Supplementary Materials

Anxiety, Depression and Perceived Growth among Parents of Children with Cleft Lip and/or Palate in Jordan: A Cross-Sectional Study

Supplementary File S1. Questionnaire as administered: sections, instructions, reference periods, response options and items

The questionnaire was administered in Arabic as an electronic form. Section titles, instructions, reference periods and response options are reproduced verbatim from the English master questionnaire from which the Arabic form was built; the Arabic wording of every item is reproduced exactly as exported from the electronic form. The GAD-7 items are those of the Arabic GAD-7 and the depression items are items 1–8 of the Arabic PHQ-9 (Sawaya et al., 2016), with item 9 omitted.

Section 1: Background Information

(Categorical responses)

No.	English (master questionnaire)	Arabic (as administered)
1	Your Role: Mother / Father / Other Guardian	دورك: الأم / الأب / other guardian — not selected by any] [respondent
2	Child's Age: 0–6 months / 7–12 months / 13–24 months / 2–5 years / 5+ years	عمر الطفل: 0–6 أشهر / 7–12 شهرًا / 13–24 شهرًا / 2–5 سنوات / أكثر من 5 سنوات
3	Cleft Type: Lip only / Palate only / Lip and palate	نوع الشق: الشفة فقط / الحنك فقط / الشفة والحنك
4	Timing of Diagnosis: Before birth / After birth	توقيت التشخيص: قبل الولادة / بعد الولادة
5	Number of Surgeries Completed: 0 / 1 / 2 / 3 or more	عدد العمليات الجراحية التي أُجريت: 0 / 1 / 2 / 3 أو أكثر

Section 2: Anxiety Symptoms (Past 2 Weeks)

(0 = Not at all; 1 = Several days; 2 = More than half the days; 3 = Nearly every day)

No.	English (master questionnaire)	Arabic (as administered)
6	Feeling nervous, anxious, or on edge.	الشعور بالعصبية أو القلق أو التوتر
7	Not being able to stop or control worrying.	عدم القدرة على التوقف عن القلق أو التحكم فيه
8	Worrying too much about different things.	القلق المفرط بشأن أمور مختلفة
9	Trouble relaxing.	هل واجهت صعوبة في الاسترخاء؟
10	Being so restless that it is hard to sit still.	الشعور بعدم الراحة لدرجة تجعل من الصعب الجلوس بهدوء
11	Becoming easily annoyed or irritable.	سرعة الانفعال أو الشعور بالضيق
12	Feeling afraid, as if something awful might happen	الشعور بالخوف، كما لو أن شيئًا فظيعًا قد يحدث

Section 3: Depression Symptoms (Past 2 Weeks)

(0 = Not at all; 1 = Several days; 2 = More than half the days; 3 = Nearly every day)

No.	English (master questionnaire)	Arabic (as administered)
13	Little interest or pleasure in doing things.	هل فقدت الاهتمام بالأنشطة التي كنت تستمتع بها عادة؟
14	Feeling down, depressed, or hopeless.	الشعور بالحزن أو الاكتئاب أو اليأس
15	Trouble falling asleep, staying asleep, or sleeping too much.	هل عانيت من مشاكل في النوم (صعوبة في النوم أو النوم المفرط)؟
16	Feeling tired or having little energy.	هل شعرت بانخفاض في الطاقة؟
17	Poor appetite or overeating.	ضعف الشهية أو الإفراط في الأكل
18	Feeling bad about yourself — or that you are a failure or have let your family down.	الشعور بالسوء تجاه نفسك — أو أنك فاشل أو أنك خذلت عائلتك
19	Trouble concentrating on things (e.g., reading, TV).	صعوبة في التركيز على الأشياء (مثل: القراءة، مشاهدة التلفاز)
20	Moving or speaking slowly, or being unusually fidgety or restless.	التحرك أو التحدث ببطء، أو الشعور بعدم الراحة والتململ بشكل غير معتاد

Section 4: Cleft-Specific Stress

(1 = Strongly disagree → 5 = Strongly agree)

