Prevalence and health impacts of domestic violence in clinical populations in Arab countries: a systematic review

*Methods, challenges and some results...*

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Aims

In clinical populations in Arab countries:
1. What is the prevalence of domestic violence?
2. What are the health impacts of domestic violence?
Prior knowledge

- **WHO 2013 study**: lifetime physical and/or sexual IPV EMR region 37%
  - 18 estimates - Egypt, Iran, Iraq, Jordan, Palestine
  - Only region with no estimate for non-partner sexual violence
- **One systematic review looking at IPV in MENA region** (Boy and Kulczycki 2008) 22 articles including clinical and community studies.
  - Physical abuse lifetime 8.1 – 64.6%
- **Several large population-based surveys**
  - **Egypt** DHS 2014: spousal violence 3/10 ever, 1/5 last month, 7% pregnancy
  - **Jordan** PFHS 2012: 32% ever experienced spousal violence
  - Violence survey on the **Palestinian society (PCBS)** 2011 – 37% ever spousal violence, 58.6% psychological, 55.1% economic, 23.5% physical, 11.8% sexual
  - **Iraq** FHS 2006/7: 83.1% controlling behaviour by husband
- **Several clinical studies, generally smaller cross-sectional studies**
- **International evidence of health impacts of violence** (Garcia-Moreno et al 2013)
Context – DV in Arab countries

- Middle East and North Africa - large region, varied levels of socioeconomic development
- Traditional culturally-defined roles of Arab women - ‘the patriarchal power structure of Arab families also justifies inequality between men and women’ (Haj Yahia 2000, p240).
- Contested discourses about gender roles. Conservatism and outward religiosity vs secular liberal women’s activism (UNESCWA 2013).
- In Arab society, ‘the family is viewed as a highly important social (and sometimes economic) institution whose unity and cohesiveness should be maintained’ (Haj-Yahia 2000, p.239).
- Increased access to work and education but traditional power dynamics in the home (Haj-Yahia 2000).
- Many laws reinforcing the subordinate status of women (Kulczycki and Windle 2011). Legal reform is occurring in some settings (Clark et al 2010) but contradictions between laws related to equality and personal status laws (UNESCWA 2013) e.g. divorce, rape. Laws not enforced.
- Some Arab countries have national actions plans on VAW. All but Sudan have ratified CEDAW (caveat – must not contradict Islamic Shari’a laws, norms, principles). (UNESCWA 2013)
- Active network of women’s rights groups and NGOs (UNESCWA 2013).
How we started...

- Quick search, few results
- Broad concepts discussed with the team:
  - VAW, EMRO region + Israel and OPT, observational quantitative studies
- 7 data bases selected
- Broad scoping search strategy, loads of results!!! 6341
- Narrowed: DV, clinical populations, predominately Arab countries
  - FGM, trafficking, prostitution, stranger sexual assault, elder abuse, workplace
  - Iran, Pakistan, Afghanistan, Djibouti, Israel (non-Arab)
  - Refugee populations from non EMRO countries
  - Community based prevalence studies
Inclusion criteria

- **Domestic violence** (UK government definition used, Home Office 2013)
  - Intimate partner, or family member
  - Physical, sexual, psychological, emotional, financial, control, coercion, other...
- Study gives estimate of **prevalence and/or health impacts**
- Female victims **15 years** of age or older
- Clinical populations – women seeking healthcare
- Arab countries/populations
- Data from **2000**
- Primary data
- English, French or Arabic language
Extended searching

- Grey literature search
  - Grey literature databases including theses
  - International organisation and NGO reports
- Backwards reference search
- Forward citation search (Google scholar)
- Systematic reviews = 11 reference lists searched
- Emailed authors

- 14 additional articles
Methods

- Double title and abstract screening
- Double full text screening
- Double quality assessment
- Double data extraction 2 reviewers
- Data error checking
- Analysis: descriptive statistics and meta-analysis using random-effects model with
Records identified through database searching (n=9224)

Records after duplicates removed (n=6341)

Records screened (n=6341)

Records excluded at title and abstract screening (n=6184)

Additional records identified through other sources (n=14)

Full text articles assessed for eligibility (n=171)

Rejections at full text (n=129)
- Community setting = 39
- Country = 3
- Data <2000 = 6
- Study design = 25
- Non DV = 9
- Non-primary data = 11
- Other = 29
- Poor quality = 7

Full text articles included (n=42)

Studies represented (n=30)
Included studies

• 42 papers → 30 studies
• 2 in French language
• 22 studies looked at IPV, 9 looked at DV
• Study size: min 82, median 415, max 3271
• Total number of participants included in review = 20,101
30 studies
(42 papers)

11 countries

None from: Bahrain, Kuwait, Libya, Oman, Qatar, Somalia, Syria, Yemen
Who are the women?

