



Lebanese American University Repository (LAUR)

Post-print version/Author Accepted Manuscript

Publication metadata

Title: COPE for Adolescent Syrian Refugees in Lebanon: A Brief Cognitive–Behavioral Skill-Building Intervention to Improve Quality of Life and Promote Positive Mental Health Author(s): Linda D. Hollebeek, Choukri Menidjel, Omar S. Itani, Moira K. Clark, Valdimar Sigurdsson

Journal: Clinical Nursing Research

DOI/Link: <https://doi.org/10.1177/1054773818808114>

How to cite this post-print from LAUR:

Doumit, R., Kazandjian, C., & Militello, L. K. (2020). COPE for adolescent Syrian refugees in Lebanon: A brief cognitive–behavioral skill-building intervention to improve quality of life and promote positive mental health. *Clinical Nursing Research*, DOI, 10.1177/1054773818808114, <http://hdl.handle.net/10725/9888>

© Year 2020

“This is an Accepted Manuscript of the article: Doumit, R., Kazandjian, C., & Militello, L. K. COPE for adolescent Syrian refugees in Lebanon: A brief cognitive–behavioral skill-building intervention to improve quality of life and promote positive mental health. Clinical Nursing Research, 29(4), 226-234. c2020 SAGE Pub. <https://doi.org/10.1177/1054773818808114>

This Open Access post-print is licensed under a Creative Commons Attribution-Non Commercial-No Derivatives (CC-BY-NC-ND 4.0)



This paper is posted at LAU Repository

For more information, please contact: archives@lau.edu.lb

COPE for Adolescent Syrian Refugees in Lebanon: A Brief Cognitive–Behavioral Skill-Building Intervention to Improve Quality of Life and Promote Positive Mental Health

Clinical Nursing Research

1–19

© The Author(s) 2018


Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/1054773818808114

journals.sagepub.com/home/cnr



Rita Doumit, PhD, MPH, RN^{1,2} ,
Chant Kazandjian, MS, RN, NCC³,
and Lisa K. Militello, PhD, MPH, RN, CPNP⁴

Abstract

Lebanon has the highest per-capita concentration of refugees worldwide. There is an urgent need to offer psychosocial interventions to vulnerable groups such as Syrian refugee adolescents. To assess the feasibility, acceptability, and preliminary effects of a cognitive–behavioral intervention (Creating Opportunities for Patient Empowerment [COPE]) on depression, anxiety, and quality of life (QOL) in a sample of adolescent refugees (13–17 years) living in Lebanon. A preexperimental study design was used. COPE

¹Lebanese American University, Byblos, Lebanon

²Sigma Theta Tau International Chi Iota Chapter, American University of Beirut, Lebanon

³Caritas-Lebanon Head Office, Beirut, Lebanon

⁴The Ohio State University, Columbus, USA

Corresponding Author:

Rita Doumit, Assistant Professor, Alice Ramez Chagoury School of Nursing, Lebanese American University, P.O. Box 36, Byblos Campus, Byblos, Lebanon.

Email: rita.doumit@lau.edu.lb

7-Session was delivered to 31 adolescent Syrian refugees. Participants were assessed for depression (Personal Health Questionnaire–9), anxiety (General Anxiety Disorders Scale), and QOL (Pediatric Quality of Life Inventory). Feasibility and acceptability findings indicated that the COPE program was a positive experience for teens. Significant decreases in depression and anxiety, and increases in QOL were also reported. COPE is an effective cognitive–behavioral intervention that can be delivered in an Arabic/Middle-Eastern setting for teen refugees to improve mental health and QOL.

Keywords

COPE, adolescents, refugees, Lebanon, depression, anxiety, quality of life

There has been a progressive rise in the number of refugees due to global events such as wars and natural disasters (Sen, 2016; Turrini et al., 2017). At least, 80% of those refugees come from low- and middle-income countries and half of those refugees are children (Sen, 2016). The conflict in Syria has created one of the largest needs for humanitarian response in recent history (Hassan et al., 2015). For Syrian refugees, the experiences of violence are combined with the daily stressors of displacement, poverty, discrimination, loss of family, loss of basic needs and services, and uncertainty about family and the future (Hassan et al., 2015). Psychological and social distress among refugees from Syria manifests in a wide range of emotional, cognitive, physical, behavioral, and social responses (El Masri, Harvey, & Garwoo, 2013; International Medical Corps [IMC] & UNICEF, 2014). Specifically, emotional responses may include sadness, grief, fear, frustration, anxiety, anger, and despair. Cognitive stress may present as loss of control, helplessness, worry, rumination, boredom, and hopelessness, whereas physical symptoms may manifest as fatigue, problems sleeping, loss of appetite, and medically unexplained physical complaints. Finally, behavioral and social responses such as withdrawal, aggression, and interpersonal difficulties are also common (Hassan et al., 2015). However, most of these phenomena among Syrian refugees are the result of ongoing violence, displacement, and the difficult circumstances in which they currently live, yet do not necessarily indicate mental disorders (Hassan et al., 2015).

