Chapter 6
Women and Health in Refugee Settings: The Case of Displaced Syrian Women in Lebanon

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Abstract The current conflict and humanitarian crisis in Syria continue to displace thousands of Syrians to neighboring countries, including Lebanon. This chapter examines the relation between refugee status, reproductive health outcomes, and domestic violence. We conducted a rapid needs assessment from June to August 2012 in Lebanon to collect information on Syrian women's current reproductive health status; their reproductive history before the conflict; their need for services; their experience with sexual and gender-based violence; and their help-seeking behaviors. We interviewed 452 displaced Syrian women aged 18–45 who have been in Lebanon for an average of 5.1 (±3.7) months. Additionally, 29 women participated in three focus group discussions. Of the 452 women surveyed, 74 were pregnant during the conflict, and several of them were pregnant more than once since the beginning of the conflict. Preterm delivery was highly reported (27 %), as well as pregnancy-related problems, including anemia, abdominal pain, and bleeding. As for reproductive health, menstrual irregularity, dysmenorrhea, and symptoms of reproductive tract infections were common. Moreover, 31 % of women had personal experience of violence (physical, sexual, or psychological), and many reported currently experiencing intimate partner violence. A conceptual framework is proposed to show how multiple factors may interplay to affect the reproductive health of women and their exposure to violence, with stress and mental distress being the main mitigating factors. Provision of psychological support within humanitarian aid is proposed to alleviate the effect of war and displacement.

Keywords Syrian women • Refugee • Reproductive health • Domestic violence • Sexual and gender-based violence

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Introduction

Wars have deleterious effects on the health and well-being of individuals, families, and communities causing tremendous mortality and disability, reduction in material and human capital, as well as disruption of the social and economic fabric of nations. The consequences of war last long after the conflict is over and may include not only death, but also endemic poverty, malnutrition, disability, socioeconomic decline, and psychosocial illnesses. Women, because of their vulnerability, bear a substantial proportion of war's effects.

Gender-Based Violence During Wartime

Studies have revealed that women, during armed conflicts and in refugee settings, become more susceptible to sexual and gender-based violence (SGBV) both as a weapon of war and in the form of intimate partner violence (McGinn 2000). Acts of war-related SGBV include forced sex and resulting pregnancy, abduction, rape, sexual slavery, and forced prostitution (Depoortere et al. 2004; Hynes et al. 2004; Van Herp et al. 2003).

A growing body of research suggests a link between exposure to violence by armed groups and domestic violence (Catani et al. 2008; Gupta et al. 2009), particularly in refugee settings (Pittaway 2004; Usta et al. 2008; Stark and Ager 2011), with women often facing just as much danger in the home as outside the home (El-Jack 2003). High levels of domestic violence have been reported in postwar and refugee settings around the world, as highlighted in United Nations (UN) agency and nongovernmental organization (NGO) reports from the West Bank and Gaza (Human Rights Watch 2006), refugee settings in Tanzania (Human Rights Watch 2000), Nepal (Human Rights Watch 2003), postwar Peru (Gallegos and Gutierrez 2011), and Sri Lanka (Rajasingham-Senanayake 2004). Additionally, refugee crises were found to affect domestic violence even in host communities (Nikolic-Ristanovic 2000).

For several reasons, researching violence to which women are exposed during war is difficult. To begin with, survivors of violence are more likely to suffer in silence because of fear of shame and stigmatization (Zimmerman 1995). The breakdown of law and order associated with war makes it even more difficult for survivors to report violence through formal mechanisms (World Health Organization 2007; Byrne 1996). In addition, structures needed to cope with and monitor domestic violence are impaired in times of war (Farnsworth et al. 2012), making data collection quite challenging. Yet, findings suggest a relationship between war violence and family violence, which is reflected in high levels of spousal beatings in refugee and resettlement communities (Pittaway 2004).

Several studies in Lebanon have addressed the issue of domestic violence in refugee settings. A household survey among Palestinian refugee couples reveals that 22–29.5 % reported domestic violence to have ever occurred, while 10 %

reported an episode of domestic violence in the previous year (Khawaja and Tewtel-Salem 2004). Another study in Lebanon among 310 women displaced by the 2006 war found that 39 % reported at least one encounter with violence perpetrated by soldiers, while 27 % reported at least one incident of domestic abuse during the conflict, and 13 % reported at least one incident perpetrated by their husbands or other family members after the conflict (Usta et al. 2008).

Reproductive Health During Conflict and Displacement

Research also shows that conflict and displacement can affect women's reproductive health through both individual and environmental or social mechanisms. A review of the literature on refugee women identified five categories of reproductive health issues—fertility, sexually transmitted infections, SGBV, pregnancy and childbirth, and health service access—that can be affected by conditions of displacement (Gagnon et al. 2002; McGinn 2000).

Findings on migration's effect on fertility rates are mixed, but it is clear that decision making surrounding family planning is affected by displacement, with some women or couples opting to delay pregnancy because of instability and uncertainty, while others seek to replace deceased family members (Gagnon et al. 2002; McGinn 2000). Research has shown that risk of sexually transmitted infection increases during wartime due to various factors such as displacement or migration, military movement, widespread SGBV, psychological stress, and economic disruption (Gagnon et al. 2002; McGinn 2000). Additionally, risk of reproductive tract infections (non-sexually transmitted) may increase in refugee settings. Pregnancy and childbirth outcomes in such settings vary depending on the nature of the refugee situation (stable, camp setting vs. informal or urban housing), and level of access to services such as antenatal care and delivery (IAWG 2010; Gagnon et al. 2002; McGinn 2000; Jamieson et al. 2000; Lederman 1995).

Syrian Refugee Situation

The current Syrian refugee crisis provides a unique setting to study reproductive health and gender-based violence in conflict situations; with conflict beginning in March 2011 and continuing to displace Syrians today, a relatively long duration of follow-up is available. There is a wide variety in displacement living conditions, with refugees in both informal and formal camps, rural and urban settings, and many constantly on the move.

At the beginning of data collection for this study in 2012 there were approximately 48,000 displaced Syrians in Lebanon (UNHCR 2014a). By May 2014, the number of Syrian refugees in Lebanon was estimated to be slightly over one million (UNHCR 2014a) and approaching two million according to local reports.

