



الصندوق القطري لرعاية البحث العلمي

Qatar National Research Fund

عضو في مؤسسة قطر
Member of Qatar Foundation

DIFI

معهد الدوحة الدولي للأسرة
Doha International Family Institute

البحوث لدعم السياسات الأسرية
Research to advance family policies



مؤسسة قطر
Qatar Foundation
إطلاق قدرات الإنسان
Unlocking human potential



OSRA Grant Cycle I Public Reports

Project Title :Mothers in Lebanon: Unraveling their Family's Structure, Characteristics, Demands and Resources of Support

Lead PI: Khalid Yunis, MD, Department of Adolescent Medicine and Pediatrics, American University of Beirut Medical Center, Beirut, Lebanon

Hala Tamim, PhD, School of Kinesiology & Health Science, York University, Toronto, Canada

Public Report

Project Title : Mothers in Lebanon: Unraveling their Family's Structure, Characteristics, Demands and Resources of Support

OSRA Grant No.: OSRA1-0519-15006

LPI : Khalid Yunis, MD

Department of Adolescent Medicine and Pediatrics, American University of Beirut Medical Center

Beirut, Lebanon

Co-PI : Hala Tamim, PhD

School of Kinesiology & Health Science, York University

Toronto, Canada

March 2019

Disclaimer

“This Project outcomes report for the general public is displayed verbatim as submitted by the Principal Investigator(s) (PI’s) for this award. Any opinions, findings and conclusions or recommendations expressed in this report are those of the PI and do not necessarily reflect the views of the Qatar National Research Fund; QNRF has not approved or endorsed its content”.

Acknowledgements

The authors of this report would like to express their gratitude to the Doha International Family Institute for the OSRA grant No.: **OSRA1-0519-15006**.

Table of Contents

LIST OF ACRONYMS	4
1. OBJECTIVES OF THIS STUDY	5
2. JUSTIFICATION	6
3. METHODOLOGY	7
3.1. PRELIMINARY DATA	7
3.2. QUESTIONNAIRE DESIGN AND DATA COLLECTION	7
3.3. DATA ANALYSIS	7
4. DISCUSSION OF RESULTS	9
5. IMPACTS (SOCIETAL IMPACTS, AND/OR LEGAL IMPACTS AND/OR POLICY IMPACTS)	44
6. BENEFITS TO ARAB COUNTRIES IN TERMS OF ISSUES RELATED TO THE ARAB FAMILY	44
7. BIBLIOGRAPHY	46
APPENDICES	47
APPENDIX A: NCPNN 2001-2016 DATA ANALYSIS	47

Table of Tables

Table 1: Hospital Summary	9
Table 2A: Socio-Demographic characteristics of mothers giving birth in three areas in Lebanon.....	10
Table 2B: Mother’s and Father’s age and number of years married for families giving birth in three areas in Lebanon	12
Table 2C: Addresses of mothers giving birth in three areas in Lebanon.....	12
Table 3A: Family characteristics of mothers giving birth in three areas in Lebanon.....	15
Table 3B: Family characteristics of mothers giving birth in three areas in Lebanon	18
Table 4: Mother work characteristics of mothers giving birth in three areas in Lebanon.....	20
Table 5: Husband/Father work characteristics of mothers giving birth in three areas in Lebanon.....	22
Table 6: Child Labor.....	24

Table 7: Comparison of the sources of support for mothers giving birth in three areas in Lebanon.....27

Table 8A: Rating/Grading for different wellbeing programs and policies for their families’ wellbeing among mothers giving birth in three areas in Lebanon.....39

Table 8B: Top wellbeing program and policies for their families’ wellbeing among mothers giving birth in three areas in Lebanon41

List of Acronyms

AUBMC	American University of Beirut Medical Hospital
MENA	Middle East and North Africa
NCPNN	National Collaborative Perinatal Neonatal Network
NGO	Non-Governmental Organizations
SGH	Sahel General Hospital
SGH-UMC	Saint Georges Hospital University Medical Center
UNFPA	United Nations Population Fund
UN	United Nations

1. Introduction

Emerging evidence confirms that the structure, stability, and functioning of the family into which a child is born and develops, present both advantages and disadvantages that subsequently affect cognitive, socio-emotional and physical health outcomes. Demographic transitions are phenomena that have recently encompassed, at varying degrees of intensity, the entire Arab world. The Arab family is ever changing with modernization influencing social and cultural norms; yet it remains unique since the boundary between the individual and the family unit is blurred, with individual- family interdependence being predominant in the Arab region. Lebanon, due to its socio-economic and religious diversity, yet unique social structure presents an opportunity to understand the Arab family practices and dynamics. The overall aim of this study was to look at family structure, sources of support available for mother, and areas of priorities for family wellbeing by surveying Lebanese and displaced Syrian mothers delivering at selected hospitals of the National Collaborative Perinatal Neonatal Network (NCPNN) in different areas in Lebanon.

A wide diversity of nationalities, dialects, ethnicities, religions, social classes and affiliations, economic resources and structures, and political views is present in the Arab world. Given this cultural and social variety, family systems and patterns across the 22 countries that make up the Arab world are not uniform (1, 2). It has been noted that the family is at the center of socioeconomic activities and relationships in traditional and contemporary Arab society (3). This centrality has a profound impact on gender relations and household dynamics since Arab families remain to a certain extent and in some countries more than others, patriarchal (3). The Arab region is witnessing multiple demographic transitions in the form of an aging population structure, youth unemployment, declining mortality, and fertility rates, partial empowerment of women via educational attainment and entry into the labor force, rapid urbanization, unprecedented levels of emigration and forced displacement in the light of political instability, conflict, violence and turmoil currently being experienced across several countries of the region (4, 5). This demographic shift has had an effect on the family as a unit across the region, with major changes such as new patterns of marriage and family formation emerging (5, 6).

Research on family systems and practices remains limited in this part of the world. Given the centrality of the family in the Arab world and the recent transformations it has seen, an understanding of its structure, characteristics, work and family-related demands held by its members, and the type and extent of support available to this unit is crucial.

Lebanon, due to its heterogeneous yet unique social structure, presents an opportunity to understand Arab family practices and dynamics. The Syrian Crisis that started in 2011, ensued multiple consequences on the Lebanese economy, politics, demography, and healthcare sector. Therefore, Lebanon in its current stage is an adequate place to investigate how multiple contextual factors come into place to influence Lebanese and displaced Syrian families. Research on families' structure, responsibilities and the support provided to them is highly relevant to local, national and regional governments' policies.

2. Objectives of this Study

The overall aim of this project was to examine the Lebanese and displaced Syrian families in four hospitals of the NCPNN in different areas in Lebanon.

Specifically, the objectives were to:

- 1) Describe the structure and characteristics of the Lebanese and displaced Syrian families
- 2) Assess changes in the family structure and characteristics over time Lebanese and displaced Syrian
- 3) Determine the work and related demands of the Lebanese and displaced Syrian families
- 4) Describe the resources of support for the Lebanese and displaced Syrian mothers
- 5) Assess Lebanese and displaced Syrian mothers' perceptions of areas of priorities for policies and programs that promote overall wellness of their family
- 6) Determine the predictors for Lebanese and Syrian displaced mothers' choice of highest priority for policies and programs that promote overall wellness of their family

3. Justification

Demographic transitions are phenomena that have recently encompassed, at varying degrees of intensity, the entire Arab world. The Arab family is ever changing with modernization influencing social and cultural norms; yet it remains unique since the boundary between the individual and the family unit is blurred, with individual- family interdependence being predominant in the Arab region. The family is at the center of socioeconomic activities and relationships in traditional and contemporary Arab society (1). This centrality has a profound impact on gender relations and household dynamics since Arab families remain to a certain extent and in some countries more than others, patriarchal (1). The multiple demographic transitions in the region are in the form of an aging population structure, youth unemployment, declining mortality, and fertility rates, partial empowerment of women via educational attainment and entry into the labor force, rapid urbanization, unprecedented levels of emigration and forced displacement in the light of political instability, conflict, violence and turmoil currently being experienced across several countries of the region (2, 3). This demographic shift has had an effect on the family as a unit across the region, with major changes such as new patterns of marriage and family formation emerging (3, 4).

