

Trauma, Violence, & Abuse

Global prevalence and mental health outcomes of intimate partner violence among women: A systematic review and meta-analysis

Journal:	<i>Trauma, Violence, & Abuse</i>
Manuscript ID	TVA-22-082.R2
Manuscript Type:	Review Manuscripts
Keywords:	Domestic Violence, Violence Exposure, Battered women < Domestic Violence, Mental Health and Violence, Domestic violence and cultural contexts < Domestic Violence < Cultural Contexts

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Manuscripts

Abstract

Background:

The aim of this systematic review was to assess the magnitude of the association between types of IPV and mental health outcomes and shed light on the large variation in IPV prevalence rates between low-middle income countries and high-income countries.

Methods: *Study design:* Systematic review and meta-analysis. *Data Sources:* Cochrane, MEDLINE, EMBASE, PsycINFO, CINAHL, and ASSIA. *Inclusion criteria:* quantitative studies published from 2012 to 2020 on IPV exposure in women aged 16+, using validated measures. *Analysis:* Random effects meta-analyses; subgroup analysis exploring heterogeneity across population groups in different economic contexts.

Results: 201 studies were included with 250,599 women, primarily from high income countries. Higher prevalence rates were reported for women's lifetime IPV than past year IPV. Lifetime psychological violence was the most prevalent form of IPV. Women in the community reported the highest prevalence for physical, psychological, and sexual violence in the past year compared to clinical groups. Perinatal women were most likely to have experienced lifetime physical IPV. Prevalence rates differed significantly ($p=0.037 - p<0.001$) for 'any IPV' and all subtypes by income country level. Meta-analysis suggested increased odds for all mental health outcomes associated with IPV including depression (OR=2.04 to 3.14), Post-Traumatic Stress Disorder (PTSD) (OR =2.15 to 2.66) and suicidality (OR=2.17 to 5.52).

Conclusions: Clinical and community populations were exposed to high prevalence of IPV and increased likelihood of depression, PTSD and suicidality. Future research should seek to understand women's perspectives on service/support responses to IPV to address their mental health needs. Work with IPV survivors should be carried out to develop bespoke services to reduce IPV in groups most at risk such as pregnant and/or help-seeking women.

Introduction

The United Nations General Assembly made a declaration in 1993 on the “Elimination of Violence against Women” (United Nations, 1993). Nevertheless, the global burden of violence against women remains alarmingly high. Worldwide, over a quarter (27%) of women aged 15-49 years who have been in a relationship report that they have been subjected to some form of physical and/or sexual violence by their intimate partner (World Health Organization, 2021b). Intimate partner violence refers to behaviour within an intimate relationship that causes physical, sexual or psychological harm, and includes acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours. This definition covers violence by both current and former spouses and partners (Sian Oram et al., 2022). A severe violation of human rights, IPV has human, societal and economic costs (Rhys, Barnaby, Roe, & Wlasny, 2019) and is increasingly recognised as a clinical and public health issue (Peterson et al., 2018; Walby & Olive, 2014). Although IPV is highly prevalent among women in the general population, as well as women attending clinical settings such as general practices, antenatal and postnatal clinics, accident and emergency services, gynaecology and family planning clinics (FRA European Union Agency for Fundamental Rights, 2014; Hawcroft et al., 2019; Makkai & Mouzos, 2004; Paulson, 2020), some evidence indicates that clinical studies report higher prevalence estimates of lifetime IPV amongst women than national surveys do (Beydoun, Beydoun, Kaufman, Lo, & Zonderman, 2012).

A wide range of short-term and long-term physical and mental health sequelae have been associated with IPV, such as an increased risk of injury (J. L. Fanslow & Robinson, 2011; Liu, Bush, Koyuturk, & Karakurt, 2020; Thomas et al., 2021), chronic pain (Al-Modallal, 2016; Dillon, Hussain, Loxton, & Rahman, 2013; Loxton, Dolja-Gore, Anderson, & Townsend, 2017), headaches or migraine (Campbell et al., 2018; Gerber, Fried, Pineles, Shipherd, & Bernstein, 2012), and gastrointestinal and gynaecological problems (Al-Modallal, 2016;

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3 Gibson et al., 2019; Karakurt, Patel, Whiting, & Koyuturk, 2017; Stockl & Penhale, 2015). The
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5 most frequently identified IPV-related mental health consequences include Post-Traumatic
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7 Stress Disorder (PTSD) (Baker et al., 2021; Brown et al., 2020; Charak et al., 2020; Gibbs,
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9 Dunkle, & Jewkes, 2018), anxiety (Brown et al., 2020; Charak et al., 2020; Daugherty, Pérez-
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11 García, Hidalgo-Ruzzante, & Bueso-Izquierdo, 2021), depression (Ahmadabadi et al., 2020;
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13 Daugherty et al., 2021; Gibbs, Dunkle, et al., 2018; Morris et al., 2020), suicidal thoughts
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15 (Kandeger & Naziroglu, 2021; Nair, Satyanarayana, & Desai, 2020), insomnia (Ezzati-
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17 Rastegar et al., 2020; Sanchez, Islam, Zhong, Gelaye, & Williams, 2016), and substance use
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19 and abuse (Alangea et al., 2018; Gibbs, Jewkes, Willan, & Washington, 2018; Reyes, Weiss,
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21 Swan, & Sullivan, 2020).

