VULNERABLE CHILDREN AND YOUTH STUDIES
https://doi.org/10.1080/17450128.2023.2216476

Examining the effectiveness of a group hope intervention program in Syrian refugee children: A pilot study

Aslihan Ataman [a,c] and Burcu Uysal [b]

[a]Psychological Counselling and Research Center, Erciyes University, Kayseri, Turkey; [b]Department of Psychology, Ibn Haldun University, Istanbul, Turkey; [c]Department of Psychology, Ankara Yildirim Beyazit University, Ankara, Turkey

ABSTRACT

The purpose of this study was to investigate the effectiveness of a 6-session hope-based intervention program on the levels of hope and psychological resilience of Syrian refugee children. The pre-test post-test control group design was implemented. A total of 42 Syrian refugee students in 5th grade participated in the study. 2 × 2 mixed ANOVA, independent sample t-test, and dependent sample t-test were conducted for data analysis. Mixed ANOVA revealed that the intervention group had more improvement in hope and psychological resilience scores compared to the control group. Dependent sample t-test revealed that while the hope and resilience scores of the intervention group were maintained, the hope scores of the control group significantly decreased. Independent sample t-test revealed a statistically significant difference between the post-test hope scores of the groups. Research findings supported that hope-oriented approaches can be effective in improving the resilience of Syrian refugee children in the long term.

ARTICLE HISTORY
Received 16 August 2021
Accepted 16 May 2023

KEYWORDS
Hope; hope-based intervention program; resilience; Syrian refugee children

Introduction

By April 2020, over 5.500 million Syrian had fled the civil war in Syria (UNHCR, 2020), which makes the Syrians the largest refugee population in the world. Since the beginning of the civil war in Syria in 2011, Turkey has become the top refugee-hosting country with over 3.6 million refugees, almost half of whom are children (UNHCR, 2020).

Refugee children can experience numerous stressors that fall within three periods: pre-migration-related experiences (e.g. exposure to war, torture, loss of family), migration-related experiences (e.g. disruption of school or work, living in refugee camps, unsafe living conditions), and post-migration experiences (e.g. stigma, discrimination) (Pumariega et al., 2005). Because of war and migration-related negative experiences such as multiple losses, war-related trauma or current family, school and living circumstances as well as biological predisposition, they can develop significant mental health problems (Fazel et al., 2005; Hodes & Vostanis, 2019). While the research on refugee children continues to emerge, existing literature suggests that these children are at risk

CONTACT Aslihan Ataman aslihanatamann@gmail.com Erciyes University, Kayseri, Turkey
This article has been republished with minor changes. These changes do not impact the academic content of the article.

for increased anxiety, depression, and increased psychological, social and behavioral problems (Nocon et al., 2017; Turrini et al., 2019).

On the other hand, besides the migration process and resettlement hardships, a proportion of refugee children manage to navigate a considerable number of changes, and many exhibit considerable resilience and strength despite the variety of hardships they encounter (Bronstein & Montgomery, 2011). The resilience framework as a strength-based approach, as opposed to the deficiency-based approach, has been studied widely within the scope of refugee research in the last decades. Considering the concept of resilience in the research literature, it broadly refers to good mental health and developmental outcomes, despite being exposed to significant adversity (Rutter, 2006).

Hope in the context of resilience research with refugee children

Research on children and adolescents, in particular, demonstrates that hope was associated with coping with life challenges and adversity (Ciarrochi et al., 2015; Hagen et al., 2005), problem solving skills (Atik & Atik, 2017), academic achievement (Marques et al., 2011), self-worth (Merkaš & Brajša-Žganec, 2011) and psychological well-being (Ciarrochi et al., 2015). The role of hope in a child's capacity to adjust to changes, to flourish is, therefore, well established.

Specifically, among children affected by armed conflict, hope was found to promote psychological well-being and to be essential for coping with adversity (Turner, 2005). A sense of hopefulness and aspirations for the future were factors that helped promote resilience in a group of unaccompanied Sudanese refugee youth in the United States (Goodman, 2004), in a group of Colombian child soldiers (Cortes & Buchanan, 2007), Kosovo war refugee youth (Ai et al., 2007) as well as for African and Middle Eastern refugee youth living in Australia (Earnest et al., 2015). Therefore, hope can be considered as a protective factor increasing these at-risk children's resilience, as they make their challenging transition into adulthood in a new country.

Considering the protective role of hope in at-risk children, the importance and challenge of engendering hope in refugees have already been given some attention in the research literature. Some qualitative research explored the nature of hope (S. C. Yohani & Larsen, 2009; S. C. Yohani, 2008) and engendering hope (O'Leary et al., 2015; S. Yohani, 2010) in refugee children.

Current study

It is essential to gain a better understanding of factors that promote resilience for refugee children, in particular for Syrian refugee children due to the growth of this population around the world and the high number of traumatic stressors they experience. To the best of our knowledge, there is no research evaluating the efficacy of a hope-based intervention on the resilience of Syrian refugee children. Previous studies exploring the role and nature of hope in refugee children have also predominantly used qualitative methodologies (Goodman, 2004; S. Yohani, 2010). Since standardized measures were not used in these studies, the effectiveness of hope-based programs on refugee children's psychosocial well-being remained questionable.

