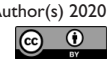
General submission

EERJ European Educational Research Journal

European Educational Research Journal
1–27



DOI: 10.1177/1474904120947890
journals.sagepub.com/home/eer


Co-creation and regional adaptation of a resilience-based universal whole-school program in five European regions

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Abstract
The co-creation of educational services that promote youth resilience and mental health is still scarce. UPRIGHT (Universal Preventive Resilience Intervention Globally implemented in schools to improve and promote mental Health for Teenagers) is a research and intervention program in the Basque Country (Spain), Trentino (Italy), Low Silesia (Poland), Denmark and Reykjavik (Iceland). UPRIGHT implemented a co-creation research process whose results, outcomes and policy implications are presented here. The co-creation had a mixed-methods

participatory research design with nine specific objectives linked to paired strategies of inquiry for adolescents, families, teachers and school staff. The overarching objective was to generate a valid and feasible regional adaptation strategy for UPRIGHT intervention model. Participants answered surveys ($n = 794$) or attended 16 group sessions ($n = 217$). The results integrate quantitative and qualitative information to propose a regional adaptation strategy that prioritizes resilience skills, adolescents' concerns, and preferred methods for implementation across countries and in each school community. In conclusion, a whole-school resilience program must innovate, include and connect different actors, services and communities, and must incorporate new technologies and activities outside the classroom. A participatory co-creation process is an indispensable step to co-design locally relevant resilience interventions with the involvement of the whole-school community.

Keywords
Resilience, whole-school, adolescents, co-creation, mixed-methods

School-based resilience interventions have been implemented and evaluated around the world (Dray, et al., 2017a; Theron, 2016). Either as universal preventive programs or as focalized responses to young people's risks or symptoms, schools are the optimal context in which children's and adolescents' resilience can be fostered (Masten et al., 2008). The school and education system have a pivotal role in promoting comprehensive and sustainable human development. UPRIGHT (Universal Preventive Resilience Intervention Globally implemented in schools to improve and promote mental Health for Teenagers) is a resilience mental-health program for adolescents. UPRIGHT designed and implemented a co-creation and regional adaptation process to adjust a universal whole-school resilience program to different socio-economic and cultural contexts. This study presents its results and products, as well as its rationale, articulation and methods.

Adolescence is a period of both risk and possibilities. Several mental disorders have an early onset, mostly during adolescence, and their associated individual and societal costs run all through adulthood (De Girolamo et al., 2012). Likewise, in this period it is possible to boost the development of protective and promotive factors of resilience. Resilience is a process of effectively negotiating or managing significant stress, supported by individual and environmental assets and resources. As a result, individuals experience positive adaptation in the face of adversity (Windle, 2011). Resilience is multidimensional and has cascade effects throughout life. This means that success or failure at particular developmental period forecast future age-salient outcomes that may trigger favorable consequences across additional life domains (Masten and Obradovic, 2006). Successful mental health promotion during adolescence prevents subsequent episodes or comorbidities (Dray et al., 2017a; Dray et al., 2017b), and may have a positive impact on the individuals, their families and on society in the long term (Jacobi et al., 2011; Trautmann et al., 2016). Early prevention in schools is efficient because it may reach a large number of individuals irrespective of stress exposures or risk conditions (Dray et al., 2017a).

Universal and whole-school preventive resilience programs

Universal resilience programs at school are framed in the broad theoretical, empirical and methodological knowledge built in more than five decades of resilience research (Luthar, 2006). Resilience research highlights the complexity and multitude of pathways to developing resilience, and the still basic understanding on how resilience systems act together in sustaining adolescents' mental health. Typically, resilience prevention models have been unidimensional by

intervening on a single level (e.g. social skills) or at one timepoint. However, the fourth wave of resilience research highlights that enhancing resilient adaptation to stressors or demands involves an integration of bio-psycho, family/social, school and institutional systems (Luthar, 2006; Masten, 2007; Wright et al., 2013), as well as working with promotive and protective factors in a developmental perspective.

Protective factors of resilience (Dray et al., 2017a) moderate the impact of stressors on mental well-being. They can be intrapersonal (e.g. self-efficacy) or connected to wider social environments (e.g. meaningful participation within home, school or community). Promotive resilience factors enhance positive developmental outcomes regardless of adversity or risk (e.g. relationships with teachers) (Sharkey et al., 2008). Universal resilience programs reach complete cohorts of students and may enhance both protective and promotive factors for adolescents to gain the capacity to adapt to a broad diversity of developmental challenges (Baytiyeh, 2019; Masten et al., 2008). Schools may provide promotive and protective environments linked with resilience for all, irrespective of young people's family background (Masten et al., 2008; Sharkey et al., 2008).

Regarding a whole-school perspective, for adolescents, resilience-building factors are not only individual, but equally contingent upon their families, the school and the communities (Doll et al., 2011). Moreover, resilience programs must include teachers as mental health promoters, and the school should work in close collaboration with other social ecologies, such as families and the local community (Ungar et al., 2014).

In a whole-school approach, teachers and school staff contribute by building a school community that promotes resilience for all. They are aware of the potential general and long-term effects on a school culture that promotes resilience (Pluess et al., 2017). Frequently, teachers deliver the programs; thus they must receive an adequate training in order to be confident and experience the program's contents (Ecclestone and Lewis, 2014). There is also abundant evidence that parenting (or related aspects such as attachment, nurturance, support, cohesion) and family relations are closely related to children's and adolescents' mental health, well-being and resilience (Luthar, 2006; Masten, 2007). Likewise, adverse parental contexts are important risk conditions for the onset of mental health issues during adolescence (Zucker et al., 2008). Therefore, a powerful cost-effective strategy to foster resilience with a whole-school approach is to improve the quality of parenting or to add a long-term mentor to the child's or adolescent's life. Supporting effective parenting or mentorship (i.e. a competent adult who is motivated to foster and protect a child's development) promotes positive developmental cascades and boosts adaptive systems, thus building children's and adolescents' resilience (Masten et al., 2008).

Co-creation and innovation to design whole-school resilience interventions

UPRIGHT[1] is a resilience program with a universal whole-school approach. It will reach all young people independently of any risk condition, and will include adolescents, their families and the school community. The program aims to promote mental well-being by enhancing resilience capacities in young people (12 to 14 years old). Over four years, UPRIGHT will co-create, implement and evaluate a universal whole-school resilience intervention in 5 European countries, 30 schools, 300 teaching professionals and approximately 6000 early adolescents and their families (Las Hayas et al., 2019).

Unlike a 'one-size-fits-all' solution, UPRIGHT has a multifaceted model of intervention where participants' involvement in its design contributes to the adherence and accountability of the school community. A systematic review of co-production of educational services for primary schools shows that these studies are almost non-existent in Europe (only 8 out of 122, and 7 of the 8 are in

the UK) (Honingh et al., 2018). Co-production of services is both design and implementation (Honingh et al., 2018); however, most participants are included only in processes of implementation (Voorberg et al., 2015). In educational services (Honingh et al., 2018), co-creation has involved parents and teachers, but not children; it has focused on parents' engagement, and educational attainment, and it was used as a strategy for the inclusion of minorities. The review shows that co-production processes have been conducted with qualitative methods as case studies. Today, there is an increase in empirical studies, but no mixed-method studies have been described (Honingh et al., 2018). Only 20% of innovation processes in public services deliver specific outcomes of co-creation, thus lacking the opportunity of generating services that respond to end-beneficiaries or stakeholders (Voorberg et al., 2015).