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26 The salience of IPV as a risk factor for mental health outcomes (MHO) requires further
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28 assessment. Previous systematic reviews of observational studies have identified associations
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30 between experiencing IPV and depression, suicide, PTSD and prenatal depression (Devries et
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32 al., 2013; L. M. Howard, Oram, Galley, Trevillion, & Feder, 2013; Shamblaw, Cardy, Prost,
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34 & Harkness, 2019; K. Trevillion, Oram, Feder, & Howard, 2012) with some reviews
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36 demonstrating a bidirectional relationship between IPV and mental health, and between mental
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38 health and IPV (Bacchus, Ranganathan, Watts, & Devries, 2018; Devries et al., 2013). A
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40 further review found increased odds of alcohol use following IPV (OR=1.25) and an increased
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42 likelihood of IPV following alcohol use (OR=1.27) (Devries et al., 2014). None of these
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44 reviews disentangled how different types of IPV impacted on different mental health outcomes
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46 in women, nor did they explore the differential impacts of IPV on different female populations,
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48 such as perinatal, help-seeking, or community-based (i.e., recruited from non-clinical settings).
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50 Therefore, this body of work does not provide a nuanced analysis that uncovers which
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52 population subgroups report higher prevalence estimates of IPV and associated mental health
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3 outcomes. Identifying groups at risk is key to allocating appropriate resources to service
4 provision and reaching those people.
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7 Gains made thus far in the global understanding of IPV against women come disproportionately
8 from studies based in high-income countries. This body of knowledge is important, but may
9 incorporate biases inherent in theory, methodologies, instrumentation, and meaning making in
10 the global North. Although internationally there have been calls to strengthen research to learn
11 better how to respond to violence, and calls for a global strategy and plan of action to tackle
12 violence against women (Garcia-Moreno et al., 2015; Guedes, Bott, Garcia-Moreno, &
13 Colombini, 2016), there is still limited investment in IPV research in most low- and middle-
14 income countries (LMICs) (Temmerman, 2015), with little research examining IPV impacts
15 on mental health. A recent study systematically reviewed the global literature on mental health
16 outcomes and risk factors for poor mental health among Indigenous women who experienced
17 IPV (Chmielowska & Fuhr, 2017). High rates of IPV were identified, with associated mental
18 health morbidities among Indigenous women who experienced physical violence from their
19 intimate partners. IPV was recognised as the strongest predictor of poor mental health. The
20 available evidence suggests that experiences of IPV and poor mental health among Indigenous
21 women are linked and exacerbated by poverty, discrimination, and substance use. A
22 comprehensive evaluation of observational and experimental studies carried out in low-,
23 middle-, and high-income countries is needed to assess the mental health impacts associated
24 with different types of IPV in women.
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49 To address the limitations of previous reviews, we conducted a systematic review and meta-
50 analysis, which aimed to (1) scope the mental health outcomes examined in observational and
51 experimental studies on IPV exposure in women; (2) quantify the prevalence of different types
52 of IPV (physical, psychological, and sexual) in the past year and across the lifetime among
53 different population subgroups; (3) quantify the magnitude of the association between IPV and
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3 different mental health outcomes in population subgroups; (4) explore how the prevalence of
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5 IPV types and association of IPV with mental health outcomes found in (2) and (3) vary with
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7 respect to a country's income level.
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10 **Method**

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12 The research team was supported by a small Survivors' Panel. The Survivor Panel met five
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14 times over the project life cycle to (1) shape the review's initial and evolving focus and
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16 priorities; (2 and 3) inform the conceptualisation of key issues; (4) identify key gaps in the
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18 review findings and future research priorities, and (5) contribute to dissemination and review
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20 the draft manuscript. Their involvement was supported by a third-sector organisation with IPV
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22 expertise.
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26 This systematic review and meta-analysis was registered on Prospero with the registration
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28 number (Mantovani et al., 2020) CRD42020177744. The review process followed PRISMA
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30 expanded guidelines (Page et al., 2021).
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33 *Data sources and search strategy*

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35 The search strategy comprised: (a) an electronic search of six bibliographic databases; (b)
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37 forwards/backwards citation tracking. The following databases were searched: Cochrane,
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39 MEDLINE, EMBASE, PsycINFO, the Cumulative Index to Nursing and Allied Health
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41 Literature [CINAHL], the Applied Social Sciences Index and Abstracts [ASSIA]) using
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43 Medical Subject Headings (MeSH) and text words from first week 2012 to 25 November 2020.
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45 The terms used to search for intimate partner violence (IPV) included domestic violence,
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47 spouse abuse gender-based violence, exposure to violence, physical abuse, rape, ((abuse* or
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49 abusive or assault* or aggress* or batter* or coerci* or control* or violen* or threat* or
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51 manipulati* or maltreat*) adj3 (physical* or sexual* or domestic or emotional* or
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53 psychological* or partner* or finan* or econom*). The terms for mental health outcomes were
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55 adapted from a previous review (Trevillion et al., 2012) and scrutinised and modified by the
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Survivors' Panel. The selection of mental health outcomes included in the review were based upon the most frequent outcomes associated with IPV in the broader literature (Dillons et al., 2013; Bacchus et al., 2018). The terms included depression; anxiety; post-traumatic stress symptoms; psychological distress; suicide ideation and suicide attempt; alcohol abuse. Authors of included articles were contacted to retrieve relevant information about their study that was either not reported or unclear from the article. An example of the search strategy can be found in the online data supplement (Text S1).

Study selection

For an illustration of the search and screening process see Figure S1. The study titles and abstracts were screened for relevance, and if there was insufficient abstract information to determine eligibility the full text was retrieved. Full-text articles were evaluated against the following criteria: (a) those that included non-military women who were 16 years or older and were assessed for IPV experiences (physical, psychological/emotional, and sexual) during their lifetime (lifetime IPV) or during the past year (i.e., 12 months prior to interview) using a validated IPV assessment tool; (b) those which presented the results of peer-reviewed research based on quantitative methodology that provided mental health outcome data for at least one time point. We categorised samples as clinical, perinatal and community sample. Clinical samples could be people seeking or using care from clinical services such as primary care, drug and alcohol services, and mental health services; studies which recruited pregnant women or women in their first year postnatal were categorized as perinatal samples. Studies recruiting from non-clinical settings such as nationally or regionally representative surveys, colleges or online sources were categorized as community samples.

Language was restricted to English publications from 2012 onwards as we built on Trevillion's (2012) systematic review. Papers involving research with both men and women were included if data was disaggregated. When we identified multiple eligible papers from the same study,

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3 only the paper reporting the largest sample size was included, unless the papers were reporting
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5 on different outcomes.