No.	English (master questionnaire)	Arabic (as administered)
21	The financial cost of my child's treatment is a major source of stress.	هل تشعر بالتوتر بسبب تكاليف علاج طفلك؟
22	I avoid public places because of my child's appearance/condition.	أتجنب الذهاب إلى الأماكن العامة بسبب المظهر الخارجي لطفلي / أو بسبب حالته الصحية
23	Managing medical appointments and treatments is overwhelming.	التعامل مع المواعيد الطبية وبرامج العلاج يمثل عبئًا كبيرًا على نفسي
24	I have felt blamed by relatives or community members for my child's condition.	شعرت بأن أفراد عائلتي أو المجتمع يحمّلونني مسؤولية إصابة طفلي بهذه الحالة
25	I worry my child will be socially excluded or bullied	أخشى أن يعاني طفلي من العزلة الاجتماعية أو أن يتعرض للتنمر

Section 5: Resilience & Coping

Items 26–28: (1 = Strongly disagree → 5 = Strongly agree; ★ = reverse scored). Items 29–31 (Coping strategies): 1 = Never → 5 = Always

No.	English (master questionnaire)	Arabic (as administered)
26	I bounce back quickly after stressful events related to my child's condition.	أتعافى بسرعة بعد الأحداث المجهدة المرتبطة بحالة طفلي
27	I adapt well to challenges in caring for my child.	أتكيّف بشكل جيد مع التحديات في رعاية طفلي
28	★ It is hard for me to return to normal after hospital visits.	★ يستغرق الأمر وقتًا طويلًا لأشعر أنني طبيعي بعد زيارة المستشفى
29	I seek medical information or advice to help me cope.	أبحث عن معلومات أو استشارات طبية لمساعدتي على التكيّف
30	I use religious or spiritual practices (e.g., prayer, faith) to help me cope.	أمارس طقوساً دينية أو روحية (مثل: الصلاة) لمساعدتي على التكيّف
31	I talk with peers or online parent support groups to help me cope.	أتحدث مع الأقران أو مجموعات الدعم للأهل عبر الإنترنت لمساعدتي على التكيّف

Section 6: Personal and Family Growth

(As a result of your journey with your child's cleft, please indicate your agreement: 1 = Strongly disagree → 5 = Strongly agree)

No.	English (master questionnaire)	Arabic (as administered)
32	This experience has brought our family closer together.	هذه التجربة جعلت عائلتنا أكثر تقارباً
33	I have discovered a personal strength I didn't know I had.	لقد اكتشفت قوة شخصية بداخلي لم أكن أعرفها من قبل
34	I have a greater appreciation for life.	أصبح لدي تقدير أكبر للحياة
35	I have found new meaning in helping others facing similar challenges.	لقد وجدت معنى جديداً في مساعدة الآخرين الذين يواجهون تحديات مماثلة

Section 7: Support & Telehealth

Item-specific response options as shown

No.	English (master questionnaire)	Arabic (as administered)
36	Have you sought professional counseling for stress related to your child's condition? Yes / No	هل سبق أن لجأت إلى استشارة نفسية بسبب التوتر الناتج عن حالة طفلك؟ نعم / لا
37	How much do you trust your child's medical team? (1 = No trust → 5 = Full trust)	ما مدى ثقتك في الفريق الطبي المعالج لطفلك؟
38	Have you used telehealth or online groups for support? No / Yes — somewhat helpful / Yes — very helpful	هل سبق لك استخدام خدمات الرعاية الصحية عن بُعد أو مجموعات الدعم الإلكترونية؟ لا / نعم — كانت مفيدة إلى حد ما / نعم — كانت مفيدة جدًا

Section 8: Father-Specific (For Fathers Only)

(1 = Strongly disagree → 5 = Strongly agree). In the electronic form these items were displayed to all respondents; they were analysed for fathers only.