Further, approximately 25 % of Syrian refugees in Lebanon are women between the ages of 18 and 45 years. The mountainous border region of North Lebanon (in the areas of Akkar and Wadi Khaled) and the Bekaa Valley along Lebanon's eastern border continue to host the majority of Syrian refugees in Lebanon, and the two locations are the study site for this research.

Numerous agency reports and media accounts describe violence (including SGBV) and reproductive healthcare shortages surrounding the Syrian conflict (El-Masri et al. 2013; MSF 2012; Tuysuz 2011; Amnesty International 2012; Human Rights Watch 2012; International Rescue Committee 2012). Thus, measurement of these issues is critical. Syrian women and girls are at increased risk of SGBV, deteriorating mental health, and maternal and newborn complications, as well as facing daily struggles meeting basic needs for themselves and their families. Around 25 % of refugee households in Lebanon are now female headed, and there has been a shift in gender roles due to unemployment among males, changing household structures, and women's lack of access to the resources and services that were once available to them in Syria (UNHCR 2014b; El-Masri et al. 2013) (Fig. 6.1).

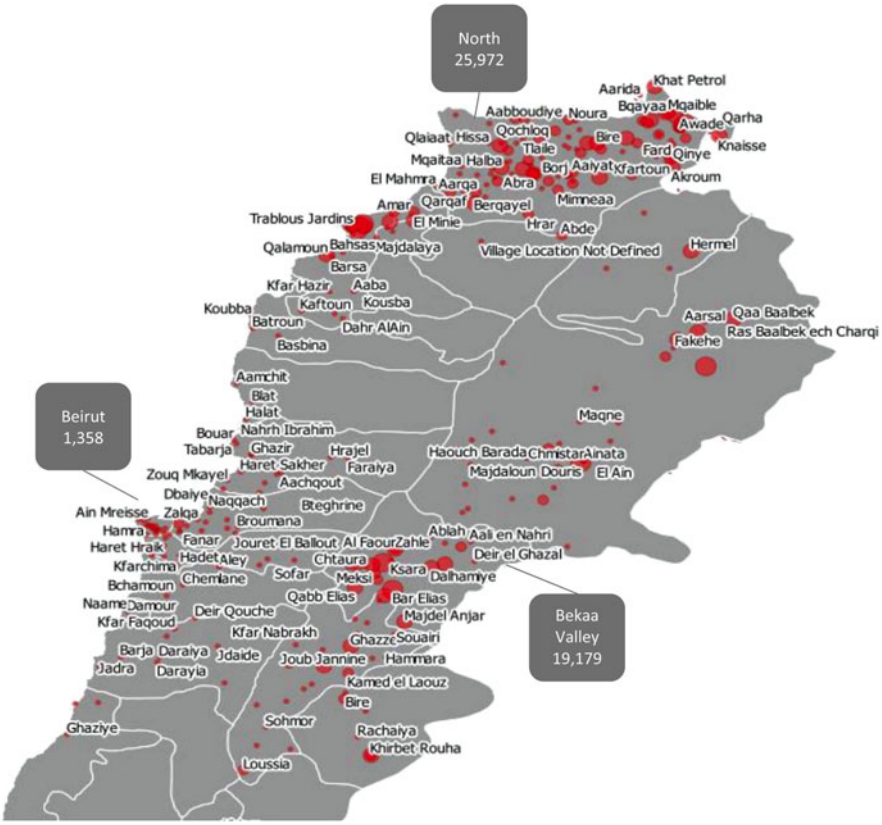

Fig. 6.1 Map of Syrian refugee distribution in Lebanon at the time of study (UNHCR, September 2012)

Study Aims

In addition to contributing to the larger body of literature on SGBV and reproductive health in conflict settings, this study builds on local understanding of SGBV and reproductive health needs among Syrian refugee women for the purpose of informing humanitarian response. The goals of this study align with research priorities set by the Interagency-Working Group (IAWG) on Reproductive Health in Crisis (CDC 2011), including understanding how to strengthen comprehensive GBV prevention and response services in refugee settings, improving access to delivery care and emergency obstetric services for refugee women, and understanding how conflict affects fertility and pregnancy-related decisions.

The overall goals of this study are to understand the reproductive health and GBV-related outcomes of displaced Syrian women living in Lebanon and to inform humanitarian programs and services aimed at supporting Syrian women. The specific aims of the research are to (a) describe the current reproductive status and needs of displaced Syrian women living in Lebanon; (b) explore factors that may be associated with poor reproductive outcomes, including health service access and experiences of violence; (c) describe the type and characteristics of violence, including SGBV experienced by Syrian women; and (d) identify the coping strategies and behaviors of Syrian women survivors of violence.

Methodology

Study Setting

This study was carried out as a needs assessment under the auspices of and with support from the United Nations Population Fund (UNFPA) in Lebanon between June and August 2012, 1 year after the conflict erupted in Syria, and as refugee numbers were rapidly escalating. A cross-sectional survey was carried out in six primary health clinics in North Lebanon and the Bekaa Valley, areas with the highest concentration of Syrian refugees. Three clinics were supported by a private foundation, two were jointly run by the Lebanese Ministry of Public Health (MOPH) and a private foundation, and one clinic was run solely by the MOPH. This study was approved by the Human Subjects Committee at Yale School of Public Health (YSPH) and by the United Nations Population Fund (UNFPA), Lebanon.

Three focus group discussions (FGDs) were carried out in different community centers—Baalbek, Arsal (Bekaa Valley), and Wadi Khaled (North Lebanon). The focus groups provided the perspectives of Syrian women outside of primary healthcare clinics and explored the issue of intimate partner violence (which was not a part of the survey).

Study Sample

For the survey component, clinics were selected based on the number of displaced Syrian women attending per month (at least 100) and the provision of comprehensive reproductive health services. We chose clinics supported by both government and nongovernment organizations in order to minimize bias. All clinics were receiving some type of support from UNFPA and its partners. We used a proportional sampling method, based on the number of Syrian women attending each clinic during the month prior to the study with the aim of recruiting at least 400 displaced Syrian women that fit the eligibility criteria, who were attending the selected clinics for any reason. The data collection started in July and ended in August when the desired sample size was reached. All displaced Syrian women attending the six clinics were approached for recruitment, screened for eligibility, and asked if they would like to participate in the study. This process was followed until the target number was reached. Eligibility criteria included (1) ability to speak Arabic, (2) identity as a Syrian national, (3) having come to Lebanon since the conflict in Syria began in March 2011, and (4) age between 18 and 45 (inclusive). Once screened, women were escorted into a separate room where an IRB-approved consent form was explained and signed prior to questionnaire administration.

