

Context-Tailored or User-Tailored: Which Approach Is Better for Violent Extremism Prevention Programs?

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Abstract

It is taken-for-granted that the one-size-fits-all approach does not work for extremism prevention programs. However, to what extent it is necessary to adapt these programs to the context or the user remains an unanswered question. This study attempts to provide evidence on which type of customization has a greater impact. Using data from the evaluation of the Fénix Andalucía prevention program, we analyzed if a reduction in the significance quest will reduce violent narratives by ameliorating deviant networks using multilevel structural equation modeling. The results showed that the average impact in the educational centers was not significant, while the individual experience of the participants was. It is concluded that prevention programs would benefit from user-tailored programs that enhance individual experiences.

Keywords

extremism prevention programs, radicalization, 3N model, multilevel SEM, Fénix Andalucía

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Programs to prevent violent extremism (PVE) are among of the most relevant tools for curbing radicalization. Although the number and type of programs have increased in recent years, evaluations of programs that allow evidence-based best practices to be drawn from them are limited (Brouillette-Alarie et al., 2022; Hassan et al., 2021; Lewis et al., 2020). This has given rise to a number of best practices and recommendations that emerge without an empirical basis or from anecdotal evidence (Feddes & Gallucci, 2015), resulting in less effective programs. In this study, we intend to provide some empirical evidence on one of these recommendations: it is unlikely that a one-size-fits-all approach will work.

Practitioners and academics alike accept as a good practice that PVE programs must be tailored (Brouillette-Alarie et al., 2022; Dalgaard-Nielsen, 2010; Global Counterterrorism Forum [GCTF], 2013; Hassan et al., 2021). However, the extent to which these programs need to be tailored is less clear. Delving further into the question, if we assume that PVE programs should be tailored to address the main drivers of radicalization, they should be tailored to the user (i.e., an individually tailored program based on each individual's risk factors), as the drivers of radicalization are largely different for each person and not only context specific (Madriaza & Ponsot, 2015). Nonetheless, customization is usually conceived only on the basis of context drivers (i.e., a different program for each context based on the risks shared by those who are within that context; Dalgaard-Nielsen, 2010). Therefore, in our opinion, whether a PVE program can be exported to another context with only an adaptation to contextual drivers or whether it should be customized for each user is a question without empirical evidence to support a preference for one or the other.

Following this argument, we aimed to provide empirical evidence in this regard. For this purpose, data from the evaluation of the Fénix Andalucía program was used (Moyano, Gracia, et al., 2022). This PVE program was implemented in different schools, each with its own characteristics and with different people implementing it. Although its impact was moderate (García-Coll et al., in preparation), the fact that the same program was implemented in different contexts with a certain level of contextual adaptation allowed us to test whether the impact was similar in all contexts, supporting the impact of context-tailored programs, or whether it only worked for some of the participants, supporting the impact of user-tailored programs.

Prevention of Violent Extremism

The prevention of violent extremism (PVE) encompasses all initiatives before a person radicalizes to the point of using violence (Koehler & Fiebig,

2019). Compared to health prevention (Caplan, 1964), PVE is situated at the primary and secondary levels, and its objective is to prevent the consolidation of risk factors. In the case of primary prevention, the target is individuals regardless of their context or the presence of risk factors; in other words, primary prevention targets all individuals. Secondary prevention, as distinct from primary prevention, targets individuals who present some risk factors.

In this context, the notion that prevention programs should be tailor-made and adapted to the risk factors present in the specific context in which they will be implemented seems to be well established. For instance, the Rome Memorandum claims that a one-size-fits-all approach is unlikely to work (GCTF, 2013). Likewise, in its revised EU strategy, the Council of the European Union (2014) mentioned the following:

We must promote the development of tailor-made communication methods that challenge an extremist ideology which supports or is linked to terrorism either online or offline. [. . .] A one-size-fits-all approach to communications will not work. At the same time, however, we must ensure consistency, clarity and continuity in our messaging at all levels. (p. 7)

Similarly, the scientific community supports tailor-made programs. According to Bjørge (2011), a single form of intervention would not work because it does not consider the diversity and specificity of the drivers leading to radicalization. Similar conclusions have been reported previously (Dalgaard-Nielsen, 2010; Leuprecht et al., 2010; Neumann, 2010; Paul, 2010). It appears that the variety of trajectories and motivations underlying radicalization makes it impossible for a program with similar characteristics to have a beneficial impact on all participants, especially when they are in different contexts (Dalgaard-Nielsen, 2010). Therefore, it seems clear that it is necessary to adapt interventions to the context. However, it is unclear whether contextual adaptation is sufficient or whether it is necessary to adapt it to each participant or user.