Five years into the crisis, persons displaced from Syria face considerable hardship due to lack of available resources and an increased reliance on humanitarian assistance (Sirin & Rogers-Sirin, 2015). Lebanon hosts more than 1.5 million Syrian refugees and has the highest per-capita concentration of refugees worldwide, with one out of four persons considered a refugee

(United Nations High Commissioner for Refugees, 2014). Although Syria and Lebanon are both part of the Arab World, historical ties, values, beliefs, and social behaviors can vary (S. M. Stewart, Simmons, & Habibpour, 2012). Syrian refugee teens coming to Lebanon are often “caught between two worlds,” living between their heritage culture and their new environment (Wang & Benner, 2016). Culture refers to common values, beliefs, and social behaviors with a shared heritage (S. M. Stewart et al., 2012). Adolescents in incongruent socialization groups are likely to experience challenges navigating multiple settings within varying cultural contexts (Wang & Benner, 2016). Similar to research on racial/ethnic minority teens, peer groups in teen refugee populations may be important in sharing cultural socialization, teaching one another about heritage and culture through sharing values, knowledge, and practices (Wang & Benner, 2016). Cultural socialization is consistently linked to better adjustment, less loneliness and depressive symptoms, and higher levels of engagement (Wang & Benner, 2016).

Despite the complexities of the refugee crisis, the literature on the health and wellness of Syrian refugees living in Lebanon remains limited, particularly with regard to mental health (El Chammay, Kheir, & Alaouie, 2013). In refugees, depression and anxiety were found to be as prevalent as posttraumatic stress disorder (Turrini et al., 2017). A similar assessment by IMC (2011) at the northern Syrian/Lebanese border showed that participants reported anxiety, feeling depressed, lethargy, eating and sleeping problems, anger, and fatigue. These negative emotions increase with time (Perez-Sales & Médecins du Monde, 2013) and may affect familial relationships, daily functioning, and health. Adolescents were reported to have additional difficulties, as well as emotional and social responses (IMC, 2011). A study conducted on Syrian refugees in Turkey reveals that 44% of adolescents exhibited symptoms of depression and reported symptoms of posttraumatic stress disorder (Sirin & Rogers-Sirin, 2015). However, research on the mental health of displaced adolescents remains very limited (Fazel & Betancourt, 2018). Challenges associated with researching the mental health of refugee adolescents are related to ethical and consent issues, the high mobility of refugee populations, and complex cultural differences (Fazel & Betancourt, 2018).

Undeniably, there is an urgent need to offer mental health and psychosocial interventions to all Syrian refugees, particularly to vulnerable groups such as adolescents (Hassan et al., 2015; Javadi, Langlois, Ho, Friberg, & Tomson, 2017). Around 70% of mental health disorders appear before the age of 25 and almost half of mental illnesses are exhibited by the age of 14 (World Health Organization [WHO], 2018). As such, adolescents are an important population to target to prevent mental illness and provide early intervention (Kutcher & Venn, 2008). Mental health issues that are untreated may have significant

and detrimental health and social outcomes, including drug use, school drop-outs, teenage pregnancies, and other delinquencies (WHO, 2018). Mental illness left untreated in adolescents can affect their emotional, social, educational, and occupational lives, and hinder their potential within society (Kutcher & Venn, 2008). In addition to reducing rates of depression and anxiety in children and teens, cognitive-behavioral therapy (CBT) interventions have illustrated effectiveness in promoting mental health (Melnyk et al., 2015; Turrini et al., 2017). Creating Opportunities for Patient Empowerment (COPE) is an evidence-based research-tested intervention program that utilizes cognitive-behavioral skills building (National Cancer Institute, 2013). Research-tested intervention programs are evidence-based programs available for use in community or clinical settings. Prior randomized controlled trials using the manualized version of the COPE program have been delivered to English-speaking school-aged children and adolescents via on-site individual and group formats (Hickman, Jacobson, & Melnyk, 2015; Melnyk et al., 2013). COPE has been used to promote health in depressed adolescents, adolescents with chronic headache, and in general adolescent populations. This program demonstrated decreases in depressive symptoms, anxiety, anger, and destructive behavior along with increases in self-concept, social skills, healthy behaviors, academic performance and retention (Hickman et al., 2015; Lusk & Melnyk, 2011; Melnyk & Gallagher-Ford, 2015). However, COPE has neither been tested on adolescents outside of the United States, nor implemented in any Arab-speaking community with Arabic-speaking adolescent populations.

The purpose of this research was to establish the feasibility, acceptability, and preliminary effects of a cognitive-behavioral skills building intervention (COPE) on depression, anxiety, and quality of life in a sample of adolescent refugees (13-17 years). The primary aims of the proposed pilot study were to (a) examine the feasibility and acceptability of the COPE program in this population and (b) evaluate the preliminary effects of the COPE program on quality of life, depression, and anxiety. Findings from this pilot inform the applicability of a cognitive-behavioral skills building program in a Middle-Eastern country and highlight opportunities to support the health of a population much neglected, yet in much need for intervention.

Theoretical Framework

Cognitive theory (CT) guided the selection of study variables (anxiety, depression, and quality of life), the development of the proposed intervention, and the associated analyses. The transtheoretical model served as framework to guide the implementation of the intervention (Prochaska & Velicer, 1997). In CT, an individual's thoughts affect his or her feelings or emotions

and behaviors (J. Beck, 2011). CT (A. T. Beck, Rush, Shaw, & Emery, 1979) focuses on identifying and correcting “cognitive distortions” or automatic negative thoughts. From this theoretical perspective, a person who has negative thoughts or beliefs is more likely to have negative emotions (e.g., feeling depressed, anxious) and display negative behaviors (e.g., risk taking and poor school performance). Congruent with CBT and incorporated into COPE activities, students are taught how to reduce negative thoughts (cognitive restructuring), increase pleasurable activities (behavioral activation), and improve problem-solving skills (homework assignments). The transtheoretical model is an integrative framework highlighting stages an individual takes toward embracing and maintaining a change in a belief or a behavior (Prochaska, Johnson, & Lee, 2009). The model consists of five stages: precontemplation, contemplation, planning or preparation, action, and maintenance (Prochaska et al., 2009). Strategies taught in the COPE program may be new or unfamiliar to this population. Through the development, practice, and maintenance of cognitive-behavioral skills, the transtheoretical model guided intervention implementation.