No.	English (master questionnaire)	Arabic (as administered)
39	I feel pressure to hide or minimize my emotional distress.	أشعر بضغوط لإخفاء أو التقليل من الضيق النفسي الذي أعانيه
40	I take an active role in caregiving decisions and clinic visits.	ألعب دورًا فعالاً في قرارات رعاية الطفل وحضور الزيارات العيادية
41	I feel comfortable discussing my worries with my partner.	أشعر بالراحة عند مناقشة مخاوفي مع شريكتي

No.	English (master questionnaire)	Arabic (as administered)
42	I believe my role as a provider is focused on more than my emotional needs.	أعتقد أن دوري كمُعيل يركز على أكثر من مجرد احتياجاتي النفسية

Section 9: Stress Across Stages

For the following, please rate the stress you experienced during each specific period. (1 = Not stressful → 5 = Extremely stressful)

No.	English (master questionnaire)	Arabic (as administered)
43	How stressful was the time when you first learned about the cleft (diagnosis, before or after birth)?	ما مدى الضغط النفسي الذي شعرت به عندما علمت لأول مرة بإصابة طفلك (التشخيص، قبل أو بعد الولادة)؟
44	How stressful was the time around your child's first surgery or major medical treatment?	ما مدى الضغط النفسي الذي شعرت به خلال الفترة المحيطة بالجراحة الأولى لطفلك أو علاجه الطبي الرئيسي؟
45	How stressful has the period been during your child's daily care (feeding, speech, appointments, hospital visits)?	ما مدى الضغط النفسي الذي مررت به خلال رعاية طفلك اليومية (التغذية، النطق، المواعيد، الزيارات المستشفى)؟
46	How stressful do you feel about your child's future experiences (school integration, adolescence, social acceptance)?	ما مدى الضغط النفسي الذي تشعر به تجاه التجارب المستقبلية لطفلك (الاندماج المدرسي، مرحلة المراهقة، القبول الاجتماعي)؟

Scoring rules

• GAD-7: sum of items 6–12 (0–21). PHQ-8: sum of items 13–20 (0–24). Screening thresholds: ≥ 10 moderate-to-severe; GAD-7 ≥ 15 severe; PHQ-8 ≥ 15 moderately severe or severe and ≥ 20 severe.

• Cleft-related stress: mean of items 21–25. Coping: mean of items 29–31, i.e. the average frequency of use of the three strategies (it does not count strategies); the number of strategies used often or always (rating 4–5) is reported descriptively. Perceived growth: mean of items 32–35.

• Resilience (primary): mean of items 26 and 27. Resilience (three items, sensitivity): mean of items 26, 27 and (6 − item 28).

• Father-specific items 39–42 are reported individually for fathers only. Stage items 43–46 are analysed individually.

• The electronic form also recorded a caller identifier, which was removed from the analysis dataset.

Supplementary Table S1. Item-level results for study-specific items (N = 106)

Item	Mean (SD)	% rating 4–5	r with GAD-7	r with PHQ-8	r with perceived growth
CS1 Stress about treatment costs	3.01 (1.73)	43.4	0.39	0.44	0.21
CS2 Avoiding public places	1.67 (1.30)	13.2	0.36	0.28	0.05
CS3 Appointments are a burden	2.32 (1.58)	27.4	0.25	0.41	0.21
CS4 Blamed by family or community	1.79 (1.45)	19.8	0.47	0.58	0.22
CS5 Fear of isolation or bullying	2.75 (1.68)	36.8	0.43	0.47	0.17
RES1 Recover quickly	3.08 (1.53)	40.6	0.06	0.11	0.45
RES2 Adapt well	3.54 (1.54)	59.4	0.06	0.19	0.64
RES3 Long time to feel normal (raw, not reversed)	2.25 (1.41)	17.0	0.43	0.41	0.20
COP1 Information or advice (frequency)	3.11 (1.70)	47.2	0.38	0.45	0.37
COP2 Religious or spiritual practice (frequency)	3.47 (1.74)	57.5	0.33	0.32	0.45
COP3 Peers or online support groups (frequency)	2.33 (1.66)	30.2	0.42	0.50	0.42
GRO1 Family closer	3.58 (1.37)	52.8	0.13	0.18	—
GRO2 Personal strength	3.95 (1.26)	69.8	0.17	0.35	—
GRO3 Appreciation of life	4.00 (1.30)	69.8	0.14	0.27	—
GRO4 Meaning in helping others	3.98 (1.27)	68.9	0.21	0.29	—
Trust in the medical team	4.41 (1.05)	84.0	0.22	0.24	0.33
FAT1 Pressure to hide distress (fathers, n = 55)	2.20 (1.54)	21.8	—	—	—
FAT2 Active role in care decisions (fathers)	4.05 (1.30)	70.9	—	—	—
FAT3 Comfortable discussing concerns with partner (fathers)	3.76 (1.45)	60.0	—	—	—
FAT4 Provider role (fathers)	3.82 (1.35)	67.3	—	—	—

