

## Review

# Youth in crisis in the Middle East and North Africa: a systematic literature review and focused landscape analysis

M. Fehling,<sup>1</sup> Z.M. Jarrah,<sup>1</sup> M.E. Tiernan,<sup>1</sup> S. Albezreh,<sup>1</sup> M.J. VanRooyen,<sup>1,2</sup> A. Alhokair<sup>1</sup> and B.D. Nelson<sup>3,4</sup>

**الشباب في أزمة (الشباب في سياق الأزمات) في الشرق الأوسط وشمال أفريقيا: مراجعة منهجية للأدبيات وتحليل مركز للمشهد**  
مايا فهلنج، زينة الجراح، ماجي تيرنان، سعيد البزرة، مايكل فاتروين، عبد المحسن الحكير، بريت نلسون

**الخلاصة:** إن العوامل السياسية والسكانية الأخيرة كشفت سرعة تأثير الشباب في إقليم الشرق الأوسط وشمال أفريقيا. وقد هدفت هذه الدراسة إلى إلقاء الضوء على الاحتياجات الحالية والأنشطة والأطراف المعنية والحلول المتعلقة بالشباب وصغار البالغين المعرضين للخطر في إقليم الشرق الأوسط وشمال أفريقيا. فأجري استعراض منهجي للأدبيات التي تمت مراجعتها من قبل زملاء (الأدبيات المُحكَّمة) وللأدبيات غير الرسمية. وقد استكمل ذلك بتحليل للمشهد في الإقليم اشتمل على إجراء مقابلات مع المصادر الرئيسية للمعلومات وعلى مناقشات جماعية مركزة، وبعد فحص شامل لـ 1160 مقالة متميزة تم اعتبار 275 مقالة ذات صلة بهذه الدراسة؛ 145 منها (52.7%) حول الصحة (ارتبطت منها 64.8% بالصحة النفسية)، بينما ارتبطت 100 مقالة (36.7%) بسبل كسب الرزق، وتناولت 87 مقالة الوقاية من العنف وناقشت 68 مقالة (24.7%) التعليم. وكان من جملة المواضيع والتحديات الهامة التي تم التعرف عليها في الأدبيات والمناقشات تزايد أعداد الشباب في إقليم الشرق الأوسط وشمال أفريقيا، والبطالة في صفوف الشباب، والفجوات الخطيرة القائمة بين الجنسين، وأثر الصراعات على سبل كسب العيش وعلى التعليم والصحة؛ لا سيما الصحة النفسية.

**ABSTRACT** Recent political and demographic factors have exposed the vulnerability of the youth in the Middle East and North Africa (MENA) region. This study aimed to elucidate the current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the MENA region. A systematic literature review was conducted of the peer-reviewed and grey literature. This was complemented by an in-region landscape analysis involving key-informant interviews and focus group discussions. After extensive screening of 1160 unique articles, 275 articles were considered relevant to this study. Of these 275, 145 (52.7%) were related to health (64.8% of these related to mental health), 101 (36.7%) to livelihood, 87 (31.6%) to violence prevention and 68 (24.7%) to education. Important themes and challenges identified in the literature and discussions included the MENA region's growing youth bulge; youth unemployment; critical gender gaps; and the impact of conflict on livelihoods, education and health, especially mental health.

## Jeunesse en crise au Moyen-Orient et en Afrique du Nord : examen systématique de la littérature et analyse contextuelle ciblée

**RÉSUMÉ** Des facteurs politiques et démographiques récents ont révélé la vulnérabilité des jeunes dans la Région du Moyen-Orient et de l'Afrique du Nord. La présente étude visait à connaître les besoins, les activités, les parties prenantes et les solutions liés aux jeunes et aux jeunes adultes à risque actuellement dans la Région du Moyen-Orient et de l'Afrique du Nord. Un examen systématique de la littérature revue par des pairs et de la littérature grise a été mené. Cette démarche a été complétée par une analyse contextuelle intrarégionale impliquant des entretiens avec des informateurs clés et des groupes de discussion thématiques. Après un examen approfondi de 1160 articles uniques, 275 articles ont été considérés comme pertinents pour l'étude. Sur ces 275 articles, 145 (52,7 %) concernaient la santé (64,8 % de ces derniers abordant la santé mentale), 101 (36,7 %) les moyens de subsistance, 87 (31,6 %) la prévention de la violence et 68 (24,7 %) l'éducation. Les difficultés et thèmes importants identifiés dans la littérature et les discussions au niveau de la Région du Moyen-Orient et de l'Afrique du Nord sont les suivants : l'augmentation rapide du nombre de jeunes, le chômage chez les jeunes, les écarts critiques entre les hommes et les femmes, et l'impact des conflits sur les moyens de subsistance, l'éducation et la santé, en particulier la santé mentale.

<sup>1</sup>Harvard Humanitarian Initiative, Cambridge, Massachusetts, United States of America. <sup>2</sup>Harvard T. H. Chan School of Public Health; <sup>4</sup>Division of Global Health, Massachusetts General Hospital, Harvard Medical School, Boston, Massachusetts, United States of America.

<sup>3</sup>Division of Global Health and Human Rights, Department of Emergency Medicine and Department of Paediatrics, Massachusetts General Hospital, Boston, Massachusetts, United States of America (Correspondence to B.D. Nelson: brett.d.nelson@gmail.com).

Received: 05/04/15; accepted: 28/09/15

## Introduction

Adolescence can be a time of great opportunities, as youth transition from childhood to adulthood and prepare for the responsibilities ahead, including their livelihood, family obligations and productive engagement with their communities. However, among the many communities in the Middle East and North Africa (MENA) that are disrupted by conflict or impoverishment, opportunities for youth can be severely limited. Recent political and demographic factors have exposed the vulnerability of many segments of the civilian population in the MENA region. These vulnerabilities are driven by the expansion of regional conflicts and mass population displacement in urban settings.

The population effects of political crises and disasters will create an increasingly significant impact on youth. Previously, adolescents and young adults have been a neglected population in international programming (1); however, this trend may be changing as youth increasingly become a priority for countries in the MENA region (2). Meanwhile, this population segment is growing more rapidly in the MENA region than almost anywhere else in the world (3). Lack of economic, educational and leadership opportunities curtail adolescent development and limit their full potential for contribution to their families and communities throughout their lifetimes. The results of such conditions during adolescence can lead to a sense of hopelessness and frustration, unnecessary idleness and a propensity for unrest.

In preparation for programmatic development of interventions for youth in the Middle East by the Harvard Humanitarian Initiative, Cambridge, Massachusetts, USA, we discovered no recent overview of the issues faced by youth in the MENA region. Our objective, therefore, was to conduct a multi-method landscape analysis to more fully

elucidate the current needs, activities, stakeholders and solutions related to at-risk or conflict-affected youth and young adults in the MENA region.

## Methods

To accomplish the study objective, a multi-method approach was used, involving a systematic review of the peer-reviewed literature, a review of the available grey literature, and in-region discussions with stakeholders and key informants in Jordan.

These reviews sought to systematically identify and assess current knowledge, gaps and existing best practices related to the needs of MENA youth in crisis. Jordan was selected for in-region discussions due to its current central position in many of the acute issues facing vulnerable youth and due to its relatively secure access for participants.

This study underwent ethical review and received exemption from the institutional review board of Partners Healthcare (Massachusetts General Hospital, Boston, Massachusetts). In-region visits and discussions in Jordan received permission from the Jordanian Ministry of the Interior.

### Systematic literature review

Standardized PRISMA [preferred reporting items for systematic reviews and meta-analyses] guidelines were followed to conduct the systematic literature review (4). This involved surveying the peer-reviewed literature using the PubMed/Medline and Web of Science databases. Identified articles were iteratively screened for relevance regarding youth in crisis by article title, abstract and then full article. The bibliographies of included articles were also reviewed to identify additional relevant references.

