos de COVID-19: ÁLCOOL*. <u>http://www.sicad.pt/BK/Estatisticaln-</u> vestigacao/EstudosConcluidos/Lists/SICAD\_ESTUDOS/Attach ments/209/covid\_alcool.pdf
- Sousa, Z., Dores, A. R., Costa, S., & Rocha, C. (2019). Infusão do Programa "Riscos & Desafios" na unidade curricular "Psicologia da Comunicação e das Relações Interpessoais". Fórum interno IPP, Porto.
- United Nations. (2020a). *Policy brief: a disability-inclusive response to COVID-19.* <u>https://www.un.org/sites/</u> <u>un2.un.org/files/sg policy brief on persons with disabili-</u> <u>ties\_final.pdf</u>
- United Nations. (2020b). *Policy brief: COVID-19 and the need for action on mental health*.

https://www.un.org/sites/un2.un.org/files/un\_policy\_briefcovid and mental health final.pdf?referringSource=articleShare

- Velde, V. d., Sarah, Buffel, Veerle, Wouters, Hal, V., Bracke, & Colman. (2020). COVID-19 International Student Well-being Study. First results from Belgium (Dutch publication). <u>https://zenodo.org/record/3873558/files/Rap-</u> port C19 ISWS BelgischeData.pdf
- Willig, C. (2014). Interpretation and Analysis. In U. Flick (Ed.), *The Sage Handbook of Qualitative Data Analysis* (pp. 136-150). Sage.