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8 Studies were excluded if they (a) included any participant aged 15 or younger or did not provide
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10 appropriate age-disaggregated data; (b) mental health outcomes were not assessed using a
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12 validated screening or diagnostic instrument **or validated symptom assessments** (i.e., reported
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14 clinical diagnosis without a validated instrument); and (c) reported IPV among veterans,
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16 serviceman/servicewomen, and the military. Recent systematic reviews have specifically
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18 examined IPV victimisation in military populations and associated mental health outcomes
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20 (Sparrow et al., 2020; Sparrow, Kwan, Howard, Fear, & MacManus, 2017; Kylee Trevillion et
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22 al., 2015).
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25 26 *Data extraction and analysis*

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28 Downloaded titles and abstracts, and full texts, were assessed by three reviewers (GdMK,
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30 CMG, JM) against the inclusion criteria. The prime investigator (NM) independently screened
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32 20% of each reviewer's results at each stage (title and abstract, and full text). If the abstract did
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34 not reveal whether a paper was relevant or not, the full text was retrieved and screened. Any
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36 disagreement on eligibility between screeners was resolved by including the paper at the full-
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38 text stage. Data was extracted from final papers including the settings, sample, country, study
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40 design, independent variables, type and timing of assessments, statistical methods, and relevant
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42 findings (extracted by NM, CMG, CW). The statistician (SW) extracted statistical data on
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44 prevalence, odd ratio (OR) and 95% confidence intervals (CI). Prevalence data were extracted
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46 to respond to the second aim highlighted above, with OR used as a measure of the strength of
47
48 the association between exposure to IPV and mental health. Mental health outcomes (reported
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50 as the presence or absence of different mental health disorders or symptoms) were extracted to
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52 respond to the third aim. Adjusted OR were extracted where available; where these were not
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3 available, crude OR were calculated from descriptive data where possible. The characteristics
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5 of included studies were summarised descriptively.
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8 Analyses were performed using Comprehensive Meta-analysis v.3 (Biostat Inc., 2014). Meta-
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10 analyses were conducted where at least three studies provided appropriate data for the analyses
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12 described below (i.e., the minimum requirement was that three studies were available to
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14 calculate the overall pooled OR before comparing between categories). Random effects model
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16 was used throughout to calculate the pooled estimates of prevalence rates or ORs and 95%
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18 confidence intervals (CI) for all meta-analyses to account for the substantial heterogeneity
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20 reported in similar systematic reviews (Castellvi et al., 2017; Zhang et al., 2019). Pooled
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22 estimates of prevalence and OR were reported for all groups of studies defined by timing (past
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24 year, lifetime), and type of IPV (any, physical, psychological, sexual). I^2 was used to quantify
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26 statistical heterogeneity (Higgins, Thompson, Deeks, & Altman, 2003). Where $I^2 > 50\%$
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28 (indicating heterogeneity of considerable concern) subgroup analyses were conducted breaking
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30 down pooled estimates by population (perinatal, community and help-seeking) and moderator
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32 analysis by World Bank income category (low, lower-middle, upper-middle, and high) to test
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34 if these two variables explained significant clinical heterogeneity. Cochran's Q-test
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36 (Borenstein & Higgins, 2013) was used to test for the differences between subgroups.
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38 Sensitivity analyses were conducted to test the robustness of pooled estimates. When
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40 estimating pooled prevalence, we explored the type of study design as a source of
41
42 methodological heterogeneity, and whether OR were adjusted or crude. Study designs were
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44 also tested as possible sources of methodological heterogeneity in meta-analyses of OR. If the
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46 sensitivity analyses systematically indicate that reported pooled parameter estimates vary by
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48 these methodological factors, confidence in the robustness of the results would be weakened.
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Assessment of study quality

Considering the wide variety of study designs, the integrated criteria for the review of multiple study designs ICROMS (Zingg et al., 2016) was used to assess study quality. This tool consists of two parts: (i) a list of quality criteria specific to different study designs (e.g., RCTs, cohort studies), and criteria pertinent across all study designs via a scoring system; and a ‘decision matrix’, which enables the assessment of the robustness of studies by identifying minimum scores consistent with study type. Studies were assessed for seven dimensions: clear aims and justification; managing bias in sampling or between groups; managing bias in outcome measurements and blinding; managing bias in follow-up; managing bias in other study aspects; analytical rigour; and managing bias in reporting/ ethical considerations. Each criterion was evaluated on a three-point scale (2 = criterion met; 1 = unclear; 0 = criterion not met). Two co-authors (NM and CW) independently assessed 25% of included articles with any disagreements resolved through discussion. These co-authors then each assessed half of the remaining 75% of articles. Whilst no studies were excluded on the basis of quality, it is important to consider the strength of the evidence in light of the overall quality of the evidence base.

Results

Key characteristics of included studies

Database searches resulted in 14,257 initial records, with 13,766 excluded following title and abstract screening. We assessed 491 full texts for eligibility, 290 were excluded. This meant that k=201 studies met all eligibility criteria, with a total of 301,182 participants (men and women). **Key characteristics of the included studies are summarised in table S1 (see online supplements), where each study is numbered and referred to in the results reported here.**

INSERT FIGURE 1 PRISMA FLOW CHART (SEE APPENDIX)

Participants

Study sizes ranged from 14 to 52,509 participants, with a median of 435. Together, the studies included 250,599 women. Of 201 studies; 134 recruited participants from clinical settings/with a clinical diagnosis, 67 recruited from the community. Of those 134 studies recruiting a clinical sample, the majority (k=68) were with perinatal women whilst the remaining recruited women exposed to IPV, or other clinical population such as help-seeking individuals (recruited from non-clinical settings). 27 studies recruited a mixed adult sample from which women only data was used.

Design and setting

Four different types of study design were used; 149 surveys, 42 cohort studies, seven randomised controlled trials and three case-control studies. The studies were conducted across 46 countries. The majority were conducted in the USA (k=69), with 12 in Brazil, eight in Australia and South Africa, seven each in Bangladesh, China and India, six in Canada and Tanzania, five in Spain, four in Thailand, Hong Kong, Turkey and the UK, three in Belgium, Korea, and Vietnam, two in Japan, Kenya, Greece, Jordan, Nepal, Nigeria, Pakistan, Peru, Portugal and Rwanda, and one each in Sweden, Austria, Bolivia, Cameroon, Chile, Egypt, Ethiopia, Ghana, Iceland, Iran, Italy, Lebanon, Malawi, Malaysia, Mexico, Mozambique, Burma and Syria. Three studies were multi-site across different countries and/or states: one set in Kenya and Zambia, another set in the USA, India, Nigeria, South Africa and China, and the other in Baltimore, MD, USA, St. Croix and St. Thomas, U.S. Virgin Islands. One hundred and fourteen studies were located in high income countries, 42 in upper-middle countries, 38 in lower-middle countries, and six in low-income countries. One of the multi-site studies was based across five countries with differing income levels: one high income country, two lower-middle income, and two upper-middle income countries.