Considering limitations in the literature, the current intervention program has been developed to provide a better understanding of engendering hope and resilience in Syrian refugee children. The main aim of this pilot study was to evaluate the effectiveness of a 6-session hope-based program on hope and resilience among Syrian refugee children, and to contribute to the development of new intervention programs for future use with this population.

Materials and methods

Participants

A pre-test post-test control group design was implemented in this study. We aimed to employ the program to middle-school children. In regard to the emergence of abstract thinking as a cognitive ability, early adolescence is pointed out as an important developmental period (Luna, 2009) and hence also associates with the development of hopeful thinking capacity (e.g. clearly conceptualizing goals and pathways to reach these goals). Middle school is thus suggested to be the appropriate time to introduce the concept of hope to children (Akos & Kurz, 2016). In respect to this, the sample consisted of a total of 48 Syrian refugee students aged between 10 and 13 in the fifth grade. The children could not randomly be assigned to the experimental or control groups because the intervention program was a part of their regular school day and so they could not be temporarily switched to the other group for the program. Therefore, 25 students in one class were allocated to the intervention group and 23 students in other class were allocated to the control group. The intervention group consisted of 12 females and 13 males while the control group consisted of 12 females and 11 males.

Measures

Socio-demographic form

This instrument, developed by the study team, collected basic demographic information including age, gender, number of family members, number of years lived in Turkey.

Children hope scale

The Children Hope Scale (CHS) is a trait hope scale developed by Snyder et al. (1997) to measure hopeful thinking in children and adolescents aged between 8 and 16 years. The measure contains six items responded to on a 6-point scale ranging from 1 = none of the time to 6 = all of the time. This self-report measure contains three questions to evaluate pathways thinking (e.g. I can think of many ways to get the things in life that are most important to me) and three questions to examine agency thinking (e.g. I am doing just as well as other kids of my age). Possible scores range from 6 to 36, with higher scores representing higher levels of hope. Previous studies with the CHS revealed adequate psychometric properties including internal consistencies ranging between .72 and .86 for the total score (Snyder et al., 2003); test-retest reliabilities of .71 to .73 over one month; and convergent and discriminant validities.

In our study, translation to Arabic involved translation-back-translation techniques. This process included back-translation techniques and an engagement with compatible

meanings across languages and cultures (Abdel-Khalek & Snyder, 2007). Reliability analysis revealed internal consistency as .68, reasonably close to the basic level of reliability.

Child and youth resilience measure –12

The CYRM-12, derived from the CYRM-28 (Ungar & Liebenberg, 2011), is developed as a brief measure of resilience by Panter-brick et al. (2018) to measure Arabic-speaking adolescents' resilience level. They investigated the validity and reliability of the scale on a sample of Syrian refugee and Jordanian host-community youth living in urban centers that are close to the Syrian border. The measure contains 12 items responded to on a 5-point scale ranging from 1 (not at all) to 5 (a lot). Possible scores range from 12 to 60 with higher scores indicating greater resilience. Panter-brick et al.'s study (2018) revealed adequate validity ($\chi^2_{(51,\ n=324)} = 84.43$, CFI =.94, RMSEA = $0.05_{(.03–.06)}$) and reliability (.75) for refugee adolescent population.

Procedure

The study protocol has been reviewed and approved by the Ethics Committee of Ibn Haldun University, as well as by the Istanbul Provincial Directorate of National Education. Approval to collect data was secured through the administrator of the school for students and their parents. The consent form describing the project and requesting permission for students' participation was sent to the parents. A total of 48 students' parental consent form was recruited, thus these students were included in the study. Children could not randomly assign to the groups because the intervention program was a part of their regular school day. Thus, 25 students in one class were allocated to the intervention group and 23 students in another class were allocated to the control group.

The assessment measures were administered all students participated in the study one week before the intervention (pre-test) and one week after the intervention (post-test). In both assessment processes, students were administered all measures consisting of socio-demographic information, CHS, and CYRM-12. Students were provided with two assistants' support when needed for full understanding of the instructions and measures.

After pre-test assessment was completed, 25 students in the intervention group participated 6-session intervention for 5 weeks. The intervention group was divided into two groups of 12 and 13 in order to adapt the rules of the group format in the intervention model. Sessions were held after school in the students' classroom and each session lasted 90 min. The first week, the intervention group attended two sessions and in the remaining 4 weeks, they attended one session per week. 23 students in the control group partook no intervention program during this period.

Intervention sessions were directed by a leader who was in the internship phase in a clinical psychology master program and two research assistants who speak Arabic as a mother tongue. The intervention program included interaction between group members and the leader and also active participation of the students (e.g. sharing opinions, emotions). The assistants enabled the communication to continue effectively by making simultaneous translations during the sessions. Three male students in the intervention group did not participate in all the intervention sessions thus their data were excluded.