### Inclusion and exclusion criteria

The inclusion criteria (search terms) used in the literature searches were:

(Youth OR adolescence OR adolescent OR teenager) AND ("Middle East" OR MENA OR "North Africa" OR Algeria OR Bahrain OR Egypt OR Iran OR Iraq OR Israel OR Jordan OR Kuwait OR Lebanon OR Yemen OR "United Arab Emirates" OR Libya OR Morocco OR Oman OR Palestine OR Qatar OR "Saudi Arabia" OR Syria OR Tunisia) AND (conflict OR refugee OR crisis OR vulnerable).

The exclusion criteria were articles unrelated to youth population or youth in crisis and articles referring to non-MENA countries. We also excluded articles about immigrants or refugees from MENA countries in non-MENA countries, due to the different context and different opportunities and challenges faced; however, this group needs to be addressed as another vulnerable group of adolescents.

### Definitions

For the purpose of these reviews, the terms "adolescents" and "youth" were used interchangeably as their definitions and age ranges overlap among youth-focused organizations. For example, the World Health Organization defines youth as individuals 15–24 years of age, while the United Nations Children's Fund (UNICEF) defines adolescents as age 10–19 and youth as age 15–24 years. However, in general, the primary focus was on individuals 15–24 years of age.

### Grey literature search

In addition to searching the formal peer-reviewed databases, the so-called "grey" literature was surveyed, including online reports and other unpublished documents from nongovernmental organizations (NGOs), United Nations organizations, governments and ministries of health. For this grey literature review, we searched Google, Google Scholar and established humanitarian knowledge databases, such as ReliefWeb, and donor databases, such as the United States Agency for

International Development's Development Experience Clearinghouse. The same search terms were used as for the peer-reviewed literature.

### Stakeholder analysis and in-region discussions in Jordan

The in-region research in Jordan took place from November to December 2014. Twelve different organizations were visited and interviewed. To guide the stakeholder discussions, semi-structured key-informant interviews and focus group discussions were used. The questions explored barriers, needs, solutions and priorities for vulnerable youth populations in the MENA.

The participating stakeholders were: United Nations High Commissioner for Refugees, UNICEF, International Youth Foundation, Save the Children, Mercy Corps, Norwegian Refugee Committee, International Rescue Committee, International Medical Corps, Microfund for Women, Jordanian Hashemite Fund for Human Development, Baqaa refugee camp youth centre, Za'atari Syrian refugee camp, Palestinian refugee youth, Syrian refugee youth, and Jordanian youth. These stakeholders and organizations were identified in our literature reviews and through snowball sampling as some of the key groups on the topic of MENA youth.

### Synthesis

The selected peer-reviewed and grey literature articles as well as the findings of the in-region analysis were subsequently categorized into one or more of the four topic areas:

- livelihoods/economic challenges and opportunities;
- educational challenges and opportunities;
- health-related issues; and
- risk for violence and violence prevention.

## Results

### Literature review

The peer-reviewed and grey literature reviews initially identified 1160 unique articles (Figure 1). A careful screening of abstracts and full articles resulted in 275 articles that were considered relevant to this study, including 28 key articles with useful inputs for future projects to address youth in crisis (Table 1).

Of the 275 relevant articles, 101 (36.7%) were classified under the category livelihood, 68 (24.7%) under education, 87 (31.6%) under violence prevention and 145 (52.7%) under health; of the latter, 94 (64.8%) were related to mental health issues. Articles contributing to more than one category were accounted for in each.

Geographically, of the 275 included articles, the vast majority (158; 57.5%) referred to Palestine and Palestinian refugees in MENA countries. Peer-reviewed articles examined youth in a group of countries (65; 23.6%) or single countries, such as Lebanon (20; 7.3%), Jordan (15, 5.5%), Islamic Republic of Iran (9; 3.3%) and Iraq (8; 2.9%).

### Livelihoods

#### *The youth bulge: business and employment*

Assaad and Roudi-Fahimi explained that the increase in the proportion of 15–24-year-olds in the total population in the MENA region—dubbed the “youth bulge”—combined with the sudden expansion in the overall population, has resulted in the most rapid growth in the number of young people in the MENA in history (3). This number is projected to peak at 100 million by 2035 and to decline slowly thereafter. However, the labour market is not expanding to accommodate this demographic shift, risking a negative impact on countries' economies and societies. The authors argued that the mismatch between quality of labour supply and the requirements of labour

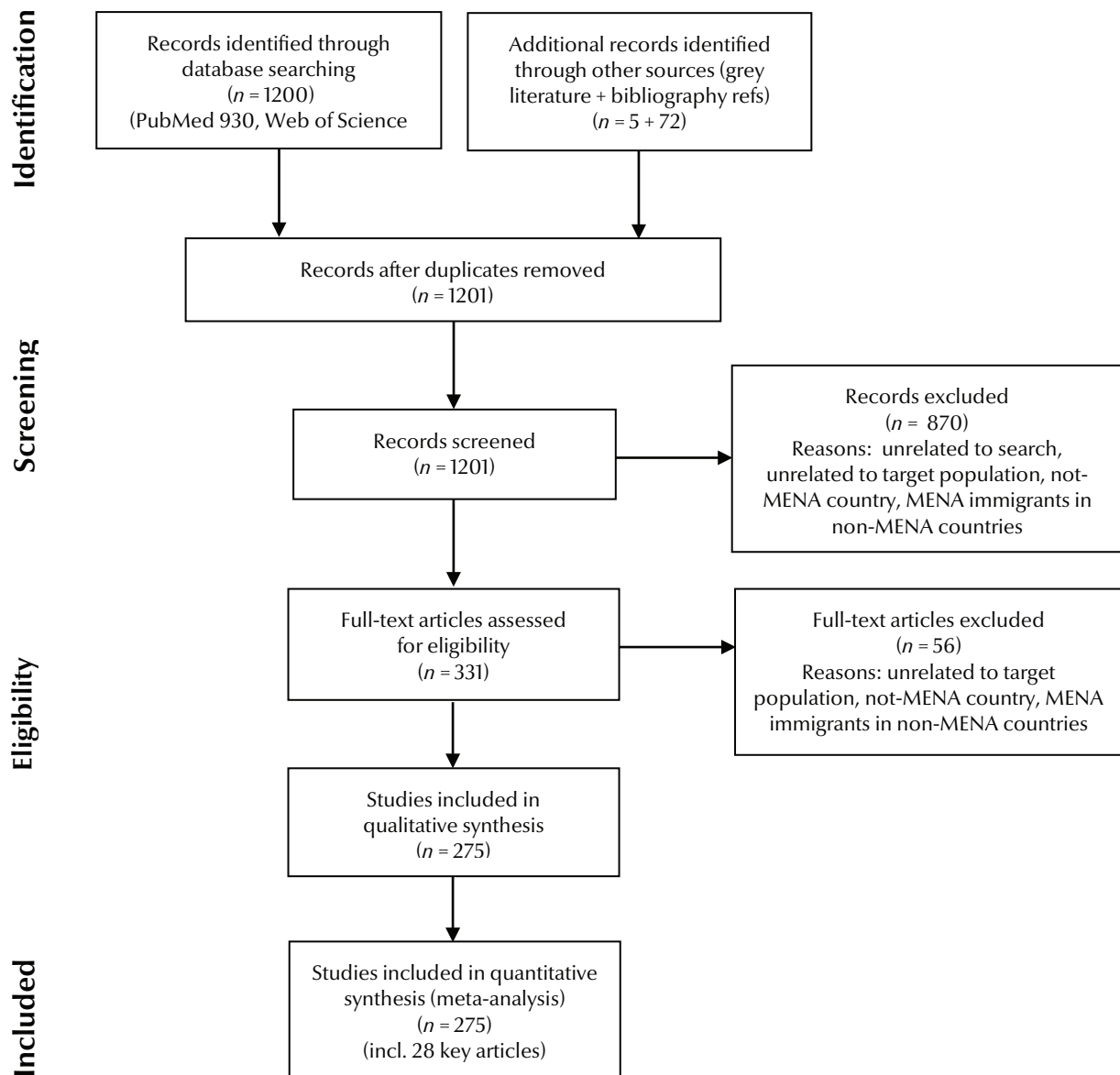
markets can largely be tackled by improving the quality of education in the region (3).