Type of intimate partner violence (IPV) and measures

Studies measured different types of IPV (e.g., emotional/psychological violence, physical violence, sexual violence, controlling behaviour, and harassment) with most studies measuring more than one type. Studies used 45 different measures of IPV; whilst most employed just one IPV measure, 40 studies utilised several. The most used measures of IPV were a version of the Conflict Tactics Scale (Straus, 1979) used by 76 studies, the World Health Organization Multi-Country Study on Women's Health and Domestic Violence (Garcia-Moreno et al., 2006) used by 41 studies, the Abuse Assessment Screen (McFarlane, Parker, Soeken, & Bullock, 1992) used by 19 studies, the Composite Abuse Scale (K. Hegarty, Bush, & Sheehan, 2005) used by 17 studies, the Severity of Violence Against Women Scale (Marshall, 1992) used by 13 studies, The Psychological Maltreatment of Women Inventory (Tolman, 1999) used by 10 studies, the Sexual Experiences Survey (Koss & Gidycz, 1985) used by 7 studies and the Index of Spouse Abuse (Hudson & McIntosh, 1981) used by 6 studies.

Mental health outcome measures

The most frequently adopted outcome measures were the Center for Epidemiologic Studies Depression Scale (Radloff, 1977) which was used by 49 studies, the Edinburgh Postnatal Depression Scale (Cox, Holden, & Sagovsky, 1987) which was used by 30 studies, the Patient Health Questionnaire depression subscale (Kroenke, Spitzer, & Williams, 2001), used by 18 studies, the PTSD Checklist (PCL-5) (Weathers et al., 2013) used by 19 studies, and the Beck Depression Inventory (Beck, Steer, & Carbin, 1988) used by 9 studies. The Alcohol Use Disorders Identification Test (Saunders, Aasland, Babor, De la Fuente, & Grant, 1993) was used in 13 studies, with the Drug Abuse Screening Test (Skinner, 1982) used in four studies.

Overall study quality

Our evaluation of study quality, including actual and minimum ICROMS scores for study type, were as follows: for the 42 cohort studies, ICROMS global quality scores ranged from 22 to

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3 31 (mean = 26, ICROMS minimum score requirement = 18). The 149 cross-sectional studies
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5 ICROMS global quality scores ranged from 15 to 26 (mean = 21, ICROMS minimum score
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7 requirement = 16). The seven RCT studies ICROMS global quality scores ranged from 23 to
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9 29 (mean = 27, ICROMS minimum score requirement = 22). For the three case control studies,
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11 ICROMS global quality scores ranged from 23 to 27 (mean = 23, ICROMS minimum score
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13 requirement = 22).
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19 Findings

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21 Studies measured a variety of mental health outcomes, which in the language/construction used
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23 in the original studies included: depression (k= 144), anxiety (k=36), post-traumatic stress
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25 disorder (PTSD) (k=57), trauma (k=2), psychological distress (k=17), common mental health
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27 disorders (k=5), alcohol abuse (k=25), drug abuse (k=11), suicidal ideation (k=21), self-harm
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29 (k=2), stress (k=10), personality disorder (k=2), sleep disorder (k=2), mental health (k=10),
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31 psychosis symptoms/experiences (k=4), and others (k=4) (complex post-traumatic stress
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33 disorder, mood disturbance, symptoms of dissociation, and mental illness).
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40 Prevalence of 'any IPV' and type of IPV in women by population subgroup

41 *Past year*

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43 The prevalence of having experienced any IPV in the past year was 24.2% (95% CI 20.4%-
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45 28.4%, k= number of studies=86, I²=99.5%). Pooled prevalence rates varied by population
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47 subgroups (Q=6.1 p=0.047) with women in the community reporting the highest prevalence at
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49 31.6% (95% CI 24.0%-40.4%, k=27, I² 99.7%), compared to women in clinical settings.
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51 Prevalence rates were 25.1% for help-seeking women (95% CI 14.9%-39.1%, k=13, I² 98.4%)
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53 and 20.2% for perinatal women (95% CI 15.9%-25.2%, k=46, I² 99.2%).
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3 Psychological violence was the most prevalent type of IPV in the past year at 27% (95% CI
4 22.1%-32.4%, $k=72$, $I^2=99.6\%$), although prevalence did not vary by population ($Q=2.8$,
5 $p=0.249$). The lowest prevalence was reported for sexual IPV at 10.1% (95% CI 7.6%-13.2%,
6 $k=65$, $I^2=99.4\%$), with a pooled prevalence of 15.7% for physical violence (95% CI 12.8%-
7 19.1%, $k=80$, $I^2=99.4\%$). Both physical and sexual IPV had prevalence rates which differed by
8 population subgroups ($Q=8.6$ $p=0.013$ and $Q=7.2$ and $p=0.027$, respectively). Physical IPV
9 was most reported by help-seeking women at 23.0% (95% CI 13.5%-36.4%, $k=9$, $I^2=98.1\%$)
10 whilst the pooled prevalence rate for perinatal women was 12.3% (95% CI 8.9%, 16.7%, $k=48$,
11 $I^2=99.4\%$). Women in the community had the highest prevalence of sexual IPV at 17.2% (95%
12 CI 10.3%-27.2%, $k=21$, $I^2=99.6\%$), with women in the perinatal period again having the lowest
13 at 7.3% (95% CI 4.9%-10.1%, $k=37$, $I^2=99.2\%$).
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28 *Lifetime*

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30 The pooled prevalence of lifetime 'any IPV' was 37.3% (95% CI 30.6%-44.6%, $k=31$,
31 $I^2=99.3\%$) with no significant difference between population subgroups, $Q=1.9$ $p=0.396$.
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33 Whilst lifetime psychological violence was reported by 32.8% of women overall (95% CI
34 23.1%-44.0%, $k=24$, $I^2=99.7\%$), prevalence rates differed significantly by population
35 subgroups, $Q=9.8$ $p=0.007$. Women in the community had the highest pooled prevalence at
36 40.5% (95% CI 25.3%-57.7%, $k=15$, $I^2=99.8\%$), with lifetime psychological IPV considerably
37 lower in help-seeking women at 15.1% (95% CI 7.8%, 24.9%, $k=5$, $I^2=94.6\%$). The pooled
38 prevalence for lifetime physical violence was estimated at 18.3% (95% CI 13.5%-24.4%, $k=27$,
39 $I^2=99.4\%$) with perinatal women reporting the highest pooled prevalence at 28.8% (95% CI
40 19.9%-39.7%, $k=6$, $I^2=99.0\%$). The lowest pooled prevalence was reported for sexual violence,
41 at 9.6% (95% CI 7.0%-13.0%, $k=22$, $I^2=98.9\%$).
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Association between past year experience of type of IPV and mental health outcomes

We report here the estimates of the association between type of IPV in the past year among women and mental health outcomes, quantified by OR.