Table 1. Intervention sessions

Session	Goal
(1) What is hope to me?	Dedicated to building rapport with the group, introduction to hope theory, group format, and understanding the nature of hope for the students.
(2) My success narrative	Dedicated to demonstrating the relation between thought and emotion by drawing a link between the memories of past success and how they thought and felt, making an introduction to the goal component of Hope Theory.
(3) Future me	Students were encouraged to think about their future, to imagine what it is going to look like. Then this session was dedicated to the goal component of the theory by introducing the importance of having multiple goals. Students were encouraged to set goals to work with for the next 3 weeks.
(4) My way	Dedicated to introducing the pathway component of the Hope Theory (Snyder, 2002) and importance of concrete endpoints for goals. Students were encouraged to develop ways to reach their goals.
(5) Hope talk	Dedicated to agency component of Hope Theory (Snyder, 2002). Students were encouraged to recognize their own positive and negative self-talk and their influence on their motivation to reach a goal. Students were encouraged to practice hopeful talks.
(6) New Hope Journey	Obstacles were discussed as challenges to be overcome. Students were encouraged to share their feelings about coming to the end and their thoughts about instilling hope. Their lives after the program were reframed as a new journey of hope for them.

After the intervention period was completed, post-test assessment measures were administered all the students. Considering random answering, one male student's data in the control group were excluded. Also, one male student in the control group and one male student in the intervention group preferred not to fill out post-test assessments, so their data were also excluded. For the data analysis, a total of 42 students' data were examined.

Hope-based intervention program

The intervention program was based on Hope Theory conceptualized by Snyder et al. (1991). According to the theory, hope basically reflects individuals' perceptions regarding their capacities to (1) clearly conceptualize goals, (2) develop the specific strategies to reach those goals (pathways thinking), and (3) initiate and sustain the motivation for using those strategies (agency thinking) (Snyder et al., 1991). Accordingly, hopeful children are expected to have no need to avoid adversity (e.g. anticipate the challenges as barriers) and successfully cope with challenging environmental circumstances by assessing what they need in order to overcome the hardship and evaluating how they can cope with (e.g. pathway thinking), which also associated with the portrait of being resilient which is conceptualized as having the capacity to reach resources to overcome adversity (Ungar, 2008).

The intervention program was designed by taking a model of the treatment manual developed by Cheavens et al. (2006). They designed a group hope therapy based on Snyder et al.'s (2003) for adult depression patients. With the approval of the corresponding researcher, the treatment manual was redesigned to employ middle school children. We conceptualized the program as a group format delivered over 6 sessions to help students with (1) setting goals; (2) generating pathways to goals; (3) preserving the motivation to maintain the goal pursuit and (4) reframing obstacles as challenges to be overcome. The treatment manual was supported with visual and auditory materials (e.g. videos, music, clips from movies, powerpoints, pictures, worksheets) and psychodrama

group activities that were aimed to prepare the students for the theme of the week. The main goal of each intervention session is presented in Table 1.

Data analysis

Statistical analyses were conducted with SPSS version 25. Descriptive statistics were analyzed. A 2 × 2 mixed ANOVA was performed on the data where the between subjects variable was the group that students were allocated to (Intervention vs. Control) and the within-subjects variable was the time of the assessment (Pre-Intervention assessment vs. Post-Intervention assessment). Paired sample t-test was performed for mean differences in hope and resilience scores within groups and independent sample t-test was performed for evaluating mean differences in hope and resilience scores between groups. For the analyses, an alpha level of 0.05 was used to determine statistical significance in all assessments.

Results

A total of 42 Syrian refugee students' data were analyzed. The results revealed that there are no statistically significant differences between the groups in terms of mean age, number of family members, and number of years lived in Turkey. The pre-test demographic analysis of the students is presented in Table 2.

Table 2. Students' demographics informations

	Intervention Group ($n = 21$)			Control Group ($n = 21$)		
	Age	Number of Family Members	Number of Years Lived in Turkey	Age	Number of Family Members	Number of Years Lived in Turkey
M	11.2	6.24	5.44	11.2	5.14	5.79
SD	.81	1.81	1.54	.98	1.28	1.65
min	10	2	3	10	2	3
max	13	10	8	13	7	9

Table 3. Distribution of the CHS and CYRM-12 scores

Measure	Group	Time	*M*	*SD*	Skewness	Kurtosis
CHS	Intervention Group	Pre-test	26.29	6.092	−.728	−.728
		Post-test	28.00	3.834	−1.171	1.170
	Control Group	Pre-test	28.52	5.564	−.604	−.583
		Post-test	24.62	5.084	−.738	−.623
CYRM-12	Intervention Group	Pre-test	52.33	3.941	.099	−.702
		Post-test	54.05	3.853	−.538	.040
	Control Group	Pre-test	54.81	5.671	−1.086	.306
		Post-test	53.19	4.203	.326	−.928

Table 4. Between-groups differences in pre-test CHS and CYRM-12 scores

	Intervention Group		Control Group			
Scale	M	SD	M	SD	t	p
CHS	26.29	6.09	28.52	5.56	−1.24	.22
CYRM-12	52.33	3.94	54.81	5.67	−1.64	.11