In addition to the anticipated demographic shift, there are notable gender dynamics in MENA's labour markets. Globally, the largest male–female gender gaps in unemployment rates among youth are found in the MENA region, accounting for an estimated 24.5% unemployed young males compared with 42.6% unemployed young females in 2012 (5).

#### *Identity, personality and attitude*

Refugee youth in this region have much in common according to Chatty, who included eight different MENA countries in his research (6). The author described how the desire to emigrate, to find work and send remittances back to their families is present among all refugee youth populations. Many young refugees link their refugee status both to a sense of exclusion from their original homelands and to marginality from full legal, social and civil participation in the host communities. Opportunism and agency—seeking an education while also committing to helping the family—was similarly highlighted by refugee youth. Despite economic and political challenges, they looked to the future with optimism (6).

A UNICEF report from 2011 described two common elements that characterize Arab youths identities and influence their vision and priorities: family and religion. In a regional survey, 68% of young respondents said that religion defined them as a person. A survey in Jordan showed that two-thirds of respondents felt that achieving success in life depended on the status of their family in society, rather than on their own efforts (7). Fergus and Zimmerman posited that parental factors such as support, monitoring and communication skills are critical resources for youth to create resilience. Resilience describes the “process of overcoming the negative effects of risk exposure, coping



**Figure 1** Articles identified in the peer-reviewed and grey literature review of at-risk youth and young adults in the Middle East and North Africa region

successfully with traumatic experiences, and avoiding the negative trajectories associated with risks” (8).

### Migration

A general lack of job opportunities results in a growing number of the youth in Arab countries adopting labour migration as a livelihood strategy. Most Arabs who emigrate are under 35 years of age, and 50% are under 25 years. Fargues described four main factors that contribute to youth emigration from the

region: the increasing youth population in the Middle East; the growing number of young well-educated workers facing poor employment conditions; population density; and unresolved political conflicts (9).

The Silatech Index report in 2010 noted that 30% of youth aged 15–29 years would migrate permanently to another country given the opportunity, in particular “those who are the most educated, are already employed, and

aspire to start their own businesses” (10).

### Education

The importance of education in surmounting barriers in conflict environments is highlighted in various studies (11–14). According to Assad and Roudi-Fahimi, primary education is reaching universal levels of coverage of the population in countries of the Middle East (3). Access to secondary and higher education is limited, however.

**Table 1 Summary of key articles selected to review current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the Middle East and North Africa (MENA) region (continued)**

Author(s); citation	Year	Country/region	Study design	Target group/ subject	Key themes and findings	Implications and solutions
<i>Effects of conflict and trauma on mental health</i>						
Afifi RA et al. (5)	2011	Lebanon	Community-based participatory research	Mental health in adolescents	Using community-based participatory research to develop mental health interventions ensures greater relevance, feasibility and sustainability of solutions	Engage directly with the community when identifying problems and possible interventions for mental health
Al-Bahrani M et al. (25)	2013	Oman	Cross-sectional study	Adolescents' coping styles	Adolescents with high levels of perceived problems had higher maladaptive coping styles than those with low level problems. Females were more likely to use maladaptive coping styles than were males	Focus on strategies to enhance adaptive coping styles (e.g. seeking social and spiritual support, focusing on positive thinking, etc.)
Barber BK (53)	2008	Bosnia, Palestine	Cross-sectional study	Youth experiences with political violence	Youth experiences in conflicts can vary considerably; in how youth perceive the logic and legitimacy of the conflict, the roles they play in it, and the ways they incorporate their experiences into their personal and social development	When researching conflict, improve and broaden assessments of conflict and adaptive functioning by incorporating cultural differences. Pay more attention to females' experiences in conflict
De Jong JT et al. (54)	2003	Algeria, Cambodia, Ethiopia, Palestine	Epidemiological survey	Post-conflict mental health	An association was found between the range of prevalence rates of PTSD and the diversity of risk factors for PTSD in different post-conflict countries	Public mental health programmes need to consider that symptoms of PTSD in different populations could result from different determinants
Dimitry L (55)	2012	Middle East	Systematic review (71 papers)	Mental health in conflict youth	Children in conflict zones are exposed to high levels of traumatic experiences. The number of conflict-related traumas correlates positively with PTSD and mental health issues	Ensuring children's basic needs is paramount. School and community interventions should be culturally acceptable, practical and affordable. Psychiatric/psychological support needs to be made accessible
Holmes D (27)	2012	Lebanon	Profile	Profile of a refugee youth	Including youth mentors from within the community is a critical component for the sustainability of mental health and youth-focused interventions	Engage youth mentors as "agents of change" in refugee/conflict situations
Persike M, Seiffge-Krenke I (56)	2014	Global (21 countries)	Cross-sectional study	Adolescents' perceptions of stress	The highest parent-related stress among youth was in southern Europe, Latin America, Middle East and Asia. Stress due to relationship with parents was higher than stress due to relationships with peers.	When working with adolescents increased awareness is needed of how prevailing values and cultural background influence stress perception

**Table 1 Summary of key articles selected to review current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the Middle East and North Africa (MENA) region (continued)**

Author(s); citation	Year	Country/region	Study design	Target group/ subject	Key themes and findings	Implications and solutions
Rhiger M et al. (57)	2008	Israel	Cross-sectional study	Youth exposure to trauma	A high prevalence of exposure to trauma was identified among Israeli youth (85% of students reported exposure), but incidence of war or conflict events was not significantly linked to trauma symptomatology	Awareness is needed of the "functional adaptation" of youth with long-standing exposure to conflict (e.g. exposure to attacks), resulting in increased community cohesion and social support
Sagy S et al. (58)	2002	Palestine and Israel	Observational study (longitudinal study of 2 groups)	Social knowledge and empathy among youth in conflict	Low levels of empathy and high levels of anger existed between Israeli/Palestinian adolescents. Historical interpretations and future expectations were expressed through the societal lens	Coexistence between the 2 nations needs to be based on mutual recognition of the narrative and legitimacy of each side
Sagy S, Adwan S (59)	2006	Palestine and Israel	Observational study (longitudinal study of 2 groups)	Hope among youth in conflict	Despite evidence of collectivism in Israeli and Palestinian societies, youth gave priority to individualistic hope over hope for others	Find ways to harness individual hope for adolescents in conflict areas, and build on existing hope for the collective good
Shaar KH (60)	2013	Lebanon	Systematic review (11 papers)	Trauma in adolescents in conflict	Prevalence of PTSD in Lebanese adolescents has increased over time, with each conflict: from 8.5%-14.7% for the civil war, 21.6% for the Grapes of Wrath War, and 15.4%-35.0% for the 2006 July War.	Provision of counselling and treatment services at school and community level could ameliorate the consequences of war for vulnerable populations
UNICEF (61)	2011	Middle East / North Africa	Programme evaluation	Evaluation of programme for youth and adolescents	Young people in MENA feel marginalized politically, economically and socially	With the right support, the strong appetite for change that currently exists in the region can be harnessed in a positive direction both for adolescents and youth as individuals
WHO (62)	2010	Global	Briefing report	Violence prevention in youth	Preschool enrichment and social development programmes are associated with reduced aggressive behaviour and violent crime in childhood and later life	Life skills interventions are used throughout the world to improve young people's life chances through increasing educational participation
<b>Migration</b>						
Chatty D (6)	2007	Middle East	Community-based participatory research	Youth living in prolonged migration	Obtaining refugee status was linked to marginality and exclusion in the original homeland. Multiple, conflicting identities were present among refugee youth	Refugee youth highlighted opportunism and agency as key factors: seeking education, wage labour or self-employment while contributing to their families