Depression

Estimates of the association between IPV victimisation and depression were reported in studies examining physical (k=24), psychological (k=21), and sexual IPV (k=19). We found that experiences of physical IPV were associated with the highest increased odds of depression, with a pooled OR of 3.14 (95% CI 2.42-4.08, $I^2=85.6\%$), with OR=2.54 for psychological IPV (95% CI 1.93-3.34, $I^2=90.3\%$), and OR=2.04 for sexual IPV (95% CI 1.49-2.80, $I^2=87.1\%$). Population subgroups explained significant heterogeneity for both physical and psychological IPV, $Q=22.8$ $p<0.001$ and $Q=13.7$ $p<0.001$ respectively. The pooled OR for help-seeking women was highest across all violence sub-types, although this was based on one study only. Women in the community had the lowest odds of depression across violence subtypes (see Figure 2).

Anxiety

Estimates of the association between IPV victimisation and anxiety were reported in studies examining physical (k=6), psychological (k=5), and sexual IPV (k=4). We found that sexual violence was associated with the highest increased odds of anxiety OR=2.34 (95% CI 1.78-3.07, $I^2=13.0\%$); similarly, physical violence was associated with OR=2.30 (95% CI 1.91-2.77, $I^2=0\%$). Low heterogeneity meant that population subgroup differences were not tested. The association between psychological violence and anxiety was the lowest, with OR=1.86 (95% CI 1.17-2.96, k=4, $I^2=61.9\%$).

Post-Traumatic Stress Disorder (PTSD)

While the OR for the association between IPV types and PTSD ranged from 2.15 for sexual IPV (95% CI 0.83-5.57, k=3, $I^2=86.1\%$) to 2.66 for psychological IPV (95% CI 0.57-12.36,

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3 k=3, $I^2=84.1\%$) it should be noted that the lower limit of the 95% CI is less than 1 for all IPV
4 types, indicating that the ORs are not significantly different from 1, $p>0.05$. All these studies
5 were with perinatal women.
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8 *Psychological distress*

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10 The association between types of IPV and psychological distress did not vary greatly, ranging
11 from OR=2.03 for psychological IPV (95% CI 1.56 - 2.64, $k=8$, $I^2=79.4\%$) to OR=2.53 for
12 sexual IPV (95% CI 2.03 – 3.14, $k=6$, $I^2=0.0\%$). Help-seeking women reported the highest
13 pooled odds of psychological distress associated with physical violence and psychological
14 violence, though there was only one study per violence sub-type.
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23 *Suicidal ideation*

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25 Estimates of the association between physical IPV and suicidal ideation were reported in three
26 studies. Physical IPV was associated with the highest odds of suicidal ideation, pooled
27 OR=4.85 (95% CI 2.93-8.04, $I^2=31.3\%$). Four studies examined the association between
28 psychological IPV and suicidal ideation, producing a pooled OR=2.17 (95% CI 0.94-5.02,
29 $I^2=82.1\%$). However, the lower limit of the CI falls below 1.
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38 **INSERT FIGURE 2 FOREST PLOT**

39 The association between lifetime experience of IPV and mental health outcomes

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41 We examined the association between lifetime ‘any IPV’ and depression, psychological
42 distress and suicidal ideation, and physical and psychological IPV type with depression.
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45 The lifetime experience of ‘any IPV’ was associated with a fivefold increased odd of suicidal
46 ideation, OR=5.52 (95% CI 1.73-17.58, $k=4$, $I^2=83.3\%$), but with high heterogeneity between
47 studies. This heterogeneity is inflated by one study (Jina et al., 2012) which reported an OR of
48 79.0, considerably bigger than the other studies. This study recruited young women, aged 15-
49 26 participating in a HIV prevention intervention. A strong association between lifetime
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3 experience of 'any IPV' and suicidal ideation remained after removing this study, which
4 reduced the pooled OR to 3.14 (95% CI 2.70-3.66) and substantially narrowed the CI and
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6 reduced the I^2 to 0%. The lifetime experience of 'any IPV' was associated with threefold
7
8 increased odds of psychological distress, OR=3.42 (95% CI 2.80-4.18, $k=4$), with low
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10 heterogeneity among studies, $I^2=20.6\%$. Estimates of the association between 'any IPV' across
11
12 the lifetime and depression showed an increased odd of depression, pooled OR=2.24 (95% CI
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14 1.70-2.94%, $k=7$, $I^2=72\%$).

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17 The experience of lifetime physical IPV was associated with increased odds of depression,
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19 pooled OR=2.19 (95% CI 1.86-2.57, $k=4$) with low heterogeneity $I^2=8.9\%$ between studies.
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21 The experience of lifetime psychological IPV was associated with smaller increased odds of
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23 depression, pooled OR=1.72 (95% CI 1.05-2.81, $k=5$, $I^2=84.8\%$).

24 25 26 27 28 29 30 31 Examination of country income level as a moderator

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33 Figure 3 shows a forest plot for pooled prevalence rates of 'any IPV' and type of IPV in the past
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35 year by country income levels. Prevalence rates differed significantly ($p=0.037 - p<0.001$) for
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37 'any IPV' and all subtypes by country income levels. The highest prevalence of 'any IPV' in
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39 the past year was reported in low-middle income countries: 41.2% (95% CI 33.8%-49.1%,
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41 $k=22$, $I^2=99.3\%$) compared to 18% in high-income countries (95% CI 14.3%-22.4%, $k=37$,
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43 $I^2=99.2\%$). Similar patterns were seen for lifetime IPV, highest in low or low-middle income
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45 countries, lowest in high income countries. A mediation examination of perinatal studies based
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47 on country income level found the same pattern.