- Most studies (ever-)married women. Married 78.6-100% (most >90%)
  - Some included single, divorced, widowed.
- Mean age where provided: 22.3 – 36.6y. Range 16-68y.
- Illiteracy: 4-34.6% (8 papers)  University: 1.1- 21.8% (10 papers)
- Urban predominance. Where provided: rural 0% - 45%.
- Unemployed/housewives : 26.5 – 99.5% (median 76.7)
- 4 studies looking at refugees only
- Consanguinity rate (6 studies): 12-62.5%
Where were they recruited?

<table>
<thead>
<tr>
<th>Clinical setting</th>
<th>Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary healthcare/MCHC/Family planning</td>
<td>20</td>
</tr>
<tr>
<td>Antenatal</td>
<td>6</td>
</tr>
<tr>
<td>Obstetric departments</td>
<td>4</td>
</tr>
<tr>
<td>OPD in secondary or tertiary care units</td>
<td>3</td>
</tr>
</tbody>
</table>
Study design

• Mostly cross-sectional observational studies
  • One case-control, one prospective cohort study in pregnancy
• 21 studies interview, 9 studies self-reported questionnaire
• Validated tools used to assess prevalence by 17 studies
  • WHO multicountry study questionnaire – 7 (adapted)
  • NORAQ – The NorVold Abuse Questionnaire – Arabic version - 3
  • AAS – Abuse Assessment Scale – 2
  • HITS – 2
• 13 used other methods
Types of abuse measured

• Any combination of abuse = 26 papers
  • 17 physical + sexual + psych/emotional
  • 2 physical + sexual
  • 7 physical + psychological

<table>
<thead>
<tr>
<th>Data for separate types of abuse</th>
<th>Number of papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical</td>
<td>32</td>
</tr>
<tr>
<td>Sexual</td>
<td>24</td>
</tr>
<tr>
<td>Psychological/emotional</td>
<td>26</td>
</tr>
<tr>
<td>Control</td>
<td>5</td>
</tr>
<tr>
<td>Economic</td>
<td>9</td>
</tr>
</tbody>
</table>
Challenge: defining abuse

• Timescale: 12m, lifetime, pregnancy. 1m? Some not well defined.
• IPV versus DV – importance of family violence in this cultural setting?
  ➢ How do we compare this data?
  ➢ Decision to meta-analyse only the IPV data
• Varied concepts psychological, emotional, mental, social etc
• Conflation of different types of abuse e.g. sexual and physical
• Translation issues
• Sensitive questions
Challenge: defining quality

• How do we define quality?

• Applying criteria doesn’t completely solve the problem
  - AXIS tool used – time consuming, similar marks, different global score
  - 2 reviewers independently assessed all studies. Disagreed about 1/4, discussed and if not resolved then arbitration senior reviewer.

• Excluded those ranked as ‘poor’
  - But the importance of sharing material from less resourced research settings?

• What does a ‘validated measure’ for assessing DV really mean?
  - Is a screening tool e.g. HITS better than a questionnaire developed for that population, even if not validated?
Prevalence results (provisional)
Any IPV during lifetime = 65.4%

### Lifetime: Physical, sexual or psychological

<table>
<thead>
<tr>
<th>Study</th>
<th>ES (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdel Megeid</td>
<td>61.00 (57.94, 63.98)</td>
</tr>
<tr>
<td>Ahmed et al</td>
<td>11.80 (9.95, 13.95)</td>
</tr>
<tr>
<td>Al-Modallal et al</td>
<td>78.00 (72.97, 82.32)</td>
</tr>
<tr>
<td>Anes Jellali et al</td>
<td>56.85 (49.87, 63.57)</td>
</tr>
<tr>
<td>Azm et al</td>
<td>78.00 (73.37, 82.02)</td>
</tr>
<tr>
<td>Bakr and Ismail</td>
<td>69.78 (96.05, 92.12)</td>
</tr>
<tr>
<td>Daoud et al</td>
<td>66.74 (62.19, 71.00)</td>
</tr>
<tr>
<td>Mamedouh et al</td>
<td>77.01 (75.54, 78.42)</td>
</tr>
<tr>
<td>Overall (<em>p</em> = 99.62%, <em>p</em> = 0.00)</td>
<td>65.41 (44.79, 83.39)</td>
</tr>
</tbody>
</table>
Physical IPV 12m = 20%