Method

Design, Setting, and Sample

The study design was a preexperimental one-group, pre- and posttest design. The study was approved by the institutional review board (IRB) of a Lebanese university and from a community center administrator that served as the study setting. The community center is located in a suburban region of the capital of Lebanon and serves disadvantaged children and families, including Syrian refugee families. The community center implements a wide range of initiatives, such as programs to support educational needs and vocational training to foster economic self-sufficiency. Adolescent Syrian refugees who live in the neighborhood of the community center were recruited through invitation from staff at the community center. A trained and certified therapist conducted the first face-to-face intake interview with the teens and invited them to participate in the study. In addition to parental consent and teen assent, participants were required to be between 13 and 17 years, have the ability to read and write Arabic, go to school, and live in the suburbs of the community center. Refugees were excluded from the study if they reported any symptoms indicating suicidal thoughts, acute psychosis, or intellectual disability at their initial intake appointment. Per IRB approved study protocol, excluded adolescents were referred to a neighboring mental health clinic. Participants who met inclusion criteria and completed baseline questionnaires, the program, and postintervention surveys were offered

a US\$50 gift card in appreciation of their time, effort, and feedback regarding the program, as well as restitution for any associated transportation costs.

Measures

Six measurement tools were used: (a) demographic survey, (b) Patient Health Questionnaire–9 (PHQ-9), (c) Generalized Anxiety Disorder–7 (GAD-7), (d) Pediatric Quality of Life (PedsQL) Inventory, and (e) satisfaction rating, and (f) program evaluation.

Demographics. In partnering with the community center and staff who were familiar with the population, questions stemmed from community center input indicating that all adolescents came from low-income families. Information collected included age, gender, and general information about family members.

PHQ-9. The PHQ-9 was used to assess for depression, with scores ranging from 0 to 27 (Kroenke, Spitzer, & Williams, 2001). Across a variety of populations and settings, PHQ-9 scores >10 have demonstrated sensitivity of 88% and a specificity of 88% for major depressive disorder. Criteria validity was established by conducting 580 structured interviews by a mental health professional. Results from these interviews showed that individuals who scored high (≥ 10) on the PHQ-9 were between 7 and 13.6 times more likely to be diagnosed with depression by the mental health professional. Conversely, individuals scoring low (≤ 4) on the PHQ-9 had a less than a 1 in 25 chance of having depression (Kroenke, Spitzer, & Williams, 2001). PHQ-9 scores of 5, 10, 15, and 20 represented mild, moderate, moderately severe, and severe depression, respectively (Kroenke et al., 2001). The PHQ-9 has been translated to Arabic and tested among Lebanese adult population with good internal consistency reliability of .88 (Sawaya, Atoui, Hamadeh, Zeinoun, & Nahas, 2016). The internal consistency reliability in our sample was .59.

GAD-7 Scale. The GAD-7 was used to assess for GADs (Spitzer, Kroenke, Williams, & Lowe, 2006). Total score ranges from 0 to 21, with excellent criterion validity to identify cases of GAD for those with scores 10 or higher (Spitzer et al., 2006). Construct validity was demonstrated by the association between increasing GAD-7 severity scores and functional decline on all six Medical Outcomes Study–Short Form General Health Survey scales (SF-20) (A. L. Stewart, Hays, & Ware, 1988). Convergent validity was shown by high correlations of total GAD-7 scores with scores from two other anxiety scales.

Diagnostic criterion validity was evidenced by comparing GAD-7 scores with diagnoses determined by mental health professionals; at a cut point of 10 or greater, sensitivity and specificity both exceeded 0.80. Factorial validity was examined by a principal component analysis of 15 items, combining the GAD-7 and eight depression items from the PHQ-8. Two factors emerged, both with eigenvalues greater than one. All depression items had the highest factor loadings on one factor (0.58-0.75), and all anxiety items had the highest factor loadings on the second factor (0.69-0.81), indicating the GAD-7 was assessing a unidimensional construct distinct from depression (Spitzer et al., 2006). The GAD-7 has been translated to Arabic and tested among Lebanese population with reliability of .95 (Sawaya et al., 2016). GAD-7 has been tested in adolescent population with a Cronbach's alpha of .89 (Melnyk et al., 2015). The internal consistency reliability in our sample was .76.

PedsQL Inventory—Version 4 for adolescents. PedsQL was used to estimate quality of life. The core domains assess (a) physical functioning, (b) emotional functioning, (c) social functioning, and (d) school functioning. Higher scores indicate better health-related quality of life. The internal consistency reliabilities generally exceed the .70 standard for group comparison. Validity was demonstrated using the known-groups method, correlations with indicators of morbidity and illness burden, and factor analysis. The PedsQL distinguished between healthy children and pediatric patients with acute or chronic health conditions, was related to indicators of morbidity and illness burden, and displayed a factor-derived solution largely consistent with the a priori conceptually derived scales (Varni, Seid, & Kurtin, 2001). Arabic-translated version of the PedsQL in previous research was .89 for the total scale, .65 for the physical, .76 for emotional, .77 for social, and .89 for school functioning (Sawaya et al., 2016). The internal consistency reliabilities in our sample were .84 for the total scale, .71 for the physical health, .76 for emotional functioning, .67 for social functioning, .63 for school functioning, and .73 for psychosocial health.