FGD participants were recruited by local NGOs in areas where there was the highest concentration of Syrian refugees. Each FGD included 8–12 women aged between 18 and 45 years, who speak Arabic, and were present in Lebanon for over a month.

Measurement and Data Collection

The interviewer-administered questionnaire used in this study was adapted from the "Gender-based Violence Tools Manual - For Assessment & Program Design, Monitoring & Evaluation in Conflict-Affected Settings" (RHRC 2004) and the "Reproductive Health Assessment Toolkit for Conflict-Affected Women" (CDC 2007). The questionnaire was designed in English, discussed with the various stakeholders, translated into Arabic and pilot tested among Syrians in Lebanon, and administered in Arabic by trained research assistants. It included six sections addressing the following topics: (1) individual characteristics and displacement history; (2) general health status; (3) reproductive history and current status; (4) exposure to violence, including SGBV; (5) coping strategies and stress; and (6) pregnancy-related information (among a subset of those who were pregnant at any time during the conflict).

The discussion in the focus groups followed a guide adapted from the *Reproductive Health Response in Crisis Consortium* (RHRC), which is part of the *Women's Commission for Refugee Women and Children* and covered topics related

to living conditions, reproductive and general health issues, violence, including both domestic violence and conflict-related violence, and coping strategies.

All participants received a UNFPA "dignity kit" containing basic sanitation supplies and clothing to compensate for their time, and were also given telephone numbers for agencies providing protection, health, and psychosocial resources for survivors of violence.

Data Analysis

Using survey data, bivariate associations were estimated using Pearson's correlations and X^2 test. Risk factors associated with outcomes of interest and covariates associated with both risk factors and outcomes (at the level of $p<0.05$) were retained in multivariate models. Multivariate logistic regression was used to examine the relationships between independent variables (exposure to conflict violence and stress score) and health outcomes (gynecologic conditions, self-rated health, and access to reproductive health services). Stress was also examined as a mediating variable between conflict violence and health outcomes.

Conflict violence was coded as a binary variable, which was measured by a positive response ("1–2 times" or "frequently") to any of the indicators of violence from an armed person since the conflict began, including being slapped or hit; choked; beaten or kicked; threatened with a weapon; shot at or stabbed; detained against will; intentionally deprived of food, water, or sleep; emotional abuse or humiliation; deprived of money; or subjected to improper sexual behavior. Stress was assessed using a 6-question subscale previously used in UNFPA surveys in Lebanon and adapted to include a question about child beating as a response to stress, based on qualitative findings. The subscale included the following: feeling constantly tense, sick or tired, worried or concerned, irritable or in a bad mood, suffering from loss of sleep or sleep disorders, reduced ability to complete normal tasks, and beating or taking anger out on children. Principal component analysis was used to create a stress score variable based on participant responses.

The following variables were examined as potential confounders in the relationship between violence, stress, and reproductive health outcomes using bivariate analysis; and those with biological plausibility were included in multivariate models: age, education, marital status, region in Lebanon, clinic and clinic type (government funded or not), place of origin (urban versus rural), months in Lebanon, food insecurity indicators, cigarette smoking, anemia, and hypertension. Data were analyzed using Statistical Analysis Software (SAS) v 9.2, and principal component analysis was carried out in IBM SPSS Statistics 21 due to ease of use.

For the qualitative component, the three FGD audio-recordings were transcribed verbatim in Arabic, translated into English, and reviewed by two researchers to identify major themes. Researchers then manually coded each transcript for the presence of themes and differences of opinion were discussed and resolved.

Results

Sample Characteristics

Of the 489 Syrian women approached to participate, 9 did not meet eligibility criteria, 28 declined to participate, and 452 (92.4 %) completed the interviews. Of these, 251 lived in North Lebanon and 201 in the Bekaa Valley (Table 6.1). Demographic characteristics were similar across regions, with several exceptions in statistical significance: those in the Bekaa Valley were slightly younger ($p=0.03$) and less likely to have been married ($p=0.01$). More women were living in formal housing in North Lebanon (91.6 %) than in the Bekaa Valley (80.0 %) ($p=0.0004$); women in North Lebanon had been in Lebanon longer on average (6 months) than those in the Bekaa Valley (4.5 months) ($p=0.001$); and those in the North Lebanon were more likely to receive humanitarian services than those in Bekaa Valley (88.6 % and 62.9 %, respectively, at $p<0.0001$).

The focus group participants were 29 women who had lived in Lebanon for about 4 months, most were married, and 3 were pregnant at the time that the FGDs were conducted. Some of the women were staying in informal dwellings accommodating several families, and others in shared rented houses or apartments.

Table 6.1 Characteristics of the sample by region[a]

	North Lebanon ($n=251$) *N* (%) or mean (±SD)	Bekaa ($n=201$) *N* (%) or mean (±SD)	*p*-Value
Age			
18–24	53 (21.4)	64 (31.8)	0.03
25–34	111 (44.8)	83 (41.3)	
35–45	84 (33.9)	54 (26.9)	
Ever-married	232 (92.4)	166 (82.6)	0.01
Living in formal housing	229 (91.6)	160 (80.0)	0.0004
Avg. months in Lebanon	6 ± 3.9	4.5 ± 3.4	0.001
Have received humanitarian services	220 (88.6)	126 (62.9)	<.0001
From urban area in Syria	124 (49.6)	97 (48.7)	0.86
Education			
No education	37 (14.8)	26 (13.1)	0.75
Less than high school	154 (61.6)	127 (64.1)	
High school	43 (17.2)	29 (14.7)	
Greater than high school	16 (6.4)	16 (8.1)	

[a]Numbers may not sum up to total due to missing data; percentages may not sum up to 100 % due to rounding or multiple-response questions. Column percent is reported

Living Conditions and General Health

Respondents reported lack of access to amenities for basic hygiene, including piped drinking water (31.9 %), feminine hygiene products (27.7 %), washing water (25.9 %), soap (26.3 %), and bathing facilities (20.8 %). Focus group participants echoed these gaps in service provision, giving a picture of difference between their lives before the conflict and their lives now. Several needs came to the forefront of the discussion. All spoke of water shortages resulting in inability to bathe, wash the children, and do laundry. One of the FGD respondents noted, "In Syria, it was better even during the conflict. We had water, so if the kids want to play they can wash." Some had to travel long distances to a well to get water for daily use and buy bottled water to drink but lamented the price of water, as one woman from the focus groups stated, "One plastic water bottle here is 1,000 Lebanese Liras (0.66 U.S. dollars); this is expensive."