Context-Tailored Versus User-Tailored Programs

In recent years, several preventive programs have been implemented worldwide. Although the impact of most of them has not been evaluated, at least publicly (Hassan et al., 2021; Lewis et al., 2020; Silke et al., 2021), several reviews have attempted to consolidate the recommendations derived from these evaluations. Regarding program adaptation, Bellasio et al. (2018) conducted a review of counterterrorism and preventing and countering violent extremism strategies and found a wide array of approaches and programs.

They started from the theoretical assumption that no one-size-fits-all approach to PVE can or should exist, given context-specific needs and requirements. Similarly, Christmann (2012) pointed out problems in trying to transfer lessons from one program to another context. According to this author, programs should be adapted to the context. This conclusion was also supported by a review conducted by Gielen (2019), who highlighted some specific aspects of interventions that seem to work in different contexts, although she emphasized that interventions are not necessarily valid in other contexts.

Focusing on the reasons why it is necessary to adapt this type of programs, in a review by Hassan et al. (2021), the authors stated that the generalizability of PVE programs seems limited, and thus, practitioners should adapt and tailor the programs to local contexts (see also Brouillette-Alarie et al., 2022). According to them: “The generalizability of PVE programs appears to be limited. Therefore, practitioners should refrain from transplanting a program “as is” from one context to another. Practitioners must adapt and tailor programs to local contexts” (Hassan et al., 2021, p. 38). In addition to the lack of generalization of impacts, Lewis et al. (2020) proposed that PVE programs have been used in a wide variety of cultural, social, and political contexts, and that concepts and approaches are understood differently in different contexts, making it difficult to develop evaluation approaches applicable to all cultures.

All these PVE program reviews come to the same conclusion: the programs must be contextually tailored. However, this contrasts with disengagement/deradicalization programs, in which user adaptation is more often recommended (Cherney & Belton, 2021; Khalil et al., 2023; Koehler, 2018; Schmid, 2013). The argument is that the factors involved in the disengagement and deradicalization processes are different for each individual; therefore, it is advisable to use an approach tailored to the individual, that is, a one-to-one intervention (Moghaddam, 2009; Stern, 2014; Williams & Lindsey, 2014). For instance, in an evaluation of a reintegration program implemented in The Netherlands, Schuurman and Bakker (2016) emphasized how user customization made it possible to address the particular needs of clients, establish a relationship of trust, and increase the likelihood that employees will be able to recognize deceptive behavior. Similarly, in their guide for deradicalization and disengagement programs, Khalil et al. (2023) proposes to include contextual and user adaptation to increase the impact of the programs. In the case of PVE, Madriaza and Ponsot (2015), after reviewing different PVE programs, as well as disengagement and deradicalization programs, recommended the use of a personalized approach; that is, user-tailored programs: “the important thing is to follow a personalized approach that takes account of the individual’s path and specific situation” (p. 105). In

addition, they recommend adapting the programs to the local reality, that is, the socio-political context.

Therefore, although it seems better to tailor them, an empirical question arises as to the extent to which it is necessary to adapt them. Generally, when people talk about tailoring PVE programs, they refer to the context: a different program for each context. This assumes that the drivers of radicalization are the same for all individuals in the same context. Nonetheless, the drivers of radicalization may be individual for each person (Khalil et al., 2022). Thus, user tailoring would also make sense using the same argument (Madriaza & Ponsot, 2015). As it was previously mentioned, the lack of evaluation of prevention programs makes it very difficult to determine the extent to which programs need to be tailored to maximize their impact. Given this constraint, data from the evaluation of the Fénix Andalucía program was used to achieve the objectives of this study, since this prevention program was implemented in different educational centers using a contextual adaptation. The theoretical framework and activities of this PVE program are detailed below.

Fénix Intervention and the 3N Model

The Fénix Andalucía program is based on the 3N model of radicalization (Kruglanski et al., 2019; Webber & Kruglanski, 2017), which proposes that radicalization arises from the intersection of three psychological forces: need, narrative, and network. According to this model, the process begins with a loss of significance (or an opportunity to gain it), which leads to a quest for significance (Kruglanski et al., 2022). This need triggers a collectivist shift, whereby the individual in question seeks narratives that tell him or her how to recover significance (Kruglanski et al., 2019). In turn, the narrative adopted must be validated by a reference group, which will provide the significance sought, as long as the individual adopts the narrative (Kruglanski et al., 2018). In the case of violent extremism, narratives legitimize violence as a means of achieving personal significance (Webber et al., 2020).