Table 5. ANOVA analysis on CHS scores

	Df	*F*	*p*	*Partial* η^2
group * time	1	6.752	.01	.144

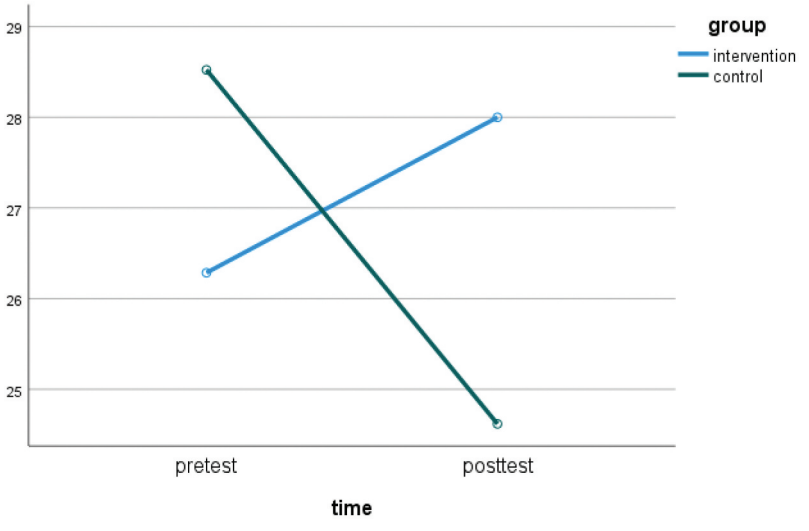

Figure 1. Interaction of group x time on CHS scores.

Table 6. Within-group differences in CHS scores

	Pre-test		Post-test			
CHS	M	SD	M	SD	T	p
Intervention Group	26.29	6.1	28	3.83	−1.24	.23
Control Group	28.52	5.56	24.62	5.08	2.35	.03

The next step in the data analysis was to examine the distribution of the key variables in order to evaluate the influence of skewness and kurtosis. Because the data were normally distributed, parametric tests were used for the remaining analyses. The results are presented in Table 3.

Pre-test scores of the groups were analyzed with the independent sample t-test. The analysis revealed that there were no significant differences between the groups in terms of pre-test hope and resilience scores suggesting that the groups have similar characteristics in terms of demographics and key variables. The results are presented in Table 4.

CHS scores

A mixed ANOVA showed a significant interaction between group and time on the hope scores in CHS, F (1,40) = 6.75, p = .013, partial η^2 = .144, indicating different patterns of the change in hope levels for both groups over time. Results are presented in Table 5 and the pattern of change in groups is presented in Figure 1.

Table 7. Between-groups difference in post-test CHS scores

	Intervention Group		Control Group				
CHS	M	SD	M	SD	T	df	p
Post-Test	28	3.83	24.62	5.08	2.43	40	.02

Table 8. ANOVA analysis on CYRM-12 scores

	df	*F*	*p*	*Partial* η^2
group*time	1	4.71	.036	.105

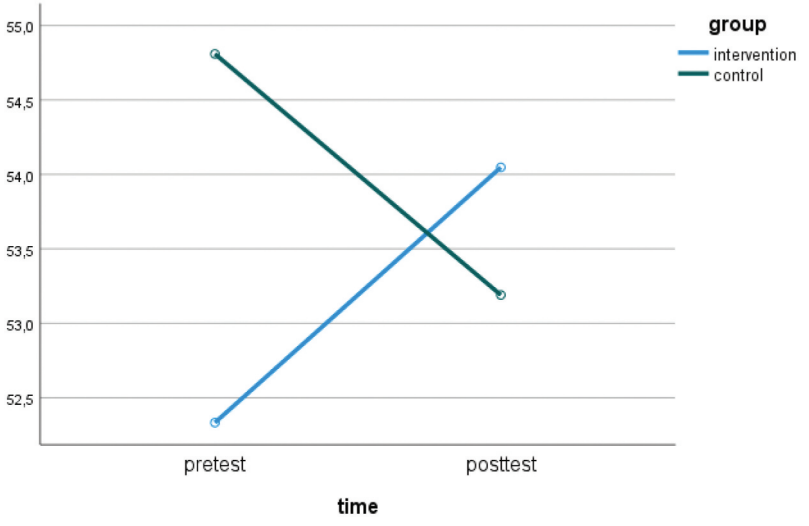

Figure 2. Interaction of group x time on CYRM-12 scores.

As presented in Figure 1, the hope level of the intervention group has an increase from the pre-test to the post-test, while the hope level of the control group has a decrease from the pre-test to the post-test, supporting that the hope level of the intervention group showed more improvement than the hope level of the control group.

Examination of the hope scores of the intervention group from pre-test to post-test revealed a nonsignificant change in CHS scores ($t = -1.24$, $p > .05$). Examination of the change in hope scores in the control group revealed a statistically significant decrease in CHS scores ($t = 2.35$, $p = .03$). These results are presented in Table 6.