Working within a socio-ecological perspective (Liebenberg et al., 2016; Theron, 2016; Ungar et al., 2014), school-based resilience programs build a constructive collaboration when the school professionals, service providers and other school community members contribute with meaningful information and contextually relevant resources, and facilitate access to adolescents. School professionals need child-informed understandings on how to facilitate resilience differentially (Theron, 2016), considering children's diverse responses and adaptation to risk (De Leeuw et al., 2019; Wright et al., 2013), as well as characteristics such as their gender, ethnicity, cultural context and developmental stage (Ecclestone and Lewis, 2014). The dialogue between professionals, experts in resilience, end-beneficiaries and stakeholders demands that the diverse voices within the school community are listened to, especially the voices of children and adolescents, and that they are translated into formal and effective decision-making processes (Lúcio and L'Anson, 2015). UPRIGHT co-creation research was designed to achieve these goals. It presents to the school community a broad theoretical resilience framework, relevant to educational contexts, and simultaneously acknowledges that the translation of concepts and intervention strategy must respond to local needs and resources. URIGHTS' co-creation will contribute to filling a gap in the literature by showing that a systematic research process deployed simultaneously in five countries can reach the protagonists of a whole-school program: the adolescents, their families or main caregivers, teachers and other school professionals. The co-creation of UPRIGHT will demonstrate that concrete outputs of co-creation (i.e. regional adaptation, protocols of co-creation) are feasible and replicable, and that a co-creation process adds validity to further interventions.

Methods

The UPRIGHT theoretical framework was delineated based on a literature review and the consensus of educational experts and resilience researchers in seven pan-European institutions.[2] The UPRIGHT research project and rationale has been published in Las Hayas et al. (2019). The 4 components and their related 18 skills are presented in Table 1. Resilience capacities will be improved by the training in 18 skills comprised in the resilience components.

Design and objectives

The overarching objective of UPRIGHT's co-creation was to generate a valid and feasible regional adaptation strategy for a universal whole-school resilience program by incorporating the main school stakeholders' knowledges and experiences. A regional adaptation strategy contributes to contextualize the meaning of resilience and well-being promotion in terms of young people's needs and expectations. To achieve this, nine specific objectives were established. The co-creation was a concurrent participatory mixed-methods research process (DeJonckheere et al., 2018; Ivankova

Table 1. UPRIGHT theoretical framework with the main components and 18 skills.

Component	Coping	Efficacy	Social and emotional learning	Mindfulness practice
Skills	• Cognitive behavior modification • Conflict resolution • Assertiveness and communication strategies • Mental health literacy	• Self-efficacy • Growth mindset • Emotional resilience • Social resilience • Leadership skills	• Self-awareness • Self-management • Social awareness • Relationship skills • Responsible decision-making	• Observation • Description • Acting consciously • Accepting without judging

and Wingo, 2018; Olson and Jason, 2015) combining a survey study with participatory group sessions customized for three different groups of participants: adolescents, family members or main caregivers, teachers and school staff. The participatory process allowed the incorporation of the experiences and expectations of the members of the school community to inform the design of UPRIGHT's implementation (Ivankova and Wingo, 2018). The mixed and participatory methodology seeks to facilitate the incorporation of the cultural and contextual diversity of the participants and the local research teams (Creswell, 2014).

The integration of findings was elaborated at three simultaneous levels: the study design, the methods and the interpretation (Fetters et al., 2013). At the study design level, the convergent approach described by Fetters et al. (2013) refers to the use of quantitative and qualitative methods to address the co-creation objectives. In accordance with Yin (2006), genuinely integrated mixed-methods studies combine the strategies of inquiry, with equal and unequal emphases according to objectives. In Table 2, UPRIGHT's specific co-creation objectives are presented in relation to the strategies of inquiry used.

At the methodological level, two strategies integrate the qualitative and quantitative strands of the research process (surveys and participatory sessions). A connecting strategy links a larger and mostly quantitative data set of participants of the first wave of UPRIGHT (surveys), with an accidental sub-sampling of participants for in-person participatory group sessions. A merging strategy brings together these two main sources of information for simultaneous analysis. At the interpretation and reporting levels, integration is reached through a narrative waving approach by writing both qualitative and quantitative findings together, in a theme-by-theme organization (Fetters et al., 2013), covering the objectives of study. Based on this process, results are organized in three larger topics and the regional adaptation as the co-creation output. The participatory and mixed research process was set to produce scientifically sound and effective strategies for implementation and further evaluation of the intervention results (Ivankova and Wingo, 2018).

Participants

Participants were invited as volunteers from the schools selected to take part in the first wave of UPRIGHT implementation. These schools were identified through a cluster randomized sampling process, and they were stratified according to the number of adolescents, their location (i.e. rural, urban) and socio-economic status (Las Hayas et al., 2019). Local research teams contacted the schools' administration to request participants' informed consent and to explain the characteristics of the co-creation process. Participants of the survey study were contacted through emails, while participants for the participatory sessions were invited by the teachers or the school staff. In the survey study and participatory sessions, the inclusion criteria were to be preferably between 12 to 14 years of age for adolescents, and for family members (mothers, fathers or main caregivers) it

Table 2. Specific objectives and methods of UPRIGHT's co-creation and regional adaptation.

	Objectives	Methods		
		Participatory sessions	Survey quantitative	Survey qualitative
1	To involve young people and other relevant stakeholders by gathering their inputs for the intervention's design.	X	X	X
2	To confirm that participants (adolescents, families, teachers/school staff) understand the 4 core components and 18 skills comprising the UPRIGHT theoretical model.	X	X	X
3	To prioritize the most relevant or meaningful resilience skills for everyday life of the three groups of participants.		X	
4	To identify and prioritize the most relevant areas of concern to adolescent mental health for the three groups of participants.		X	
5	To select and prioritize the most relevant and feasible methodologies to implement the UPRIGHT.	X	X	X
6	To identify collectively the main challenges and needs (community, schools and families) for the successful implementation of UPRIGHT (and find the possible solutions).	X		X
7	To identify collectively the main resources and expectations in the schools and families for the successful implementation of UPRIGHT.	X		
8	To explore the cultural context and antecedents for the implementation of UPRIGHT: inclusion, active participation, positive relationships, belonging.	X	X	X
9	To adapt and co-customize the UPRIGHT program to regional needs and expectations in the five different European countries.	X	X	X

was mandatory to have at least one adolescent who would participate in UPRIGHT. Local research teams were encouraged to reach equal numbers of participants by gender, and to approach and invite young people or families with migrant backgrounds or with special needs. Surveys were sent to all the teachers and school staff of the selected schools, but the invitation to the participatory sessions followed the criteria of experts' sampling (Patton, 2018). They were teachers or other school staff involved in mental health promotion, tutoring or well-being services in each country (e.g. psychologists, counselors, responsible for arts, sports, integration, etc.). They should be working directly with adolescents aged 12–14 in the selected schools, and preferably they will be trained and will lead UPRIGHT's intervention in the schools.

The fieldwork was concurrent (Teddlie and Tashakkori, 2006). The two strands of the research were parallel for three months. The co-creation process gathered a total of 1011 participants: adolescents ($n = 448$), family members ($n = 345$) and teachers and school staff ($n = 218$). Table 3 describes the participants by countries and methods (i.e. surveys, participatory sessions). The total number of respondents to the surveys is 794 in 4 countries (except Iceland), while the total number of participants in the group sessions is 217 coming from the 5 countries involved. A triangulation of participants (Denzin, 2012) was reached thanks to the exploration of the participants' standpoints along each of the co-creation objectives with both methods of enquiry.