Physical IPV lifetime = 34.3%
Psychological/emotional IPV 12m = 38.9%

Psychological/emotional IPV lifetime = 48.2%

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<tr>
<th>Study</th>
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<tbody>
<tr>
<td>Abdel Megeid</td>
<td>14.70 (12.64, 17.03)</td>
</tr>
<tr>
<td>Abdelhai and Mosleh</td>
<td>17.02 (13.56, 21.15)</td>
</tr>
<tr>
<td>Al-Modallal et al</td>
<td>50.33 (44.71, 55.95)</td>
</tr>
<tr>
<td>Al-Serkal</td>
<td>40.86 (37.28, 44.54)</td>
</tr>
<tr>
<td>Anes Jellali et al</td>
<td>56.85 (49.87, 63.57)</td>
</tr>
<tr>
<td>Awwad et al</td>
<td>64.84 (54.61, 73.86)</td>
</tr>
<tr>
<td>Azm et al</td>
<td>72.96 (67.97, 77.25)</td>
</tr>
<tr>
<td>Bakr and Ismail</td>
<td>47.94 (43.63, 52.28)</td>
</tr>
<tr>
<td>Clark et al</td>
<td>67.31 (63.15, 71.21)</td>
</tr>
<tr>
<td>Daoud et al</td>
<td>49.77 (45.10, 54.45)</td>
</tr>
<tr>
<td>Mamdouh et al</td>
<td>70.99 (69.41, 72.52)</td>
</tr>
<tr>
<td>Usta et al</td>
<td>31.45 (29.08, 33.92)</td>
</tr>
</tbody>
</table>

Overall (I² = 99.39%, p = 0.00) = 48.22 (34.52, 62.06)
Sexual IPV lifetime = 22.3%

Economic IPV lifetime = 40.4%
### 12m prevalence

<table>
<thead>
<tr>
<th>Violence type</th>
<th>Studies</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
<th>Pooled prevalence</th>
<th>CI</th>
<th>I$^2$ statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>7</td>
<td>11.9</td>
<td>43.4</td>
<td>87</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical</td>
<td>10</td>
<td>4</td>
<td>16</td>
<td>39</td>
<td>20</td>
<td>(12.4-28.9)</td>
<td>I$^2 = 95.9%$</td>
</tr>
<tr>
<td></td>
<td>(6 pooled)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual</td>
<td>5</td>
<td>0</td>
<td>2.9</td>
<td>26.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psych/Emotional</td>
<td>9</td>
<td>6</td>
<td>23.2</td>
<td>61</td>
<td>38.9</td>
<td>(16.8-63.8)</td>
<td>I$^2 = 99.3%$</td>
</tr>
<tr>
<td></td>
<td>(5 pooled)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>1</td>
<td></td>
<td>28.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>2</td>
<td>0</td>
<td>2.7</td>
<td>5.3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Lifetime prevalence

<table>
<thead>
<tr>
<th>Violence type</th>
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<th>Max</th>
<th>Pooled prevalence</th>
<th>CI I² statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>14 (8 pooled)</td>
<td>11.8</td>
<td>59.4</td>
<td>89.8</td>
<td>65.4</td>
<td>(44.8-83.4) 99.62%</td>
</tr>
<tr>
<td>Physical</td>
<td>17 (14 pooled)</td>
<td>7.7</td>
<td>31.3</td>
<td>78</td>
<td>34.3</td>
<td>(25.4-43.8) 98.87%</td>
</tr>
<tr>
<td>Sexual</td>
<td>11 (9 pooled)</td>
<td>4.3</td>
<td>17.1</td>
<td>48.3</td>
<td>22.3</td>
<td>(13-33.4) 98.97%</td>
</tr>
<tr>
<td>Psych/Emotional</td>
<td>14 (12 pooled)</td>
<td>14.7</td>
<td>48.8</td>
<td>72.9</td>
<td>48.2</td>
<td>(34.5-62.1) 99.39%</td>
</tr>
<tr>
<td>Control</td>
<td>3</td>
<td>68.8</td>
<td>88.4</td>
<td>92.6</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>Economic</td>
<td>6 (5 pooled)</td>
<td>12</td>
<td>36.9</td>
<td>53.3</td>
<td>40.4</td>
<td>(34.3-46.8) 87.3%</td>
</tr>
</tbody>
</table>
During pregnancy