Survey results found crowded conditions with 12.8 % of women living with more than five children and five adults in a single dwelling (i.e., not group housing). Focus group results highlighted the issue of crowding, and lack of activities for children that led to stress. One FGD participant reported, "We are all living in a tin house. We are six families with 13 children playing around and we are not able to control them. There are no toys, games, or playing groups."

The majority of survey respondents agreed with all three indicators of food insecurity. Women in focus groups talked about food deficiency and the lack of storage for food, given the hot and crowded conditions in which they lived: "We need fridge; we need a place to keep the food away from insects." In general, women reported that the cost of living in Lebanon was much higher than in Syria, which was worrisome to the well-being of the family. In addition, lack of registration as a refugee with UNHCR contributed to limiting their access to basic services. Needs such as money for rent, healthcare services, activities for children, and water seemed to take precedence over the need for food aid for some women. "We don't want food, we need health care. We wish you can secure healthcare for us and help us."

When asked in the survey, "How would you rate your overall health: excellent, good, acceptable, poor, or very poor?" most participants rated their overall health as acceptable (38.9 %) and 17.7 % rated their health as poor or very poor. The majority (79.7 %) reported never smoking cigarettes or water pipe (85.2 %). Anemia was the most commonly reported condition with an overall reported prevalence of 27.4 %. Current medication use was reported by 39.4 %, most commonly for cardiovascular conditions (6.9 %), mental health conditions (5.3 %), and gynecologic infections (4.4 %) (Table 6.2).

Women spoke at great length in focus groups about mental health needs, both among their children and themselves. They identified several major sources of stress in their lives: fear for family members back in Syria, boring routine, lack of distracting activities, safety concerns in Lebanon, and helplessness at seeing their children suffer from psychological distress. A woman from the focus groups said,

Table 6.2 Individual characteristics, displacement characteristics, and general health status of Syrian refugee women in Lebanon ($N=452$)[a]

	N (%) or mean (±SD)
Individual characteristics	
Region of current residence	
North Lebanon	251 (55.5)
Bekaa Valley	201 (44.5)
Age	
18–24	117 (25.9)
25–34	194 (42.9)
35–45	138 (30.5)
Education	
No education	63 (13.9)
Less than high school	129 (28.5)
High school	152 (33.6)
Greater than high school	104 (23.0)
Marital status	
Married	381 (84.3)
Widowed	11 (2.4)
Divorced/separated	6 (1.3)
Never married	54 (12.0)
Consanguineous marriage[b]	172 (38.1)
Age at first marriage[b]	19.0 ± 4.0
Currently employed	11 (2.4)
Primary source(s) of income	
No income	153 (33.9)
Husband	171 (37.8)
Family	61 (13.5)
Self	14 (3.1)
Charity/assistance	98 (21.7)
Displacement characteristics	
From a city in Syria (not a village)	221 (48.9)
Reasons for leaving	
Security concerns/fear	445 (98.5)
Lack of daily necessities	306 (67.7)
Lack of health care	279 (61.7)
Other	13 (2.9)
Living situation in Lebanon	
Residing in informal housing (tent, shop, school, etc.)	61 (13.5)
Months in current place of residence	4.6 ± 3.6
Months in Lebanon	5.1 ± 3.7
No. of children (<18) in residence	3.8 ± 2.8
No. of adults (>18) in residence	3.7 ± 3.7

(continued)

Table 6.2 (continued)

	N (%) or mean (±SD)
Food insecurity	
Worry about having enough food (sometimes/often)	284 (62.8)
Eat non-preferred food (sometimes/often)	264 (58.4)
Skip meals (sometimes/often)	249 (55.1)
General health status	
Self-rated overall health	
Excellent	37 (8.2)
Good	157 (34.7)
Acceptable/fair	176 (38.9)
Poor	64 (14.2)
Very poor	16 (3.5)
Cigarette smoker (some days/every day)	90 (19.9)
Chronic conditions	
Anemia	124 (27.4)
Hypertension	55 (12.2)
Diabetes	14 (3.1)
Others[c]	120 (26.6)
Currently on medication for any condition	178 (39.4)

(*Table reference*: Adapted from Reese Masterson et al. 2014)
[a]Numbers may not sum to total due to missing data
[b]Denominator is ever-married women ($n = 398$)
[c]Others: Musculoskeletal issues, cardiovascular issues, abdominal issues, mental health and psychosomatic issues, vaginal infections, and urinary-tract infections

"My son is 4 years; he got scared from the first shelling that struck nearby. His jaw was broken. I take him to the doctor every three months for treatment, I pay for it."

At the end of the survey interview, women were asked to identify their three "biggest health concerns." These were grouped into loose categories and listed in Table 6.3 according to the frequency with which they were cited. Concerns related to reproductive health were the most common. Additionally, 26 women raised issues related to pregnancy or breastfeeding, with delivery costs and services highlighted as most important issues to address.