Research on family systems and practices remains limited in this part of the world. Given the centrality of the family in the Arab world and the recent transformations it has seen, an understanding of its structure, characteristics, work and family-related demands held by its members, and the type and extent of support available to this unit is crucial.

Lebanon, due to its heterogeneous yet unique social structure, presents an opportunity to understand Arab family practices and dynamics. The Syrian Crisis that started in 2011, ensued multiple consequences on the Lebanese economy, politics, demography, and healthcare sector. Therefore, Lebanon in its current stage is an adequate place to investigate how multiple contextual factors come into place to influence Lebanese and displaced Syrian families. Research on families' structure, responsibilities and the support provided to them is highly relevant to local, national and regional governments' policies.

4. Methodology

4.1. Preliminary Data

This study used the NCPNN database and questionnaire to answer part of the objectives of this study. Established in 1998, the NCPNN is a voluntary collaboration of a multidisciplinary team of health care professionals including pediatricians, obstetricians, family medicine, nurses, epidemiologists, and others, with a focus on the continuum of care from preconception to neonatal outcomes. Data on delivering mothers and their babies is collected daily from participating medical centers and hospitals located throughout the eight governorates in Lebanon, with AUBMC being its coordinating center. This network, the first in Lebanon and the Arab region, captures around 30% of all the deliveries in Lebanon (5). The NCPNN database currently includes data on more than 300,000 mothers and their newborns.

The medical information is retrieved from the medical charts of the mother and her newborn. Other characteristics such as socio-demographic variables are collected by direct interview with the mother post-delivery at the hospital. The completed questionnaires are then sent to the NCPNN coordinating center, where they are entered using a custom made software. This project was conducted through the NCPNN hospital network.

4.2. Questionnaire Design and Data Collection

The NCPNN database and questionnaire were used to answer objective number 2. Data collected for the years 2001-2016 will be used. The results of this analysis will be presented in Appendix A. An additional questionnaire was designed to attend to the rest of the objectives. This data was collected prospectively in four NCPNN hospitals distributed in three areas in Lebanon. Both of the questionnaires were used in this study during data collection, as many variables were extracted from the NCPNN questionnaire (Details in the results section) Lebanese and displaced Syrian mothers who delivered at these 4 hospitals over the duration of the study (16-October-2017 until 30-June-2018) were included. These four hospitals were Nini Hospital located in Tripoli, the capital of the North of Lebanon governorate, SGH located in Mount Lebanon, AUBMC and SGH-UMC located in Beirut. The data was collected by direct interview with the mother post-delivery at the hospital, at the time when the routinely NCPNN data is collected.

Ethics approval was obtained from the Institution Research Boards at the American University of Beirut, York University, and University of Balamand-Faculty of Medicine and Medical Sciences (for SGH-UMC). Administrative approval was obtained from SGH and Nini Hospitals.

4.3. Data Analysis

Descriptive statistics, with proportions and percentages for the different levels of the categorical variables and means and SD for the continuous variables, were calculated to assess the structure, characteristics, demands, and sources and extent of support for the Lebanese and Syrian families. Mothers were compared by area in which the data collection took place, as such there was a three-group comparison: AUBMC and SGH-UMC in Beirut,

SGH in Mount Lebanon, and Nini Hospital in the North. A bivariate analysis using One Way ANOVA-with Tukey HSD as a Post Hoc test or Games Howell -when Levene's test of variance is not significant- and Chi-square tests were used to compare continuous and categorical variables respectively between Lebanese and displaced Syrian mothers.

The analysis presented in this report is a descriptive analysis that does not specifically answer the research questions, yet further analysis is underway to be shared through publications in academic journals. The analysis for the NCPNN data of 2001-2016 will be presented in Appendix A, while the analysis for the OSRA questionnaire will be detailed in the results section below.

5. Discussion of Results

Data was collected (16-October-2017 until 30-June-2018) on 1,792 mothers giving birth in 4 hospitals in Lebanon (2 in Beirut, 1 in Mount Lebanon and 1 in the North). Data was not initiated simultaneously in all four hospitals, as it started on 16-October-2017 at AUBMC and SGH, while it started in SGH-UMC on 12-March-2018 and in Nini on 13-March-2018.

Table 1 looks at the distribution of mothers in each hospital where data collection took place. The majority of the sample is displaced Syrian mothers from SGH, with 42.13% (N=755).

Table 1: Hospital Summary

Variable	N (%)
Syrian giving birth in Mount Lebanon (SGH)	755 (42.13)
Lebanese giving birth in Beirut	682 (34.58)
AUBMC-Ras Beirut	400 (22.32)
Saint Georges-Ashrafieh	282 (15.74)
Lebanese giving birth in North (Nini)	355 (19.81)

Table 2A, 2B, and 2C examine the demographic characteristics and marriage dynamics of mothers giving birth in the three regions. They cover the first seven questions of the OSRA questionnaire, as well as age of mother, age of father and mother's place of residence from the NCPNN questionnaire. The majority of mothers in the total sample, are of Lebanese origin with 57.9% (n=1037). Syrian mothers constitute 42.1% of the sample (n=755).

Father's nationality is mainly Lebanese as well with 57.8% (n=1036). The majority live in apartments, whereby 98.1%, 82.7% and 66.7% of mothers giving birth in SGH, in Beirut, and in North respectively reported this. Also, 85.6% and 78.9% of mothers giving birth in Beirut and North respectively, own their houses (Table 2A).

The numbers of years of marriage are classified in this decreasing order: Syrian mothers who gave birth at SGH (5.59±4.37 years), Lebanese mothers who gave birth in the North (4.87±4.16 years), and Lebanese mothers who gave Birth in Beirut (4.37±3.33 years). Nonetheless, there is no significant difference between marriage years for Lebanese mothers in the North and in Beirut. Regarding mother and father age, the youngest are Syrian, followed Lebanese in the North and then Lebanese in Beirut (Table 2B).

The address of mothers in our sample is as follow: 52.3% (n=391) of mothers giving birth in SGH live in Baabda, also about a quarter (24.7%, n=185) live in Beirut. Mothers giving birth in Beirut were almost equally distributed between Maten, and Baabda with 22.9% (n=155) and 21% (n=142) respectively. The majority of mothers giving birth at Nini hospital were living in Tripoli (45.9%, n=162). More details about residence of mothers is presented in Table 2C.

Table 2A: Socio-Demographic characteristics of mothers giving birth in three areas in Lebanon

Variables	N (%)				p-value
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	
Mother's Nationality (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					<0.001
<i>Lebanese</i>	-	682 (100.0)	355 (100.0)	1037 (57.9)	
<i>Syrian</i>	755 (100.0)	-	-	755 (42.1)	
Father's Nationality (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					<0.001
<i>Lebanese</i>	13 (1.7)	671 (98.4)	352 (99.2)	1036 (57.8)	
<i>Syrian</i>	741 (98.1)	2 (0.3)	-	743 (41.5)	
<i>Others</i>	1 (0.1)	9 (1.3)	3 (0.8)	13 (0.7)	
Year came to Lebanon for Syrian mothers (N=703, S-SGH=701, LB-Beirut=1, LB-North=1)					-
<i>2011</i>	70 (10.0)	-	-	70 (10.0)	
<i>2012</i>	98 (14.0)	-	-	98 (14.0)	
<i>2013</i>	96 (13.7)	-	-	96 (13.7)	
<i>2014</i>	88 (12.6)	-	-	88 (12.6)	
<i>2015</i>	102 (14.6)	-	-	102 (14.6)	
<i>2016</i>	123 (17.5)	-	-	123 (17.5)	
<i>2017</i>	119 (17.0)	-	-	119 (17.0)	
<i>2018</i>	5 (0.7)	-	-	5 (0.7)	