Table 3. Description of participants ($n = 1011$), and triangulation with methods and countries.

Country	Methods	Adolescents	Families	School staff and teachers	Total per method and country
Italy	Surveys	49	41	39	129
	Participatory sessions	16	6	12	34
Denmark	Surveys	246	196	47	489
	Participatory sessions	10	11	18	39
Spain	Surveys	21	29	13	63
	Participatory sessions	21	11	25	57
Poland	Surveys	43	28	42	113
	Participatory sessions	21	8	10	39
Iceland	Participatory sessions	21	15	12	48
	Total per group	448	345	218	1011

The total number of participatory sessions was 16, one per stakeholder group in each country (except Spain, due to linguistic characteristics of the Basque Country). Globally, 33% of the participants in the group sessions were men, while 67% were women. The gender disparity in the sessions is similar across countries. Poland reached a closer balance among men (46%) and women (54%), while Denmark (31% men, 69% women), Italy (26% men, 74% women), Spain (25% men, 75% women) and Iceland (38% men, 63% women) could not reach a balance among genders.

In relation to the respondents of the surveys, the adolescents ($n = 359$) were 11 to 15 years old, their mean age was 12.25 years; 47% were boys and 53% were girls. The family members ($n = 294$) had an average of 43.75 year of age, 19% were men and 81% of the respondents were women. Among the teachers and school staff ($n = 141$), the average age was 46 and the gender disparity was similar: 20% men, and 80% women.

Methods and procedures

A triangulation of researchers (Denzin, 2012) was reached with the close collaboration of seven research institutions distributed across six European countries: five countries where UPRIGHT is implemented, and Norway, where the research team of co-creation leaders is based. In each implementation site, the interdisciplinary research teams systematically revised and translated the objectives, instruments, protocols, and pedagogic strategies and materials used. As an alternative to validation, the triangulation of researchers adds rigor, complexity and credibility to the research process.

Participatory sessions. To implement and report the sessions, two main instruments and pedagogical materials were designed: the 'Protocol for the deployment of participatory sessions' and the 'Protocol for the pre-analysis and report of the sessions' (both in supplemental materials). The protocols have a detailed description of the instructions to prepare the sessions (i.e. objectives, verification criteria, steps prior to, during and after the sessions), to lead them (revision of consent, activity, objectives, facilitation technique, materials needed, expected products for each stakeholder) and to pre-analyze and report them. The materials were translated into six languages (Spanish, Basque, Italian, Danish, Icelandic and Polish).

Survey study. Surveys were ad-hoc designed for each stakeholder with similar structure and shared objectives. The adults' surveys (teachers and families) contained four sections while the adolescents' survey contained the first three sections. Each section had closed questions (i.e. multiple choice, rating scale, Likert scale and matrix questions) as well as open-ended questions to explore each topic qualitatively. The instructions gave information about UPRIGHT and the importance of the school community's participation to customize it through the co-creation process. It also explained confidentiality and anonymity, and verified the participants' consent before proceeding (in supplemental materials).

The first section, '*Core program*', presented the 18 skills of UPRIGHT's theoretical model and asked the participants to rate their level of importance for their everyday life (prioritization of skills in four score points). It included an option of '*I don't understand it*'. The second section, '*Areas of concern*', presented 23 topics considered relevant stressors in adolescents' lives. Participants were asked if it would be relevant to address these topics in their schools. The third section, '*Methods*', explored participants' preferred activities from a list of methodologies used in resilience programs. Each section included open-ended questions. The fourth section, '*School culture*', explored the quality of the school environment in terms of positive relations, belonging to the school community, inclusion, active participation and mental health awareness. The information gathered in this section led to the development and validation of a new psychometric tool and construct of '*School resilience*' (Morote et al., 2020).

Analysis

Diverse aspects of triangulation and integration (in design, methods and interpretation) guided an iterative process of synthesizing the research results, assuming complementarity and equality between the qualitative and quantitative information (Denzin, 2012). However, specific frameworks and techniques were used for the analysis of each strand of the co-creation.

The analysis of qualitative information (including the survey's open-ended questions) was thematic without predefined categories or coding systems. This is a narrative phenomenological approach where the emphasis is on the life experiences of the participants. The interpretation is built on syntheses in units of meaning (by themes) and selected illustrative quotes to argue for the plausibility of the interpretation (Creswell, 2014). Aside from the specific contextualization of the responses, clear sets of recurring themes emerged. Emerging themes were interpreted in terms of cultural and organizational contexts or generational preferences (adolescents versus families and teachers or school staff). The synthesis of qualitative information was connected and used to clarify similarities or differences found by quantitative comparisons across the main topics of analysis, counties, or type of participants.

SPSS version 25.0 was used to perform the quantitative analyses of the survey study answers. Measures of central tendency were used to explore and describe basic results while Pearson chi-square tests were used to test significant differences across countries and types of participants for the top five highly ranked resilience skills and areas of concern. For the skills, to meet the assumption of adequacy of expected frequency counts in any cells reaching greater than five (Howell, 2012), for a sampling distribution that is probably close enough to a perfect chi-square distribution (Field, 2013), response categories '*absolutely essential*' and '*very important*' were combined to form '*very important*'; '*not important*' and '*of little or no importance*' were combined to form '*of little or no importance*'; whereas '*I don't know*' was deleted for the comparison (missing value). Similarly, for the areas of concern, '*relevant*' and '*very relevant*' response categories were combined to form '*very relevant*' and the other response was '*not relevant*'. Data was weighted by each combination of categories in the frequency cells, and Bonferroni

correction was selected to adjust significance tests. When a significant chi-square was obtained, Cramer's *V* strength statistic was computed.

Results

The results are organized in three areas of analysis and a proposal of regional adaptation. The analysis integrated the two strands of research covering the co-creation objectives. The focus was on reaching common ground to ensure better transferability (DeJonckheere et al., 2018; Ivankova and Wingo, 2018) of the co-creation into a regional adaptation strategy for the five countries (main product of co-creation), prioritizing the adolescents' and teachers' perspectives.

The UPRIGHT resilience program: prioritization of skills and participants' experiences

According to the participants, UPRIGHT's theoretical model of 4 resilience components and 18 life skills is pertinent, meaningful and applicable in their contexts. In the participatory sessions, participants (adolescents, families, teachers, $n = 217$) were asked to '*imagine a situation in which each skill could be useful*'. Across countries, families and school staff provided several examples and recognized the 4 components and 18 skills as relevant. Respondents of the surveys ($n = 797$) mostly rated the 18 UPRIGHT skills as '*absolutely essential*' and '*very important*'. Few participants indicated that they did not understand a skill; for instance, only 1% of teachers answered the option '*I do not understand*' in 12 to 18 of the skills presented. As expected, adolescents had more difficulties in understanding the skills in the surveys (10% answered '*I do not understand*' to Cognitive behavior modification, and 8% to Growth mindset).

Once it was verified that skills are meaningful and relevant, the prioritization of skills for the regional adaptation strategy was implemented by identifying adolescents' five more relevant skills in each country, and across countries. The five skills considered as the most relevant to boost well-being in all the schools by adolescents were: Self-efficacy, Responsible decision-making, Relationship skills, Assertiveness and Conflict resolution. There is no significant association between the country and whether a component was ranked as '*of little or no importance*' or '*very important or absolutely essential*' (Pearson chi-square test, $p > .05$). Thus, across countries, adolescents recognize these five skills as the most relevant to boost well-being in their schools. The lack of significant difference allows their use as recommended fixed characteristics for the regional adaptation strategy in the five countries. Table 4 integrates this information with the experiences of adolescents in the use of each skill from participatory sessions ($n = 89$). A thematic analysis of the examples collected offers a representation of the meaning and relevance of the skill for adolescents in their contexts.