Satisfaction rating. After each session, teens were provided with a notecard to anonymously rate each session on a scale of 0 to 10. A rating of 0 meant that the session was *not helpful at all* or that the adolescent did not learn anything new, and a rating of 10 meant that the session was *very helpful* and the refugees learned new information and skills that they planned on using over the next week. Staff at the community center collected the cards.

Program evaluation. The program evaluation consisted of (a) a checklist of recent life stressor events, (b) closed-ended questions to provide feedback of

Table 1. Intervention Content and Implementation.

Session	Content
1	Discussion of thinking–feeling–behaving triangle, how to engage in positive self-talk, and the concept of “staying in the moment”
2	Discussion of healthy vs. unhealthy self-esteem and how to work on enhancing self-esteem
3	Skill building on how to reduce stress and engage in healthy coping, including how stress affects people and positive ways to deal with stress; overview of signs and symptoms of anxiety and depression
4	Goal setting, the four steps used in problem solving, and how to overcome barriers in achieving one’s goals
5	Discussion on how to deal with emotions in healthy ways, think positively, and use effective communication; information on mental and guided imagery, and how they could practice it
6	Explain the best ways to cope with stressful situations
7	Revision and summary of the COPE program content.

Note. COPE = Creating Opportunities for Patient Empowerment.

the programs use and usefulness, and (c) open-ended questions to allow the individuals to evaluate their perceived effectiveness and helpfulness of the program. In addition, the program evaluation questionnaire provided information regarding aspects of the program that were and were not helpful as well as the refugees’ recommendation of the program to other refugees.

Intervention and Procedures

The program was implemented and completed in the fall of 2017. The program consisted of one weekly 60-min session for 7 weeks (Table 1). Sessions were held at the community center and delivered in a group format. The groups were led by the principal investigator (PI; COPE-licensed instructor) and a certified therapist. Both instructors were Lebanese and spoke Arabic as their primary language, the PI fluent in English as a second language. Breakfast was served after each session. The content of the sessions reflected content from the COPE manual and was delivered in Arabic and offered exactly as written, adhering strictly to the manualized content. For each session, the PI and therapist went over each session in Arabic (live translation) and translated the homework assignment from English to Arabic, live in class.

Prior to implementing the program, community staff communicated to the research team that most families possessed mobile phones as this was their primary mode of communication. Sessions were augmented with weekly

short message service/text messaging (SMS < 140 characters) sent to parents and teens. Messages served as reminders to practice skills and provide information about the upcoming group session.

Data Analysis

Data analysis was performed using SPSS 21. Descriptive analysis was used to summarize demographic, satisfaction, and postprogram evaluations. Paired sample *t* tests were used to compare adolescents' mean scores pre- and postprogram for the PHQ-9, GAD-7, total Pediatric Quality of Life Inventory-4 (PedQoL-4), and PedQoL-4 subscales Physical Health and Psychosocial Health Summary. Preliminary effects were interpreted using Cohen's *d* statistic, 0.8, 0.5, and 0.2 indicative of large, medium, and small effect sizes, respectively (Cohen, 1988). The level of significance was set at .05.

Results

Feasibility and Acceptability of the Intervention

A total of 40 Syrian refugee adolescents from the suburbs of the community center were enrolled into the program, completed baseline measures, and attended the first intervention session. For unknown reasons, six students were lost to attrition by the second session. Thirty-four teens finished all seven COPE sessions (85% retention rate). No make-up sessions were required. Three teens suffered major life events during the last week of the program and were referred for counseling. The final sample consisted of 31 participants (77.5% retention rate). The sample size is small as this is a pilot study with the primary purpose of testing the feasibility, acceptability, and preliminary effects of a theoretically driven skill-building program (COPE). All participants were Syrian teenagers ($M = 14.22$ years, $SD = 1.20$ years). Teens resided in households consisting of an average of five family members ($M = 5$, $SD = 1$) and two siblings ($M = 2$ siblings, $SD = 1$). The sample was evenly distributed between male ($N = 15$, 48.4%) and female ($N = 16$, 51.6%) participants.

Participants reported feeling well respected and valued, understood, and heard. Teen satisfaction with the group sessions was favorable, with a mean rating of 8.54/10.00 ($SD = 0.13$). Major themes in the open-ended questions revealed ways the program assisted them in focusing on their positive strengths. Teens liked Session 2 (enhancing self-esteem) the most, with a mean score of 8.49/10.00 ($SD = 1.19$). Teens also favored skills and examples highlighting how to manage and cope with stressful situations at school

Table 2. Baseline and Postintervention Outcomes.