The 3N model postulates that these three factors contribute to radicalization in a dynamic and interactive manner (Kruglanski et al., 2019). Although the order of factors may vary (Bélanger et al., 2019; Lobato et al., 2020), the most studied pathway begins with a loss of significance, focusing on the reference group and adopting its violent narrative. For instance, Adam-Troian et al. (2020), Bäck et al. (2018), and Milla et al. (2022) found that the significance loss was related to greater support for violent narratives, and this effect was mediated by the presence of a deviant network. The authors tested this with students, the general population, and terrorist samples.

According to this proposal, radicalization reflects a high-level commitment to an ideological goal (restoring significance) and violence as a means to achieve it (Schumpe et al., 2018). Based on this proposal, Moyano, Lobato, et al. (2022) theorized that prevention should consist of intervening in these three forces. First, there is a direct path that consists of changing the narrative that legitimizes the use of violence. Second, there are two indirect paths that consist of offering alternatives to achieve personal significance and weakening networks that support the use of violence (Bélangier, 2018; Webber et al., 2020). These assumptions were put into practice in the Fénix Andalucía project.

The Andalusian regional government supported the design of the Fénix Andalucía project based on the 3N model. The project aimed to promote social inclusion in educational centers located in deprived areas (Moyano, Gracia, et al., 2022). Two main groups of activities were implemented to achieve the objectives: active methodologies (didactic strategies that aim at effective and participative student learning) and mentoring. On the one hand, each center selected an area (artistic, communicative, scientific, and entrepreneurial), and the coordinators and teachers implemented activities related to the area using active methodologies (Konopka et al., 2015), such as researching intercultural games, preparing a mentoring walk with pictures and descriptions of people they consider to be social role models, or identifying green spaces and other elements that constitute their neighborhood (the activities implemented in each area can be consulted at Moyano, Gracia, et al., 2022). On the other hand, each center recruited different regional mentors depending on the number of participants (between one and three). These regional mentors were people from the same city with some relevance or closeness to the students. Among them, we found people involved in sports, the arts, or people from the neighborhood known to young people. The task of the regional mentors was to visit students every week and carry out activities with them. The goal was for mentors to serve as positive social role models (DuBois & Karcher, 2014). In addition, they held individual meetings with students who most needed it. Furthermore, twelve inspirational mentors (six women and six men) with success stories were recruited, for example, a rap singer who came from one of the most marginalized neighborhoods in his city or a woman dedicated to sports journalism, usually a male field. These inspirational mentors recorded videos and gave talks at the schools, but did not interact individually with the students. Both coordinators and mentors completed a short online course before implementing the activities (Moyano, Gracia, et al., 2022).

This project included an evaluation. A survey was conducted to assess the different factors of the 3N model before (Wave 1) and after (Wave 2)

implementing the program. The results, published elsewhere (García-Coll et al., in preparation), showed that there was a significant reduction in the significance quest but not in the networks or narratives. Moreover, this reduction in the significance quest was related to a reduction in violent narratives through the generation of more positive networks, that is, an indirect path to reducing support for violent narratives. However, the nested nature of the data was not considered in this evaluation (Lobato et al., 2023). That is, the students who participated were grouped by educational center, and in each center, the coordinators and teachers who implemented the activities and the mentors were the same, in other words, the program was contextualized for each center. Therefore, we have a part of the intervention impact that was similar for students in the same center, which would correspond to the average impact of each center (between part), and another part that corresponded more to the individual experience of each student independent of the center (within part). In this study, we aimed to test whether the average impact of each center, the between part that corresponds to a contextual adaptation, was sufficient to reduce the violent narratives of the participants or, on the contrary, whether the average impact of each center was not sufficient and whether it was the individual experience of the students which presented a significant impact (within part that corresponds to a user adaptation).

The Present Study

Within the debate between whether it is more effective to have context-tailored prevention programs, which include the same elements for all participants but with contextual adaptations, or user-tailored programs, which include individualized attention to participants, this study aims to provide empirical evidence to show which of the two options would have a greater impact. Based on this objective, two hypotheses are proposed. First, Hypothesis 1 indicates that the implementation of the program will have an overall significant impact in all contexts; that is, the average impact of each center will be significant. Second, Hypothesis 2 proposes that the implementation of the program will not have a significant impact at the educational center level and that it will be the individual experience of the participants which will determine whether the impact of the intervention is significant. Since the program evaluation showed that a reduction of the significance quest had an impact on the effect of violent narratives across the effect of deviant networks (García-Coll et al., in preparation), H1 would be confirmed if the same mediation is significant at the between level, meaning that the impact at the level of each center was adequate to promote the intended change, and H2 would be confirmed if the mediation is significant at the

within level, meaning that the impact at the center level was not adequate and only those students who experienced the intervention most intensively benefited from changes.