The most relevant skills for adults (i.e. families and teachers) were also explored in the surveys. Three of the five highly ranked skills by adults coincided with those prioritized by adolescents across countries: Assertiveness, Conflict resolution and Self-efficacy. In the participatory sessions, families ($n = 51$) described how they could use these skills to improve their children's well-being. Assertiveness will help the children '*to feel confident when having different opinions*' and it will teach them to '*negotiate*' with empathy (Spain); Conflict resolution will help the families to '*make common rules and agreeing on simple things*' (parents and children) (Denmark) and it will help the children to be '*task-oriented when solving problems*' (Poland). To work on Self-efficacy will '*strengthen their sense of autonomy*' (Spain), nurture their '*confidence to accept new challenges*' (Iceland) and will help them to accept '*that is ok to do (i.e. make) mistakes*' (Iceland). Self-efficacy

Table 4. Adolescents: cross-country comparison of highly ranked skills and qualitative comprehension of the skills.

Surveys: $n = 340$ *'How important is it for you to learn about?'*		Participatory sessions: $n = 89$ *'Can you imagine a situation in which this skill could be useful for you?'*		
UPRIGHT Skill	Pearson χ^2	Theme analysis	Country	Respondent illustrative quote
Conflict resolution (C1)	χ^2 (3) = 4.189*	Adolescents identify it as a useful tool in everyday contexts, in relation to bullying and to prevent major struggles.	Italy	—
			Spain	*'If someone is bullied, tell someone you trust'*
			Poland	*'Trying to solve problems in a civil way – talk, and without violence'*
			Denmark	*'Solve problems before they get to big'*
				'Not having to many thoughts in your head'
			Iceland	*'Would be useful when they don't agree on which game to choose'*
Assertiveness (Communication strategies) (C1)	χ^2 (3) = 7.294*	Adolescents apply it to practical contexts but also identify emotional and empathic dimensions of effective communication.	Italy	*'When you have school tests, it is very useful to communicate well'*
			Spain	*'You can't just yell at the teacher. . . you have to know how to talk to him'*
			Poland	*'Avoid cursing'*
				'Not losing self-control'
			Denmark	*'You should communicate with others the way you want them to communicate with you'*
				'Reflect on the way you say things'
			Iceland	*'Would help them to learn to listen to each other and be nice'*
Self-efficacy (C2)	χ^2 (3) = 3.269*	Adolescents associate it with self-confidence and worth. It is the engine to persevere and try new things	Italy	*'In group works and competitions: reading contests, sports mathematics'*
			Spain	*'Take an exam, think that you can do it and that it's going to go well'*
			Poland	*'Pursuing one's goal'*
			Denmark	*'Feeling proud of what you have achieved'*
				'Not give up fast'
				'Get your homework done'
			Iceland	*'To have confidence in everything you do (sports) and in communication'*
Relationship skills (C3)	χ^2 (3) = 4.341*	Adolescents connect them with empathic behavior towards others and self-care in their own contexts.	Italy	—
			Spain	*'When someone's pet dies, know how to treat him/her empathically'*
			Poland	—
			Denmark	*'Being able to say stop to your parents if they are being too hard on you'*
				'Enough is enough'
			Iceland	*'Being a good friend and trusting your friend'*
Responsible decision-making (C3)	χ^2 (3) = 5.430*	Adolescents identify their own responsibility towards others and themselves.	Italy	—
			Spain	*'Think about it and take a meaningful decision'*
			Poland	*'Being aware of what one's doing'*
			Denmark	*'Doing things that are good for your body and brain'*
				'Being responsible for your own room'
			Iceland	—

C1: Coping; C2: Efficacy; C3: Socio-emotional learning (components where the skill belongs).
*$p > .05$.

will contribute to the growth of a positive '*success mindset, motivation, (and will) help in accomplishing a goal*' (Poland). Within the top highly ranked skills for families were: Mental health literacy, Emotional resilience, Self-awareness and Relationship skills (with even scores), while for teachers and school staff, Emotional resilience and Cognitive behavior modification are among the most relevant skills to boost adolescents' well-being.

Adolescents concerns and mental health awareness in schools

Based on a literature review, 23 adolescents' life concerns (e.g. contextual demands, developmental tasks, and physical or emotional stress reactions) were selected.[3] Participants in the surveys ($n = 797$) responded about these concerns in the context of UPRIGHT in their schools. Across countries, adolescents rated bullying as the most relevant concern for their mental well-being. Self-harm and suicide, loneliness and isolation, respectively, were the next highest-rated, followed by cyberbullying and life purpose and meaning. Pearson chi-square tests were performed to analyze group differences across countries for each five stressors ('*very relevant'* = 1; '*not relevant*' = 0). There is a significant association between country and concern ranked as relevant or not in the cases of bullying χ^2 (3) = 9.429, $p < .05$; Cramer's $V = .175$, $p < .05$, and self-harm and suicide χ^2 (3) = 9.873, $p < .00$; Cramer's $V = .181$, $p < .05$. There is no association of country and whether the concern is considered very relevant or not in the life purpose χ^2 (3) = 2.062, $p = .560$, cyberbullying χ^2 (3) = 6.611, $p = .085$, and loneliness χ^2 (3) = 0.171, $p = .982$.

The significant differences in the categorization of bullying and self-harm and suicide are due to the groups of Spain and Italy respectively. In the first case, unlike other countries, all Spanish adolescents considered that bullying is a very relevant concern for mental well-being in their schools. In the second case, only 58% of Italian adolescents considered self-harm and suicide as a very relevant stressor, unlike their peers in other countries who reported this category much more frequently. Table 5 presents the percentages ('*very relevant*') and comparisons of the five more relevant areas for adolescents. It also shows the qualitative responses provided by adults (families, teachers and school staff) in the surveys about what is important to address in a resilience program to boost mental well-being in their children's schools.

Families and teachers state that adolescents' perfectionism, expectations, competition and especially the fear of '*failure*' are relevant concerns. These concerns are related to educational attainment, but also to a constant self-evaluation of own performance in comparison to others or to social standards. Families think that the quality of adolescents' relationships at school has an important influence on adolescents' well-being, especially if they feel rejected by peers. Parents are aware that broader concerns (i.e. social, political) are also important stressors for their children because they might influence their life projects. Teachers recognize daily stressors related to the adolescents' family life (e.g. family relations, habits, health), their emotional development and aspects of the school's demands (e.g. time management, cooperation and social relations). In general, the members of the school communities are aware that adolescents' environment and life stress may influence their development and their physical and mental well-being.

How to foster resilience in schools: methods, antecedents, challenges, resources and expectations

Methods. The preferred methods for UPRIGHT's implementation were explored mainly from the perspective of the teachers and school staff. In the surveys ($n = 141$), they were asked to identify feasible and relevant methods to implement mental health promotion among 12 options. The activities selected by more than 50% of the teachers and school staff are collaborative work group

Table 5. Survey study on adolescents' concerns: cross country comparison of highly ranked concerns for adolescents and qualitative information from families and teachers.