**Table 1 Summary of key articles selected to review current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the Middle East and North Africa (MENA) region (continued)**

Author(s); citation	Year	Country/region	Study design	Target group/ subject	Key themes and findings	Implications and solutions
Fargues P (63)	2008	Middle East / North Africa	Analytical report	MENA demographic and migration patterns	Main triggers of migration from MENA to Europe are: youth bulge; lack of opportunities in home countries; untenable population density; unresolved conflicts	MENA's economic and demographic circumstances make it a promising source of flows to Europe, particularly circular-migration flows
Tober DM et al. (37)	2006	Islamic Republic of Iran and Afghanistan	Ethnographic study, including interviews and observations	Family planning uptake in refugee populations	Islamic Republic of Iran's family planning programme has been successful with the Iranian population but less so with Afghan refugee population. Afghans were marginalized due to cultural differences and were less likely to use family planning	Experience of losing children to war and sickness results in refugees wanting to have larger families. Family planning programmes must take this into account, while taking account of cultural and religious sensitivities
<b>Labor, employment and the 'youth bulge'</b>						
Assaad R, Roudi-Fahimi F (3)	2007	Middle East / North Africa	Ecological study/ expert opinion	Youth employment potential	MENA countries have diverse economies and populations. Strengthening human capacity among youth cannot succeed without fundamental reforms	Adopt development policies that realign economies in 3 ways: reinvent the private sector; integrate with the world economy; and manage oil resources better
Bricker NQ, Foley MC (42)	2013	Middle East	Ecological study	Youth, violence and the labour market	The Youth Risk Factor (ratio of youth population to total labour force) can be used to predict where conflict may emerge next. Emphasis is needed on the importance of labour market reforms. Improving access and quality of education did not always lead to reduced risk of conflict	Subsidize and invest in apprenticeships, trade schools and internships to make transition into the labour force more gradual and less frustrating for youth
ILO (64)	2013	Global	Analytical report	Global employment trends for youth	Middle East has the highest youth unemployment rate (28.3% in 2012, projected to increase to 30.0% in 2018). More than 1 in 4 economically active young people are unemployed	Five key areas were identified: employment and economic policies; education and training; labour market policies; entrepreneurship and self-employment; and labour rights that are based on international standards
Ortiz I, Cummins M (65)	2012	Global	Policy analysis	Employment crisis due to "youth bulge"	Lack of employment opportunities for young persons, aggravated by the youth bulge, should be a primary concern for policy-makers	Employment should be generated through: macroeconomic and sector policies; active labour market policies and programmes; labour standards; social protection and dialogue

**Table 1 Summary of key articles selected to review current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the Middle East and North Africa (MENA) region (continued)**

Author(s); citation	Year	Country/region	Study design	Target group/ subject	Key themes and findings	Implications and solutions
Thabet AA et al. (66)	2011	Palestine	Cross-sectional study	Labour and mental issues in youth	Children worked an average of 6.8 h a day and only 37% had adequate rest. Poor mental health was predicted by socioeconomic determinants and factors relating to under-age employment	Policy, legislation and preventive programmes from statutory and voluntary agencies should adopt an integrated approach to meeting children's mental health needs
Urdal H (47)	2006	Global	Ecological study	"Youth bulges" and violence	Youth bulges provide greater opportunity for violence through abundant supply of youth with low opportunity cost, and are associated with a risk of internal armed conflict	Economic structural factors need to be in place to realize opportunities for economic bonuses from the large youth cohorts entering the job market
<b>Education, resilience, and functioning in youth in conflict</b>						
Buckner E, Kim P (67)	2012	Palestine	Experimental Study	Conflict and education in adolescents	Higher conflict exposure was equated with lower levels of executive functioning in adolescents. Living in an urban environment was a strong predictor of executive functioning and mental planning performance in this population.	Use mobile technologies as a versatile learning and assessment resource for children in conflict, to encourage problem solving, strategic planning, creativity and critical reasoning
Fergus S, Zimmerman MA (8)	2005	Global	Expert opinion	Theoretical frameworks for development of adolescents in conflict	Resilience models were used to understand why some youth exposed to risk were able to avoid negative outcomes. Parental factors are consistent, critical resources for youth	Public health interventions that use a resilience approach need to pay particular attention to the unique features of the population of interest and the context in which the approach is employed
Parkinson S (15)	2014	Syria, Lebanon	Descriptive report	Education for Syrian refugees in Lebanon	Educational exclusion has a profound impact on refugees from Syrian Arab Republic, denying benefits and exposing children to further risks. Literacy rates have dropped dramatically from 83.6% in 2008	Financial and administrative hurdles to education (e.g. getting previous report cards officially stamped, paying for permits, etc.) need to be a reduced
Soltanifar M (68)	2011	Middle East	Expert opinion	Theoretical framework for youth education and fundamentalism	Answering why youth join fundamentalist groups, and what role education plays, are complex issues that require more study. Political, cultural, religious and educational nuances need to be taken into account	Studies should take into account the differing methods of communication between political structures, and the existence of both formal and informal educational systems



**Table 1 Summary of key articles selected to review current needs, activities, stakeholders and solutions related to at-risk youth and young adults in the Middle East and North Africa (MENA) region (concluded)**

Author(s); citation	Year	Country/region	Study design	Target group/ subject	Key themes and findings	Implications and solutions
UNICEF / Issam Fares Institute for Public Policy and International Affairs (69)	2011	Middle East	Analytical report	Challenges and needs of Arab youth	Family and religion characterize Arab youth identities and influence their vision and priorities. The public sphere of social and political activism is male-dominated	Young people can be agents of change if they are empowered to participate in: finding solutions to conflict; building peace; and reconstructing communities following conflict

UNICEF = United Nations Children's Fund; WHO = World Health Organization; ILO = International Labour Organization; PTSD = post-traumatic stress disorder; UAE = United Arab Emirates.

The educational situation for Syrian youth has changed dramatically in recent years; Syrian refugees in Lebanon face social, economic and bureaucratic obstacles resulting in dropout rates from Lebanese public schools of approximately 70% (15).

Even though new media could play an important role in education, only 62% of Arab youth aged 15–29 years have Internet access in their community and just 22% have access at home (10).

## Health

### Mental health

The vast majority of health-related articles identified for this review describe an increased prevalence of post-traumatic stress disorder and/or depression through conflict and political violence on youth (16–20). Even if boys are equally, or often more, exposed to trauma—due to boys in the region spending more time outside the house than girls—girls appear to have a higher prevalence of post-traumatic stress disorder, depression, separation anxiety and psychological symptoms than boys. In contrast, boys have more behavioural problems than girls and are more likely to exhibit aggression and hyperactivity (21). Other articles confirm the higher prevalence of mental health issues in female youth in crisis (22–24).

These mental health issues can have further negative impacts on young people's lives, such as increased risk of substance abuse and use of maladaptive coping mechanisms (self-blame, crying, ignoring the problem, wishful thinking, hiding feelings and anxious anticipation) (25,26).

Thabet et al. described the mental health impact of child labour (< 18 years old) on conflict-affected adolescents who seek early employment to support their family. The findings indicate that these adolescents present with a range of inter-related emotional and behavioural difficulties. The authors recommended

human rights-based policies and legislation to tackle the problem, as well as creating incentives for adolescents to return to education (20).

### Health in refugee camps and women's health

Khawaja et al. estimated that 80% of refugee camp populations in Lebanon consist of children, adolescent girls and women. As camps become increasingly militarized, women and girls are particularly at risk of rape and domestic violence. More than a quarter of the women interviewed reported having forced sexual intercourse over the past year (27,28).