Method

Data and Respondents

We used data from the evaluation of the Fénix Andalucía project. The participants were selected by the Junta de Andalucía from among all the educational centers that applied to the program. A total of 80 educational centers were chosen to participate based on a score system in which centers located in areas of exclusion, with educational compensation plans, and with a high rate of absenteeism, obtained higher scores. Within each educational center, the students who participated were in the last 2 years of primary education (between 10 and 12 years) or the first 2 years of secondary education (between 12 and 14 years), and could be a single group or several groups depending on the decision of each educational center.

Initially, 2,957 students who participated in the program completed the pre-test, of whom only 1,176 completed the post-test. It was only possible to aggregate the data from 504 students, given that the remaining students did not indicate their educational center of belonging or the code designed to aggregate the data anonymously. Of these 504 students, ten cases were excluded because they completed both questionnaires on the same day, and 24 students belonging to 11 schools were excluded because there were fewer than five participants per school. This last decision was motivated by statistical reasons, as it is not recommended to perform multilevel analyses with clusters containing fewer than five participants (Bell et al., 2014; Scherbaum & Ferrer, 2009). The final sample consisted of 470 participants aged 10 to 18 years ($M_{\text{age}} = 12.24$, $SD = 1.30$; 246 females and 224 males) from 27 educational centers. The number of participants within each center ranged from 5 to 49 ($M = 17.41$, $Median = 14$, $SD = 12.55$). All educational centers were located in areas greatly affected by social exclusion according to the technical criteria of regional administration (Lobato et al., 2023). Regarding the sample size, Preacher et al. (2011) found that, with 20 clusters and a within-cluster sample size of five, convergence was high, independent of the inter-class correlation (ICC), and cluster sizes of at least 20 (for small ICCs) were necessary to avoid unacceptable bias. In addition, small sample sizes, such as 20 clusters of 10 individuals and even 10 groups of 5, have been reported to be large enough to obtain unbiased estimates (Bell et al., 2014). Therefore,

we assume that the sample is sufficient to perform analyses with sufficient power to detect effects. The project and its evaluation were approved by the Ethics Committee of the Regional Government of Andalusia and the University of Cordoba (CEIH-21-30). Parental consent was obtained for participation in the project and evaluation.

Measures

Three scales were used to assess the factors of the 3N model in addition to other questions to evaluate sociodemographic aspects. The pre-test included all measures, while the post-test only included measures to evaluate the factors of the 3N model. A pre-post indicator was calculated by subtracting the pre-test scores from those in the post-test. A 5-point Likert scale with response options of 1 (*Strongly disagree*) to 5 (*Strongly agree*) was used for all measures unless otherwise indicated.

Significance Quest. The quest for significance was assessed using a proxy reflecting the loss of significance. Four items were taken from the scale adapted by Atienza and Pons (2000) (e.g., “I feel that I am as valuable a person as the others (reversed item),” “Sometimes I think that I am good for nothing”). Higher scores reflect a greater need for significance. Internal consistency was reasonable for the pre-test ($\alpha = .69$) and post-test ($\alpha = .71$), as well as for the test-retest reliability ($r = .54, p < .001$).

Deviant Networks. The presence of a deviant network relevant to the participants was assessed with three items taken from the scale developed by Moyano (2011) (e.g., “My friends talk about fights and violence all the time,” “Some people tell me that doing illegal activities is useful to make a living”). Higher scores indicate a greater presence of deviant peers who have a negative influence. Internal consistency was adequate for the pre-test ($\alpha = .71$) and post-test ($\alpha = .76$), as well as for the test-retest reliability ($r = .49, p < .001$).

Support for Violent Narratives. Support for violent narratives, or attitudes toward the use of violence, was assessed using four items taken from the scales developed by Bélanger et al. (2019) and Huesmann and Guerra (1997) (e.g., “It is okay to let off steam with others by using force,” “Violence is necessary for social change”). Higher scores reflected greater support for violent narratives. Internal consistency was adequate for the pre-test ($\alpha = .81$) and the post-test ($\alpha = .84$), as well as for the test-retest reliability ($r = .38, p < .001$).