Examination of the post-test hope scores revealed a statistically significant difference in the post-test hope scores between the groups ($t = 2.43$, $p = .02$). This result is presented in Table 7.

CYRM-12 scores

A mixed ANOVA showed a significant interaction between group and time on the CYRM-12 scores, F (1, 58) = 4.71, $p = .036$, partial $\eta^2 = .105$, indicating that the different

Table 9. Within-groups differences in CYRM-12 scores

	Pre-test		Post-test			
CYRM-12	M	SD	M	SD	T	p
Intervention Group	52.33	3.94	54.05	3.85	−1.76	.09
Control Group	54.81	5.67	53.19	4.2	1.36	.19

Table 10. Between-groups differences in post-test CYRM-12 scores

	Intervention Group		Control Group				
CYRM-12	M	SD	M	SD	T	df	p
Post-Test	54.05	3.85	53.19	4.20	.69	40	.50

patterns of the change in resilience scores for both groups over time. Results are presented in Table 8 and the pattern of change in groups is presented in Figure 2.

As presented in Figure 2, the resilience level of the intervention group has an increase from the pre-test to the post-test, while the resilience level of the control group has a decrease from the pre-test to the post-test, indicating that the resilience level of the intervention group showed more improvement.

Examination of the difference in the resilience scores of the intervention group in pretest and post-test revealed a nonsignificant change in CYRM-12 scores ($t = -1.76$, $p = .09$). Examination of the change in resilience scores in the control group also revealed a statistically nonsignificant change in CYRM-12 scores ($t = 1.36$, $p = .19$). These results are presented in Table 9.

Examination of the post-test resilience scores revealed a statistically nonsignificant difference in the post-test scores between the intervention group and the control group, $t = .69$, $p = .50$. This result is presented in Table 10.

Discussion

A summary of the results of the current study is as follows: Pre-test mean hope scores suggest that students in both groups described their hope level as being somewhere between '4 = a lot of the time' and '5 = most of the time' in the scoring of the scale. This result suggests similar baseline hope levels between Syrian refugee students participated in the study and other healthy samples (Dixson, 2017; Merkaš & Brajša-Žganec, 2011).

Examining baseline resilience scores revealed that students in both groups described their resilience level as being somewhere between '4 = quite a bit' and '5 = a lot' in the scoring of the scale. According to CYRM-12, cut scores defined by the scale researchers at the Resilience Research Centre (see Soliman, 2017), baseline resilience scores of participating students in the current study fall within the group having higher resilience scores.

These relatively positive baseline scores of the Syrian students might be considered unexpected since research literature supported that refugee youths experience high incidence of psychopathology placing them at increased risk of experiencing low levels of hope (Sirin & Rogers-Sirin, 2015) and resilience (Yaylaci, 2018). Therefore, students' hopeful views of their lives and their experience as having high resilience might be somewhat surprising, particularly for this study sample considering challenging

adaptation processes with regard to the new education system and social environment as supported by studies investigated adaptation processes of Syrian refugee students to the educational system in Turkey (Bozan et al., 2021). However, on the other hand, lack of traumatic experiences, social support from families and peers (Uysal et al., 2022), and attending a school that provides a sense of safety and belonging were factors supported to be associated with higher hope and resilience levels (Marley & Mauki, 2019). In respect to the sample of the current study, students with lack of traumatic experiences and having an environment including supporting social connections depending on qualitative observations but not quantitative support, might be suggested to have a role in higher hope and resilience levels.

Although hope scores of the intervention group did not show a statistically significant increase with regard to self-report measures from the pre- to post-assessment, the results suggested that students who completed the program showed greater improvement in hope level than students in the control group. An interesting trend worth noting was that participants in the control group actually reported a decrease in their level of hope.

Surprising high baseline scores and a decrease in hope scores among control group students can be considered as a demonstration of the effectiveness of the program in an atypical way. Considering the results of the current study, during the intervention program, students who took part in the study went through a tough period including Turkish language proficiency exams which determine whether to continue formal education. Despite the high level of hope and resilience of the children, these processes can be broadly accepted as critical transition periods to support the students' adaptation, especially with regard to Syrian refugee students. Intervention group might be suggested to maintain their hope scores by receiving the support needed, in contrast with the decrease in the hope scores in the control group that did not take any support during this transition period. Although the overall efficacy of the intervention is not statistically presented within the intervention group; compared to the control group, the intervention group might be interpreted to receive benefits to maintain their hope level which could otherwise decrease.

As referred previously, particular studies included hope-based approaches so as to enhance hope in refugee children (e.g. Yohani, 2008; Yohani, 2010) and several studies pointed out the association between hope and resilience in refugee children (e.g. Majumder, 2016, Wilson et al., 2021). Being that this is the first study aimed at increasing the resilience levels of Syrian refugee children with a hope-based program, findings regarding the efficacy of the program could not be compared with other studies. In regard to challenges working with the refugee population, particularly implementing psychosocial programs by overcoming language barrier, financial burdens, and exhaustive bureaucratic procedures, the lack of developed and tested programs aiming at promoting psychological resilience might come with no surprise. On the governmental level, financial support for the research teams, organizations, and services working in psychosocial realm of refugee crisis might be provided limited. In fact, Atar et al. (2022) revealed how limited the scope of services provided by non-governmental organizations in Turkey due to limited access to financial support. Considering the insufficient basic-level services for refugees by governmental and non-governmental organizations (Atar et al., 2022), the lack of programs supporting psychological health-protecting and promoting services might be expected. This picture, however, does not diminish the

importance of developing works that support the resilience of refugees; contrarily, as revealing the lack of services for promoting psychological health of refugee groups, it may highlight the importance of developing and evaluating such programs.