Outcome	Measure	Baseline <i>M</i> (<i>SD</i>)	Postintervention <i>M</i> (<i>SD</i>)	Effect size	<i>p</i>
Depression	PHQ-9	6.35 (3.25)	4.90 (2.38)	0.42	.0253*
Anxiety	GAD-7	4.61 (2.95)	3.61 (2.51)	0.37	.0486*
Quality of life	Physical functioning	89.52 (10.69)	93.24 (5.76)	0.33	.0370*
	Emotional functioning	81.93 (15.37)	85.81 (13.29)	0.25	.0899
	Social functioning	89.51 (10.59)	92.74 (9.02)	0.27	.0726
	School functioning	77.25 (28.22)	80.64 (28.22)	0.25	.0873
	Psychosocial health	82.90 (10.38)	86.39 (10.36)	0.36	.0587
	Total quality of life	85.20 (8.98)	88.77 (7.67)	0.39	.0456*

Note. PHQ-9 = Patient Health Questionnaire-9; GAD-7 = Generalized Anxiety Disorder-7.
* $p < .05$.

and improve their relationships with family. Teen participants stated the program was informative and engaging through a sense of community. Session 4, goal setting and problem solving, was the least liked session although it still scored favorably with the teens ($M = 8.02$, $SD = 0.89$). Teens verbalized learning alternate ways of dealing with difficult emotions (e.g., anger, sadness). Postprogram, adolescents described their home and school lives as “very much improved” (19.35%), “much improved” (70.97%), and “a little bit improved” (9.68%).

Preliminary Effects of the Intervention on Depression, Anxiety, and Quality of Life

Adolescents demonstrated an overall improvement in health upon completing the program. At baseline, the group ($n = 40$) was assessed for depression and anxiety. One adolescent was identified for possibly significant depression, and two adolescents were identified for escalated anxiety. These teens were referred for additional clinical follow-up and were permitted to continue the program. Baseline means for total depression and anxiety were indicative of moderate depression and mild anxiety. Postintervention, there was a statistically significant decrease in depression scores ($M = 4.90$, $SD = 2.38$) compared with baseline ($M = 6.35$, $SD = 3.25$), $t(30) = 2.35$, $p = .0253$. Paired t -test results showed a significant decrease in mean anxiety scores, $t(30) = 2.06$, $p = .0486$, postintervention. A small, but positive effect was found for both depressive symptoms and anxiety after the intervention. Pre- and posttest results for depression, anxiety, and quality of life are summarized and presented in Table 2.

For clinical relevance and understanding, depression and anxiety were further evaluated based on symptom severity. Students were grouped into mild (scores ≤ 5) and moderate/severe (scores > 5 ; Table 3). Results for the moderate/severe students showed a significant decrease in mean depression and anxiety postintervention compared with baseline, $t(18) = 3.97, p < .05$, $t(10) = 3.82, p < .05$, respectively. Large effects of intervention were noted for the more severe scores in anxiety and depressive symptoms.

Postintervention, significant improvement was noted in the Total Quality of Life and the Physical Functioning subscale scores compared with baseline, $t(28) = 2.09, p = .05$, $t(30) = 1.85, p = .04$, respectively. Improvements in the Psychosocial Health subscale approached significance postintervention compared with baseline scores, $t(30) = 1.97, p = .06$. No other subscales were significant.

Discussion and Recommendations

The Arab World consists of 22 countries in the Middle East and North Africa, united by culture and history. Due to parental pre- and postmigration stress, children and teen refugees are at particular risk of suboptimal mental health care (Sen, 2016). Findings support the seven-session COPE program as feasible and acceptable, and positively influenced mental health and quality of life for Syrian teen refugees living in Lebanon. Teens reported satisfaction with the program and learned new skills to cope with life stressors such as focusing on their strengths, learning to deal with difficult emotions, and improving their relationships with others. Preliminary short-term effects of this research showed significant decreases in depression and anxiety, as well as an increase in overall quality of life.

The transtheoretical model served as framework to guide the implementation of the intervention. Homework helped adolescents to move through different stages, from precontemplation to contemplation, to preparation, and then action. Teens reported feeling relaxed and less anxious after practicing mental imagery and relaxation breathing when dealing with negative emotions, as explained in Session 5. Another homework focused on problem solving and on strategies to solve barriers (Session 4); teens were asked to identify their negative thoughts and problems, to write them down, and then to set one short-term “real-time” goal for positive thinking for the next week of the program. At the same time, teens were also asked to identify barriers in achieving that goal as well as recognize strategies for dealing with those barriers.

Table 3. Baseline and Postintervention Outcomes by Symptom Severity.

Outcome	Measure	Mild			Moderate/severe			Effect size	p
		Baseline M (SD)	Postintervention M (SD)	Effect size	Baseline M (SD)	Postintervention M (SD)	Effect size		
Depression	PHQ-9	3.38 (1.56)	4.15 (2.23)	0.33	8.50 (2.30)	5.44 (2.40)	0.94	.0010**	
Anxiety	GAD-7	2.9 (1.58)	2.75 (1.83)	0.06	7.73 (2.19)	5.18 (2.89)	1.15	.0033**	

Note. PHQ-9 = Patient Health Questionnaire-9; GAD-7 = Generalized Anxiety Disorder-7.

* $p < .05$. ** $p < .01$.

Intervention feasibility is framed using recommendations from Bowen et al. (2009) to include acceptability, implementation, practicality, and adaptation. In terms of feasibility and acceptability, teens reported satisfaction with the program and learned new skills to cope with life stressors such as focusing on their strengths, learning to deal with difficult emotions, and improving their relationships with others. The high engagement and completion rate of the COPE program in this population may reflect the “sense of community” mentioned in program evaluation. Teens reported feeling valued.