House Settlement (N=1780, S-SGH=749, LB-Beirut=677, LB-North=354)					
<i>Detached House</i>	2 (0.3)	115 (17.0)	117 (31.1)	234 (13.1)	<0.001
<i>Apartment</i>	735 (98.1)	560 (82.7)	236 (66.7)	1531 (86.0)	
<i>Abandoned Construction Space</i>	3 (0.4)	2 (0.3)	0 (0.0)	5 (0.3)	
<i>Informal Tented Settlements</i>	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.1)	
<i>Formal Tented Settlements</i>	3 (0.4)	0 (0.0)	1 (0.3)	4 (0.2)	
<i>Other</i>	5 (0.7)	0 (0.0)	0 (0.0)	5 (0.3)	
House Lease (N=1774, S-SGH=752, LB-Beirut=681, LB-North=355)					
<i>Own the House</i>	9 (1.2)	535 (78.9)	303 (85.6)	847 (47.7)	<0.001
<i>Paying a rent</i>	661 (89.1)	142 (20.9)	51 (14.4)	854 (48.1)	
<i>Not paying a rent</i>	72 (9.7)	1 (0.1)	0 (0.0)	73 (4.1)	
Marital Status (N=1788, S-SGH=742, LB-Beirut=678, LB-North=354)					
<i>Married</i>	736 (97.9)	680 (99.9)	354 (99.7)	1770 (99.0)	0.011
<i>Divorced</i>	2 (0.3)	0 (0.0)	0 (0.0)	2 (0.1)	
<i>Remarried</i>	13 (1.7)	1 (0.1)	1 (0.3)	15 (0.8)	
<i>Widow</i>	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.1)	
Marriage Type					
<i>Monogamous</i>	740 (98.8)	679 (99.9)	351 (98.9)	1770 (99.2)	0.056
<i>Polygamous</i>	9 (1.2)	1 (0.1)	4 (1.1)	14 (0.8)	

Table 2B: Mother's and Father's age and number of years married for families giving birth in three areas in Lebanon

	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total
	MEAN±SD (Median; Range)			
Number of years married (N=1742, S-SGH=741, LB-Beirut=649, LB-North=352)	5.59±4.37 (5.00; 1,26) ^{a,b}	4.37±3.33 (4.00; 1,21) ^a	4.87±4.16 (4.00; 1,25) ^b	4.99±4.00 (4.00; 1,26)
Mother's Age (N=1775, S-SGH=748, LB-Beirut=682, LB-North=345)	25.28±5.46 (24.00; 15,43) ^{a,b}	31.65±4.66 (31.00; 18,47) ^{a,c}	29.04±5.23 (29.00; 17,46) ^{b,c}	28.46±5.87 (28.00; 15,47)
Father's (N=1729, S-SGH=736, LB-Beirut=646, LB-North=347)	30.74±5.93 (30.00; 18,57) ^{a,b}	36.68±5.65 (36.00; 23,60) ^{a,c}	34.10±6.15 (33.00; 23,65) ^{b,c}	33.64±6.44 (33.00; 18,65)

^aThere is a significant difference between Syrian from SGH and Lebanese from Beirut (p-value≤0.05)

^bThere is a significant difference between Syrian from SGH and Lebanese from North (p-value≤0.05)

^cThere is a significant difference between Lebanese from Beirut and Lebanese from North (p-value≤0.05)

Table 2C: Addresses of mothers giving birth in three areas in Lebanon

Variables	N (%)				
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
Address (N=1777, S-SGH=748, LB-Beirut=676, LB-North=353)					<0.001
<i>Akkar</i>	-	7 (1.0)	95 (26.9)	102 (5.7)	
<i>Tripoli</i>	-	4 (0.6)	162 (45.9)	166 (9.3)	
<i>Minnieh-Denniyeh</i>	-	-	49 (13.9)	49 (2.8)	
<i>Koura-Zgharta-Bcharre</i>	-	3 (0.4)	41 (11.6)	44 (2.5)	
<i>Batroun</i>	1 (0.1)	2 (0.3)	2 (0.6)	5 (0.3)	

<i>Baalback-Hermel</i>	1 (0.1)	11 (1.6)	-	12 (0.7)
<i>Zahle-West Bekaa-Rachaya</i>	2 (0.3)	15 (2.2)	-	17 (1.0)
<i>Jbeil-Keserwan</i>	16 (2.1)	58 (8.6)	2 (0.6)	76 (4.3)
<i>Maten</i>	40 (5.3)	155 (22.9)	2 (0.6)	197 (11.1)
<i>Baabda</i>	391 (52.3)	142 (21.0)	-	533 (30.0)
<i>Aley</i>	105 (14.0)	83 (12.3)	-	188 (10.6)
<i>Chouf</i>	4 (0.5)	20 (3.0)	-	24 (1.4)
<i>South (saida-Jezzine-Sour)</i>	-	32 (4.7)	-	32 (1.8)
<i>Nabatieh</i>	2 (0.3)	17 (2.5)	-	19 (1.1)
<i>Beirut</i>	185 (24.7)	126 (18.6)	-	311 (17.5)
<i>Outside Lebanon</i>	1 (0.1)	1 (0.1)	-	2 (0.1)

Husbands are living with their families for all Lebanese mothers, while only 98.5% (n=740) are present in the house for Syrian mothers. Grandparents are living with 14.8% (n=112) of Syrian mothers, compared to 8.2% (n=29) of Lebanese mothers in the North and 2.3% (n=16) of mothers in Beirut. Similarly, for uncles and aunts living in the house, the highest number of them were living with Syrian mothers giving birth in SGH (23.2%, n=175) and the lowest was with mothers giving birth in Beirut (1.0%, n=7). In residence helpers were the most prevalent among mothers of Beirut (28.3%, n=193). When looking at the total number of extended family living in the house, the highest reported number is for Syrian mothers with 35.5% (N=268).

All mothers are and will be caregivers for children aged 0 to 3. The majority (56.6%, N=427) of mothers at SGH were also caregivers for children aged 4-14 years old, leading to an average of 2.99 ± 1.85 (Median=3.0) children, which is the highest among the three groups. The lowest number was in Beirut with 1.74 ± 0.83 (Median=2.0) children.

Lebanese mothers in the North have a maximum of 4 children, while almost one-fifth of displaced Syrian mothers have more than 4 children (19.8%, n=149). As for Lebanese mothers in Beirut, the majority have 1-2 children (85.0%, n=578).

Gravida was the highest among displaced Syrian mothers with an average of 3.16 ± 2.07 (Median=3.0), followed by North and Beirut 2.50 ± 1.63 (Median=2.50), and 2.13 ± 1.27 (Median=2.0) respectively. Likewise, parity had the same pattern. Then as well, the total number of people living in the house had the same sequence, which is in decreasing order starting with displaced Syrian mothers, then North and Beirut with 6.04 ± 2.93 (Median=5.0), 4.12 ± 1.12 (Median=4.0), and 4.44 ± 1.52 (Median=4.0) people respectively. On the contrary, the numbers of rooms were the lowest for mothers in SGH (1.97 ± 1.05 , Median=2) and the highest for mothers in Beirut (4.21 ± 1.14 , Median=4.0). Accordingly, Syrian mothers and their families have the greater crowding index, followed by North and Beirut with 3.47 ± 1.62 (Median=3.0), and 1.06 ± 0.45 (Median=1.0) respectively. Details about family characteristics are in table 3A and 3B, covering questions 8-11 from the OSRA questionnaire, while gravidity, parity, and number of rooms are from the NCPNN questionnaire.

Table 3A: Family characteristics of mothers giving birth in three areas in Lebanon

Variables	N (%)				p-value
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	
Husband (N=1788, S-SGH=751, LB-Beirut=682, LB-North=355)					0.004
<i>Present</i>	740 (98.5)	682 (100.0)	355 (100.0)	1777 (99.4)	
<i>Not Present</i>	10 (1.3)	0 (0.0)	0 (0.0)	10 (0.6)	
<i>Died</i>	1 (0.1)	0 (0.0)	0 (0.0)	1 (0.1)	
Grandparents (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					<0.001
<i>Present</i>	112 (14.8)	16 (2.3)	29 (8.2)	157 (8.8)	
<i>Not Present</i>	643 (85.2)	666 (97.7)	326 (91.8)	1635 (91.2)	
Uncles and Aunts (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	175 (23.2)	7 (1.0)	15 (4.2)	197 (11.0)	
<i>Not Present</i>	580 (76.8)	675 (99.0)	340 (95.8)	1595 (89.0)	
Nieces and Nephews (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					0.005
<i>Present</i>	15 (2.0)	3 (0.4)	1 (0.3)	19 (1.1)	
<i>Not Present</i>	740 (98.0)	679 (99.6)	354 (99.7)	1773 (98.9)	
Helper (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	3 (0.4)	193 (28.3)	29 (8.2)	225 (12.6)	
<i>Not Present</i>	752 (99.6)	489 (71.7)	326 (91.8)	1567 (87.4)	