Living in an environment of political and social violence also increases the odds of intimate-partner violence occurring (29). In some MENA countries, cultural beliefs and traditions may act as a barrier for women to seek health care, in particular regarding intimate-partner violence. Spencer et al. noted that women in Jordan usually use familial institutions to seek help and would only seek help outside of the family in serious circumstances after the familial help had proven ineffective (30).

The Islamic Republic of Iran has one of the most successful family planning programmes in the developing world and is often considered a potential model for other Muslim countries (31). However, not all family planning programmes are readily accepted throughout the Muslim world. A study on Afghan refugee women who did not use the Iranian programme showed that only after subsidizing general health care did the use of contraceptives increase (32).

Other articles describe the increase of infectious diseases in youth, such as diarrhoeal illness and upper respiratory tract infections, due to the poor living and housing conditions in refugee camps (33–36). War-related injuries of children and youth are also discussed in the literature (37–40). A study on mostly terror-related mass casualty

events in Israel between 1998 and 2007 showed that severe injuries were significantly more frequent among children injured in mass-casualty events compared with non-mass-casualty events (39). Another study on injuries from explosive incidents related to terrorism describes the adolescent injury profile as being similar to that of adults but involving fewer internal injuries and more contusions as well as superficial extremity wounds that were more likely to require surgery (40).

### Risk of violence and need for violence prevention

According to Urdal, there is an association between youth bulges and the risk of violence in countries (41). The author argued that countries that experience youth bulges are more likely to experience political violence than countries that do not; the higher the dependency burden (i.e. of youth not

working), the greater the effect of youth bulges on political violence in terms of riots and violent demonstrations; and the lower the rate of economic growth, the greater the risk of terrorist acts by youth.

Underlining the associated risks of youth unemployment and conflict, Bricker and Foley used countries' youth population employment statistics to predict the emergence of conflict. They developed the Youth Risk Factor—the ratio of the 17-to-26-year-old age cohort to the size of the total labour force—and showed that countries in the Middle East such as Jordan and Algeria are particularly at risk (42). The authors concluded that a successful transition of youth into the labour force, regardless of their educational backgrounds, is essential to prevent conflict.

Furthermore, the restricted conditions for youth in refugee camps, such as limitations on employment or mobility,

can lead to severe consequences, especially when unequal opportunities compared with local youth are perceived. These consequences include illegal activities outside of camps, dropping out of school, physical abuse, child labour and substance abuse (43). While adolescent girls are prone to sexual and gender-based violence, young adolescent boys are particularly vulnerable to being arrested and detained by the authorities in conflict zones (9).

Based on the grey literature review, a number of recommendations and lessons learned for implementing youth-in-conflict programmes in the MENA region were identified (44–49). These are summarized in Table 2 under the following themes:

- adopt a holistic approach;
- engage policy-makers and regulatory agents for a collaborative, interdisciplinary approach;

**Table 2 Implementing programmes to support at-risk youth in the Middle East and North Africa region: recommendations and lessons learned**

Theme	Recommendations/lessons learned
Adopt a holistic approach	<ul style="list-style-type: none"> <li>• Engage youth, their peers and their families in a culturally appropriate way</li> <li>• In addition to economic self-reliance, provide skills in leadership, teamwork, communication and social responsibility</li> <li>• Add youth training, preparation and counselling to microfinance programmes (22)</li> <li>• Coach, mentor and synergize with successful programmes led by the business community in West Bank (23) and Iraq (24)</li> </ul>
Engage policy-makers and regulatory agents for a collaborative, interdisciplinary approach	<ul style="list-style-type: none"> <li>• Successful and sustainable programming requires strong political support and an enabling regulatory environment in a country</li> <li>• Collaboration is needed between nongovernmental organizations, ministries, local partners and population</li> <li>• High level of youth engagement needs to be met with high efficacy to prevent frustration among youth</li> <li>• Youth work initiatives highlight importance of engaged regulatory environment for policy (23) and partnering with policy-makers (26)</li> </ul>
Emphasize interventions for female youth	<ul style="list-style-type: none"> <li>• Awareness of gender issues is critical for youth programming, both in design and evaluation</li> <li>• Focus is needed on women, particularly in conflict situations</li> <li>• Females should receive tailored materials and training so as not to be selected out of youth programmes (27)</li> </ul>
Plan for transition to ensure sustainability	<ul style="list-style-type: none"> <li>• Go beyond serving immediate needs and prepare youth for adult lives</li> <li>• Foster cooperative relationships with larger, permanent institutions in the community (28)</li> <li>• Include technical and vocational skills for youth in the transition period out of conflict</li> <li>• Align educational programmes with job availabilities</li> <li>• Brain drain can only be reversed by building opportunities for youth to participate productively in their communities</li> </ul>

- emphasize interventions for female youth; and
- plan for transition to ensure sustainability.

### **Coping and resilience**

Various articles describe coping mechanisms and the construct of resilience by Palestinian youth, a population that has been at risk of violence and conflict for many years. Nguyen-Gillham et al. confirmed previous studies by showing the value of supportive relationships such as families and friends for coping with conflict. The authors added, "Political participation and education are vital to a sense of identity and political resistance" (50).

Other research has assessed and underlined the increasing importance of participatory educational approaches in school and communities in order to overcome barriers due to conflict,

culture and gender (11–14). Morray and Liang pointed out the success of a group intervention for Palestinian and Israeli youth to promote communication and healing and encourage otherwise untenable communication between groups in conflict (51).

### **Current situation, stakeholder analysis and in-region discussions in Jordan**

The in-region discussions revealed multiple challenges for Jordan's refugees. The stakeholders involved and key points of the discussions, summarized under the four themes of this review, are described in Table 3.

Refugee numbers, particularly from neighbouring Syria, are high and expected to increase in Jordan further by 200, 000 this year to more than one million by December 2015. Approximately 20% of Syrian refugees in

Jordan live in two official refugee camps (52). Inside the camps, refugees have access to World Food Programme food, health care and education. Outside of the camps, however, the support for refugees is more precarious, with most refugees relying heavily on the cash transfer programmes of the United Nations High Commissioner for Refugees or other NGOs, as the vast majority of refugees are prohibited from working. Syrian youth articulated their frustration with the lack of economic opportunities matching their educational qualifications. Syrian youth often fled to Jordan without their transcripts and diplomas, making it difficult to prove their educational credentials.

In addition to the barriers to employment, assistance provided to refugees is decreasing or in danger of being

**Table 3 Key results of in-country stakeholder analysis of at-risk youth: focus group discussions and interviews in Jordan**

Criteria	Results
Livelihoods	<ul style="list-style-type: none"> <li>• Refugees spend most of their cash transfers on rent</li> <li>• The vast majority of refugees are prohibited from working, with the Jordanian government citing economic, political and security concerns</li> <li>• Livelihood interventions are numerous in Jordan, with nongovernmental organizations providing many vocational training programmes inside and outside of the camps, from computer training to welding instruction for both Jordanians and refugees</li> <li>• Few Syrians are allowed to participate in these vocational programmes outside of the camps</li> <li>• Microfinance programmes are largely limited to Jordanians</li> <li>• Refugees are enduring increasing strain and turning towards negative coping mechanisms, including child labour, child marriage and survival sex</li> <li>• Jordanian government wants to decrease the number of Syrian refugees in the country, in particular outside of established camps. Consolidating all refugees into the camps will likely place even greater pressure on existing resources</li> </ul>
Education	<ul style="list-style-type: none"> <li>• Most Syrian students lack their transcripts or diplomas from the home country, making it difficult to prove their education level</li> <li>• There is an overall sense of hopelessness regarding the lack of employment opportunities for Syrians</li> <li>• Students were enthusiastic about scholarship opportunities for university education</li> <li>• Popular subject areas for training included English, computer literacy and nursing</li> <li>• Many Jordanian youth felt that there was a mismatch between curricula offered in universities and the needs of the labour market</li> </ul>
Health	<ul style="list-style-type: none"> <li>• As of November 2014, the Jordanian government stopped providing free health care to refugees outside of camps</li> <li>• Much of the health support discussed for refugees in the camps centred on psychosocial care and gender-based violence</li> </ul>
Violence prevention	<ul style="list-style-type: none"> <li>• UNICEF and the Ministry of Education provide a successful peace-building programme called Madrasati ("my school") where refugee and Jordanian students learn and interact with one another</li> <li>• Peer activities in Palestinian and Jordanian youth centres increase interaction and help youth understand each other's challenges of daily living</li> </ul>