Limitations

This study should be interpreted in the light of several limitations. Firstly, baseline hope and resilience scores of the groups can be considered as a sample-related limitation. When compared to the refugee youth, as stated before, students who partook in the study rated their hope and resilience at a high level during the initial assessment. It could be argued that the high baseline levels of hope and resilience allowed little scope for the within-group improvement on post-assessment.

Secondly, the cultural sensitivity of the self-report measures used in this study might have been limited. Although the CYRM-12 has developed and adapted to considered cultural aspects of Arabic-speaking populations, the CHS has been developed in a 'Western' context based on the understanding of hope as goal-directedness, which may not correspond to the Syrian cultural context. Yet, this scale has been selected because it is widely used around the world with diverse populations such as physically and psychologically healthy children, children with various medical problems (Snyder et al., 1997) and also compatible with the hope construct of the study as hope conceptualization and scale development were made by Snyder et al. (2003). Both tools have broadly been used with various populations with diverse cultural backgrounds and they could both be suggested as good tools to be used in the current study. However, researchers who aim to study with Syrian refugee population can consider using and developing culturally more sensitive measures.

The duration of the intervention process is another methodological limitation that deserves attention. In their meta-analysis, Joyce et al. (2018) reported that interventions of longer durations produced larger gains in resilience. Longer interventions might support improvement and provide an opportunity for the rehearsal of activities to develop into habitual practices. Considering the dynamic nature of resilience, particularly, future studies might choose to include a longer and more intensive intervention period to support resilience as a process.

Lastly, as necessitated by an ecological approach, the construct of resilience used in the current study suggests that future research must consider and integrate contextual factors into the scope of the intervention, especially considering the significance of family dynamics regarding hopeful view and resilience of children within a family (Masten & Monn, 2015).

Conclusion

This study, as a pilot trial, offers an initial test about the possible efficacy of a hope-based intervention to increase hope and resilience among Syrian children. 6-session hope-based program was associated with more improvement in hope and resilience levels of children who participated to the sessions; while the hope levels of children who did not participate in the sessions or any other programs were found to be decreased, which can

be considered to point out the importance of supporting refugee children after the resettlement period, not only in migration and resettlement.

As a war-affected population, however, in respect to psychological health of the resettled refugees, main concern of volunteers, researchers, and non-governmental organizations working with this population is observed to be trauma-related experiences and their associated outcomes, which has resulted in the development and evaluation of treatment approaches for mental health problems. Beside intervention approach to existing mental health problems among refugees, preventive approaches should be given attention for the long-term protection of this population, particularly refugee children who are in a transitional period and expected to experience major challenges throughout their lives. In respect to existing literature within the context of risk and protective factors for refugee children, the critical role of resilience was already given considerable attention. The current quasi-experimental study with limitations, building upon prior research, provided an initial assessment of a program for enhancing the resilience of refugee children. Further work involving robust designs and comprehensive programs involving broader environmental context of the refugee children is needed.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The author(s) disclosed receipt of the following financial support for the research: The Ministry of Interior Directorate General for Relations with Civil Society.

ORCID

Aslihan Ataman http://orcid.org/0000-0003-0421-0702
Burcu Uysal http://orcid.org/0000-0002-0202-2655

Data availability statement

The data that support the findings of this study are available from the corresponding author, AA, upon reasonable request.

References

Abdel-Khalek, A., & Snyder, C. R. (2007). Correlates and predictors of an Arabic translation of the Snyder Hope Scale. *The Journal of Positive Psychology*, *2*(4), 228–235. https://doi.org/10.1080/17439760701552337

Ai, A. L., Tice, T. N., Whitsett, D. D., Ishisaka, T., & Chim, M. (2007). Posttraumatic symptoms and growth of Kosovar war refugees: The influence of hope and cognitive coping. *The Journal of Positive Psychology*, *2*(1), 55–65. https://doi.org/10.1080/17439760601069341

Akos, P., & Kurz, M. S. (2016). Applying hope theory to support middle school transitions. *Middle School Journal*, *47*(1), 13–18. https://doi.org/10.1080/00940771.2016.1059724

Atar, E., Hossain, F., & Ullah, A. A. (2022). Syrian refugees in Turkey: Exploring the role of I/NGOs in refugee crisis. *Third World Quarterly*, *44*(2), 1–15. https://doi.org/10.1080/01436597.2022.2144208

Atik, G., & Atik, Z. E. (2017). Predicting hope levels of high school students: The role of academic self-efficacy and problem solving. *Education and Science*, *42*(190), 157–169. https://doi.org/10.15390/EB.2017.5348