Reproductive Health

Table 6.4 below shows the reproductive history and current status and use of health services. Of the 452 women interviewed, the majority reported gynecologic problems experienced during the conflict, including menstrual irregularity (53.5 %), symptoms of reproductive tract infection (53.3 %), and severe pelvic pain or

Table 6.3 Syrian refugee women's top health concerns

Health concern	Description	# Times cited
Reproductive health needs	Genital infections, infertility, pelvic pain, OB/GYN services, contraception	58
Musculoskeletal issues	Injuries and musculoskeletal pain	37
Needs of children	Milk, diapers, doctor's visit	40
General relief services	Range of daily items needed for survival	30
Pregnancy issues	Delivery, pregnancy complications and concerns, breastfeeding	26
Cardiovascular issues		24
Abdominal issues		24
Headaches and general pain	Issues for which women are taking basic painkillers	20
Access to care and medication		17
Nutritional issues		12
Mental health	Depression, anxiety, psychological issues	12
Urinary issues	UTI, kidney stones, renal problems	11
Medical testing/surgery		11
Psychosomatic issues	Stress, fatigue, dizziness, loss of appetite, repeated vomiting, need for sedatives, sleeping issues	9
Anemia	Self-reported iron deficiency	8

dysmenorrhea (51.6 %). Additionally, 37.8 % reported having all three conditions. Of the 26.1 % who visited a gynecologist in the past 6 months, 27.2 % were diagnosed with a reproductive tract infection. Similarly, women in the FGDs disclosed having gynecological problems, including irregular menstruation. For instance one woman noted, "When they took my husband, my menses stopped." Also, the women reported heavier menstruation than normal and symptoms of reproductive tract infection including itchiness, long-standing abnormal vaginal discharge, and infection.

When asked about access to reproductive health services, only 32.3 % thought that these services were easily accessible, while 37.8 % reported that these services were unavailable and 16.8 % answered that they did not know if these services existed. Women reported cost (49.7 %), distance or transport (25.4 %), and fear of mistreatment (7.9 %) as the primary barriers to accessing reproductive health care. Other barriers included security concerns, shame, unavailability of a female doctor, and insufficient provision of services. The majority (59.7 %) reported that they had not visited a gynecologist except when they were pregnant. Although 69.3 % of women knew about contraception, only 34.5 % were using some method of contraception, which is below that reported among the general population in pre-conflict Syria (58.3 %) (UNICEF 2008). The most commonly used method of contraception was the intrauterine device (IUD) (19.0 %), followed by oral contraceptives (8.6 %) and the rhythm method (3.5 %). This was consistent with Syrian national statistics (UNICEF 2008). Similar to barriers to accessing care, women reported that cost,

Table 6.4 Reproductive history, current reproductive status, and use of services among 452 Syrian refugee women in Lebanon[a]

	N (%) or mean (±SD)
Reproductive history	
Age at menarche	15.4 ± 11.1
Age at first pregnancy	19.9 ± 4.4
Number of pregnancies	4.7 ± 3.5
At least one miscarriage	126 (27.9)
At least one abortion (induced)	11 (2.4)
At least one cesarean section	111 (24.6)
At least one child death	80 (17.7)
Current reproductive status	
Pregnant at some point during the conflict	74 (16.4)
Currently pregnant	43 (9.5)
Reported gynecologic issues during conflict	
Menstrual irregularities	242 (53.5)
Severe pelvic pain/dysmenorrhea	233 (51.6)
Symptoms of reproductive tract infection	241 (53.3)
Perception and use of reproductive health services	
Perception of RH service availability	
Available	202 (44.7)
Unavailable	171 (37.8)
Don't know	76 (16.8)
Perception of RH service accessibility	
Easily accessible	146 (32.3)
Inaccessible/difficult to access	177 (39.2)
Don't know	47 (10.4)
Perceived barriers to access ($n = 177$)	
Price	88 (49.7)
Distance/transport	45 (25.4)
Fear of mistreatment	14 (7.9)
Security concerns	11 (6.2)
Shame/embarrassment	11 (6.2)
Other	8 (4.5)
Use of RH services during past 6 months	
Visited OB/GYN doctor for any reason	118 (26.1)
Diagnosed with reproductive tract infection	123 (27.2)
Use of Family Planning Method/Contraception	
None	296 (65.5)
IUD	86 (19.0)
Birth control pill	39 (8.6)
Rhythm method	16 (3.5)
Surgical method	11 (2.4)
Condoms	8 (1.8)
Injection	1 (0.2)

(*Table reference*: Adapted from Reese Masterson et al. 2014)
[a]Numbers may not sum to total due to missing data

distance or transportation, and unavailability were the primary barriers to contraceptive use. Additionally, some reported fear of using contraceptives, and others reported that they simply had not acquired contraceptives.

Of the entire sample, 65.9 % had ever been pregnant and 16.4 % reported being pregnant at some point during the conflict (see Table 6.5). Among this pregnancy subset of 74 women, 73.0 % had attended at least one antenatal care visit. The most commonly reported barriers to antenatal care use were unavailability of a reproductive health clinician (18.9 %), cost (9.5 %), and distance or transportation (6.8 %). Thirty-eight women delivered or had an abortion (spontaneous or induced) during the conflict, with the majority occurring in a hospital (71.1 %), though some were reported to have taken place at home (23.7 %). Among those who completed a pregnancy since the conflict began, there were nine preterm births (23.7 %), four spontaneous and induced abortions (10.5 %), four low-birth-weight term infants

Table 6.5 Characteristics of 74 Syrian refugee women who were pregnant at some time during the conflict[a]

	N (%)
Pregnancy status[a]	
Currently pregnant	43 (9.5)
Delivered	34 (7.5)
Aborted fetus	4 (0.9)
Primiparous	16 (21.6)
At least one antenatal care visit	54 (73.0)
Pregnancy complications among currently pregnant (n = 43)	
Feeling unusually weak/tired	11 (25.6)
Severe abdominal pain	7 (16.3)
Vaginal bleeding	4 (9.3)
Fever	2 (4.7)
Swelling of hands and face	2 (4.7)
Others (vaginal infection, blurred vision, preeclampsia)	3 (7.0)
Delivery/abortion complications (n = 38)	
Hemorrhage	11 (29.0)
Abnormal vaginal discharge	3 (7.9)
Others (convulsions, fever, hypertension, fetal heart problem, vaginal tearing)	5 (13.2)
Place of delivery/abortion (n = 38)	
Home	9 (23.7)
Hospital	27 (71.1)
Clinic or doctor's office	2 (5.3)
Birth outcomes among those who delivered (n = 34)	
Preterm birth	9 (26.5)
Low birth weight[b]	4 (10.5)
Infant death	1 (2.9)

(*Table reference*: Adapted from Reese Masterson et al. 2014)

[a]Numbers may not sum to total due to missing data

[b]Infant birth weight not known (*n* = 3)

(10.5 %), and one infant death. The most common complications during labor, delivery, or abortion were cited by 36.8% of women, with hemorrhage being the most commonly reported (29.0 %).