In terms of implementation, practicality, and adaptation, COPE was consistently delivered in a safe, group-format setting, and was verbally translated from English to Arabic, live in class. Group-delivered CBT has been shown to be effective in reducing depressive symptoms in adolescents, with outcomes related to the presence of peers who are an important source of feedback and support (Melnik et al., 2015). Furthermore, group-delivered CBT provides an opportunity for participants to observe, learn, and practice new skills to manage depressive symptoms. In this context, the thinking, feeling, behaving model “resonates beautifully with recent developments in cognitive, affective and social neuroscience” (March, 2009, p. 173). Teens reported altering reactions to negative situations by reframing negative thoughts to positive ones. This skill may be crucial for refugee teens who have minimal input into their own future.

Preliminary effects of the intervention on mental health and quality of life are multifaceted. A major challenge for mental health work in refugee populations is understanding how different cultural groups communicate psychological distress (Sen, 2016). Both the total quality of life score and subscale for physical functioning significantly improved pre- to postintervention. In prior research, the presence of depressive symptoms accounted for 17% of variance and significantly predicted PedsQL total scores in a sample of adolescents (Reinfjell, Hjemdal, Aune, Vikan, & Diseth, 2008). Therefore, it would be logical that an increase in total quality of life would occur, provided the significant improvement in depressive symptoms. Physical functioning was assessed by eight items that inquired about adolescents’ health and activities. Psychosocial health approached significant improvement. This may be attributed to the intersection of perceived benefits of the group-format delivery, camaraderie, and cognitive-behavior skills learned over the course of the program. Social and school functioning scores may mirror the adolescents’ lack of control and unknown future of their environment. It is less apparent why there was not more of a noticeable improvement in emotional functioning. Emotional function was assessed by questions that probed about feeling scared or afraid, feeling sad or blue, angry, trouble sleeping, and worrying about what will happen. One plausible explanation is that the COPE program

taught cognitive–behavior skills over the short-course of 7 weeks. Perhaps, practice and mastery of such skills need time to mature and shift domains within quality of life. Finally, although reliabilities are fairly high and consistent for the Arabic version of the PedsQL, perhaps the validity failed to accurately capture all aspects of quality of life. Debate continues relative to the merit of a generic versus a disease-specific approach to measure health-related quality of life; but the PedsQL was selected for its ability to compare across patient and healthy populations (Varni et al., 2001).

With the rise in refugee populations and growing number of child and teen refugees, the limited number of studies and limited methodological quality warrant more rigorous trials (Javadi et al., 2017; Nosè et al., 2017; Sen, 2016; Turrini et al., 2017). Evidence-based interventions, such as COPE, merit additional exploration for effectiveness against other psychotherapy treatments and for effects over time. Additional research into cultural barriers and competences, access to health services, and policy needs for refugees residing in host communities is necessary (Cheng, Drillich, & Schattner, 2015; Hadgkiss & Renzaho, 2014; Nosè et al., 2017; Sen, 2016; Suurmond, Seeleman, Rupp, Goosen, & Stronks, 2010). Conversations with our community partners indicated that the center received funding from external resources. If additional research demonstrates proven efficacy in promoting psychological health and quality of life as our early findings suggest, programs such as COPE may be an asset to community centers and the public health of vulnerable adolescent refugee populations.

Strengths

Strengths of this research lie in its novelty and evidence-based solution for an extremely vulnerable and resource-limited population. In leading the sessions, the research team was culturally considerate as sessions were verbally translated per the manual, but not formally translated, due to the fact that the spoken Arabic is different than the written Arabic. Based on the overall reduction in depression and anxiety and enhanced quality of life, the COPE program is an effective tool to be used with teen refugee populations in Lebanon. The program was inexpensive to implement and did not require numerous staff and resources to delivery.

Limitations

Although a number of lessons are to be learned from this research, there are a number of limitations. First, our small sample, representative of a feasibility study, should temper findings. Due to the length of the study, we were unable

to observe whether new skills learned and demonstrated in the weekly sessions were maintained by the students after the program ended. The PHQ-9 had a low reliability in our sample (.59), despite previously reported high reliability in a sample of Lebanese adults (Sawaya et al., 2016). This discrepancy may be due to use in a Syrian teen sample, lower literacy, or perhaps due to nuances between spoken and written Arabic. Differences in data may be due to group differences or psychometric flaws, warranting additional research of similar work and confirmatory factor analysis. As such, findings relative to depression from this study should be interpreted with caution. Some adolescents disclosed that they did not really “experience the war” in Syria as many of them came to Lebanon right after the war started. However, most teens struggled with daily stressors of displacement, including poverty, lack of basic needs and services, discrimination, loss of family, and uncertainty about the future. Although we know that the participants were refugees for less than 5 years, we did not collect data on how long they had been affiliated with the community center, which could have influenced their level of adaptation and subsequent anxiety. Future studies may explore whether duration (newly emigrated or more chronic) of being a refugee influences study outcomes or whether family dynamics, exposure to loss, and violence affect outcomes. Longitudinal outcomes are needed to assess the influence of cognitive-behavior interventions over time. Further research is needed comparing study outcomes with other populations, ethnic groups, and maybe larger samples.

Conclusion

Findings from this study shed light on a population very much in need of mental health resources that are simple, yet effective. Our findings support previous research and reinforce a call to action. Significant barriers to health arise during refugee settlement. Further research is urgently needed in child and adolescent refugee populations to understand and promote positive mental health as this group transitions into their new environments and into adulthood.