Adolescents $n = 340$			Families $n = 309$	Teachers $n = 153$
'In your school, how relevant is . . .?'			*'Would you add some other concern that is important for young people in your school/school of your children?'*	
Concern	Country	% very relevant	Respondent illustrative quote	Respondent illustrative quote
Bullying	Italy	70	*'Expectations, pressure and unhealthy competition in case of grades'* (Denmark) *'Concerns about making mistakes . . . they will make everything perfect'* (Denmark) *Competitiveness, always comparing oneself with others, or giving no value to the persons* (Italy) *'Deal with failure'* (Poland) *'They are trying to look like all the others and are afraid to stand out'* (Denmark) *'Accept rejection'* (Poland) *'Friendship in everyday life and not through social media that very often do not reflect reality'* (Italy) *'The world feels great and unmanageable for them: climate impacts, war, etc.' (Denmark) 'Contact with the environment and nature'* (Italy) *'Sharing and detachment from material goods'* (Italy) *'Recognize and accept that the other classmates may be different . . . that diversity in a class makes it more interesting'* (Denmark) *'How important it is to get the parents involved in the well-being of the class and the spare time activities'* (Denmark) *'Destructive influence of other children . . . assertiveness'* (Poland)	*'Many children suffer from having a sibling with a diagnosis. They suffer deprived and diminished attention and have no help'* (Denmark) *'Childhood traumas'* (Italy) *'Making choices, dealing with worries: my strengths, what am I good at?'* (Denmark) *'Recognition of one's emotions, 'Who am I?' (Italy) 'Recognition of own and other people's emotions'* (Spain) *'Accept small failures or failures'* (Italy) *'Criticizing everything and everyone, complaining, comparing'* (Poland) *'They need to know where to get help if they need it'* (Denmark) *'Importance of physical activity, health'* (Italy) *'Rivalry instead of cooperation . . . No group acceptance of other's views'* (Poland) *'Assertiveness, and time management'* (Spain)
	Spain	100*		
	Poland	89		
	Denmark	79		
Self-harm, suicide	Italy	58**		
	Spain	94		
	Poland	81		
	Denmark	74		
Loneliness	Italy	80		
	Spain	82		
	Poland	83		
	Denmark	81		
Cyberbullying	Italy	63		
	Spain	94		
	Poland	78		
	Denmark	72		
Life purpose	Italy	90		
	Spain	88		
	Poland	86		
	Denmark	82		

*χ^2 (3) = 9.429, $p < .05$; Cramer's $V = .175$; **χ^2 (3) = 9.873, $p < .0$; Cramer's $V = .181$, $p < .05$.

(68%), creative exercises (63%), class discussions (62%), field trips or fieldwork (55%) and art-based activities (i.e. creative writing, drawing and painting activities, 54%). There is also strong support for activities such as dilemmas (49%), experimentation (44%), research projects (44%), role plays (42%), drama plays (38%) and the use of media information (i.e. comics, YouTube, movies, 35%). Notably less support was received for computer-based activities either in class (24%) or at home (11%). To work with parents, the teachers and school staff only gave significant support to work group activities (53%). In the participatory sessions, several challenges related to training families were identified, and, unlike their teachers, adolescents suggest the use of media and computer-based activities in UPRIGHT.

Antecedents. In the sessions, teachers and school staff ($n = 77$) were asked to revise together the '*antecedents and efforts of the school in improving the well-being of the students*' (and their achievements). In the five countries, they listed diverse activities (e.g. cultural meetings, spring festivals; Iceland), short programs (e.g. socio-emotional skills; Poland) or focalized efforts (e.g. the incorporation of psychologists; Italy) to promote well-being. These activities addressed the adolescents (Poland), their relationship with teachers (Spain) or the whole school community (Iceland).

Challenges. According to the teachers and school staff, the most relevant challenges to implementing a resilience program are to promote the '*involvement of families*' (Italy), a '*permanent contact between teachers–families*' (Spain) or to design special activities just for families; for example, '*on communication and use of technology*' (Iceland), '*meetings*' (Denmark) and '*workshops*' (Poland). In some countries, the norms and constraints of the educational system (Italy) might be a difficulty. Similarly, teachers perceived that there is not a '*common ground, clear and fixed boundaries, goals and objectives (about what) kind of thriving do we want to nurture*' (Denmark). In other countries, a perception of insecurity was raised when dealing with issues that demand '*privacy*', adolescents need '*a space where they have intimacy when they (can) feel vulnerable*' (Spain). '*Good planning (scheduling optimal dates and times)*' (Poland) was also important for the school staff. On the contrary, useful strategies to implement a resilience program might be the participation of '*older students as positive role models*' (Denmark) and to incorporate professionals such as '*psychologists*' (Italy), '*mental health*' (Poland) or '*special needs*' (Iceland) specialists. They addressed that '*the continuity of these projects is essential*' (Italy), either with follow-up actions or with interventions throughout the school year within the curriculum.

Resources. The '*main resources, capacities, talents*' that might facilitate implementation are organizational characteristics and '*management skills*' (Italy) and '*a management team who supports, runs research and innovates*' (Spain). A good management team will focus on good use of time, coordination and the provision of financial support (Spain) and the '*equipment*' (Poland) needed to innovate in well-being prevention. The '*training*' (Spain), '*competences, and skills*' (Iceland) of the teachers are mentioned by all the countries. Finally, personal characteristics and positive attitudes of teachers and staff were found to be crucial in involving the school community in mental health promotion: '*openness*' (Denmark), '*creativity, positive mindset, openness to innovation, respect, collaboration*' (Iceland) and '*relationship and listening skills*' (Italy).

Expectations. Adolescents ($n = 89$) had important expectations when asked about UPRIGHT in the participatory sessions ('*It would be good if UPRIGHT is, has, includes, does . . .?*'). In the five countries they suggested new games, activities and equipment that promote fun and enjoyment, such as '*computer-games, tablets, phones*' (Denmark, Spain, Italy), '*photos and videos*'

(Iceland). They wanted to have '*different activities than just sitting on a chair*' (Denmark) and they preferred to learn '*outside the classroom*' and to have '*trips*' (Italy). Bullying (and cyberbullying) were the most common responses to the statement '*It would be good if in UPRIGHT we can talk about . . .*'. Other important concerns for adolescents were relationships and conflict management with adults (family and teachers), '*issues related to our daily life at school*' (Italy), how to deal with '*homework*' (Poland, Spain) and practical matters for their future; for example, '*financial matters, social responsibilities*' (Iceland). In accordance with the concerns identified in surveys, they mainly expect that UPRIGHT will help to stop bullying. They wanted '*students to respect one another and stop using violence*' (Poland) to solve problems, and teachers actively working to '*improve class climate*' (Italy) and '*mental well-being*' (Denmark). They expected to be able '*to open-up and express their feelings, and to learn more about mental illness*' (Iceland, Denmark).

Adolescents have expectations regarding the adults' participation in a resilience program ('*It would be good if at the end of UPRIGHT in my school or class . . . parents and teachers learn about, or how to . . .*'). Adolescents expected that adults would become more empathic, '*to learn how to put themselves in our place to understand our problems*' (Italy) and to see things from the students' perspective (Denmark) or point of view (Iceland). They wanted to be '*listened (to) (not interrupted), supported in hard times, and that they take it seriously when asking for advice*' (Spain). Adolescents wanted to feel appreciated and valued for '*what we do/are (effort, attitude) and not only our exams outputs*' (Spain), '*regardless of how he is doing at his studies*' (Iceland). Adolescents would like to feel less '*control*' (Poland), they expected that adults would '*give us more room, not telling (us) in every single moment what we have to do*' (Italy), also more '*privacy*' (Denmark). They expected that teachers would '*listen before putting negative marks*' (Italy), '*make the learning process more individualized*' (Iceland) and, especially, would consider not overloading them with homework.