Of the 33 live births, 52 % reported that their infant experienced some type of complication within the first 40 days of birth, including sickness and abdominal pain, respiratory distress and infections, injury, disability, malnutrition, umbilical hernia, and issues related to preterm birth requiring a stay in the intensive care unit. Only 48.5 % of these reported any breastfeeding, citing the inability to breastfeed, illness, and constant displacement as reasons for not breastfeeding. Most of the 43 women pregnant at the time of the survey were pregnant upon arrival to Lebanon while 32.6 % became pregnant after displacement. Pregnancy problems were reported by 39.5 % including feeling abnormally weak and tired (25.6 %), severe abdominal pain (16.3 %), vaginal bleeding (9.3 %), and fever (4.7 %). Of those currently pregnant, 69.8 % had at least one antenatal care visit; however, the majority had not accessed antenatal care since arriving in Lebanon.

Focus group participants corroborated survey findings, highlighting anemia, decreased access to antenatal care, and negative effects of stress on the pregnancy. Focus group findings elucidate barriers to accessing antenatal care, with women expressing their frustration at visiting the local clinic, but continually finding that the reproductive health doctor had traveled, was booked with other patients, or was otherwise unavailable when needed. There was also worry about paying for antenatal services and delivery. One woman noted, “I went to Hariri clinic but it was 2000 L.L. [$2.32] for services for pregnant women there.” This price is unaffordable for some Syrian women. One woman expressed that she and her husband are intentionally delaying pregnancy due to the high cost of delivery. Others expressed problems identifying a hospital in their vicinity with free delivery services. One other woman even said that she planned to use her Lebanese relative’s identity to deliver her baby in order to gain access to reduced price delivery services.

Violence

Survey results showed that almost one-third of women ($N=139$, 30.8 %) reported exposure to conflict violence and more than a quarter ($N=125$, 27.7 %) reported exposure to more than one type of conflict violence. Almost all women (95.7 %) identified the perpetrator as an armed person, and 14 women (3.1 %) disclosed sexual violence perpetrated against them by an armed person in Syria. Of those who experienced violence, 27.7 % suffered physical injury and 67.7 % suffered psychological difficulties. Of those who experienced violence, 15 women were pregnant at some point during the conflict. Direct physical violence—such as hitting, slapping, or choking—was reported only among three pregnant women. One woman who was pregnant during the conflict said that she had been detained. The relationship between pregnancy complications and violence could not be assessed given the small number of pregnant women with direct exposure to violence.

In bivariate analyses, experience of conflict-violence had a strong positive association with menstrual irregularity ($p<0.001$), severe pelvic pain ($p<0.001$), reproductive tract infection (RTI) symptoms ($p<0.001$) among nonpregnant women, and self-rated health ($p=0.01$) among the entire sample (data not reported). Conflict violence was not associated with accessing obstetric/gynecology services ($p=0.20$). In multivariate models, among nonpregnant women, experience of conflict violence was significantly associated with all gynecologic outcomes, except self-rated health.

When asked to rate stress-related symptoms over the past month, relative to normal or usual levels, over 75 % of women reported having all seven stress-related symptoms more than usual. Based on principal component analysis, we created a "stress score" variable including all questions from the original 7-item stress scale, except for the question about feeling worried or concerned as it had a low loading in this analysis (0.43). Beating children, as an indicator of stress, had a high loading (0.7) on the stress construct and was therefore retained. Almost 76 % (75.8 %) of women reported beating their children more than usual. Only 16 % of women said that they never beat their children.

Looking at stress scores (Table 6.6), those who experienced conflict violence had a significantly higher mean stress score than those who did not ($p<0.0001$). In bivariate analysis, stress score was found to be associated with menstrual irregularity ($p<0.001$), severe pelvic pain ($p=0.02$), and RTI symptoms ($p=0.04$) among nonpregnant women, but not associated with accessing obstetric/gynecology services ($p=0.81$). In multivariate models, nonpregnant women were more likely to have menstrual irregularity with increasing stress levels ($p<0.01$) (Table 6.6). Stress

Table 6.6 Exposure to violence and stress score[a] with various health outcomes among Syrian women

		Menstrual irregularity ($n=409$)	Severe pelvic pain ($n=409$)	RTI symptoms ($n=409$)	Self-rated health ($n=452$)
Variable	*N* (%) or mean (range)	β (SE)	β (SE)	β (SE)	β (SE)
Exposure to any conflict violence[b]	139 (30.8 %)	0.58 (0.27)*	0.68 (0.26)**	0.53 (0.25)*	0.08 (0.23)
Stress score[c]	0[a] (−3.28, 0.94)	0.32 (0.11)**	0.17 (0.11)	0.12 (0.11)	0.30 (0.11)**

(*Table reference*: Adapted from Reese Masterson et al. 2014)

*$p<0.05$, **$p<0.01$

[a]Stress score created using Anderson-Rubin method in SPSS, which gives a variable with mean 0 and SD 1

[b]Models are adjusted for region, age, education, marital status, and anemia; menstrual irregularity model is additionally adjusted for food insecurity; RTI model is additionally adjusted for months in Lebanon; self-rated health is additionally adjusted for food insecurity, hypertension, and cigarette smoking

[c]Models are adjusted for region, age, education, and marital status; model of self-rated health is additionally adjusted for food insecurity, cigarette smoking, and anemia

score, however, was not a significant predictor of other gynecologic conditions. Among the entire sample, women with higher levels of stress were more likely to have poor self-rated health ($p<0.01$). Stress score was found to mediate the relationship between experience of violence and self-rated health.

Focus group discussions moved beyond conflict violence to ask about all types of violence experienced by women since the conflict began. Women reported exposure to sexual violence outside the household and violence from their spouse and community. One woman reported having a neck problem at the beginning of the discussion. When the topic of violence came up, she admitted that her neck problem was due to a beating from her husband. No other women reported physical injuries. They seemed open to talk about this issue, and they referred to the spousal abuse as their husbands "letting go on us" or "letting go of the stress on us." Some participants told stories of sexual verbal harassment like experiencing sexual propositions in a shop, in a taxi, or when walking on the street.