Sociodemographic Data. We also assessed age, gender (one female, two male), the name of the educational center, and the dates on which the participants completed the pre-test and post-test. With the last variable, we created an indicator by calculating the number of days between the completion of both questionnaires, which was used to estimate the duration of the intervention ($M_{\text{days}} = 67.25$, $SD = 19.90$, range = 16–99 days).

Analytical Approach

All analyses were performed using *R* software (R Core Team, 2019). First, descriptive statistics and Pearson's bivariate correlations between all the variables were calculated. Second, repeated measures ANCOVAs were performed to test the mean differences between the pre- and post-measures, together with sociodemographic data as covariates. Third, to calculate the proposed indirect effects by decomposing the between and within parts, we performed multilevel structural equation modeling (Preacher et al., 2010), as it has been shown to be one of the least biased methods when calculating mediations (Preacher et al., 2011). These analyses were performed using *the lavaan* package in *R* (Rosseel, 2012), while *maximum likelihood* estimators with robust standard errors were applied to avoid problems with multivariate normality (Satorra-Bentler scaling corrections; Satorra & Bentler, 2001). Moreover, since a normal distribution cannot be assumed for indirect effects, Monte Carlo bootstrapping was used to create confidence intervals as recommended (Preacher & Selig, 2012).

Results

Descriptive statistics and correlations for all the measures are presented in Table 1. In general, the different factors of the 3N model presented low-to-moderate correlations between them. Interestingly, older age and being male were related to greater support for violent narratives. By contrast, being a woman was related to a greater significance quest. The duration of the intervention was negatively related to deviant networks and support for violent narratives, although only in the pre-test, which seems to indicate that the continuity of the program was easier for students who had fewer risk indicators. Given these relationships, we used these sociodemographic variables as covariates in the following analyses.

Next, repeated measures ANCOVAs were calculated for the three target variables controlling for age, gender, and duration of the intervention. Significant differences were found in the significance quest ($F_{(1,446)} = 8.19$, $p = .004$, $\eta_p^2 = .02$). The significance quest was reduced from pre ($M = 2.28$,

Table 1. Descriptive Statistics and Pearson's Bivariate Correlations for All Variables.

	M	SD	1	2	3	4	5	6	7	8	9	10	11
1. Significance quest (pre)	2.28	0.98	—										
2. Significance quest (post)	2.16	0.99	.54***	—									
3. Significance quest (pre-post)	-0.12	0.94	-.47***	.49***	—								
4. Deviant network (pre)	1.99	0.99	.27***	.14**	-.13**	—							
5. Deviant network (post)	1.95	1.03	.17***	.29***	.13**	.49***	—						
6. Deviant network (pre-post)	-0.04	1.02	-.09*	.16***	.26***	-.48***	.53***	—					
7. Violent narratives (pre)	1.64	0.83	.22***	.09+	-.13**	.54***	.28***	-.25***	—				
8. Violent narratives (post)	1.62	0.89	.15**	.20***	.06	.31***	.54***	.24***	.38***	—			
9. Violent narratives (pre-post)	-0.02	0.96	-.05	.11*	.17***	-.18***	.26***	.44***	-.51***	.60***	—		
10. Age	12.24	1.30	.05	.11*	.07	.09*	.11*	.02	.09*	.22***	.12**	—	
11. Gender	1.48	0.50	-.18***	-.08+	.11*	.12**	.10*	-.01	.13**	.14**	.02	.04	—
12. Duration of the intervention	67.25	19.90	-.07	-.04	.03	-.18***	-.08+	.09*	-.13**	-.08	.04	-.04	-.05

+p < .10. *p < .05. **p < .01. ***p < .001.

$SD=0.98$) to post ($M=2.16$, $SD=0.99$). In addition, age ($F_{(1,446)}=4.51$, $p=.034$, $\eta_p^2=.01$) and gender ($F_{(1,446)}=12.14$, $p=.001$, $\eta_p^2=.02$) showed significant effects, whereas older age and male gender were associated with a greater reduction of the significance quest. In the case of deviant networks, no significant effects were found ($F_{(1,446)}=0.77$, $p=.381$, $\eta_p^2=.002$), although they appeared with the covariates of age ($F_{(1,446)}=5.24$, $p=.023$, $\eta_p^2=.01$), gender ($F_{(1,446)}=6.82$, $p=.009$, $\eta_p^2=.01$), and duration of the intervention ($F_{(1,446)}=9.54$, $p=.002$, $\eta_p^2=.02$). Being older, male, and having a longer intervention period were associated with a greater reduction of the deviant networks. In the case of violent narratives, no significant effects were found ($F_{(1,446)}=0.14$, $p=.708$, $\eta_p^2=.0003$), although they appeared with the covariates age ($F_{(1,446)}=15.75$, $p<.001$, $\eta_p^2=.03$), gender ($F_{(1,446)}=10.82$, $p=.001$, $\eta_p^2=.02$), and duration of the intervention ($F_{(1,446)}=5.82$, $p=.016$, $\eta_p^2=.01$). Once again, being older, male, and having a longer intervention were associated with a higher reduction of the violent narratives.