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50 Country income levels explained significant heterogeneity in studies estimating the association
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52 between physical IPV in the past year and depression ($Q=15.8$, $p<0.001$): the highest pooled
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54 OR was in upper-middle income countries, OR=6.33 (95% CI 4.67-8.57, $k=3$, $I^2=0.0\%$), and
55
56 the lowest was in low-income countries, OR=2.53. Country income levels explained significant
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heterogeneity in the association between psychological IPV and anxiety, $Q=9.0$, $p=0.030$, but the small number of studies within subgroups make any inferences unwise.

Figure 4 shows the forest plot for pooled prevalence rates of lifetime 'any IPV' and type of IPV by country income levels. Lifetime prevalence of physical IPV varied across country income levels, $Q=7.4$, $p=0.025$, with highest lifetime prevalence in low-middle income countries, 27.7%, in contrast to high income countries, 10.3%. This pattern is repeated for sexual IPV; the pooled prevalence of lifetime sexual IPV in low-middle income countries is 19.9%, (95% CI 15.2%-25.5%, $k=7$, $I^2=97.4\%$) and a quarter of this is in high income countries at 5.3% (95% CI 1.7%-15.3%, $k=7$, $I^2=99.4\%$).

The association between any lifetime IPV and depression varied significantly by country income levels ($Q=8.9$ $p=0.012$), with the strongest association, $OR=3.06$, in upper-middle income countries. Country income levels explained significant heterogeneity in the association between any lifetime IPV and suicidal ideation, $Q=17.9$ $p<0.001$. However, the one upper-middle income country study (Jina et al., 2012*) may be an outlier as it was a study of young women aged 16-26 from socially marginalised populations, making any inference invalid.

INSERT FIGURE 3 AND 4 FOREST PLOT

Sensitivity analysis

Eleven meta-analyses were conducted to estimate the pooled prevalence rates of IPV. In three of these, the study design, cross-sectional survey or cohort was shown to significantly affect the pooled prevalence rates ($p<0.05$), with surveys producing higher estimates of prevalence. Twenty-four meta-analyses were conducted to estimate the pooled OR of the association between IPV types and mental health outcome. In two of the 24, the study design, cross-sectional survey or cohort was shown to significantly affect the pooled OR ($p<0.05$). Seven of the 24 studies involved in the meta-analysis were surveys. The type of OR was also investigated

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3 as a source of methodological heterogeneity. In four of the 24 meta-analyses, the adjusted OR
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5 were significantly higher than the crude OR. Three out of 24 meta-analyses reported adjusted
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7 OR.
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11 12 **Discussion**

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14 This systematic review and meta-analysis synthesised primary data from published research
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16 papers (2012–2020) on the prevalence of lifetime and past year IPV amongst women. It also
17
18 synthesised data on the associations between IPV exposure and mental health outcomes such
19
20 as depression, anxiety, PTSD, psychological distress and suicidal ideation. The novel
21
22 contributions of this work are four-fold. Firstly, this synthesis is composed of studies using
23
24 multiple research designs in low, middle and high-income countries. Conclusions drawn from
25
26 previous reviews have been based primarily in high-income countries, or specific global
27
28 regions, limiting their generalizability. Secondly, this synthesis adds to the literature evidence
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30 for lifetime and past year type of IPV in both clinical and community populations. Thirdly, this
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32 synthesis delineates the effects of both lifetime and past year type of IPV and associated mental
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34 health outcomes in population sub-groups and across socio-economic settings. Fourthly, the
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36 large number of studies included provided a rich dataset, allowing rigorous moderator and
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38 subgroup analyses.
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44 *Summary of the main prevalence findings*