*Participating stakeholders in Jordan: United Nations High Commissioner for Refugees, United Nations Children's Fund, International Youth Foundation, Save the Children, Mercy Corps, Norwegian Refugee Committee, International Rescue Committee, International Medical Corps, Microfund for Women, Jordanian Hashemite Fund for Human Development, Palestinian refugee youth, Syrian refugee youth, Jordanian youth, Baqaa refugee camp youth centre, Za'atari Syrian refugee camp.*

cut, with health care outside the camps no longer available free-of-charge and the World Food Programme food assistance programme nearly cancelled in December 2014.

The increasing numbers of refugees could put an even greater pressure on the resources provided by the international community. Several organizations noted the increasing strain that refugees were enduring, stating that refugees were turning towards negative coping mechanisms that specifically affect refugee youth, including child labour, child marriage and survival sex.

## Discussion

This multi-method analysis has sought to discern current needs and evidence-based solutions for the challenges faced by youth in crisis in the MENA region. The lack of interdisciplinary, cross-cultural research and policy analysis is one barrier to understanding what factors are associated with increased vulnerability of youth and adolescents and how best to address young peoples' needs. Few peer-reviewed articles have focussed on programmes providing political, social and economic opportunities to youth in crisis.

Recent worsening of the conflicts in the MENA region and the resulting flows of refugee and internally displaced people make addressing youth in crisis all the more urgent. The present youth bulge, and its expected growth, risks exacerbating challenges such as the general lack of quality education and of employment, which result in high rates of youth unemployment. Guaranteeing better education and stimulating employment not only can help in the short-term but might actually create a platform for entrepreneurship and creation of further employment. Indeed, the discussions with Jordanian, Palestinian and Syrian youth—regardless of gender—revealed both

a desire for further education and a frustration with the mismatch between the educational system and the labour market. The literature suggests that a great number of young people in crisis situations are at risk of involvement in violence and conflict. This risk can be mitigated through education and employment opportunities as well as social networks of friends, family and peer groups that help create resilience. Our own programming at the Harvard Humanitarian Initiative will centre on offering educational and livelihood opportunities for MENA youth, while anticipating and evaluating a positive secondary impact on youth health and violence prevention.

The literature review and in-region discussions supported the idea of civic engagement of youth as an important driver for business development in the MENA region, but also noted some barriers, including legal challenges for work permits and accreditation of education as well as limited access to new media and the Internet.

The in-region discussions demonstrated that communities, from the local to the international, are responding to the needs of youth populations through education and livelihood programmes, such as cash transfers and microfinance. However, the impact of these interventions is limited as a result of scarce employment opportunities and the legal restrictions on refugees. This underscores the importance of civil society and local government collaboration in the MENA. Labour migration has become a key livelihood strategy for youth in the region and thus designing educational programmes that can lead to opportunities for subsequent employment is important to consider.

It is often particularly difficult for women in the region to contribute to the economic health of the family, as evidenced by the large employment gender gap. Therefore, families' investment in education is likely to focus more on

the male child when opportunities are more evident. Interventions for youth should therefore reflect these realities and provide opportunities for the most vulnerable and most in need, including young women, while considering religious aspects and understanding the importance and value of the local culture.

The special needs of refugee youth also need to be taken into account, as the inequalities in work opportunities between refugee youth and local youth cause tensions that exacerbate the already higher risk of refugee youth being subject to violence, abuse and detainment.

Health interventions should have a strong focus on mental health issues since they seem to be the predominant health concern for youth in conflict zones, for refugees and for women in particular, a finding supported by the literature search results and the regional stakeholder analysis. However, addressing conflict-related mental diseases requires an interdisciplinary approach with a strong involvement of family and community. This involvement was found to be a key theme for all programmes, whether focusing on livelihood, education, health or violence prevention.

Regarding the limitations of this study, the literature search component only summarized the findings from English-language articles. Additionally, there was a relatively high proportion of health-related articles, likely due to the use of the medical literature database PubMed, and, therefore, the topic of health may be over-represented in the quantification of the literature results. Lastly, in-region discussions were meant to provide additional context, obtain feedback from stakeholders on the initial literature findings and to explore specific issues. The in-region discussions were, by design, limited to Jordan, because it provides a current cross-section of issues related to at-risk youth in the MENA region.

## Conclusion

This multi-method analysis has revealed the major challenges in the areas of livelihood, education, health and risk of violence for youth in crisis in MENA countries affected by short- and long-term conflicts. The literature review as

well as the in-region research highlights the importance of emphasizing education that leads to employment opportunities for a better and more peaceful future for young people in the MENA and subsequently for the region's populations in general. In order to create locally accepted and efficient interventions

with sustainable impact, it is essential to understand the intentions and barriers for all stakeholders involved, the local political and cultural environments, and, most importantly, the needs of vulnerable youth populations.