Women pointed to the lack of work and inability to provide for the family as a major factor contributing to stress among men. Some men were sick or injured and could not work. Some had daily work or returned to Syria to work, but are not able to make enough to cover the high cost of living in Lebanon. Unstable housing and having to move the family from place to place were also considered by women as contributing to the tension in the home. "We were thrown out of the house because the landlord had his eye on a relative of mine, and we were all living in a house together. When the wife of the landlord found out, she threw us all out of the house."

Coping Strategies

The survey explored coping mechanisms that women used as a response to violence; however, these results are limited by a low response rate to the stress questionnaire. Of those who responded, the majority said that they have not yet coped with their experience. The others mentioned the following ways of coping: talking to someone (friend or relative), using mental health services, and trying to forget or sleep. Of note, although 71 % of those who experienced violence reported suffering from psychological difficulties, only 9 % reported receiving mental health assistance.

Women who experienced violence reported varying help-seeking behaviors: 41.5 % did not find a way to cope, 50.8 % did not speak with anyone, 24.6 % spoke with their husbands, and the remaining spoke with others in the community. When we asked those who chose not to tell anyone about their experience of violence and why this was the case, most responded that they "thought nothing could be done," and others said that they did not trust anyone or they felt ashamed or stigmatized. Of those exposed to violence, the majority (64.6 %) sought no medical care after their experience due to insufficient funds, lack of knowledge, unavailability, embarrassment, and other reasons. Only 9.2 % reported accessing any mental health or psychosocial assistance.

In focus groups, women were found to justify violence and accepted it as a natural result of the stress that their husbands are facing: “My husband works day and night and earns 5000 L.L. a day. We can’t pay rent. We understand that this makes them stressed. They have to support us.” Some showed helplessness: “There is nothing to do, we have to accept.” Others wondered where to seek help: “Where do we go in case of violence?” or used avoidance: “We can’t do anything to distract our mind or vent. We just cover ourselves and sleep.” Most women confessed to beating their children to “let go of their stress.”

One major positive coping factor that women mentioned was the feeling of solidarity brought by spending time with members of the community. Syrian women said that in some way the experience of displacement had brought them closer to each other. Friends, neighbors, and relatives are helping each other through the difficult times, lending each other kitchen utensils, sharing experiences, and providing solutions to each other’s problems. One woman said, “All Syrians help each other. We are a group. Everyone helps everyone.” Some women spoke also of supportive neighbors who help them with basic necessities.

Discussion

Our findings indicate that Syrian women displaced to Lebanon during the current crisis experience poor reproductive health—including gynecologic conditions, pregnancy and delivery complications, and poor birth outcomes—and that there is interplay between violence, stress, and poor health, including reproductive health. High rates of menstrual irregularity, severe pelvic pain, and reproductive tract infections among our sample are commensurate with results from prior research studying gynecologic outcomes in settings of conflict and displacement (Gagnon et al. 2002; Campbell 2002). Campbell’s (2002) study on the impact of intimate partner violence showed that the most consistent difference between battered and non-battered women is gynecologic problems, including vaginal bleeding or infection, genital irritation, pain on intercourse, chronic pelvic pain, and urinary-tract infections. Similarly, our findings within a population affected by conflict-related violence seem to suggest that gynecologic problems can be women’s nonspecific reactions to violence regardless of the origin of violence.

Previous studies of low birth weight among refugee women show mixed results, with some finding an increase in low birth weight among refugee populations and others finding no change or even an actual improvement in birth weight among refugees compared to non-refugees (McGinn 2000; Gagnon et al. 2002; Hynes et al. 2002). Improvements cited in the literature may be due to having comparatively better reproductive health services in refugee camps than in the general population, especially in resource-poor settings (Hynes et al. 2002). Preterm birth was highly reported within pregnant women in our sample, with a prevalence of around 27 %. These findings, however, should be interpreted with caution as they are based on self-reports. Syrian refugee women could be at greater risk for preterm birth for a

number of reasons related to their status as refugees, such as inadequate antenatal care (Hamad et al. 2007) or economic hardship (Kramer et al. 2000).

In previous studies, anemia and hypertension were associated with complications surrounding pregnancy and delivery (Yanit et al. 2012; Scholl et al. 1992; Garn et al. 1981). In our study, many women reported feeling abnormally weak and tired during their pregnancy, which could be symptomatic of anemia (CDC 2007), as well as having high blood pressure. Food insecurity, identified among more than half of the respondents, may contribute to anemia prevalence, although anemia from multiple causes is common among women in the Eastern Mediterranean region under normal conditions (De Benoist et al. 2008).

Exposure to violence, abuse, and/or SGBV was reported by over a quarter of Syrian refugee women. Many women experienced multiple types of violence during the current conflict. While several cases of sexual violence were reported, all allegedly perpetrated by armed people in Syria, this number may be much higher based on systematic underreporting of sexual violence due to shame or stigmatization. In focus group discussions, the issue of intimate partner violence was raised repeatedly, with beating, throwing/breaking things, and verbal abuse cited. Syrian women justified intimate partner violence primarily as a result of stress and tension in the home, frustration among unemployed or emasculated men, and general worry or anger about the situation back home in Syria. Among the coping strategies women employed to deal with such violence, many chose to keep quiet or avoid the issue and accepted it as a result of the increased pressure on male partners to provide for their families.

Researchers have explored several theories to explain domestic violence during wartime and in refugee settings (Loue 2001). Domestic violence has been found to increase in post-conflict settings, partially due to the transformation that war can produce in societies and households. A recent report on changing gender roles among Syrian refugees in Lebanon demonstrates the ways that war can reshape household dynamics through increased female-headed households, absent or unemployed males, crowding and multifamily households, which can result in the destruction of what some women consider their primary domain, and more females joining the workforce (El-Masri et al. 2013). Additionally, a survey among Iraqi refugees in Syria revealed a potential relationship between domestic violence and household financial distress (Tappis et al. 2012). Sexual violence has been found to increase among refugees, including both domestic violence and violence outside the home. This can be explained by the increase in levels of frustration in refugee settings, and the tendency to take out such frustration on "the weak" (Skjelsbaek 2001). Participant stories in our study highlight the relationship between limited resources, stress, tension, and violence in the home, providing support to this explanation.