Other members (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	148 (19.6)	1 (0.1)	4 (4.4)	153 (8.5)	
<i>Not Present</i>	607 (80.4)	681 (99.9)	351 (98.9)	1639 (91.5)	
Extended Family Total (Grandparents, Nieces and Nephews, Uncles and Aunts and Other members) (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	268 (35.5)	25 (3.7)	34 (9.6)	327 (18.2)	
<i>Not Present</i>	487 (64.5)	657 (96.3)	321 (90.4)	1465 (81.8)	
Caregiver for children 0-3 y.o (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)	755 (100.0)	682 (100.0)	355 (100.0)	1792 (100.0)	
Caregiver for children 4-14 y.o (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	427 (56.6)	198 (29.0)	96 (27.0)	721 (40.2)	
<i>Not Present</i>	328 (43.4)	484 (71.0)	259 (73.0)	1071 (59.8)	
Caregiver for children >14 y.o (N=1792, S-SGH=755, LB-Beirut=682 LB-North=355)					<0.001
<i>Present</i>	67 (8.9)	4 (0.6)	5 (1.4)	76 (4.2)	
<i>Not Present</i>	688 (91.1)	678 (99.4)	350 (98.6)	1716 (95.8)	
Total number of children (N=1698, S-SGH=754, LB-Beirut=680, LB-North=264)					
<i>1-2</i>	344 (45.6)	578 (85.0)	242 (91.7)	1164 (68.8)	<0.001

3-4	261 (34.6)	98 (14.4)	22 (8.3)	381 (22.4)	
>4	149 (19.8)	4 (0.6)	-	153 (9.0)	

Table 3B: Family characteristics of mothers giving birth in three areas in Lebanon

Variables	Mean±SD (Median; Range)			
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total
Children (N=1698, S-SGH=754, LB-Beirut=680, LB-North=264)	3.06±1.89 (3.00; 1,11) ^{a,b}	1.72±0.82 (2.00; 1,6) ^{a,c}	1.55±0.68 (1.00; 1,4) ^{b,c}	2.29±1.55 (2.00; 1,11)
Gravidity (N=1788, S-SGH=751, LB-Beirut=682, LB-North=355)	3.16±2.07 (3.00; 1,14) ^{a,b}	2.13±1.27 (2.00; 1,9) ^{a,c}	2.50±1.63 (2.50; 1,10) ^{b,c}	2.64±1.78 (2.00; 1,14)
Parity (N=1788, S-SGH=751, LB-Beirut=682, LB-North=355)	1.60±1.59 (1.00; 0,11) ^{a,b}	0.74±0.83 (1.00; 0,5) ^{a,c}	1.12±1.20 (1.00; 0,6) ^{b,c}	1.18±1.33 (1.00; 0,11)
Number of people in the house (including newborn) (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)	6.04±2.93 (5.00; 3,23) ^{a,b}	4.12±1.12 (4.00; 3,10) ^a	4.44±1.52 (4.00; 3,13) ^b	4.99±2.32 (4.00; 3,23)
Number of rooms (excluding kitchen and bathrooms) (N=1771, S-SGH=750, LB-Beirut=677, LB-North=344)	1.97±1.05 (2.00; 1,9) ^{a,b}	4.21±1.14 (4.00; 1,9) ^{a,c}	3.90±1.18 (4.00; 1,8) ^{b,c}	3.20±1.54 (3.00; 1,9)
Crowding index (N=1771, S-SGH=750, LB-Beirut=677, LB-North=344)	3.47±1.62 (3.00; 0.75,15) ^{a,b}	1.06±0.45 (1.00; 0.38,5) ^{a,c}	1.25±0.59 (1.00; 0.43,4) ^{b,c}	2.12±1.62 (1.50; 0.38,15)

^aThere is a significant difference between Syrian from SGH and Lebanese from Beirut (p-value≤0.05)

^bThere is a significant difference between Syrian from SGH and Lebanese from North (p-value≤0.05)

^cThere is a significant difference between Lebanese from Beirut and Lebanese from North (p-value≤0.05)

Tables 4, 5 and 6 examine the work features for mothers, fathers, and even children, when child labor is present, covering Section II of the OSRA questionnaire, while the mother education variable was extracted from the NCPNN questionnaire. The majority of mothers giving birth in Beirut (undergrad: 52.4%, n=350; graduate: 23.4%, n=156) and the North (undergrad: 50.9%, n=174; graduate: 7.3%, n=25) have a university education, while the majority of mothers in SGH have an elementary education (32.8%, n=246). This trend is also observed among fathers (Table 5). Noteworthy is that mothers in the North are more educated than fathers, 50.9% (n=174) have at least a bachelor degree compared to 20.9% (n=74) for fathers

(Table 4 and 5). More than half of the Lebanese mothers giving birth in Beirut work (n=376), followed by 40.0% (N=142) in the North, and only 1.3% (n=10) in SGH. Almost all mothers in Beirut get paid monthly (96.7%, n=352), while only 69.9% (n=96) of mothers in the North have a monthly pay (Table 4).

Child labor is only prevalent among children with mothers who gave birth in SGH, of whom 42 (5.56%) reported having children having ever worked. The total number of children working is 54. The total number of children reported by mothers giving birth in SGH is 2308 children, which makes 2.34% of them working (Table 6).

Table 4: Mother work characteristics of mothers giving birth in three areas in Lebanon

Variables	N (%)				p-value
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	
Mother's Education (N=1759, S-SGH=749, LB-Beirut=668, LB-North=342)					≤0.001
<i>Illiterate</i>	110 (14.7)	0 (0.0)	1 (0.3)	111 (6.3)	
<i>Read and Write</i>	93 (12.4)	2 (0.3)	5 (1.5)	100 (5.7)	
<i>Elementary</i>	246 (32.8)	1 (0.1)	5 (1.5)	252 (14.3)	
<i>Intermediate</i>	138 (18.4)	37 (5.5)	50 (14.6)	225 (12.8)	
<i>Secondary</i>	122 (16.3)	58 (8.7)	34 (9.9)	214 (12.2)	
<i>Technical</i>	15 (2.0)	64 (9.6)	48 (14.0)	127 (7.2)	
<i>University (undergrad)</i>	0 (0.0)	350 (52.4)	174 (50.9)	524 (29.8)	
<i>University (grad)</i>	25 (3.3)	156 (23.4)	25 (7.3)	206 (11.7)	
Mother current work (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					≤0.001
<i>Yes</i>	10 (1.3)	376 (55.1)	142 (40.0)	528 (29.5)	
<i>No</i>	745 (98.7)	306 (44.9)	213 (60.0)	1264 (70.5)	

Maternity Leave (N=499, S-SGH=7, LB-Beirut=358, LB-North=134)*					≤0.001
<i>Yes</i>	5 (71.4)	322 (89.9)	88 (65.7)	415 (83.2)	
<i>No</i>	2 (28.6)	36 (10.1)	46 (34.3)	84 (16.8)	
Maternity Leave Type (N=398, S-SGH=5, LB-Beirut=305, LB-North=88)*					≤0.001
<i>Paid</i>	3 (60.0)	294 (96.4)	85 (96.6)	382 (96.0)	
<i>Unpaid</i>	2 (40.0)	11 (3.6)	3 (3.4)	16 (4.0)	
Work Time (N=516, S-SGH=9, LB-Beirut=368, LB-North=139)*					≤0.001
<i>Full Time</i>	5 (55.6)	340 (92.4)	104 (74.8)	449 (87.0)	
<i>Part Time</i>	2 (22.2)	27 (7.3)	24 (17.3)	53 (10.3)	
<i>Seasonal</i>	2 (22.2)	1 (0.3)	11 (7.9)	14 (2.7)	
Type of Pay (N=511, S-SGH=9, LB-Beirut=364, LB-North=138)*					≤0.001
<i>Monthly</i>	5 (55.6)	352 (96.7)	96 (69.6)	453 (88.6)	
<i>Weekly</i>	1 (11.1)	6 (1.6)	0 (0.0)	7 (1.4)	
<i>Daily</i>	3 (33.3)	4 (1.1)	8 (5.8)	15 (2.9)	