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46 Our review identified prevalence rates for both lifetime and past year IPV in studies recruiting
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48 women from community and clinical settings (perinatal and help-seeking). Our study confirms
49
50 that, concerningly, lifetime and past year experience of ‘any IPV’ experienced by women is
51
52 highly prevalent in global terms. Overall, we found that nearly four in ten (37.3%) women aged
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54 16 and over had experienced ‘any IPV’ in their lifetime, and one in four women (24%) had
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56 experienced ‘any IPV’ in the past year. Our results indicate that psychological IPV in the past
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3 year and lifetime was the most prevalent form of IPV, whilst sexual IPV in the past year and
4
5 lifetime was the least prevalent among women. In terms of population subgroups, our study
6
7 found significant variations: women in the community are at a significantly high risk of
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9 experiencing any form of IPV and sexual IPV in the past year, and lifetime psychological IPV;
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11 help-seeking women are at a significantly high risk of experiencing physical IPV in the past
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13 year; and women in the perinatal period are at a significantly high risk of experiencing lifetime
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15 physical IPV.
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19 We found a discrepancy in the global reporting of women's lifetime experience of IPV. Our
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21 review reports a higher pooled prevalence rate for lifetime experience of 'any IPV' than a
22
23 multi-national study conducted in 81 countries. The (World Health Organization, 2013)
24
25 recorded global lifetime prevalence of IPV, combining both physical and/or sexual IPV, among
26
27 ever-partnered women aged 15 and over at 30.0%. Lower global estimates were also
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29 highlighted by a recent study (L. Sardinha, Maheu-Giroux, Stockl, Meyer, & Garcia-Moreno,
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31 2022) where 26% of ever-partnered women aged 15 years and older were estimated to have
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33 experienced physical or sexual IPV, or both, at least once in their lifetime. Sardinha and
34
35 colleagues' study also reported much lower global rates of past year experience of physical or
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37 sexual violence, or both, by a partner among ever-partnered women aged 15–49 years. Neither
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39 of these studies examined psychological IPV. Despite the increasing recognition of the often
40
41 invisible but impactful nature of psychological trauma, including coercion and/or control, most
42
43 of the research has focused on physical IPV (FitzPatrick, Brown, Hegarty, Mensah, & Gartland,
44
45 2022). It needs to be specified that the overlapping confidence interval (CI) highlighted in the
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47 forest plots above make interpretation difficult. Moreover, figure 3 and 4 meta-analysis on
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49 studies from low-middle countries have particularly wide CIs, indicating that those analysis
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51 results are less robust, probably due to the smaller number of studies/ data available.
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3 In comparison to other studies focusing on **perinatal IPV**, our study reported higher prevalence
4 rates for physical IPV in the lifetime among women in the perinatal period. For example, the
5 study by Román-Gálvez et al. (2021) reporting global prevalence rates of IPV in pregnancy,
6 recorded a 9.2% pooled estimate for physical IPV. The prevalence rates of physical IPV in
7 pregnancy ranged from 0.7% to 55.1% across 126 studies. Their lower estimates for this type
8 of IPV might be explained by the fact that the authors measured physical IPV **during** pregnancy
9 but reported it as lifetime (Román-Gálvez et al., 2021). It could also be because physical IPV
10 sometimes involves medical treatment-seeking and/or police, and social services, making it
11 more detectable, clearly identified, and categorised. Importantly, intrinsic in physical IPV is
12 the psychological/emotional IPV that women experience (e.g. fear, anxiety), as abusive
13 partners' induction of fear is known as one of the primary mechanisms through which they
14 achieve control (Jaquier & Sullivan, 2014). As such, categorisations of the different types of
15 violence are overlapping rather than mutually exclusive. This systematic review found that the
16 prevalence for IPV among help-seeking women was lower than women in the community,
17 **which can be understood in the light of the following factors reported in the literature:** lack of
18 inclusion of IPV as an exposure or an outcome in mental health research (Sian Oram et al.,
19 2022); poor accuracy of the tools developed for health-care settings for clinical and research
20 use (Feltner et al., 2018); and the **under**-detection of violence experiences in clinical practice
21 with service users being reluctant to disclose such experiences in the absence of direct
22 questioning (Louise M Howard et al., 2010; Rose et al., 2011). In addition, our findings related
23 to the higher risk of past year physical IPV exposure among help-seeking women align with
24 those reported in the systematic review (S. Oram, Trevillion, Feder, & Howard, 2013) on the
25 prevalence of IPV among service users in a variety of mental health settings. Oram and
26 colleagues found the median prevalence for female in-patients was 26%. Survey data from the
27 UK has consistently reported that prevalence of IPV is particularly high in people in contact
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3 with secondary mental health services (Khalifeh et al., 2015). We were unable to draw
4 conclusions on the extent to which people seeking help from mental health services are at
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6 greater risk than general population because none of the studies surveyed for our review
7
8 included a direct comparison with a general population or other clinical comparison group.
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11 Our data support the assumption that women tend to experience psychological IPV in greater
12 frequency and regularity than other types of IPV (K. L. Hegarty et al., 2013; Henning &
13 Klesges, 2003). In relation to sexual violence, there is some evidence from population-based
14 studies that changes are occurring in the reported prevalence rates. For example, a recent study
15 conducted in New Zealand (J. Fanslow, Hashemi, Malihi, Gulliver, & McIntosh, 2021), using
16 data from two cross-sectional population-based surveys, found changes in the reported
17 prevalence rates of sexual IPV between 2003 and 2019 with a significant decrease in the
18 reported lifetime prevalence of sexual IPV, from 16.9% in 2003 to 13.1% in 2019. It is possible
19 that societal actions such as changes in legislation and the introduction of prevention campaigns
20 and programmes have resulted in slow changes in perpetrator behaviour. However, low rates
21 of sexual violence may also be imputed to under-reporting/detection of sexual violence,
22 aggravated by factors such as the sensitivity of the subject (Watts & Zimmerman, 2002); the
23 taboo surrounding sexual violence in certain cultures and countries (Kalra & Bhugra, 2013);
24 survivors' perception and experience of disclosure in healthcare settings (Heron & Eisma,
25 2021); the fear that seeking help would lead to child protective services involvement; and the
26 child being removed from the survivors' home (Sohal et al., 2020), and changes in penalties,
27 policies and legislation (Dowds & Agnew, 2022).
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51 Pooling of the prevalence data might be misleading. Variations on the prevalence of IPV
52 reported in the studies surveyed can be ascribed not only to the differences in the levels of
53 violence between settings, but also to differences in research methods, definitions of violence,
54 sampling techniques, interviewer training and skills, and cultural and other differences that
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3 affect respondents' willingness to reveal intimate experiences (Watts & Zimmerman, 2002).
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5 Nevertheless, by exploring how the prevalence rates vary, when pooled across selected
6
7 population groups, it can help to determine whether the pooling of all prevalence data is in
8
9 effect misleading. The discussion above seeks to explore the consistency of the pooled
10
11 prevalence rates found.
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14 Disparities can also be attributed to the availability of services - not just mental health - but
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16 police, social services, and charities. Clinical studies are also difficult to compare due to the
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18 heterogeneity of settings, age of the women and again the definition of partner violence. There
19
20 is, for example, lack of clarity among clinicians and researchers regarding how to assess
21
22 psychological IPV because definitions of IPV, and operationalisation of definitions of IPV,
23
24 differ across and within disciplines and sectors reflecting the different priorities of agencies
25
26 (Sian Oram et al., 2022). Data collection on IPV and other forms of violence need
27
28 improvement, coordination and cooperation among multiple agencies (e.g., health services,
29
30 specialist services, criminal justice, welfare services) which currently is lacking. Therefore,
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32 when assessing these findings, it is important to note that violence against women is almost
33
34 universally under-reported (Watts and Zimmerman, 2002). Multiple reasons can be found for
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36 this under-reporting such as women not recognising that they are experiencing violence, not
37
38 feeling able to report violence as they may be not in a private setting and the way IPV questions
39
40 are framed by professionals. Many women do not formally report IPV because there are few
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42 consequences for perpetrators and women fear reprisals as they have nowhere else to go and
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44 systems have little ability to protect them (Evans & Feder, 2016; Hawkins & Laxton,
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46 2014). Thus, the findings in our review might be better understood as representing the minimum
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48 levels of violence that occur.
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Summaries of mental health harms of IPV

The most common mental health outcomes reported in this study were depression (70% of all included studies), PTSD (29%) and anxiety (17%). Our meta-analysis found consistent evidence that IPV exposure significantly impacts the mental health of women by increasing the risk of adverse outcomes such as depression, suicidal thoughts and attempts, anxiety, PTSD and psychological distress. This chimes with previous research highlighting the association between IPV and the development of anxiety, PTSD, eating disorders, depression and suicidal ideation (Bacchus et al., 2018; Dillon et al., 2013; Loxton et al., 2017; Sugg, 2015). When examining IPV types, the meta-analysis found significant associations between depression, psychological distress and suicidal ideation and any types of IPV, as well as the combined measure for 'any' lifetime or past year IPV, suggesting that differential exposures to IPV impact mental health in unique ways. This points to the importance of disaggregating analyses of types of IPV in research.