Availability of and access to reproductive health services and services for survivors of violence were limited among this refugee population. Humanitarian services, including support for healthcare and reproductive services, are available to Syrian refugees registered with the United Nations. Some clinics are supported by aid agencies and able to offer discounted medications and clinic visits to Syrian refugees. For example, at the time of our study prices at one of the study sites in the north of Lebanon were the same for Syrians and Lebanese. However, due to the

exchange rate, Syrians were at a disadvantage coming from a system of free primary health care to an extremely expensive, highly privatized healthcare setting in Lebanon. During our study, clinic costs in this particular clinic were as follows: a consultation was 5000 L.L. ($3.30), an ultrasound was 10,000 L.L. ($6.60), and an IUD insertion was 15,000 L.L. ($9.90). Although UNHCR and partners have begun covering increased primary healthcare costs for Syrian refugees, the cost is still a major barrier to accessing sufficient health care for Syrians in Lebanon.

Gagnon et al. (2002) explain that limited access or delayed entrance to antenatal care is one of the key determinants of pregnancy outcomes in refugee populations. There are often significant disparities in access to and use of antenatal care among refugee populations compared to non-refugee populations (Carolan 2010). Our study supports this finding and contributes to the literature on access to reproductive health care in refugee settings by identifying perceived barriers to access among a conservative population in the Middle East. The majority of Syrian refugee women had never visited an obstetrician-gynecologist except for pregnancy care, indicating low baseline rates of gynecological exams in this population. While costs and long distances were the primary barriers to accessing gynecologic care, one unique barrier reported in our survey was lack of availability of a female doctor.

Finally, cost, distance to service delivery, and discrimination were cited as barriers to accessing basic services. Participants in both the survey and focus group discussions clearly indicated that they are suffering from a lack of basic services and daily necessities (e.g., housing, food, water, hygiene supplies, blankets). Refugees living in organized camps or group housing supported by a relief agency or religious entities often received more direct aid. With limited or no income, lack of access to water and sanitation, crowding, and food insecurity, Syrian women are at a higher risk for a variety of health problems, including poor reproductive health. Focus group participants highlighted this lack of coverage for basic needs and discrimination in aid distribution as a source of daily stress, leading to worse health outcome.

In summary, a conceptual model is proposed in Fig. 6.2 to illustrate the interplay of the factors mentioned above (as well as other factors identified in the literature)

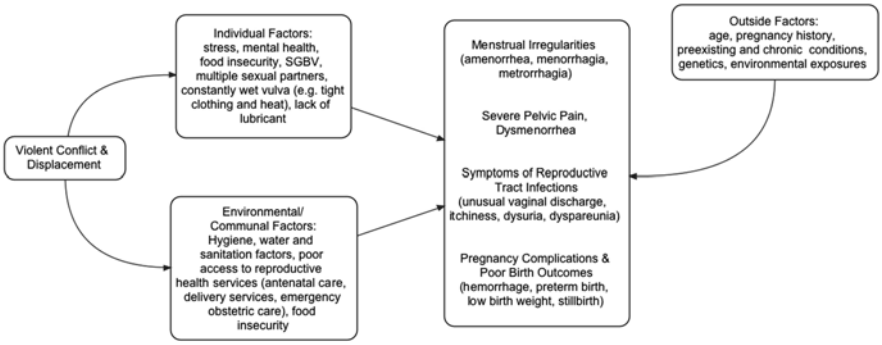

Fig. 6.2 Conceptual model of potential links between violent conflict/displacement and reproductive health

and their effect on the reproductive health of women displaced by conflict. War and displacement cause significant changes in the environment of individuals, characterized by decreased resources, crowding, unstable living conditions, food insecurity, limited water, and poor hygiene. These factors may be particularly important in communities, such as Syrian refugees, who wear conservative clothing most of the time, even in hot weather, and have limited access to hygiene. Settings of conflict and displacement can increase the level of stress and may lead to reproductive health issues and SGBV, which in turn may increase reproductive morbidity.

Limitations

This study has several limitations. For the quantitative component, although we selected a proportionally representative sample, results cannot be generalized to all Syrian refugee women in Lebanon, particularly to those without access to health clinic services. Additionally, due to the ongoing nature of the Syrian crisis, with the number of Syrian refugees changing on monthly and sometime daily basis, it is possible that newly arrived refugees have different characteristics from those described in this study. Such changes are inevitable in research conducted in emergency settings and this study provides essential baseline data to assess the rapidly changing situation.

It should also be noted that we relied on self-reports, which may be subject to under- or overreporting—particularly of key reproductive health or sexual violence outcomes, and particularly in settings of political or religious discrimination or fear of discrimination. To address this issue, we took steps to ensure privacy during interviews and followed WHO-recommended practices for interviewing survivors of violence (World Health Organization 2007). Sexual violence questions were not asked using "event-based" items (e.g., forced to engage in a sexual act when participant did not want to), which may have increased underreporting (Garcia-Moreno et al. 2005). Finally, the choice of survey location at primary healthcare centers poses a limitation on generalizability of the results, as women attending these centers may differ from the general population with respect to knowledge about health services or health behaviors.

With regard to the focus group discussions, the qualitative nature of this portion of the study means that information collected cannot be generalized to the rest of Syrian refugee women in Lebanon. Rather, results serve to help us better understand their situation.

Despite these limitations, this study provides important information about a vulnerable population that is growing in number as the current humanitarian crisis shows no signs of abating. In addition, information gained from this study may help inform programs offered for Syrian refugees and assist in planning for future humanitarian crises of a similar nature.

Conclusions

The picture emerging from Syrian women's stories and survey responses clearly demonstrates a shortage of essential services for women in conflict settings. It is clear that increased access to conventional reproductive health and SGBV response services for refugee women is a priority. Additionally, there is a need for adapting existing approaches that take into account the particular barriers to care faced by a largely conservative, Middle Eastern population whose traditional gender roles in the household and community have been disrupted by conflict and displacement. Sexual violence is highly stigmatized in this population and designing services that reach those affected requires local knowledge and cultural understanding. Humanitarian program models developed in other countries and contexts need to be modified to the local setting.

This study finding of a statistically significant relationship between conflict-related violence and poor health outcomes, with stress as a potential mediator, points to a need to integrate psychological and mental health services into health services for refugee women. In order to address poor reproductive health, both medical and psychological needs should be considered. While some services are in place for survivors of violence, our findings reveal a need for greater provision of such services, and increased awareness raising in the community about existing services, while simultaneously addressing barriers preventing displaced populations from accessing them.

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