Transfer process: from co-creation process to a strategy of regional adaptation

Based on the analysis of the information gathered, the scientific teams defined a set of fixed characteristics to be implemented in the first year of the UPRIGHT program (*Well-being for us*) in the five countries. These characteristics are the program contents and their distribution, as well as the number, structure, extension and basic materials to be used in the sessions. Cross-countries comparison and further evaluation of UPRIGHT intervention will rely on them. However, to tackle contextual differences in the school settings, UPRIGHT proposes a strategy of regional adaptation to be implemented by each school team using the particularities identified in each country.

This information was systematized in the UPRIGHT teachers' manual, in the introductory chapters (i.e. 'How to use this manual'), and in the regional adaptation chapter. Figure 1 shows the basic schema of regional adaptation as it is presented to the teachers and school professionals in the manual of implementation of the first year.

Teachers are asked to implement a minimum number of sessions (18) with the adolescents in order to ensure effectiveness. The first 18 sessions include (a) 1 session to introduce the program; (b) 14 sessions devoted to each skill of the components Coping, Efficacy and Socio-emotional learning; the 4 skills of the component Mindfulness are a permanent training distributed as part of the methodology of each session; and (c) 3 sessions dedicated to the skills, concerns or preferred activities suggested as output of the co-creation process in their countries. Once the minimum number of sessions is completed, each school team could implement up to six 'extra' sessions

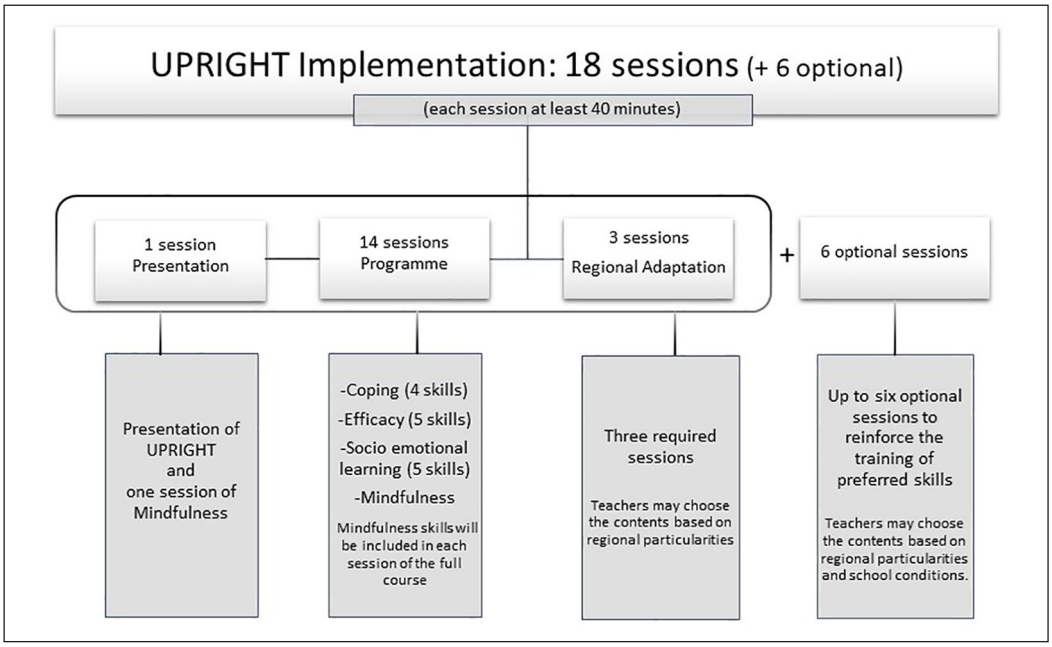

Figure 1. UPRIGHT Implementation with regional adaptation.
Adapted from the teacher's manual of *Wellbeing for us*. ©The UPRIGHT Project. All rights reserved.

depending on the extension of their school year and the preferences of their participants, and based on the output of regional adaptation for their country.

The qualitative answers explored in the research process were translated into recommendations throughout the teachers' manual (*Well-being for us*) and in suggesting extra-mural, outdoor, media and social media activities for the second year of the intervention (*Well-being for all*).[4] Following the adolescents' and teachers' expectations, the regional adaptation chapter explains the co-creation process to the teachers who implement UPRIGHT. They are presented with a list of prioritized resilience skills '*that adolescents from your country find meaningful and relevant to their everyday lives*'; concerns '*relevant for adolescents, parents and the school staff from your country*' (with supporting definitions) and activities that teachers consider the most successful, based on their previous local experiences. They are encouraged to increase the training based on this information and the feedback of their pupils.

The importance of involving each member of the school community (whole-school approach) and to reach and include all (universal approach) is reflected in diverse guidelines for the teachers and in the messages for all the participants throughout the UPRIGHT manual. The 'How to use this manual' chapter not only includes a conventional description of the suggested activities for the program, but information to clarify the concept of resilience (i.e. '*Resilience as part of our lives*'), the role of each member of a school community in fostering resilience (i.e. '*Parents and their role*', '*School and my role as a teacher*') and the key contribution made and challenges faced by teachers in this process (i.e. '*The teacher as a mentor in resilience*', *'Difficult questions and no easy answers*'). Finally, teachers received special guidelines about how to facilitate the participation of adolescents and families with special needs (i.e. learning, socio-emotional, physical special needs) or migrant background.

Discussion

The present study showed the results of a multifaceted process of co-creation in a cross-national frame, and the construction of a strategy to regionalize a universal whole-school resilience program. The study allowed the unfolding of the viewpoints of different groups of adolescents, family members, teachers and school professionals based on information coming from dissimilar sources, ranging from anonymous surveys with closed and open-ended questions to collaborative group sessions where consensual answers were reached (mixed participatory approach). The synthesis of information is based on different strategies of integration, and it was built at different levels, first by local research teams in the five countries (local reports), and then by the co-creation leading research team, who delivered the research results as well as the co-creation products for the program's implementation. In this section we will highlight why and how a participative co-creation process addresses the risks of decontextualized and top-down interventions, thus informing resilience as an appropriate paradigm for implementing school-based programs. Then, we will discuss the possibilities and limitations of the co-creation research strategies deployed. Finally, implications for further research will focus on public services, policy developments and critical remarks on the limits and possibilities of resilience in educational systems for the promotion of individual well-being as well as societal development and sustainability.

Research and innovation: resilience-based mental health promotion in schools

The knowledge produced during co-creation was transferred as a strategy to regionalize a two-year resilience-based educational program responding to local, social and cultural characteristics of the school communities. This output included a manual directed to end-beneficiaries who implement the program during its first year, and the design of resilience-promoting activities to be implemented during UPRIGHT's second year by the whole school community. In this process, the adolescents, their families and teachers were at the center of the decision-making prosses. The participants confirmed that in a universal and inclusive program, each member of the school community has concrete roles in building resilience and well-being for all. The transfer process put this into practice and consolidated a bottom-up research and action process (Creswell and Tashakkori, 2007).

The co-creation process and the design of a regional adaptation strategy are the first steps to validate a larger research and intervention resilience program that aims at proving its effectiveness in a cross-country European framework. Unlike indicative programs (targeting groups at risk or with specific psychopathologies), universal resilience programs are primary preventive interventions; thus they target whole cohorts of adolescents. These types of interventions usually present a one-size-fits-all solution. This study shows that prioritizing resilience skills, adolescents' concerns and preferred methods of intervention is an effective strategy to regionalize the program by highlighting similarities and differences across settings and groups of stakeholders. While similarities support a shared resilience intervention across countries, countries' differences and stakeholders' preferences are the guidelines to adapt the first and second years of UPRIGHT intervention (*Well-being for us* and *Well-being for all* respectively). The key for this process is to deliver a flexible schema of intervention, with room and clear guidelines for regional adaptation. UPRIGHT co-creation has specific outcomes, thus showing its practical use and contribution to the delivery of innovative public services (Voorberg et al., 2015).