<table>
<thead>
<tr>
<th>Violence type</th>
<th>Studies</th>
<th>Min</th>
<th>Median</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any</td>
<td>4</td>
<td>6.3</td>
<td>26.6</td>
<td>44.1</td>
</tr>
<tr>
<td>Physical</td>
<td>7</td>
<td>10.4</td>
<td>15.4</td>
<td>54</td>
</tr>
<tr>
<td>Sexual</td>
<td>4</td>
<td>1.2</td>
<td>7.9</td>
<td>15.5</td>
</tr>
<tr>
<td>Psych/Emotional</td>
<td>3</td>
<td>23.7</td>
<td>28.1</td>
<td>32.6</td>
</tr>
</tbody>
</table>
Health impacts
as reported by some papers (meta-analysis not yet performed)
Health impacts

• Which health outcomes used?
  • Broad range
  • Varied/no definitions

• How are these measured?
  • Self reported, from clinical records, screening/diagnostic tools
  • Yes/no questions or validated tools e.g. HADS for depression and anxiety

• We only included data from studies that compared health outcomes in survivors vs those not affected by DV.

• How to compare different outcomes with variable exposure e.g. lifetime any abuse vs 12m psychological abuse, or DV vs IPV?
Mental health impacts

statistically significant increased odds of illness with:

any DV, physical DV, sexual DV, psychological or emotional DV

• Depression 3.1, 3.5, 17.4
• Anxiety 4.3
• Suicidal thoughts 4.7, 5.1, 5.2, 5.8, 6.6
• Suicide attempts 5.1, 5.2, 6.3, 8.8

• Other significant associations: Anxiety and depression, stress, post-natal depression, distress, sleep problems/insomnia, addiction, memory and concentration problems

• Other studies found no association: Anxiety, suicidal thoughts, suicide attempts, postnatal depression, sleep problems
Gynaecological/obstetric health impacts

statistically significant increased odds of illness with any DV, physical DV, sexual DV, psychological or emotional DV

• Vaginal discharge 1.6, 2.3, 3.1
• Unplanned pregnancy 1.23, 1.6, 2.5, 6.4
• Abortion/miscarriage 1.3, 5.4, (RR) 10.9
• Premature labour (RR) 2.4, (RR) 5.7
• Fetal distress (RR) 2.7, (RR) 5.2

• Other significant associations: Vaginal bleeding, pelvic pain, contraceptive use, placental separation, PPH, intrauterine death, PROM, premature labour, neonatal death, low birth weight.

• Other studies found no association: Vaginal bleeding, unplanned pregnancy, contraceptive use, miscarriage/abortion, APH/retroplacental haemotoma/placental abruption, PPH, premature rupture of membranes, preterm labour
General health and medical illnesses

statistically significant increased odds of illness with any DV, physical DV, sexual DV, psychological or emotional DV

- Dizziness 1.9, 3.1
- Pain 2.2, 3.3, 3.5
- Medication use last 4 weeks 2.4
- Problems with daily activities 4.3
- Problems with walking 3.7

- Other significant associations: headache, hypertension, cardiovascular disease, diabetes, poor general health, movement problems/activity, joint pain, fibromyalgia, UTI, gastrointestinal, epilepsy

- Other studies found no association: headache, pain, hypertension, cardiovascular disease, diabetes, poor general health, movement/activity, medication use, joint pain, fibromyalgia, gastrointestinal
My reflections...

• Every stage takes longer than expected...
• Narrow down your focus at the start
• Clearly document all of your decisions and numbers as you go
• Contacting authors has been a great way to make links

• What a wonderful team – thank you!
References


• Clark, CJ., Khawaja, M., Lennon, R., Usta, J. (2010). *Gender-Based Violence in the Middle East Region: Research, Policy and Action*.


Thank you for listening