<i>Hourly</i>	0 (0.0)	2 (0.5)	34 (24.6)	36 (7.0)	
	Mean±SD (Median; Range)				
<i>Number of days for maternity leave (N=248, S-SGH=5, LB-Beirut=155, LB-North=88)</i>	36.00±5.48 (40.0; 30,40) ^{a,b}	68.00±10.75 (70.0; 15,100) ^{a,c}	60.33±17.61 (70.0; 15,100) ^{b,c}	64.63±14.56 (70.0; 15,100)	

* Among mothers who work

^aThere is a significant difference between Syrian from SGH and Lebanese from Beirut (p-value≤0.05)

^bThere is a significant difference between Syrian from SGH and Lebanese from North (p-value≤0.05)

^cThere is a significant difference between Lebanese from Beirut and Lebanese from North (p-value≤0.05)

Table 5: Husband/Father work characteristics of mothers giving birth in three areas in Lebanon

Variables	N (%)				
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
Father's Education (N=1784, S-SGH=753, LB-Beirut=677, LB-North=354)					
<i>Illiterate</i>	72 (9.6)	3 (0.4)	33 (9.3)	108 (6.1)	≤0.001
<i>Read and Write</i>	63 (8.4)	4 (0.6)	36 (10.2)	103 (5.8)	
<i>Elementary</i>	371 (49.3)	6 (0.9)	48 (13.6)	425 (23.8)	
<i>Intermediate</i>	138 (18.3)	60 (8.9)	50 (14.1)	248 (13.9)	

<i>Secondary</i>	69 (9.2)	60 (8.9)	33 (9.3)	162 (9.1)	
<i>Technical</i>	14 (1.9)	61 (9.0)	41 (11.6)	116 (6.5)	
<i>University(undergrad)</i>	22 (2.9)	336 (49.6)	74 (20.9)	432 (24.2)	
<i>University (grad)</i>	4 (0.5)	147 (21.7)	39 (11.0)	190 (10.7)	
Father current work (N=1776, S-SGH=748, LB-Beirut=675, LB-North=353)					
<i>Yes</i>	723 (96.7)	674 (99.9)	349 (98.9)	1746 (98.3)	≤0.001
<i>No</i>	25 (3.3)	1 (0.1)	4 (1.1)	30 (1.7)	
Work Time (N=1690, S-SGH=701, LB-Beirut=651, LB-North=338)*					
<i>Full Time</i>	547 (78.0)	641 (98.5)	324 (95.9)	1512 (89.5)	≤0.001
<i>Part Time</i>	73 (10.4)	9 (1.4)	1 (0.3)	83 (4.9)	
<i>Seasonal</i>	81 (11.6)	1 (0.2)	13 (3.8)	95 (5.6)	
Type of Pay (N=1659, S-SGH=683, LB-Beirut=642, LB-North=334)*					
<i>Monthly</i>	285 (41.7)	593 (92.4)	265 (79.3)	1143 (68.9)	≤0.001

<i>Weekly</i>	182 (26.6)	17 (2.6)	5 (1.5)	204 (12.3)	
<i>Daily</i>	211 (30.9)	22 (3.4)	60 (18.0)	293 (17.7)	
<i>Hourly</i>	5 (0.7)	10 (1.6)	4 (1.2)	19 (1.1)	

*Among fathers who work

Table 6: Child Labor

Variables	N (%)			
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total
Total number of children working per families (N=755)		-	-	
<i>Not working</i>	713 (94.44)			713 (94.44)
<i>1</i>	34 (4.50)			34 (4.50)
<i>2</i>	6 (0.79)			6 (0.79)
<i>4</i>	2 (0.26)			2 (0.26)
Total number of children working full time (N=19)*		-	-	

1	16 (84.2)			16 (84.2)
2	2 (10.5)			2 (10.5)
4	1 (5.3)			1 (5.3)
<i>Total number of children working part-time (N=20)*</i>		-	-	
1	16 (80.00)			16 (80.00)
2	3 (15.00)			3 (15.00)
4	1 (5.0)			1 (5.0)
<i>Total number of children working seasonally (N=3)*</i>		-	-	
1	2 (66.7)	-	-	2 (66.7)
2	1 (33.3)	-	-	1 (33.3)

* Among children who work

Regarding sources of support for the mother, looking at the main sources of household support, the spouse was reported to be an “always” source of support by 21.1% mothers giving birth in Beirut. However, this was not the primary trend, as spouses were reported to “never support in household” in 73.8% (n=262), 46.8% (n=353), and 40.3% (n=275) of the cases for mothers giving birth in the North, Mount Lebanon, and Beirut respectively. Also extended family, friends and neighbors, and domestic worker showed similar trends. Notable, was that 29.8% (n=225) of Syrian mothers reported their extended family helping them “often” in household chores, and 18.3% (n=125) of Lebanese mothers giving birth in Beirut, declared that their extended family helped them “always”. Domestic worker was an “always” source of help for household chores for 29.5% (n=201) of Lebanese mothers giving birth in Beirut.

When looking at caregiving for children, first-time mothers were excluded as they did not go through this experience yet. Syrian mothers stated that their spouses support them “never”, “rarely”, “sometimes”, and “often” 27.5% (n=149), 22.5% (n=122), 28.8% (n=156), and 21% (n=114) respectively. For mothers giving birth in Beirut, fathers were found to help “sometimes”, “often”, and “always” 25.8% (n=98), 29.5% (n=112), and 22.1% (n=84) respectively. For mothers from the North, more than half of father were found to not help them (59.9%, n=130). Extending family helped “often” and always 26.4% (n=143) of Syrian mothers and 39.6% (n=86) of Lebanese mothers in the North respectively. Friends and neighbors, as well as domestic workers and the daycare, were not a source of support of children caregiving, for the majority.

The “always” source of money was the spouse for most mothers (SGH: 94.0%, n=710; Beirut: 94.5%, n=635). Syrians listed extended family as an “always” source of support for 22.3% (n=168) of the times, and selected UN agencies as another source of support. Indeed, UN agencies helped “always” 67.7% (n=42) of Syrian mothers in their programs. Results for the spouse source of monetary support was not shown for Nini hospital as there was a data collection error.

Support for mothers taking care of elderly and disabled family members has been reported by as little as about 20 Lebanese and Syrian mothers, and thus were not elaborated on.

Further details regarding the sources of support are found in table 7, including section III of the OSRA questionnaire.

Table 7: Comparison of the sources of support for mothers giving birth in three areas in Lebanon

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
Household Support by	Spouse (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
	<i>Never</i>	353 (46.8)	275 (40.3)	262 (73.8)	890 (49.7)	≤0.001
	<i>Rarely</i>	153 (20.3)	45 (6.6)	16 (4.5)	214 (11.9)	
	<i>Sometimes</i>	172 (22.8)	135 (19.8)	48 (13.5)	355 (19.8)	
	<i>Often</i>	7 (10.1)	83 (12.2)	22 (6.2)	181 (10.1)	
	<i>Always</i>	1 (0.1)	144 (21.1)	7 (2.0)	152 (8.5)	
	Extended family (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
	<i>Never</i>	316 (41.9)	381 (55.9)	300 (84.5)	997 (55.6)	≤0.001
	<i>Rarely</i>	52 (6.9)	32 (4.7)	3 (0.8)	87 (4.9)	
	<i>Sometimes</i>	107 (14.2)	91 (13.3)	13 (3.7)	211 (11.8)	
	<i>Often</i>	225 (29.8)	53 (7.8)	13 (3.7)	291 (16.2)	
<i>Always</i>	55 (7.3)	125 (18.3)	26 (7.3)	206 (11.5)		