Items rated 1–5. Correlations are Pearson coefficients; with N = 106, $|r| \geq 0.19$ corresponds to $p < 0.05$. For coping items (rated 1 = never to 5 = always), the '% rating 4–5' column gives the proportion using the strategy often or always. Number of coping strategies used often or always: none, 32 (30.2%); one, 29 (27.4%); two, 21 (19.8%); three, 24 (22.6%). Correlations of growth items with the growth score are part–whole and are not shown. Resilience item audit: before reverse coding, RES3 correlated r = 0.25 with RES1 and r = 0.22 with RES2; after reverse coding (6 − RES3), its corrected item–total correlation was −0.26 and α for the three items was 0.24. Corrected item–total correlations: cleft-related stress 0.58–0.64; coping 0.55–0.61; perceived growth 0.65–0.82.

Supplementary Table S2. Child and service characteristics by responding parent

Characteristic	Mothers (n = 51) n (%)	Fathers (n = 55) n (%)	Difference, percentage points (mothers − fathers)
Child's age ≤ 12 months	6 (11.8)	9 (16.4)	−4.6
Child's age 13–24 months	7 (13.7)	10 (18.2)	−4.5
Child's age 2–5 years	13 (25.5)	13 (23.6)	1.9
Child's age > 5 years	25 (49.0)	23 (41.8)	7.2
Cleft lip only	13 (25.5)	22 (40.0)	−14.5
Cleft palate only	16 (31.4)	11 (20.0)	11.4
Cleft lip and palate	22 (43.1)	22 (40.0)	3.1
Prenatal diagnosis	7 (13.7)	8 (14.5)	−0.8
1 surgery	12 (23.5)	18 (32.7)	−9.2
2 surgeries	16 (31.4)	18 (32.7)	−1.4
≥ 3 surgeries	23 (45.1)	19 (34.5)	10.6
Ever sought counselling for child-related stress	8 (15.7)	6 (10.9)	4.8
Telehealth or online support: used, somewhat helpful	12 (23.5)	4 (7.3)	16.3
Telehealth or online support: used, very helpful	7 (13.7)	4 (7.3)	6.5

Mothers and fathers responded for different children. Differences are descriptive; the ≤ 12 months band combines 0–6 months (n = 4) and 7–12 months (n = 11). Ever sought counselling by current screening status: 13 of 62 parents with GAD-7 ≥ 10 or PHQ-8 ≥ 10 (21.0%) and 1 of 44 without (2.3%).

Supplementary Table S3. Conventional and HC3 robust estimates for the main models, and sensitivity analyses