**Finding:** None.

**Competing interests:** None declared.

## References

- Brady M. Calling attention to young adolescents: Building the evidence base to inform policies and programs. Promoting Healthy, Safe, and Productive Transitions to Adulthood Brief No. 37. New York (NY): Population Council; 2011 ([http://www.popcouncil.org/uploads/pdfs/TABriefs/37\\_VeryYoungAdolescents.pdf](http://www.popcouncil.org/uploads/pdfs/TABriefs/37_VeryYoungAdolescents.pdf), accessed 25 November 2015).
- Middle East and North Africa Region Human Development Department (MNSHD), Sustainable Development Department (MNSSD). Youth-an undervalued asset. Towards a new agenda in the Middle East and North Africa. Washington (DC): World Bank; 2007.
- Assaad R, Roudi-Fahimi F. Youth in the Middle East and North Africa: demographic opportunity or challenge? Washington (DC): Population Reference Bureau; 2007 (<http://www.prb.org/pdf07youthinmena.pdf>, accessed 25 November 2015).
- Moher D, Liberati A, Tetzlaff J, Altman DG; PRISMA Group. Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *BMJ*. 2009;339:b2535. PMID:19622551
- Afifi RA, Makhoul J, El Hajj T, Nakkash RT. Developing a logic model for youth mental health: participatory research with a refugee community in Beirut. *Health Policy Plan*. 2011 Nov;26(6):508-17. PMID:21278370
- Chatty D. Researching refugee youth in the Middle East: reflections on the importance of comparative research. *J Refug Stud*. 2007;20(2):265-80.
- Khouri R, Lopez V. A generation on the move: insights into the conditions, aspirations and activism of Arab youth. Geneva: United Nations Children's Fund; 2011. ([http://www.unicef.org/media/files/Summary\\_Report\\_A\\_GENERATION\\_ON\\_THE\\_MOVE\\_AUB\\_IFI\\_UNICEF\\_MENARO\\_.pdf](http://www.unicef.org/media/files/Summary_Report_A_GENERATION_ON_THE_MOVE_AUB_IFI_UNICEF_MENARO_.pdf), accessed 25 November 2015).
- Fergus S, Zimmerman MA. Adolescent resilience: a framework for understanding healthy development in the face of risk. *Annu Rev Public Health*. 2005;26:399-419. PMID:15760295
- Fargues P. Emerging demographic patterns across the Mediterranean and their implications for migration through 2030. Washington (DC): Migration Policy Institute; 2008.
- The Silatech Index: voices of young Arabs. Doha, Qatar: Silatech; 2009. (<http://www.silatech.com/docs/silatech-index/silatech-index-june-09.pdf?sfvrsn=24>, accessed 25 November 2015).
- Adely FJ. Is music haram? Jordanian girls educating each other about nation, faith, and gender in school. *Teach Coll Rec*. 2007;109(7):1663-81.
- Gesser-Edelsburg A. Minority identity discourse: the impact of viewing the play *An Arab dream* on the identity crisis of Palestinians in Israel. *J Lang Identity Educ*. 2013;12(2):75-95.
- Makhoul J, Nakkash R, Harpham T, Qutteina Y. Community-based participatory research in complex settings: clean mind-dirty hands. *Health Promot Int*. 2014 Sep;29(3):510-7. PMID:23872385
- Nakkash RT, Alaouie H, Haddad P, El Hajj T, Salem H, Mahfoud Z, et al. Process evaluation of a community-based mental health promotion intervention for refugee children. *Health Educ Res*. 2012 Aug;27(4):595-607. PMID:21908850
- Parkinson SE. Educational aftershocks for Syrian refugees in Lebanon. Washington (DC): Middle East Research and Information Project; 2014 (<http://www.merip.org/educational-aftershocks-syrian-refugees-lebanon>, accessed 25 November 2015).
- Dyregrov A, Gjestad R, Raundalen M. Children exposed to warfare: a longitudinal study. *J Trauma Stress*. 2002 Feb;15(1):59-68. PMID:11936723
- Hall BJ, Hobfoll SE, Palmieri PA, Canetti-Nisim D, Shapira O, Johnson RJ, et al. The psychological impact of impending forced settler disengagement in Gaza: trauma and post-traumatic growth. *J Trauma Stress*. 2008 Feb;21(1):22-9. PMID:18302180
- Harel-Fisch Y, Radwan Q, Walsh SD, Laufer A, Amitai G, Fogel-Grinvald H, et al. Psychosocial outcomes related to subjective threat from armed conflict events (STACE): Findings from the Israeli-Palestinian cross-cultural HBSC study. *Child Abuse Negl*. 2010 Sep;34(9):623-38. PMID:20663554
- Khamis V. Post-traumatic stress and psychiatric disorders in Palestinian adolescents following intifada-related injuries. *Soc Sci Med*. 2008 Oct;67(8):1199-207. PMID:18657343
- Thabet AA, Abed Y, Vostanis P. Emotional problems in Palestinian children living in a war zone: a cross-sectional study. *Lancet*. 2002 May 25;359(9320):1801-4. PMID:12044374
- Dimitry L. A systematic review on the mental health of children and adolescents in areas of armed conflict in the Middle East. *Child Care Health Dev*. 2012 Mar;38(2):153-61. PMID:21615769
- Al-Modallal H. Psychological partner violence and women's vulnerability to depression, stress, and anxiety. *Int J Ment Health Nurs*. 2012 Dec;21(6):560-6. PMID:22646096
- Barile JP, Grogan KE, Henrich CC, Brookmeyer KA, Shahar G. Symptoms of depression in Israeli adolescents following a suicide bombing: the role of gender. *J Early Adolesc*. 2012;32(4):502-15.
- Slone M, Shoshani A. Psychiatric effects of protracted conflict and political life events exposure among adolescents in Israel: 1998-2011. *J Trauma Stress*. 2014 Jun;27(3):353-60. PMID:24948538
- Al-Bahrani M, Aldhafri S, Alkharusi H, Kazem A, Alzubiadi A. Age and gender differences in coping style across various problems: Omani adolescents' perspective. *J Adolesc*. 2013 Apr;36(2):303-9. PMID:23395184
- Schiff M, Fang L. Adolescent substance use in Israel: the roles of exposure to political traumas and posttraumatic stress