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
Friends and Neighbors (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)						≤0.001
	<i>Never</i>	683 (90.5)	574 (84.2)	349 (98.3)	1606 (89.6)	
	<i>Rarely</i>	30 (4.0)	34 (5.0)	1 (0.3)	65 (3.6)	
	<i>Sometimes</i>	31 (4.1)	48 (7.0)	2 (0.6)	81 (4.5)	
	<i>Often</i>	10 (1.3)	9 (1.3)	0 (0.0)	19 (1.1)	
	<i>Always</i>	1 (0.1)	17 (2.5)	3 (0.8)	21 (1.2)	
Domestic Worker (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)						≤0.001
	<i>Never</i>	749 (99.2)	339 (49.7)	274 (77.2)	1362 (76.0)	
	<i>Rarely</i>	3 (0.4)	21 (3.1)	5 (1.4)	29 (1.6)	
	<i>Sometimes</i>	0 (0.0)	75 (11.0)	12 (3.4)	87 (4.9)	
	<i>Often</i>	1 (0.1)	46 (6.7)	23 (6.5)	70 (3.9)	
	<i>Always</i>	2 (0.3)	201 (29.5)	41 (11.5)	244 (13.6)	

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
Support for Caregiving for Children by*	Spouse (N=1139, S-SGH=542, LB-Beirut=380, LB-North=217)					≤0.001
	<i>Never</i>	149 (27.5)	60 (15.8)	130 (59.9)	339 (29.8)	
	<i>Rarely</i>	122 (22.5)	26 (6.8)	6 (4.1)	157 (14.8)	
	<i>Sometimes</i>	156 (28.8)	98 (25.8)	39 (18.0)	239 (25.7)	
	<i>Often</i>	114 (21.0)	112 (29.5)	18 (8.3)	244 (21.4)	
	<i>Always</i>	1 (0.2)	84 (22.1)	21 (9.7)	106 (9.3)	
	Extended family (N=1139, S-SGH=542, LB-Beirut=380, LB-North=217)					≤0.001
	<i>Never</i>	255 (47.0)	133 (35.0)	112 (51.6)	500 (43.9)	
	<i>Rarely</i>	41 (7.6)	12 (3.2)	2 (0.9)	55 (4.8)	
	<i>Sometimes</i>	73 (13.5)	78 (20.5)	6 (2.8)	157 (13.8)	
	<i>Often</i>	143 (26.4)	75 (19.7)	11 (5.1)	229 (20.1)	
	<i>Always</i>	30 (5.5)	82 (21.6)	86 (39.6)	198 (17.4)	
	Friends and Neighbors (N=1139, S-SGH=542, LB-Beirut=380, LB-North=217)					≤0.001

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Never</i>	497 (91.7)	318 (83.7)	213 (98.2)	1028 (90.3)	
	<i>Rarely</i>	22 (4.1)	25 (6.6)	-	47 (4.1)	
	<i>Sometimes</i>	17 (3.1)	24 (6.3)	-	41 (3.6)	
	<i>Often</i>	6 (1.1)	11 (2.9)	2 (0.9)	19 (1.7)	
	<i>Always</i>	-	2 (0.5)	2 (0.9)	4 (0.4)	
	Domestic Worker (N=1139, S-SGH=542, LB-Beirut=380, LB-North=217)					
	<i>Never</i>	541 (99.8)	330 (86.8)	210 (96.8)	1081 (94.9)	≤0.001
	<i>Rarely</i>	1 (0.2)	10 (2.6)	-	11 (1.0)	
	<i>Sometimes</i>	-	13 (3.4)	1 (0.5)	14 (1.2)	
	<i>Often</i>	-	10 (2.6)	-	10 (0.9)	
	<i>Always</i>	-	17 (4.5)	6 (2.8)	23 (2.0)	
	Daycare (N=1139, S-SGH=542, LB-Beirut=380, LB-North=217)					≤0.001

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Never</i>	541 (99.8)	332 (87.4)	213 (98.2)	1086 (95.3)	
	<i>Rarely</i>	0 (0.0)	1 (0.3)	0 (0.0)	1 (0.1)	
	<i>Sometimes</i>	0 (0.0)	18 (4.7)	0 (0.0)	18 (1.6)	
	<i>Often</i>	0 (0.0)	19 (5.0)	1 (0.5)	20 (1.8)	
	<i>Always</i>	1 (0.2)	10 (2.6)	3 (1.4)	14 (1.2)	
Monetary support by	Spouse (N=1427, S-SGH=755, LB-Beirut=672)					
	<i>Never</i>	18 (2.4)	6 (0.9)	-	24 (1.68)	0.010
	<i>Rarely</i>	8 (1.1)	1 (0.1)	-	9 (0.63)	
	<i>Sometimes</i>	6 (0.8)	10 (1.5)	-	16 (1.12)	
	<i>Often</i>	13 (1.7)	20 (3.0)	-	33 (2.3)	
	<i>Always</i>	710 (94.0)	635 (94.5)	-	1345 (94.25)	
	Extended family (N=1775, S-SGH=755, LB-Beirut=672, LB-North=348)					≤0.001

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Never</i>	542 (71.8)	603 (89.7)	344 (98.9)	1489 (83.9)	
	<i>Rarely</i>	11 (1.5)	9 (1.3)	0 (0.0)	20 (1.1)	
	<i>Sometimes</i>	21 (2.8)	36 (5.4)	1 (0.3)	58 (3.3)	
	<i>Often</i>	13 (1.7)	7 (1.0)	0 (0.0)	20 (1.1)	
	<i>Always</i>	168 (22.3)	17 (2.5)	3 (0.9)	188 (10.6)	
	Friends and Neighbors (N=1775, S-SGH=755, LB-Beirut=672, LB-North=348)					0.680
	<i>Never</i>	750 (99.3)	666 (99.1)	348 (100.0)	1764 (99.4)	
	<i>Rarely</i>	1 (0.1)	2 (0.3)	-	3 (0.2)	
	<i>Sometimes</i>	1 (0.1)	2 (0.3)	-	3 (0.2)	
	<i>Often</i>	-	-	-	-	
	<i>Always</i>	3 (0.4)	2 (0.3)	-	5 (0.3)	
	Others (UN agencies) (N=62, S-SGH=62)**					

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Never</i>	1 (1.6)	-	-	1 (1.6)	-
	<i>Rarely</i>	11 (17.7)	-	-	11 (17.7)	
	<i>Sometimes</i>	6 (9.7)	-	-	6 (9.7)	
	<i>Often</i>	2 (3.2)	-	-	2 (3.2)	
	<i>Always</i>	42 (67.7)	-	-	42 (67.7)	
Support for Caregiving for Elderly by	Spouse (N=24, S-SGH=14, LB-Beirut=6, LB-North=4)					
	<i>Never</i>	5 (35.7)	-	1 (25.0)	6 (25.0)	0.112
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	3 (21.4)	1 (16.7)	1 (25.0)	4 (16.7)	
	<i>Often</i>	4 (28.6)	-	-	5 (20.8)	
	<i>Always</i>	2 (14.3)	5 (83.3)	2 (50.0)	9 (37.5)	
	Extended family (N=24, S-SGH=14, LB-Beirut=6, LB-North=4)					
	<i>Never</i>	9 (64.3)	4 (66.7)	-	13 (54.2)	0.006
	<i>Rarely</i>	-	-	-	-	

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Sometimes</i>	2 (14.3)	-	-	2 (8.3)	
	<i>Often</i>	1 (7.1)	2 (33.3)	-	3 (12.5)	
	<i>Always</i>	2 (14.3)	-	4 (100.0)	6 (25.0)	
	Friends and Neighbors (N=21, S-SGH=12, LB-Beirut=5, LB-North=4)					
	<i>Never</i>	12 (100.0)	4 (80.0)	3 (75.0)	19 (90.5)	0.102
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	-	-	1 (25.0)	1 (4.8)	
	<i>Often</i>	-	-	-	-	
	<i>Always</i>	-	1 (20.0)	-	1 (4.8)	
	Domestic Worker (N=22, S-SGH=13, LB-Beirut=5, LB-North=4)					
	<i>Never</i>	13 (100.0)	4 (80.0)	4 (100.0)	21 (95.5)	0.168
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	-	-	-	-	

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Often</i>	-	-	-	-	
	<i>Always</i>	-	1 (20.0)	-	1 (4.5)	
Support for Caregiving for Disabled members by	Spouse (N=20, S-SGH=14, LB-Beirut=1, LB-North=5)					
	<i>Never</i>	2 (14.3)	-	1 (20.0)	3 (15.0)	0.610
	<i>Rarely</i>	2 (14.3)	-	-	2 (10.0)	
	<i>Sometimes</i>	3 (21.4)	-	-	3 (15.0)	
	<i>Often</i>	4 (28.6)	1 (100.0)	1 (20.0)	6 (30.0)	
	<i>Always</i>	3 (21.4)	-	3 (60.0)	6 (30.0)	
	Extended family (N=19, S-SGH=13, LB-Beirut=1, LB-North=5)					
	<i>Never</i>	3 (23.1)	-	1 (20.0)	4 (21.1)	0.460
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	-	-	-	-	
<i>Often</i>	7 (53.8)	1 (100.0)	1 (20.0)	9 (47.4)		