Finally, multilevel mediation was performed by decomposing between and within parts (Zyphur et al., 2019). Pre-post indicators reflecting the magnitude of the changes were used for these analyses. The predictor variable was the difference between post- and pre-scores for significance quest, the mediator variable was the same difference between post- and pre-scores for deviant networks, and the criterion variable was the difference between post- and pre-scores for support for violent narratives (see Figure 1). Additionally, age, gender, and duration of the intervention were included at both levels as covariates. In this analysis, the between-school level reflects the average change at the school level, that is, the impact of the intervention in each school. In turn, the within-school level captures the variance of the remaining change after controlling for the mean of the effect of each center. This level can be interpreted as students' experiences of change beyond the average effect at their educational centers.

The inter-class correlations were .03 for significance quest, .07 for deviant networks, .12 for violent narratives, .60 for age, .003 for gender, and .87 for the duration of the intervention. In the between-school part, significance quest was not a significant predictor of deviant networks ($b=2.23$, $SE=2.54$, $p=.380$), whereas neither the significance quest ($b=-8.84$, $SE=17.53$, $p=.614$) nor deviant networks ($b=5.27$, $SE=6.55$, $p=.421$) were significant predictors of violent narratives. None of the covariates showed significant effects. In the within-school part, significance quest was a significant predictor of deviant networks ($b=0.26$, $SE=0.07$, $p<.001$); significance quest was not a significant predictor of violent narratives ($b=0.05$, $SE=0.05$, $p=.363$), whereas deviant networks was a significant predictor of violent narratives ($b=0.37$, $SE=0.05$, $p<.001$). Regarding the covariates, only the duration of

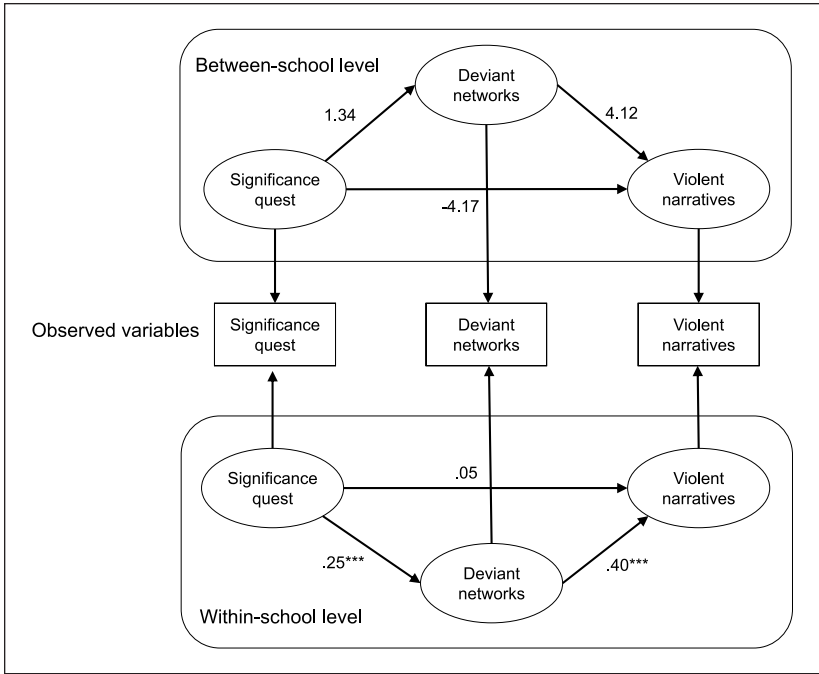


Figure 1. Path diagram of the multilevel mediation model.
Note. For clarity, covariates are not included in the model; Standardized effects are presented in the figure, while unstandardized effects are presented in the text.
*** $p < .001$.

the intervention had a significant effect on deviant networks ($b=0.01$, $SE=0.004$, $p=.003$). Monte Carlo bootstrapping with 10,000 repetitions was used to estimate the confidence intervals of the indirect effects. In the between part, the indirect effect was 11.74, 95% MC CIs [-35.59, 71.80], and the total effect 2.89, 95% MC CIs [-38.11, 36.25]; none of them was significant. Both effects were significant in the within part: the indirect effect was 0.10, 95% MC CIs [0.04, 0.17], and the total effect was 0.14, 95% MC CIs [0.01, 0.18].