The co-creation research process delivers two validated protocols to co-design and adapt universal resilience programs for researchers, education officers or politicians, using participatory and mixed research methods (supplemental materials). Supported by a systematic and replicable process, this study has shown the applicability and usefulness of this methodology in

5 European countries, with more than 1000 participants located in different demographic and socio-economic contexts. The study demonstrated that these barriers may be defeated with the co-production of educational services grounded in complex research processes (Honingh et al., 2018). UPRIGHT's co-creation research process goes beyond focalized qualitative case studies, by using stronger methods and delivering applicable results. Products coming from an innovative and rigorous experience could change the way public services are designed and provided (Voorberg et al., 2015).

In the frame of the research and innovation promoted by the European Commission, the impact is supported by broadening stakeholder engagement, which in turn is a sign of excellence. We have promoted stakeholders' engagement through participatory strategies that incorporates them as experts. Frequently, experts are scientists, researchers, politicians or institutions who are part of advisory boards or participate in actions of communication (one-way) or consultation and collaboration (two-way) (e.g. SciShops, 2018). On the contrary, in line with the socio-ecological resilience paradigm (Liebenberg et al., 2016; Theron, 2016; Ungar et al., 2014), we demonstrated that end-users have valuable knowledge to inform the design of a longitudinal research and intervention program while promoting engagement and alliances both within the school community, and between it and external educational bodies and researchers. Decontextualized, person-centered rationalities, as well as institutional and normative approaches lacking local sensitivity and engagement, not only fail to produce results but risk reproducing power imbalances and inequalities (Schwarz, 2018; Zembylas, 2020). On the contrary, participation and consciousness about implementation within the school community might be directly related to the effectiveness of interventions and the long-term adoption of resilience-based programs (Hodder et al., 2011). UPRIGHT's co-creation strategies seek to contribute to these goals.

How and why to implement resilience skills education in schools: participants' voices

Although there is a broad diversity of resilience interventions in schools, the most effective programs seem to be collaborative, multisystemic, culturally and contextually relevant and, most importantly, they respond to what children themselves say they need (Ungar et al., 2014). UPRIGHT's co-creation process has shown that early adolescents have large expectations about a program that promotes their well-being and inner strength with a whole-school approach. Young adolescents claim adults' empathy as well as a safe school environment. They expect to be listened to and understood; they want school environments free of violence in their relationships and in increasing perceived demands (i.e. educational attainment, personal success, self-image). Family members acknowledge that the quality of the relationships within the school, and adolescents' expectations of success, have a clear impact on their children's mental well-being. For teachers and school professionals it is crucial: (a) to involve families and caregivers in the school's effort in favor of mental health promotion; (b) to update their own knowledge about and vision of the adolescent world (i.e. new technologies, life styles, globalization and differences); and (c) to redefine their roles as mentors of resilience-based practices for healthier school coexistence. These co-creation insights may contribute to similar efforts to connect schools with lifelong learning processes that build individual well-being as well as inclusive and sustainable societies (UNESCO, 2016).

Theory, applied research, policy and, particularly, people's knowledge build together a definition of resilience, and resilience interventions, open to criticism and to contextualized reformulations. In this resilience approach, the dominant adult-centric perspective of young people at risk, or young people as risks (Walsh, 2019), is challenged by acknowledging young people's leading role in framing their idea of well-being and how to achieve it. Moreover, the participatory co-creation process showed that school professionals problematize the notion of resilience and its role within

the school context. When asked about the main challenges to implementing UPRIGHT, teachers addressed questions such as '*What kind of thriving do we want to nurture?*', and how to incorporate mental health professionals and long-term interventions in the schools. With a critical outlook, UPRIGHT's co-creation process does not provide closed answers but creates space for the debate, shows new psycho-educational tools and further creates possibilities for implementing changes within the school context.

A school community committed to supporting resilience should develop organizational ways-of-being and ways-of-doing that reinforce teachers' efforts to build resilience. In line with the participants, effective whole-school resilience interventions should be creative, promote actions beyond the classrooms, school engagement (building trust, respect, inclusion, etc.) and address children's basic needs, such as perceived safety (Theron, 2016). These are changes in the school ecology and equilibrium of diverse resilience-promoting systems (Ungar et al., 2014). They will demand a progressive inclusion in the school curriculum, thus becoming accessible, affordable and sustainable (Mackay et al., 2017). Accordingly, a school-based resilience program does not use the educational system as a means to introduce resilience into young people's lives, but it is grounded in its role to bring about comprehensive human and social development.

Finally, resilience as a promotive and protective process is better understood in its own context acknowledging the possible impact of risk conditions, inner vulnerabilities or social adversities. The co-creation participants confirmed that adolescents' concerns are relevant when working to foster mental health, well-being and resilience for themselves and for all. In a developmental perspective (Masten et al., 2008; Masten and Obradovic, 2006), the combined study of risk and vulnerability processes, positive and negative outcomes, and protective assets or strengths allows identification of diverse and contextualized developmental pathways including risk gradients (e.g. contextual or cumulative risks) and expected and better-than-expected trajectories. This is the ground on which to build predictive models of positive or ill development, as well as models of adjustment to developmental transitions. Predictive models are important methodologically as well as conceptually; they will allow demonstration that early resilience interventions can change the lives of the majority and they will support the inclusion of resilience-based prevention in educational systems around the world.

Limitations of the study

Limitations of the design may restrict the generalization of the findings. The sampling strategy of the survey study was predominantly accidental while participatory study used an expert sampling strategy (Patton, 2018). In general, participants in the co-creation process responded thanks to their availability and motivation. Although mandatory and preferred inclusion criteria were defined for both strands of research, regional bodies of education, local policies and school professionals in the five countries have different characteristics, organizational norms and ways to communicate and engage families and adolescents. Moreover, the local research teams come from different type of institutions (e.g. universities, public services, private research institutes, etc.) or have different relationships (e.g. short- or long-term relation, previous interventions) with the schools invited to participate in UPRIGHT. All these conditions may have different impacts on the response to volunteer in the co-creation research process. In consequence, the groups studied do not fully represent the target population: that is, the school community members of the selected schools for the first wave of UPRIGHT intervention. However, as experts, participants in the group sessions provided valuable insights into the root of adolescent, family and school well-being and how to boost it in the schools. Therefore, due to the participatory mixed-methods design used, representativeness and generalization of the results are limited in terms of quantitative criteria, but the depth of the results and transferability of the methodology are preserved.

Implications and directions for future research

The rise of resilience as a paradigm has crossed over from academia to international institutions and financial agencies stressing the relevance of school-based intervention to mobilize social change (Patel et al., 2015). However, the expansion and popularity of the resilience paradigm must keep open questions and delineate future directions in constant dialogues within and beyond academia. First, school-based preventive programs will benefit from further diversity in the methods used to design innovative and inclusive services. The existing literature is weighted towards qualitative methods and top-down designs. Documented co-creation processes in educational contexts, including children's and adolescents' voices, are almost non-existent (Honingh et al., 2018; Voorberg et al., 2015). Participatory mixed-methods studies will promote in-depth understanding of the prioritized concerns and demands of the end-beneficiaries and how to intervene in meaningful partnership with the whole-school communities. Further, randomized experimental and longitudinal designs supported in co-creation processes will provide stronger evidence for causal claims on resilience protective factors and adolescent mental well-being.