- symptoms. *Psychol Addict Behav.* 2014 Jun;28(2):453-63. PMID:24955668
27. Khawaja M, Hammoury N. Coerced sexual intercourse within marriage: a clinic-based study of pregnant Palestinian refugees in Lebanon. *J Midwifery Womens Health.* 2008 Mar-Apr;53(2):150-4. PMID:18308266
  28. Khawaja M, Tewtel-Salem M. Agreement between husband and wife reports of domestic violence: evidence from poor refugee communities in Lebanon. *Int J Epidemiol.* 2004 Jun;33(3):526-33. PMID:15163639
  29. Clark CJ, Everson-Rose SA, Suglia SF, Btoush R, Alonso A, Haj-Yahia MM. Association between exposure to political violence and intimate-partner violence in the occupied Palestinian territory: a cross-sectional study. *Lancet.* 2010 Jan 23;375(9711):310-6. PMID:20109958
  30. Spencer RA, Shahrouri M, Halasa L, Khalaf I, Clark CJ. Women's help seeking for intimate partner violence in Jordan. *Health Care Women Int.* 2014;35(4):380-99. PMID:23998703
  31. Tober DM, Taghdisi MH, Jalali M. "Fewer children, better life" or "as many as God wants"? Family planning among low-income Iranian and Afghan refugee families in Isfahan, Iran. *Med Anthropol Q.* 2006 Mar;20(1):50-71. PMID:16612993
  32. Raheel H, Karim MS, Saleem S, Bharwani S. Knowledge, attitudes and practices of contraception among Afghan refugee women in Pakistan: a cross-sectional study. *PLoS One.* 2012;7(11):e48760. PMID:23133658
  33. Abouteir A, El Yaagoubi F, Bioh-Johnson I, Kamel A, Godard N, Cormerais L, et al. Water access and attendance for diarrhea in primary health care centers, Gaza strip. *Trans R Soc Trop Med Hyg.* 2011 Oct;105(10):555-60. PMID:21803391
  34. Abu Mourad TA. Palestinian refugee conditions associated with intestinal parasites and diarrhoea: Nuseirat refugee camp as a case study. *Public Health.* 2004 Mar;118(2):131-42. PMID:15037044
  35. Al-Khatib IA, Tabakhna H. Housing conditions and health in Jalazone Refugee Camp in Palestine. *East Mediterr Health J.* 2006 Jan-Mar;12(1-2):144-52. PMID:17037232
  36. Zabaneh JE, Watt GC, O'Donnell CA. Living and health conditions of Palestinian refugees in an unofficial camp in the Lebanon: a cross-sectional survey. *J Epidemiol Community Health.* 2008 Feb;62(2):91-7. PMID:18192595
  37. Fares Y, Ayoub F, Fares J, Khazim R, Khazim M, Gebeily S. Pain and neurological sequelae of cluster munitions on children and adolescents in South Lebanon. *Neurol Sci.* 2013 Nov;34(11):1971-6. PMID:23563862
  38. Haddock G, Pollok AJ. Paediatric trauma in northern Iraq: the Kurdish refugee crisis. *J R Coll Surg Edinb.* 1992 Aug;37(4):221-4. PMID:1383513
  39. Waisman Y, Goldman S, Poznanski O, Mor M, Peleg K; Israel Trauma Group. [Pediatric injuries from mass casualty events in Israel: a ten-year summary]. *Harefuah.* 2010 Jul;149(7):422-6, 482. PMID:21465754
  40. Jaffe DH, Peleg K, Israel Trauma G; Israel Trauma Group. Terror explosive injuries: a comparison of children, adolescents, and adults. *Ann Surg.* 2010 Jan;251(1):138-43. PMID:19838104
  41. Urdal H. A clash of generations? Youth bulges and political violence. *Population Division Expert Paper No. 2012/1.* New York (NY): United Nations, Department of Economic and Social Affairs; 2012 ([http://www.un.org/esa/population/publications/expertpapers/Urdal\\_Expert%20Paper.pdf](http://www.un.org/esa/population/publications/expertpapers/Urdal_Expert%20Paper.pdf), accessed 25 November 2015).
  42. Bricker NQ, Foley MC. The effect of youth demographics on violence: the importance of the labor market. *Int J Confl Violence.* 2013;7(1):180-94.
  43. Makhoul J, Ghanem DA, Ghanem M. An ethnographic study of the consequences of social and structural forces on children: the case of two low-income Beirut suburbs. *Environ Urban.* 2003;15(2):249-59.
  44. Nagarajan G. Microfinance, youth, and conflict: emerging lessons and issues. USAID Accelerated Microenterprise Advancement Project. Washington (DC): Chemonics International, for United States Agency for International Development; 2005 ([http://pdf.usaid.gov/pdf\\_docs/Pnade303.pdf](http://pdf.usaid.gov/pdf_docs/Pnade303.pdf), accessed 25 November 2015).
  45. James-Wilson D, Hall J. Microfinance, youth, and conflict: West Bank study. USAID Accelerated Microenterprise Advancement Project. Washington (DC): Chemonics International, for United States Agency for International Development; 2006 ([http://pdf.usaid.gov/pdf\\_docs/Pnadf657.pdf](http://pdf.usaid.gov/pdf_docs/Pnadf657.pdf), accessed 25 November 2015).
  46. USAID-Tijara provincial economic growth program: February 2008-March 2013. Final report March 2013. Washington (DC): Louis Berger Group Inc, for United States Agency for International Development; 2013 ([http://www.louisberger.com/sites/default/files/USAID-Tijara\\_Final-Report\\_20130730.pdf](http://www.louisberger.com/sites/default/files/USAID-Tijara_Final-Report_20130730.pdf), accessed 25 November 2015).
  47. Hua H. Mid-term evaluation of youth work Jordan (YWJ) project. Boston (MA): World Education, Inc.; 2011.
  48. McLaughlin S. Evaluation of community grants project. Youth Evaluation Program (YEP). Services under Program and Project Offices for Results Tracking (SUPPORT). Final report. Kabul, Afghanistan: Checchi and Company Consulting, Inc., for United States Agency for International Development; 2009 ([http://pdf.usaid.gov/pdf\\_docs/Pdact260.pdf](http://pdf.usaid.gov/pdf_docs/Pdact260.pdf), accessed 25 November 2015).
  49. Youth and conflict: a toolkit for intervention. Washington (DC): United States Agency for International Development; 2005 ([http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1037/Youth\\_and\\_Conflict\\_A\\_Toolkit\\_for\\_Intervention.pdf](http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1037/Youth_and_Conflict_A_Toolkit_for_Intervention.pdf), accessed 25 November 2015).
  50. Nguyen-Gillham V, Giacaman R, Naser G, Boyce W. Normalising the abnormal: Palestinian youth and the contradictions of resilience in protracted conflict. *Health Soc Care Community.* 2008 May;16(3):291-8. PMID:18355248
  51. Morray EB, Liang B. Peace Talk: a relational approach to group negotiation among Arab and Israeli youth. *Int J Group Psychother.* 2005 Oct;55(4):481-506. PMID:16232110
  52. UNHCR country operations profile-Jordan Working Environment. Geneva: Office of the United Nations High Commissioner for Refugees; 2015 (<http://www.unhcr.org/cgi-bin/texis/vtx/page?page=49e486566&submit=GO>, accessed 25 November 2015).
  53. Rhiger M, Elklit A, Lasgaard M. Traumatic in Israeli youth sample: An investigation of the prevalence and psychological impact of exposure to traumatic experiences. *Nordic Psychol.* 2008;60(2):101.
  54. Barber BK. Contrasting portraits of war: Youth varied experiences with political violence in Bosnia and Palestine. *Int J Behav Dev.* 2008;32(4):298-309.
  55. de Jong JT, Komproe IH, Van Ommeren M. Common mental disorders in postconflict settings. *Lancet.* 2003 Jun 21;361(9375):2128-30. PMID:12826440
  56. Holmes D. Omar Ghannoum: an irresistible force for change. *Lancet.* 2012 Apr 28;379(9826):1582. PMID:22541569
  57. Sagy S, Adwan S, Kaplan A. Interpretations of the past and expectations for the future among Israeli and Palestinian youth. *Am J Orthopsychiatry.* 2002 Jan;72(1):26-38. PMID:14964592
  58. Sagy S, Adwan S. Hope in times of threat: the case of Israeli and Palestinian youth. *Am J Orthopsychiatry.* 2006 Jan;76(1):128-33. PMID:16569137

59. Shaar KH. Post-traumatic stress disorder in adolescents in Lebanon as wars gained in ferocity: a systematic review. *J Public Health Res.* 2013 Sep 2;2(2):e17. PMID:25170488
60. Evaluation of adolescents: agents of positive change programme-2005-2011. *Adolescents Agents of Positive Change Evaluation Report 2011.* Geneva: United Nations Children's Fund; 2011 ([http://www.unicef.org/evaluation/files/MENARO\\_Evaluation\\_of\\_Adolescents-Agents\\_of\\_Positive\\_Change\\_UNICEF\\_Sida\\_Kartini\\_Jan15-12%281%29.pdf](http://www.unicef.org/evaluation/files/MENARO_Evaluation_of_Adolescents-Agents_of_Positive_Change_UNICEF_Sida_Kartini_Jan15-12%281%29.pdf), accessed 25 November 2015).
61. Persike M, Seiffge-Krenke I. Is stress perceived differently in relationships with parents and peers? Inter- and intra-regional comparisons on adolescents from 21 nations. *J Adolesc.* 2014 Jun;37(4):493-504. PMID:24561101
62. Violence prevention: the evidence. Geneva: World Health Organization; 2010 ([http://www.who.int/violence\\_injury\\_prevention/violence/4th\\_milestones\\_meeting/evidence\\_briefings\\_all.pdf](http://www.who.int/violence_injury_prevention/violence/4th_milestones_meeting/evidence_briefings_all.pdf), accessed 25 November 2015)
63. Fargues P. *Emerging demographic patterns across the Mediterranean and their implications for migration through 2030.* Washington (DC): Migration Policy Institute; 2008.
64. *Global employment trends for youth 2013.* Geneva: International Labour Organization; 2013 ([http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms\\_212423.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_212423.pdf), accessed 25 November 2015).
65. Ortiz, I., & Cummins, M. (2012). When the global crisis and youth bulge collide: UNICEF Policy and Practice.
66. Thabet AA, Matar S, Carpintero A, Bankart J, Vostanis P. Mental health problems among labour children in the Gaza Strip. *Child Care Health Dev.* 2011 Jan;37(1):89-95. PMID:20637026
67. Buckner E, Kim P. Mobile innovations, executive functions, and educational developments in conflict zones: a case study from Palestine. *Educ Technol Res Dev.* 2012;60(1):175-92.
68. Soltanifar M. The role of educational systems in international crises: a reappraisal of Middle East countries. *Life Science Journal. Acta Zhengzhou University Overseas Edition.* 2011;8(2):U893-U996 ([http://www.lifesciencesite.com/lisj/life0802/114\\_5549life0802\\_893\\_897.pdf](http://www.lifesciencesite.com/lisj/life0802/114_5549life0802_893_897.pdf), accessed 25 November 2015).
69. *A generation on the move: insights into the conditions, aspirations and activism of Arab youth.* Beirut, Lebanon: Issam Fares Institute for Public Policy and International Affairs, American University of Beirut; 2011 ([http://www.unicef.org/media/files/Summary\\_Report\\_A\\_GENERATION\\_ON\\_THE\\_MOVE\\_AUB\\_IFI\\_UNICEF\\_MENARO\\_.pdf](http://www.unicef.org/media/files/Summary_Report_A_GENERATION_ON_THE_MOVE_AUB_IFI_UNICEF_MENARO_.pdf), accessed 25 November 2015).