Acknowledgments

The authors would like to thank Karagheusian Primary Health care center, the general manager and staff for their tremendous help and support, and all the families and adolescents who participated in this study.


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: This work was supported by the Alliance for Health Policy and Systems Research (AHPSR) in collaboration with WHO/EMRO under grant scheme for Improving Program Implementation Through Embedded Research (iPIER).

ORCID iD

Rita Doumit  <https://orcid.org/0000-0003-1374-2751>

References

- American-Arab Anti-Discrimination Committee. (2009). *Facts about Arabs and the Arab world*. Retrieved from <http://www.adc.org/facts-about-arabs-and-the-arab-world>
- Beck, A. T., Rush, A. J., Shaw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York, NY: Guilford Press.
- Beck, J. (2011). *Cognitive therapy: Basics and beyond*. New York, NY: Guilford Press.
- Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., . . . Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, *36*, 452-457. doi:10.1016/j.amepre.2009.02.002
- Cheng, I.-H., Drilllich, A., & Schattner, P. (2015). Refugee experiences of general practice in countries of resettlement: A literature review. *The British Journal of General Practice: The Journal of the Royal College of General Practitioners*, *65*(632), e171-e176. doi:10.3399/bjgp15X683977
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- El Chammay, R., Kheir, W., & Alaouie, H. (2013). *Assessment of mental health and psychosocial support services for Syrian refugees in Lebanon*. Retrieved from <http://www.syrialearning.org/resource/19540>
- El Masri, R., Harvey, C., & Garwoo, R. (2013). *Changing gender roles among refugees in Lebanon*. Beirut, Lebanon: ABAAD-Resource Center for Gender Equality and OXFAM.
- Fazel, M., & Betancourt, T. S. (2018). Preventative mental health interventions for refugee children and adolescents in high-income settings. *The Lancet Child & Adolescent Health*, *2*, 121-132.
- Hadgkiss, E. J., & Renzaho, A. M. N. (2014). The physical health status, service utilisation and barriers to accessing care for asylum seekers residing in the community: A systematic review of the literature. *Australian Health Review: A Publication of the Australian Hospital Association*, *38*, 142-159. doi:10.1071/AH13113
- Hassan, G., Kirmayer, L. J., Mekki Berrada, A., Quosh, C., el Chammay, R., Deville-Stoetzel, J. B., . . . Ventevogel, P. (2015). *Culture, context and the mental health*

- and psychosocial wellbeing of Syrians: A review for mental health and psychosocial support staff working with Syrians affected by armed conflict. Geneva, Switzerland: United Nations High Commissioner for Refugees.
- Hickman, C., Jacobson, D., & Melnyk, B. M. (2015). Randomized controlled trial of the acceptability, feasibility, and preliminary effects of a cognitive behavioral skills building intervention in adolescents with chronic daily headaches: A pilot study. *Journal of Pediatric Health Care, 29*(1), 5-16. doi:10.1016/j.pedhc.2014.05.001
- International Medical Corps. (2011). *Psycho-social assessment of displaced Syrians at the Lebanese-Syrian northern border*. Retrieved from <http://data.unhcr.org/syrianrefugees/download.php?id=225>
- International Medical Corps & UNICEF. (2014). *Mental health/psychosocial and child protection for Syrian adolescent refugees in Jordan*. Amman, Jordan: Author.
- Javadi, D., Langlois, E. V., Ho, S., Friberg, P., & Tomson, G. (2017). Intersectoral approaches and integrated services in achieving the right to health for refugees upon resettlement: A scoping review protocol. *BMJ Open, 7*(8), e016638. doi:10.1136/bmjopen-2017-016638
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine, 16*, 606-613.
- Kutcher, S., & Venn, D. (2008). Why youth mental health is so important. *The Medscape Journal of Medicine, 10*(12), 275.
- Lusk, P., & Melnyk, B. M. (2011). The brief cognitive-behavioral COPE intervention for depressed adolescents: Outcomes and feasibility of delivery in 30-minute outpatient visits. *Journal of the American Psychiatric Nurses Association, 17*, 226-236. doi:10.1177/1078390311404067
- March, J. (2009). The future of psychotherapy for mentally ill children and adolescents. *Journal of Child Psychology and Psychiatry, 50*, 170-179.
- Melnyk, B. M., & Gallagher-Ford, L. (2015). Implementing the new essential evidence-based practice competencies in real-world clinical and academic settings: Moving from evidence to action in improving healthcare quality and patient outcomes. *Worldviews on Evidence-Based Nursing/Sigma Theta Tau International, Honor Society of Nursing, 12*, 67-69. doi:10.1111/wvn.12089
- Melnyk, B. M., Jacobson, D., Kelly, S., Belyea, M., Shaibi, G., Small, L., . . . Marsiglia, F. F. (2015). Twelve-month effects of the COPE healthy lifestyles TEEN program on overweight and depressive symptoms in high school adolescents. *Journal of School Health, 85*, 861-870.
- Melnyk, B. M., Kelly, S., Jacobson, D., Belyea, M., Shaibi, G., Small, L., . . . Marsiglia, F. F. (2013). The COPE healthy lifestyles TEEN randomized controlled trial with culturally diverse high school adolescents: Baseline characteristics and methods. *Contemporary Clinical Trials, 36*, 41-53. doi:10.1016/j.cct.2013.05.013
- National Cancer Institute. (2013). *COPE (Creating Opportunities for Personal Empowerment) healthy lifestyles TEEN (thinking, emotions, exercise, and nutrition) program*. Retrieved from <https://rtips.cancer.gov/rtips/programDetails.do?programId=22686590>