Bozan, M. A., Akçay, A. O., & Karahan, E. (2021). İlkokullarda eğitim gören Suriyeli öğrencilerin uyum sürecinin incelenmesi. *Milli Eğitim Dergisi*, *50*(1), 309–335. https://doi.org/10.37669/milliegitim.960017

Bronstein, I., & Montgomery, P. (2011). Psychological distress in refugee children: A systematic review. *Clinical Child & Family Psychology Review*, *14*(1), 44–56. https://doi.org/10.1007/s10567-010-0081-0

Cheavens, J. S., Feldman, D. B., Gum, A., Michael, S. T., & Snyder, C. R. (2006). Hope therapy in a community sample: A pilot investigation. *Social Indicators Research*, *77*(1), 61–78. https://doi.org/10.1007/s11205-005-5553-0

Ciarrochi, J., Parker, P., Kashdan, T. B., Heaven, P. C., & Barkus, E. (2015). Hope and emotional well-being: A six-year study to distinguish antecedents, correlates, and consequences. *The Journal of Positive Psychology*, *10*(6), 520–532. https://doi.org/10.1080/17439760.2015.1015154

Cortes, L., & Buchanan, M. J. (2007). The experience of Columbian child soldiers from a resilience perspective. *International Journal for the Advancement of Counselling*, *29*(1), 43–55. https://doi.org/10.1007/s10447-006-9027-0

Dixson, D. D. (2017). Hope across achievement: Examining psychometric properties of the Children's Hope Scale across the range of achievement. *SAGE Open*, *7*(3), 2158244017717304. https://doi.org/10.1177/2158244017717304

Earnest, J., Mansi, R., Bayati, S., Earnest, J. A., & Thompson, S. C. (2015). Resettlement experiences and resilience in refugee youth in Perth, Western Australia. *BMC Research Notes*, *8*(1), 1–10. https://doi.org/10.1186/s13104-015-1208-7

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: A systematic review. *The Lancet*, *365*(9467), 1309–1314. https://doi.org/10.1016/S0140-6736(05)61027-6

Goodman, J. H. (2004). Coping with trauma and hardship among unaccompanied refugee youths from Sudan. *Qualitative Health Research*, *14*(9), 1177–1196. https://doi.org/10.1177/1049732304265923

Hagen, K. A., Myers, B. J., & Mackintosh, V. H. (2005). Hope, social support, and behavioral problems in at-risk children. *The American Journal of Orthopsychiatry*, *75*(2), 211–219. https://doi.org/10.1037/0002-9432.75.2.211

Hodes, M., & Vostanis, P. (2019). Practitioner review: Mental health problems of refugee children and adolescents and their management. *Journal of Child Psychology and Psychiatry*, *60*(7), 716–731. https://doi.org/10.1111/jcpp.13002

Joyce, S., Shand, F., Tighe, J., Laurent, S. J., Bryant, R. A., & Harvey, S. B. (2018). Road to resilience: A systematic review and meta-analysis of resilience training programs and interventions. *British Medical Journal Open*, *8*(6), e017858. https://doi.org/10.1136/bmjopen-2017-017858

Luna, B. (2009). Developmental changes in cognitive control through adolescence. *Advances in Child Development and Behavior*, *37*, 233–278.

Majumder, P. (2016). 'Inoculated in pain': Examining resilience in refugee children in an attempt to elicit possible underlying psychological and ecological drivers of migration. *International Journal of Culture and Mental Health*, *9*(4), 327–339. https://doi.org/10.1080/17542863.2016.1199719

Marley, C., & Mauki, B. (2019). Resilience and protective factors among refugee children post-migration to high-income countries: A systematic review. *European Journal of Public Health*, *29*(4), 706–713. https://doi.org/10.1093/eurpub/cky232

Marques, S. C., Pais-Ribeiro, J. L., & Lopez, S. J. (2011). The role of positive psychology constructs in predicting mental health and academic achievement in children and adolescents: A two-year longitudinal study. *Journal of Happiness Studies*, *12*(6), 1049–1062. https://doi.org/10.1007/s10902-010-9244-4

Masten, A. S., & Monn, A. R. (2015). Child and family resilience: A call for integrated science, practice, and professional training. *Family Relations*, *64*(1), 5–21. https://doi.org/10.1111/fare.12103

Merkaš, M., & Brajša-Žganec, A. (2011). Children with different levels of hope: Are there differences in their self-esteem, life satisfaction, social support, and family cohesion? *Child Indicators Research*, *4*(3), 499–514. https://doi.org/10.1007/s12187-011-9105-7

Nocon, A., Eberle-Sejari, R., Unterhitzenberger, J., & Rosner, R. (2017). The effectiveness of psychosocial interventions in war-traumatized refugee and internally displaced minors: Systematic review and meta-analysis. *European Journal of Psychotraumatology*, *8*(2), 1388709. https://doi.org/10.1080/20008198.2017.1388709