Model / predictor	B	Conventional 95% CI	p	HC3 95% CI	HC3 p
Model 1: anxiety (GAD-7)					
Father (vs mother)	−3.01	−5.11 to −0.92	0.005	−5.17 to −0.86	0.007
Child's age band	0.22	−0.67 to 1.11	0.626	−0.65 to 1.09	0.615
Surgeries completed	−0.04	−1.32 to 1.23	0.948	−1.39 to 1.31	0.951
Cleft-related stress	2.59	1.70 to 3.48	<0.001	1.77 to 3.41	<0.001
Resilience (two items)	−0.47	−1.25 to 0.32	0.244	−1.31 to 0.38	0.278
Trust in medical team	1.26	0.19 to 2.33	0.021	0.10 to 2.42	0.033
Model 2: depressive symptoms (PHQ-8)					
Father (vs mother)	−4.18	−6.16 to −2.21	<0.001	−6.22 to −2.14	<0.001
Child's age band	0.16	−0.68 to 1.00	0.701	−0.63 to 0.96	0.684
Surgeries completed	−1.17	−2.37 to 0.03	0.056	−2.43 to 0.09	0.068
Cleft-related stress	3.12	2.28 to 3.95	<0.001	2.25 to 3.98	<0.001
Resilience (two items)	−0.04	−0.78 to 0.70	0.915	−0.88 to 0.80	0.925
Trust in medical team	1.06	0.05 to 2.06	0.039	−0.03 to 2.15	0.057
Model 3: perceived growth					
GAD-7	−0.04	−0.08 to 0.01	0.116	−0.10 to 0.03	0.282
PHQ-8	0.04	0.00 to 0.09	0.070	−0.02 to 0.10	0.154
Coping	0.38	0.22 to 0.54	<0.001	0.21 to 0.55	<0.001
Telehealth, somewhat helpful (vs never)	−0.24	−0.82 to 0.33	0.406	−0.76 to 0.27	0.355
Telehealth, very helpful (vs never)	0.02	−0.60 to 0.65	0.945	−0.44 to 0.48	0.926

Sensitivity analyses (standardised β; p, with HC3 p where it differs in interpretation)

Analysis	Parent role (father)	Cleft-related stress	Trust	Other	R^2
S1a Anxiety, three-item resilience	−0.23; 0.006	0.44; <0.001	0.23; 0.009	Resilience −0.17; 0.049 (HC3 0.066)	0.362
S1b Depression, three-item resilience	−0.31; <0.001	0.55; <0.001	0.17; 0.031 (HC3 0.040)	Resilience −0.03; 0.712	0.480
S2a Anxiety + cleft type	−0.25; 0.005	0.48; <0.001	0.21; 0.020 (HC3 0.037)	Cleft type p = 0.917, 0.592	0.347
S2b Depression + cleft type	−0.31; <0.001	0.55; <0.001	0.16; 0.042 (HC3 0.071)	Cleft type p = 0.268, 0.548	0.486
S3a Anxiety, categorical age and surgeries	−0.24; 0.006	0.48; <0.001	0.21; 0.024 (HC3 0.038)	Age and surgery categories all p ≥ 0.44	0.349
S3b Depression, categorical age and surgeries	−0.31; <0.001	0.56; <0.001	0.16; 0.044 (HC3 0.057)	Age categories p = 0.13–0.48; surgeries p = 0.19, 0.13	0.493
S4 Growth + resilience (two items)	—	—	—	Coping 0.28; 0.004 (HC3 0.010); resilience 0.46; <0.001	0.450
S5 Exploratory: GRO1 vs GRO2–GRO4	—	—	—	GRO1 0.61; <0.001; PHQ-8 0.33; 0.004; coping 0.15; 0.084	0.579
S6 Parent role only (unadjusted)	Anxiety B −3.73 (−6.09 to −1.37); depression B −4.86 (−7.29 to −2.43)	—	—		0.086; 0.132

HC3, heteroscedasticity-consistent standard errors (type 3). Model 3 showed heteroscedasticity (Breusch–Pagan p = 0.006); Models 1 and 2 did not (p = 0.76 and 0.72). Sensitivity analyses were defined after the data had been examined. Reference categories: cleft lip only; child's age ≤ 12 months; one surgery.

Supplementary Table S4. Distribution of stage-specific stress ratings (N = 106)

Aspect of care (time frame)	1	2	3	4	5	Mean (SD)
Initial diagnosis (retrospective)	18.9	8.5	15.1	9.4	48.1	3.59 (1.59)
First surgery or main treatment (retrospective)	14.2	10.4	12.3	17.9	45.3	3.70 (1.48)
Daily care (current)	11.3	15.1	16.0	13.2	44.3	3.64 (1.46)
Future experiences (anticipated)	15.1	13.2	17.0	17.0	37.7	3.49 (1.48)

Values are percentages of parents choosing each rating (1 = not at all stressful, 5 = extremely stressful). All ratings were collected at the same time.