Second, this study contributes to the growing and advanced field of participatory mixed-methods research by addressing important recommendations posted by DeJonckheere et al. (2018). UPRIGHT's co-creation articulates the rationale of both research paradigms with transparency by connecting objectives for each strand of research. Besides, UPRIHT's co-creation is an empirical study that provides comprehensive descriptions of each methodological aspect and shows its applied value in the translation of results into concrete products. In accordance with the intersections and shared philosophical standpoints of participatory and mixed-methods paradigms, UPRIGHT's co-creation has a dialectical and collaborative approach; it combines insiders' (school community) and outsiders' (research teams) perspectives (Ivankova and Wingo, 2018), and brings research findings to real-world settings (DeJonckheere et al., 2018).

Finally, UPRIGHT's co-creation process is a policy-informing study (Alheide and Johnson, 2011; Brandsen et al., 2018); therefore, it may impact on current and future programs and practices in the European context and beyond. In line with the European Commission (Fondation Sciences Citoyennes Fondation, 2014), insights acquired from the perspective of numerous school communities across five countries, and the consensus of interdisciplinary scientific groups specialized in resilience and education, may inform further policies and interventions. Bottom-up knowledge (Creswell and Tashakkori, 2007) should adjust research agendas to meet changing demands in the field, based on theory, evidence-based science and daily-life knowledge gathered in participatory processes. In line with the Incheon Declaration: Education 2030 (UNESCO, 2016) and the fourth sustainable development goal, a co-creation process is a strategy to promote inclusion and equality. Fostering resilience in schools will contribute to the acquisition of the interpersonal and social skills that enable citizens to live healthy and fulfilled lives as well as to respond to local and global challenges (UNESCO, 2016) with self-reflective ethics and responsibility (Chandler, 2013). This is the vision and meaning of high-quality education for present and future generations.

Conclusion

Promoting adolescent resilience and mental well-being in school contexts is a growing trend in educational and developmental sciences, but it should not be exempted from a critical revision of its theoretical and methodological standpoints. In terms of social and economic sustainability, early mental health promotion is a global priority due to its long-term societal impact on income losses associated with school dropout, disability, care-seeking, employability, general health and

mental health (Jacobi et al., 2011; Trautmann et al., 2016). However, the institutional use of resilience theory should not reproduce authoritarian practices of control over people with deterministic paths of individual success, conformity or adaptation (Schwarz, 2018). On the contrary, resilience in educational contexts should heighten the outlook of individuals and communities with agency, growing self-awareness and reflexivity, and as co-designers of a sustainable future with ethical responsibility for shared problems (Chandler, 2013). At a methodological level, the co-creation strategy in a school-based intervention allows individuals, especially adolescents, to act as agents of transformation in educational contexts. Co-creation is an embodied, ethical, relational practice which may foster well-being, care and interconnectedness in the educational setting (Taylor and Bovill, 2018). This co-creation study highlights that school communities, and especially adolescents, agree on the necessity of educational programs that target not only educational attainment, but personal, emotional, social and community resilience skills. Their voices are relevant sources of information to prioritize, contextualize and innovate what is needed and how to implement solutions.

Acknowledgements

The authors wish to thank all the adolescents, their families, and professionals from educational centers involved in the UPRIGHT program. The authors recognize the contribution of the researchers included in 'On behalf of the UPRIGHT Consortium': Esteban de Manuel, Maider Mateo, Nerea González, Igor Larranga (Kronikgune Institute for Health Services Research, Barakaldo, Spain); Silvia Rizzi, Serafina Agnello, Rosa Maimone (Bruno Kessler Foundation, Trento, Italy); Solveig Karlsdottir, Sigrun Danielsdottir (Directorate of Health in Iceland, Reykjavík, Iceland); Alda Ingibergsdottir, Hrefna Palsdottir, Unnur B. Arnfjord (University of Iceland, School of Education, Reykjavík, Iceland); Inaki Zorilla, Patricia Pérez Martínez, Jessica Fernández Sevillano, Itziar Vegara, Javier Mar (Osakidetza Basque Health Service, Araba University Hospital Vitoria-Gasteiz, Spain).

Declaration of conflicting interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: UPRIGHT is a research and innovation project funded by the European Union's Horizon 2020 Research and Innovation Programme (grant number 754919). UPRIGHT grant agreement (complete project description) has undergone peer-review by the European Commission reviewers (governmental and major funding organism) before getting approval. This paper reflects only the authors' views, and the European Union is not liable for any use that may be made of the information contained therein. The funding body has had no role in the study design, in the writing of the manuscript or in the decision to submit the paper for publication.

Ethical statement

The project was approved by the institutional review boards of the countries. UPRIGHT researchers, in collaboration with schools' professionals, obtained signed informed consent forms from all participants, including teachers, families (legal tutors also signed consent forms for adolescents' participation), and adolescents (12–14 years of age signed assent forms) before the study data was collated. The instruments used (surveys and participatory sessions) have procedures for verification of participants' consent (described in methods section).

List of ethics committees (additional information):

- Spain: Research Ethics Committee for Medicines in Euskadi (Basque Country), Spain. Resolution No. PI2018089.
- Italy: APSS (Azienda Provinciale per i Servizi Sanitari) Ethics Committee in Trento, Italy. Resolution No. 5/2018.
- Poland: Bioethical Commission at the Lower Silesian Medical Chamber: Resolution No. 3 / BNB0 / 2018.
- Denmark: According to the National Ethics Committee, the project is not required to be notified. The Ministry of Higher Education and Science has published a Danish Code of Conduct for Research Integrity which contains some ethical principles and guidelines. At Aarhus University we adhere to this framework, amongst others.
- Iceland: The National Bioethics Committe. Resolution No. VSN-18-122.

Data accessibility

Protocols and instruments used in the co-creation are fully available as supplemental materials. The UPRIGHT consortium has the commitment with the European Commission to share study datasets (except those identifying/confidential participants' data) in publicly available repositories. We are still working on the way we are going to make these data available (type of data and platform).

ORCID iDs

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Supplemental material

Supplemental material for this article is available online.

Notes

1. UPRIGHT is funded by the European Commission Framework Programme for research and innovation, Horizon 2020.
2. Asociacion Centro de Excelencia Internacional en Investigacion Sobre Cronicidad (Kronikgune, Basque Country), Fondazione Bruno Kessler (FBK, Italy), Urzad Marszalkowski Wojewodztwa Dolnoslaskiego (UMWD, Poland), Norges Teknisk-Naturvitenskapelige UniversitetN (NTNU, Norway), Embaetti Landlaeknis (DOHI, Iceland), Aarhus Universitet (AU, Denmark), Haskoli Islands (UoI, Iceland).
3. The list included stress, anger, anxiety, depression, loneliness and isolation, boredom, sleep and relaxation, alcohol or drugs consumption, bullying and cyberbullying (including witnessing), self-harm and suicide, food, health and physical activity, body image and eating disorders, learning and school evaluation, work and money, leaving the family home, future plans and setting goals, sexuality, gender and identity, love and relationships, family conflicts or misunderstandings, supporting others and spirituality, life purpose and meaning, and grief and loss.
4. Following the rules of the European Commission for research and innovation projects, UPRIGHT pedagogical materials, manual and online resources, and data sets (https://www.uprightprogram.eu/) will be available for public use after the completion of the program (2021).

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