Discussion

The academic community and practitioners seem to agree that PVE programs should be tailored to the risk factors (Dalgaard-Nielsen, 2010; GCTF, 2013; Hassan et al., 2021). However, there is little consensus on whether these programs should include a user-tailored or context-tailored approach (Madriaza

& Ponsot, 2015). It rather seems to be accepted that they should be adapted to the context without questioning that an individual adaptation may be more beneficial, as it is shown by the evaluations of some disengagement/deradicalization programs (Khalil et al., 2023; Schuurman & Bakker, 2016; Silke et al., 2021). Two hypotheses were proposed to explore these arguments: H1) the application of the program will have a significant overall impact across all contexts due to its contextual adaptation; and H2) the implementation of the program will not have a significant impact across all contexts, and it will be the individual experience of the participants that will determine the impact of the intervention. In an attempt to test the hypothesis and provide empirical evidence, in this study we set out to analyze data from the evaluation of the *Fénix Andalucía* program.

The results revealed that Hypothesis 1 could not be confirmed. The interpretation of this result suggests that, although there was a significant impact in some schools, the average impact in the schools was not significant. In particular, although the interventions were successful in reducing significance quest, this change was not sufficient to reduce deviant networks or violent narratives on average. Therefore, the contextual adaptation of the program to each educational center was not sufficient to produce the desired impact. In contrast, Hypothesis 2 was confirmed. This indicates that individual differences did account for the changes sought; that is, it was the individual experience of the participants which determined to a greater extent that the reduction of significance quest produced a positive change in violent narratives through a reduction in deviant networks. Overall, the results confirmed that the user-tailored approach had a greater impact than the simple context-tailored approach.

Radicalization is still an individual process in which the experiences of the subject interact with his or her context (Khalil et al., 2022). As stated by Horgan (2008): “for any given individual, becoming involved in terrorism will reflect a dynamic, though highly personalized, process of incremental assimilation and accommodation” (p. 85). Therefore, the more individualized the intervention—that is, the more it focuses on the needs, motivations, and vulnerabilities of each individual (Bélanger, 2018)—the greater the impact.

Furthermore, sociodemographic data also provided interesting results. On the one hand, age appeared to be associated with positive changes in the variables evaluated, showing that the older the age, the greater the impact. This seems to indicate that interventions implemented with the *Fénix Andalucía* program should focus more on adolescents. Younger participants may not be able to take advantage of this type of program. On the other hand, as has been shown, gender also played a relevant role (Leede et al., 2017). Confirming previous results, males presented higher risk than females (Wolfowicz et al.,

2021). Along the same lines, the results showed that the intervention had a greater impact for males; being male was more associated with a greater reduction in significance quest, deviant networks, and violent narratives (García-Coll et al., in preparation). In addition, a longer intervention duration was associated with better outcomes (García-Coll et al., in preparation). This indicates that interventions that are sporadic or implemented for only a few weeks are less likely to generate the expected impacts (Bellasio et al., 2018; Cherney & Belton, 2020). Therefore, an interesting option would be to implement this type of project in the school curriculum to maximize the impact of the intervention (Madriaza & Ponsot, 2015).

The results also support the use of statistical methods that allow the decomposition of between-parts versus within-parts of the observed variables to examine the educational center-level effects versus the individual effects of the program's impact (Zyphur et al., 2019). These types of analytical techniques provide a more accurate picture of what is going on, and can therefore be used to find factors and characteristics that increase the impact of prevention programs. Therefore, the use of these methods is recommended in cases where the sample is grouped into clusters (Braddock, 2020).

At a theoretical level, several conclusions can be drawn regarding the 3N model of radicalization. Although the 3N model of radicalization has been validated in several studies (Da Silva et al., 2024; Kruglanski et al., 2019), studies providing evidence of how this model can be applied to the field of prevention are limited (e.g., Moyano, Lobato, et al., 2022; Webber et al., 2017). The results of this study indicate that mentoring can be useful in providing significance but not in influencing deviant networks or violent narratives (García-Coll et al., in preparation). It seems that mentors are not enough to put an end to their deviant peers, but they can serve as social role models and facilitate the formation of life goals. In addition, providing personal significance can lead to a reduction in violent narratives, confirming that this strategy is an indirect path to preventing extremism (Bélanger, 2018; Webber et al., 2020). Future studies should explore which characteristics of mentors in their relationship with participants can enhance the impact of mentoring (Morgenroth et al., 2015).