		N (%)				
		Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	p-value
	<i>Always</i>	3 (23.1)	-	3 (60.0)	-	
	Friends and Neighbors (N=18, S-SGH=12, LB-Beirut=1, LB-North=5)					
	<i>Never</i>	12 (100.0)	1 (100.0)	5 (100.0)	18 (100.0)	-
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	-	-	-	-	
	<i>Often</i>	-	-	-	-	
	<i>Always</i>	-	-	-	-	
	Domestic Worker (N=18, S-SGH=12, LB-Beirut=1, LB-North=5)					
	<i>Never</i>	12 (100.0)	1 (100.0)	5 (100.0)	18 (100.0)	-
	<i>Rarely</i>	-	-	-	-	
	<i>Sometimes</i>	-	-	-	-	
	<i>Often</i>	-	-	-	-	
	<i>Always</i>	-	-	-	-	

*For mothers with gravida >1 or Gravida=2 and abortions=1

** Among those who selected other monetary sources of support

Table 8A presents the grades over 10 given by mothers to potential family policies as follows: childcare, eldercare, educational, domestic violence, emotional, occupational, & gender discrimination at work support, as well as support for the child/children after separation.

- a. Syrian mothers giving birth in Mount Lebanon: The two most important policies were Childcare support and Emotional support with an equal mean average grade of 9.63 ± 1.014 (Median: 10.0) and 9.63 ± 1.159 (Median: 10.0). The least important was gender discrimination support at work with a mean average grade of 1.76 ± 2.010 (Median: 1.0).
- b. Lebanese mothers giving birth in Beirut: The most important policy was educational support with a mean average grade of 8.92 ± 1.309 (Median: 9.00), the least important was gender discrimination support at work with a mean average grade of 8.29 ± 1.817 (Median: 9.00).
- c. Lebanese mothers giving birth in the North: The most important policy was Support for the child after separation with a mean average grade of 9.72 ± 0.90 (Median: 10.0), the least important was gender discrimination support at work with a mean average grade of 8.94 ± 1.904 (Median: 10.0).

Table 8B details the top three priorities chosen by mothers from the same list mentioned above. The priorities by decreasing order for each group are as follow:

- a. Syrian mothers giving birth in Mount Lebanon: Childcare support (95.2%), Educational support (76.4%), Emotional support (69.3%), Eldercare support (27.5%), others such as health, women's right, monetary (18.3%), Support for the child after separation (6.6%), domestic violence support (2.9%), Occupational support (1.9%), Gender discrimination at work (0.1%).
- b. Lebanese mothers giving birth in Beirut: Childcare support (68.5%), Eldercare support (52.2%), Educational support (45.5%), domestic violence support (35.5%), Support for the child after separation (25.4%), Emotional support (25.2%), Occupational support (18.8%), Gender discrimination at work (17.3%), and others such as health, women's right, monetary (0.3%).
- c. Lebanese mothers giving birth in the North: Eldercare support (62.5%), Support for the child after separation (58.9%), domestic violence support (58.9%), Childcare support (52.4%), Educational support (32.1%), Emotional support (12.7%), Occupational support (11.5%), Gender discrimination at work (7.3%), and others such as health, women's right, monetary (0.3%).

Both of these tables cover section IV in the OSRA questionnaire.

Table 8A: Rating/Grading for different wellbeing programs and policies for their families' wellbeing among mothers giving birth in three areas in Lebanon

Variable	Mean±SD (Median; Range)			
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total
Childcare support (N=1772, S-SGH=753, LB-Beirut=664, LB-North=355)	9.63±1.014 (10.00; 2,10) ^a	8.91±1.320 (9.00; 1, 10) ^{a,c}	9.50±1.254 (10.00; 1, 10) ^c	9.33±1.231 (10.00; 1, 10)
Eldercare support (N=1770, S-SGH=754, LB-Beirut=661, LB-North=355)	8.80±1.969 (10.00; 1, 10) ^b	8.85±1.514 (9.00; 1, 10) ^c	9.60±1.080 (10.00; 1, 10) ^{b,c}	8.98±1.684 (10.00; 1, 10)
Educational support (N=1769, S-SGH=749, LB-Beirut=665, LB-North=355)	9.56±1.229 (10.00; 1, 10) ^a	8.92±1.309 (9.00; 1, 10) ^{a,c}	9.50±1.069 (10.00; 5, 10) ^c	9.31±1.265 (10.00; 1, 10)
Domestic violence support (N=1761, S-SGH=754, LB-Beirut=662, LB-North=352)	2.25±2.660 (1.00; 1, 10) ^{a,b}	8.78±1.634 (10.00; 1, 10) ^{a,c}	9.68±1.060 (10.00; 1, 10) ^{b,c}	6.19±3.972 (8.00; 1, 10)
Emotional support (N=1768, S-SGH=754, LB-Beirut=661, LB-North=353)	9.63±1.159 (10.00; 1, 10) ^{a,b}	8.64±1.513 (9.00; 1, 10) ^{a,c}	9.19±1.551 (10.00; 1, 10) ^{b,c}	9.17±1.450 (10.00; 1,10)
Support for the child/children after separation (N=1755, S-SGH=737, LB-Beirut=658, LB-North=355)	7.57±3.323 (10.00; 1,10) ^{a,b}	8.84±1.561 (10.00; 1,10) ^{a,c}	9.72±0.90 (10.00; 5, 10) ^{b,c}	8.49±2.537 (10.00; 1,10)

Occupational support (N=1750, S-SGH=745, LB-Beirut=665, LB-North=345)	6.41±2.394 (6.00; 1, 10) ^{a,b}	8.40±1.539 (8.00; 1, 10) ^{a,c}	9.21±1.287 (10.00; 4, 10) ^{b,c}	7.71±2.237 (8.00; 1, 10)
Gender discrimination support at work (N=1720, S-SGH=736, LB-Beirut=661, LB-North=323)	1.76±2.010 (1.00; 1, 10) ^{a,b}	8.29±1.817 (9.00; 1, 10) ^{a,c}	8.94±1.905 (10.00; 1,10) ^{b,c}	5.62±3.856 (7.00; 1,10)

^aThere is a significant difference between Syrian from SGH and Lebanese from Beirut (p-value≤0.05)

^bThere is a significant difference between Syrian from SGH and Lebanese from North (p-value≤0.05)

^cThere is a significant difference between Lebanese from Beirut and Lebanese from North (p-value≤0.05)

Table 8B: Top wellbeing program and policies for their families' wellbeing among mothers giving birth in three areas in Lebanon

One of the Top three priorities	N (%)				p-value
	Syrian in Mt Lebanon	Lebanese in Beirut	Lebanese in North	Total	
Childcare support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					≤0.001
<i>Yes</i>	719 (95.2)	467 (68.5)	186 (52.4)	1372 (76.6)	
<i>No</i>	36 (4.8)	215 (31.5)	169 (47.6)	420 (23.4)	
Eldercare support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					≤0.001
<i>Yes</i>	208 (27.5)	356 (52.2)	222 (62.5)	786 (43.9)	
<i>No</i>	547 (72.5)	326 (47.8)	133 (37.5)	1006 (56.1)	
Educational support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					≤0.001
<i>Yes</i>	577 (76.4)	310 (45.5)	114 (32.1)	1001 (55.9)	
<i>No</i>	178 (23.6)	372 (54.5)	241 (67.9)	791 (44.1)	
Domestic violence support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					≤0.001
<i>Yes</i>	22 (2.9)	242 (35.5)	209 (58.9)	473 (26.4)	
<i>No</i>	733 (97.1)	440 (64.5)	146 (41.1)	1319 (73.6)	