- Nosè, M., Ballette, F., Bighelli, I., Turrini, G., Purgato, M., Tol, W., . . . Barbui, C. (2017). Psychosocial interventions for post-traumatic stress disorder in refugees and asylum seekers resettled in high-income countries: Systematic review and meta-analysis. *PLoS ONE*, *12*(2), e0171030. doi:10.1371/journal.pone.0171030
- Perez-Sales, P., & Médecins du Monde. (2013, January 28). *Assessment of trauma experiences, mental health and individual and community coping resources of refugee Syrian population displaced in north Bekaa, Lebanon*. Retrieved from <http://data.unhcr.org/syrianrefugees/partner.php?OrgId=21>
- Prochaska, J. O., Johnson, S., & Lee, P. (2009). The transtheoretical model of change. In S. Shumaker, J. Ockene & K. Riekert (Eds.), *The handbook of behavior change* (3rd ed., pp. 59-84). New York, NY: Springer.
- Prochaska, J. O., & Velicer, W. F. (1997). The transtheoretical model of health behavior change. *American Journal of Health Promotion*, *12*, 38-48. doi:10.4278/0890-1171-12.1.38
- Reinfjell, T., Hjemdal, O., Aune, T., Vikan, A., & Diseth, T. H. (2008). The Pediatric Quality of Life Inventory (PedsQL) 4.0 as an assessment measure for depressive symptoms: A correlational study with young adolescents. *Nordic Journal of Psychiatry*, *62*, 279-286. doi:10.1080/08039480801983950
- Sawaya, H., Atoui, M., Hamadeh, A., Zeinoun, P., & Nahas, Z. (2016). Adaptation and initial validation of the Patient Health Questionnaire-9 (PHQ-9) and the Generalized Anxiety Disorder-7 Questionnaire (GAD-7) in an Arabic speaking Lebanese psychiatric outpatient sample. *Psychiatry Research*, *239*, 245-252. doi:10.1016/j.psychres.2016.03.030
- Sen, P. (2016). The mental health needs of asylum seekers and refugees—Challenges and solutions. *BJPsych International*, *13*(2), 30-32.
- Sirin, S. R., & Rogers-Sirin, L. (2015). *The educational and mental health needs of Syrian refugee children*. Washington, DC: Migration Policy Institute.
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Lowe, B. (2006). A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine*, *166*, 1092-1097.
- Stewart, A. L., Hays, R. D., & Ware, J. E. (1988). The MOS short-form general health survey: Reliability and validity in a patient population. *Medical Care*, *26*, 724-735.
- Stewart, S. M., Simmons, A., & Habibpour, E. (2012). Treatment of culturally diverse children and adolescents with depression. *Journal of Child and Adolescent Psychopharmacology*, *22*, 72-79. doi:10.1089/cap.2011.0051
- Suurmond, J., Seeleman, C., Rupp, I., Goosen, S., & Stronks, K. (2010). Cultural competence among nurse practitioners working with asylum seekers. *Nurse Education Today*, *30*, 821-826. doi:10.1016/j.nedt.2010.03.006
- Turrini, G., Purgato, M., Ballette, F., Nosè, M., Ostuzzi, G., & Barbui, C. (2017). Common mental disorders in asylum seekers and refugees: Umbrella review of prevalence and intervention studies. *International Journal of Mental Health Systems*, *11*, Article 51. doi:10.1186/s13033-017-0156-0

- United Nations High Commissioner for Refugees. (2014). *Syria regional response plan, strategic overview, mid-year update*. Geneva, Switzerland: Author. Retrieved from <http://www.unhcr.org/syriarrp6/docs/Syria-rrp6-full-report.pdf>
- Varni, J. W., Seid, M., & Kurtin, P. S. (2001). PedsQL 4.0: Reliability and validity of the Pediatric Quality of Life Inventory version 4.0 generic core scales in healthy and patient populations. *Medical Care*, *39*, 800-812.
- Wang, Y., & Benner, A. D. (2016). Cultural socialization across contexts: Family-peer congruence and adolescent well-being. *Journal of Youth and Adolescence*, *45*, 594-611. doi:10.1007/s10964-016-0426-1
- World Health Organization. (2018). *Maternal, newborn, child, and adolescent health: Adolescent mental health*. Retrieved from <http://apps.who.int/iris/bitstream/handle/10665/259628/WHO-MCA-17.09-eng.pdf>

Author Biographies

Rita Doumit, PhD, MPH, RN, holds a full time faculty appointment at the School of Nursing at Lebanese American University where she serves as an assistant professor of Nursing. She has a sustained research trajectory in health promotion, healthy eating, and well-being among youth.

Chant Kazandjian, MS, RN, NCC, holds the position of mental health unit team leader at Caritas, Lebanon. He has a sustained research trajectory in clinical mental health counseling.

Lisa K. Militello, PhD, MPH, RN, CPNP, holds the position of assistant professor at the Ohio State University, College of Nursing. Her clinical research focused on parlaying technology to reach and deliver health education and behavior change skills through primary care. Her research goal is to optimize the interaction between pediatric clinical care and health information technology.