O'Leary, P., Hutchinson, A., & Squire, J. (2015). Community-based child protection with Palestinian refugees in South Lebanon: Engendering hope and safety. *International Social Work*, *58*(5), 717–731. https://doi.org/10.1177/0020872815584427

Panter-brick, C., Hadfield, K., Dajani, R., Eggerman, M., Ager, A., & Ungar, M. (2018). Resilience in context: A brief and culturally grounded measure for Syrian refugee and Jordanian host-community adolescents. *Child Development*, *89*(5), 1803–1820. https://doi.org/10.1111/cdev.12868

Pumariega, A. J., Rothe, E., & Pumariega, J. B. (2005). Mental health of immigrants and refugees. *Community Mental Health Journal*, *41*(5), 581–597. https://doi.org/10.1007/s10597-005-6363-1

Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annuals of the New York Academy of Sciences*, *1094*(1), 1–12. https://doi.org/10.1196/annals.1376.002

Sirin, S. R., & Rogers-Sirin, L. (2015). *The educational and mental health needs of syrian refugee children*. Migration Policy Institute.

Snyder, C. R. (2002). TARGET ARTICLE: Hope theory: Rainbows in the mind. *Psychological Inquiry*, *13*(4), 249–275. https://doi.org/10.1207/S15327965PLI1304_01

Snyder, C. R., Hoza, B., Pelham, W. E., Rapoff, M., Ware, L., Danovsky, M., Highberger, L., Ribinstein, H., & Stahl, K. J. (1997). The development and validation of the Children's Hope Scale. *Journal of Pediatric Psychology*, *22*(3), 399–421. https://doi.org/10.1093/jpepsy/22.3.399

Snyder, C. R., Irving, L. M., & Anderson, J. R. (1991). Hope and health. *Handbook of Social and Clinical Psychology: The Health Perspective*, *162*, 285–305.

Snyder, C. R., Lopez, S. J., Shorey, H. S., Rand, K. L., & Feldman, D. B. (2003). Hope theory, measurements, and applications to school psychology. *School Psychology Quarterly*, *18*(2), 122. https://doi.org/10.1521/scpq.18.2.122.21854

Soliman, H. (2017). *Measuring post-secondary student resilience through the child & youth resilience measure and the brief resilience scale* (Unpublished doctoral dissertation). University of Toronto.

Turner, D. S. (2005). Hope seen through the eyes of 10 Australian young people. *Journal of Advanced Nursing*, *52*(5), 508–515. https://doi.org/10.1111/j.1365-2648.2005.03619.x

Turrini, G., Purgato, M., Acarturk, C., Anttila, M., Au, T., Ballette, F., Carswell, K., Churchill, R., Cuijpers, P., Hall, J., Hansen, L. J., Kösters, M., Lantta, T., Nosè, M., Ostuzzi, G., Sijbrandij, M., Tedeschi, F., Valimaki, M., Wancata, J., & Barbui, C.. . . Bird, M. (2019). Efficacy and acceptability of psychosocial interventions in asylum seekers and refugees: Systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences*, *28*(4), 376–388. https://doi.org/10.1017/S2045796019000027

Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work*, *38*(2), 218–235. https://doi.org/10.1093/bjsw/bcl343

Ungar, M., & Liebenberg, L. (2011). Assessing resilience across cultures using mixed methods: Construction of the child and youth resilience measure. *Journal of Mixed Methods Research*, *5*(2), 126–149. https://doi.org/10.1177/1558689811400607

United Nations High Commissioner for Refugees (UNHCR). (2020, November 11). Syria regional refugee response. http://data2.unhcr.org/en/situations/syria.

Uysal, B., Yanik, M., Tastekne, F., Tuzgen, E., Altinisik, E., & Acarturk, C. (2022). Psychological problems and resilience among Syrian adolescents exposed to war. *European Journal of Trauma & Dissociation*, *6*(3), 100258. https://doi.org/10.1016/j.ejtd.2022.100258

Wilson, N., Turner-Halliday, F., & Minnis, H. (2021). Escaping the inescapable: Risk of mental health disorder, somatic symptoms and resilience in Palestinian refugee children. *Transcultural psychiatry*, *58*(2), 307–320. https://doi.org/10.1177/1363461520987070

Yaylaci, F. T. (2018). Trauma and resilient functioning among Syrian refugee children. *Development & Psychopathology*, *30*(5), 1923–1936. https://doi.org/10.1017/S0954579418001293

Yohani, S. (2010). Nurturing hope in refugee children during early years of post-war adjustment. *Children & Youth Services Review*, *32*(6), 865–873. https://doi.org/10.1016/j.childyouth.2010.02.006

Yohani, S. C. (2008). Creating an ecology of hope: Arts-based interventions with refugee children. *Child & Adolescent Social Work Journal*, *25*(4), 309–323. https://doi.org/10.1007/s10560-008-0129-x

Yohani, S. C., & Larsen, D. J. (2009). Hope lives in the heart: Refugee and immigrant children's perceptions of hope and hope-engendering sources during early years of adjustment. *Canadian Journal of Counselling*, *43*(4), 246–264.