Emotional support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
<i>Yes</i>	523 (69.3)	172 (25.2)	45 (12.7)	740 (41.3)	≤0.001
<i>No</i>	232 (30.7)	510 (74.8)	310 (87.3)	1052 (58.7)	
Support for the child/children after separation support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
<i>Yes</i>	50 (6.6)	173 (25.4)	209 (58.9)	432 (24.1)	≤0.001
<i>No</i>	705 (93.4)	509 (74.6)	146 (41.1)	1360 (75.9)	
Occupational support (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
<i>Yes</i>	14 (1.9)	128 (18.8)	41 (11.5)	183 (10.2)	≤0.001
<i>No</i>	741 (98.1)	554 (81.2)	314 (88.5)	1609 (89.9)	
Gender discrimination support at work (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					
<i>Yes</i>	1 (0.1)	118 (17.3)	26 (7.3)	145 (8.1)	≤0.001
<i>No</i>	754 (99.9)	564 (82.7)	329 (92.7)	1647 (91.9)	
Others (Women's right/money issues/health...) (N=1792, S-SGH=755, LB-Beirut=682, LB-North=355)					

<i>Yes</i>	138 (18.3)	2 (0.3)	1 (0.3)	141 (7.9)	≤ 0.001
<i>No</i>	617 (81.7)	680 (99.7)	354 (99.7)	1651 (92.1)	

6. Impacts (societal impacts, and/or legal impacts and/or policy impacts)

This is the first study in the region to fully elucidate the structure, characteristics, demands, and sources of support of the Arab family within the Lebanese context and Syrian displaced context. An understanding of the dimensions of Lebanese and displaced Syrian families living in Lebanon is essential before any family-friendly programs could be devised or policies implemented. By means of the NCPNN, the study collected data from four hospitals in three areas in Lebanon, thereby yielding insights into the discrepancy in terms of the characteristics, demands, and needs of families across different socioeconomic areas. This study is the first to consider mothers' perceptions of priorities for family policies. The findings of this study will help set the basics of sound family policies based on the mothers' ranking of areas that are needed to promote family wellness. An understanding of the factors that are associated with these priorities can be used by policymakers to tailor family wellness strategies to each area in Lebanon and to displaced Syrian mothers. A plan should be put in place to support the families across the different regions in Lebanon.

The analysis presented in this report is still preliminary, further analysis is underway to answer the specific objectives of this study. Having said that, the advanced results of this study will be shared with the Director General of the Ministry of Public Health, to advocate for the types of wellbeing programs that mothers need. Additionally, the results will be shared publicly with the scientific and civil society community to further campaign for wellness policies and programs that support mothers.

The beneficiaries of this study will be Lebanese mothers and displaced Syrian mothers.

7. Benefits to Arab countries in terms of issues related to the Arab Family

Despite the ethnic diversity within each Arab nation, the social fabric of the region by large is one (6), and so the programs, policies or recommendations derived from the results of our study might be applicable to other Arab countries. The ultimate aim of the dissemination strategy is to highlight the importance of the provision of resources of support at the levels of the community, society, and national levels to the family in Lebanon and in the Arab world. Dissemination of the findings will also strengthen evidence-to-policy and evidence-to-practice.

Following the implementation of family and maternal health wellbeing policies as a result of the findings of this study in Lebanon, and after measuring their impact, a model for family wellbeing programs and policies will be created. This model for family wellness can be adapted and applied to benefit other Arab countries.

8. Conclusion

The conclusions of this report are not final as further analysis is underway to answer specifically each objective of this study. Nonetheless, there are many points that can be drawn based on the results presented here. One general noticeable deduction is that there are differences for almost all variables between Lebanese and Syrian mothers, also there are differences for many variables

among Lebanese giving birth in Beirut and in the North. Below is a point by point summary of the main conclusions of this report.

1. Lebanese mothers live in houses they own, while Syrian mothers live mostly in rented places, showing their status of being displaced.
2. Displaced Syrian mothers are younger and have been married for a longer time, while Lebanese mothers in Beirut and the North have been married for a similar amount of time, yet the latter are younger.
3. Syrian mothers are living with a greater number of extended family than Lebanese mothers, while Lebanese mothers have in-house helpers, notably the mothers giving birth in Beirut.
4. The crowding index is higher for displaced Syrian families, reflecting their dire socio-economic status.
5. All Lebanese mothers are more educated with over half of them having a minimum of a bachelor degree, while less than 5% of displaced Syrian mothers have a university degree.
6. About half of mothers of Beirut are working, and 40% of the ones in the North compared to 1.3% of displaced Syrian mothers.
7. Child labor is only slightly prevalent among Syrian families.
8. For the majority of Lebanese and Syrian mothers the spouse was not helping in household tasks. Nevertheless, about one-fifth of spouses were always and sometimes helping Lebanese mothers in Beirut, and displaced Syrian mothers respectively.
9. Extended family helps displaced Syrian mothers in household tasks and monetary support more than Lebanese families, while extended families help Lebanese mothers in Beirut with caregiving for children more than Syrian and Lebanese mothers in the North.
10. Fathers were found to be helping displaced Syrian mothers and Lebanese mothers in Beirut in caregiving for children more than Lebanese mothers in the North.
11. Syrian mothers rely, in addition to their spouses, on other sources of monetary income such as NGOs and UN agencies.
12. Childcare support was the most important policy or program for family wellbeing for displaced Syrian mothers and Lebanese mothers in Beirut, while eldercare support was more important for Lebanese mothers in the North. Gender discrimination was the least policy for Syrian mothers, while for Lebanese mothers it was other policies such as “health, women’s rights, money...”.

9. Bibliography

1. Barakat H. The Arab world: Society, culture, and state: Univ of California Press; 1993.
2. Roudi-Fahimi F, Kent MM. Challenges and opportunities: The population of the Middle East and North Africa. *Population Bulletin*. 2007;62(2):24.
3. Courbage Y. The political dimensions of fertility decrease and family transformation in the Arab context. *DIFI Family Research and Proceedings*. 2015:3.
4. Moghadam VM, editor Women, work and family in the Arab region: Toward economic citizenship. *DIFI Family Research and Proceedings: Special issue on "Protecting the Arab Family from Poverty: Employment, Social Integration and Intergenerational Solidarity"*; 2013; Qatar. <http://www.qscience.com/doi/10.5339/difi.2013.arabfamily.7>.
5. Ministry of Public Health. Statistical Bulletin: Registered Births by month and Qada, Lebanon. <http://www.moph.gov.lb/en/Pages/8/327/statistical-bulletins>; Ministry of Public Health, Lebanon; 2012.
6. Joseph S. Gender and family in the Arab world: Merip; 1994.

Appendices

Appendix A: NCPNN 2001-2016 data analysis

The total sample collected from the Normal Nursery and the Neonatal Intensive Care Unit is 282,259 between 2001 and 2016. The variables that were to be analyzed are Mother's and Father's Age and nationality, and maternal education. Supplementary Tables 1 and 1A present the results of this analysis.

Supplementary Table 1: Demographic Characteristics (Continuous Variables)

	Mean±SD	Median	Minimum	Maximum
Mother's Age (N=260,359)	28.64±5.183	28.00	10	73
Father's Age (N=219,170)	34.16±6.31	34.00	15	80
Number of people in the rooms in the house (N=230,625)	3.90±1.37	4.00	0	30
Number of people in the house (N=237,206)	3.50±1.77	3.00	0	96

Supplementary Table 1A: Demographic Characteristics (Categorical Variables)

	N	%
Mother's Nationality (N=172,744)		
<i>Lebanese</i>	149,528	86.6
<i>Syrian</i>	14,097	8.2
<i>Non Lebanese (other than Syrian)</i>	9,119	5.3
Maternal Education (N=247,420)		
<i>Illiterate</i>	5,667	2.3
<i>Read/Write</i>	8,094	3.3
<i>Elementary</i>	25,361	10.3
<i>Intermediate</i>	60,613	24.5

<i>Secondary</i>	44,056	17.8
<i>Technical</i>	24,583	9.9
<i>University (Undergraduate)</i>	58,424	23.6
<i>University (Graduate)</i>	20,622	8.3
Father's Nationality (N=144,079)*		
<i>Lebanese</i>	123,721	85.9
<i>Syrian</i>	15,795	11.0
<i>Non Lebanese (other than Syrian)</i>	4,563	3.2

*Variable is available since 2009