In the applied field, the main conclusion derived from the results of this study is that individual adaptation to beneficiaries increases the impact of the program. A more personalized intervention by tailoring interventions to beneficiaries, for example, using mentors and sources more credible or familiar (Koehler et al., 2023), taking into account individual risks and vulnerabilities, avoiding interactions between beneficiaries with different levels of risk, or letting beneficiaries have decision-making power regarding their preferences regarding interventions, should have a greater impact. However, this

does not mean that the programs must be one-to-one interventions. Other studies have concluded that, when interventions are delivered in groups, peer learning increases the impact (Madriaza & Ponsot, 2015). Therefore, it is recommended that they be implemented in groups, either by grouping participants with similar individual vulnerabilities or preferences, or by combining group interventions with individual interventions.

Similarly, programs should be tailored to the target population, taking into account sociodemographic characteristics, such as age and gender. Moreover, the type of intervention to be implemented must be considered when adapting to it. Mentoring-based interventions may have less impact on very young participants, as derived from our results. Likewise, aspects such as trust or perceived similarity in mentors will be decisive. In addition, the inclusion and combination of various interventions whose impact has been tested should also be considered. For example, techniques based on psychological inoculation have received considerable attention in recent years in preventing the development of extreme attitudes from misinformation (van der Linden, 2022), as confirmed by several empirical studies in which participants were exposed to extremist messages, which were less accepted by the group that had been previously inoculated (Braddock, 2022; Lewandowsky & Yesilada, 2021; Saleh et al., 2021). Finally, the duration of the program is also an important feature, and mentoring programs aimed at preventing extremism should be implemented over long periods (Bellasio et al., 2018).

On the other hand, these recommendations should also be implemented with caution and taking into account possible aspects that have not been explored in this study. Primary prevention encompasses all individuals indiscriminately, in which case it is assumed that there are no individual risk factors. Therefore, a good assessment is recommended to confirm that these individual risk factors do not exist. Even if this is the case, tailoring to the user could also be done based on individual preferences. For example, in the case of awareness-raising talks or counter-narrative messages, these programs could adapt the sources of the message to the individual preferences of the beneficiaries (Koehler et al., 2023). Another pressing problem related to primary and fundamentally to secondary prevention is when beneficiaries are stigmatized. By grouping participants together and if they also have a common characteristic (e.g., ethnicity and religion) we are probably stigmatizing the group and creating a wider problem (Vermeulen, 2014). It would therefore be necessary to “sell” the program in positive terms, moving away from terms such as extremism or radicalization (e.g., the Fénix Andalucía program aimed to promote inclusion; Clubb et al., 2019). In addition, it is recommended that when grouping participants based on vulnerabilities or simple preferences, if it is detected that the uniformity of the group may lead to stigmatization, the groups should be reformulated to avoid

this. Nevertheless, further research is needed to confirm the feasibility of these recommendations.

Despite the consistency of our results, we acknowledge some limitations of this study. First, data from a single PVE program were used due to their accessibility of the data, the characteristics of the program—its context-tailor nature—, and the clustering of the participants. This fact points to problems related to the generalization of the results and, therefore, other programs that have been adapted to different contexts would need to be evaluated to confirm these results. Second, the study design was developed after the implementation of the program. In other words, the program was not specifically designed to address the hypotheses proposed in this study. Therefore, new studies that address these hypotheses and consider prevention programs with contextual and user adaptations are needed to confirm their validity. In the same vein, research would benefit from new designs such as longitudinal designs that also include control groups; this would allow us to test efficacy by controlling for extraneous variables and to explore long-term impacts. Third, the dropout of participants when participating in the evaluation was very high, and there were cases in which the pre- and post-data could not be merged. This could constitute a bias in cases where those who did not participate in the evaluation would have had a more negative or even positive experience. Nonetheless, we do not have sufficient data to confirm this hypothesis. Fourth, some participants had direct contact with mentors in response to their needs and interests. It is possible that the impact was greater for these students given their more personalized experience. However, it was not recorded who these participants were, thus this hypothesis could not be tested.

We conclude that, whenever possible, it is best to tailor prevention programs to individual users. In addition to considering context-specific drivers, it is also necessary to consider the drivers associated with each program's beneficiaries. The combination of context- and user-tailored programs will have a greater impact on each beneficiary. Therefore, the more individualized the intervention, the greater its impact.

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