The high risk of suicidality resulting from IPV reported in this review is compatible with existing research examining IPV and suicidality, indicating a consistent relationship between experience with IPV and risk of suicidal thoughts, attempts and completion (Gibbs, Dunkle, et al., 2018; Grose, Roof, Semenza, Leroux, & Yount, 2019; Kavak, Aktürk, Özdemir, & Gültekin, 2018; McLaughlin, O'Carroll, & O'Connor, 2012; Wolford-Clevenger & Smith, 2017). The fivefold increased risk of suicidal ideation for 'any IPV' in the lifetime and for physical IPV in the past year, reported in our review, are congruous with those highlighted in a systematic review of longitudinal studies by Devries et al. (2013). These authors found a positive association between physical and/or sexual IPV exposure and incident suicidal attempts with an estimated effect ranging from OR = 3.2 to 7.97. However, included in our review was Jina and colleagues' (2012) study which reported an OR of 79.0, considerably bigger than the other studies, limiting comparability. Evidence suggests that socially

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3 marginalized populations of women exposed to IPV are at even greater risk of suicidality,
4 especially among women living with HIV (Gielen, McDonnell, O'Campo, & Burke, 2005).
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Gielen and colleagues found that HIV-positive women who reported lifetime or past year IPV exposure were more likely to report suicidal thoughts and attempts than (a) women who were HIV negative and exposed to IPV, or (b) women who were HIV positive and not exposed to IPV. Mechanisms that might explain this association between IPV and suicidality, based on the Interpersonal Theory of Suicide, include hopelessness, isolation, unemployment, sleep disturbances, poor mental health, and physical illness (Van Orden et al., 2010), all of which are independently associated with IPV (Black, 2011).

The highest increase in odds of depression was associated with the experience of physical violence for both women in the perinatal period and help-seeking women. In most of the studies researching women during the perinatal period, participants were attending a health centre for pregnancy care, a time in which women have high health needs for themselves and their unborn child. During these routine checks, evidence of violence and/or associated depression can be picked up by professionals who can put into place support and measures to protect women and the unborn child from IPV. Researchers have suggested that pregnancy could be a trigger for IPV. In the WHO multi-country study on women's health and violence against women, the majority of women who reported physical abuse during pregnancy had also been beaten prior to getting pregnant (Potter, Morris, Hegarty, Garcia-Moreno, & Feder, 2021). The coexistence of IPV and depression impacts the health and wellbeing of both women and their children in ways such as premature birth; low-birth weight infants; neonatal and infant mortality (Campbell, 2002; Pastor-Moreno et al., 2020); and lack of mother and child bonding. The latter includes the impact of perpetrators forbidding women in the postnatal period to express their affection and care for their baby and making it difficult to take close care of their new-born after childbirth (Mazza et al., 2021). Compared to our study, previous systematic reviews

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3 reported a smaller risk of developing post-partum depression associated with physical violence
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5 (OR = 1.90) (Zhang et al., 2019), and a moderate effect size for physical abuse and prenatal
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7 depression ($r = 0.271$) (Shamblaw et al., 2019).
8
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10 In our review, help-seeking women were at the highest risk for depression across all forms of
11
12 violence experienced in the past year. The help-seeking women in our study were mostly
13
14 women with severe mental health problems and addiction, HIV seropositive/seronegative
15
16 female drug users, or incarcerated women receiving treatment for their mental health, which
17
18 may have played a role in the higher risk of depression and/or risk of experiencing violence.
19
20 Although our research is not making claims about causality, other researchers have provided
21
22 evidence of a bidirectional relationship suggesting that women with severe mental health
23
24 problems are more likely to experience violence, as well as being more likely to develop mental
25
26 health problems as a consequence of violence (Khalifeh et al., 2015; Tsai, Tomlinson,
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28 Comulada, & Rotheram-Borus, 2016). In their study, Tsai et al., (2016) found that depression
29
30 severity was associated with a greater risk of subsequent IPV. Each 5-point difference in the
31
32 Edinburgh Postnatal Depression Scale (EPDS) was associated with a 0.9-point to 2.3-point
33
34 difference in subsequent IPV risk ($\beta=0.054$). Longitudinal studies have demonstrated that
35
36 IPV increases the likelihood of depression among women with no previous history of
37
38 symptoms and there is also an association between depression and subsequent IPV (Devries et
39
40 al., 2013). The reported evidence is suggestive of an association between IPV and incident
41
42 depression (OR=1.97), as well as an association in the reverse direction between depression
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44 and incident IPV (OR=1.93). More than 10% of postnatal depression, for example, may be
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46 potentially attributable to IPV (L. M. Howard et al., 2013). While research has established an
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48 association between depression symptoms and IPV victimization and perpetration (S Oram,
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50 Trevillion, Khalifeh, Feder, & Howard, 2014; Spencer et al., 2019; K. Trevillion et al., 2012)
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3 the temporal relationship between these two experiences remains unclear. Studies have focused
4 on IPV victimization and have not examined the reciprocal relationship between depression
5 and IPV perpetration. In part, this reflects the lack of availability of longitudinal studies that
6 include measurement of different types of IPV victimization and/or perpetration to establish
7 the relative order of victimization/perpetration versus depression symptoms (Chatterji & Heise,
8 2021).

9
10 In the studies reviewed, psychological distress was used to describe an overall measure of
11 morbidity such as depression, anxiety and somatisation. In our study, the experience of sexual
12 IPV in the past year contributed to the highest risk of psychological distress among women.
13 Sexual IPV has received relatively little attention across research, policy, and practice
14 (McOrmond-Plummer, Easteal, & Levy-Peck, 2014; Parkinson & Reid, 2014), with the
15 exception of some important work in the 80s and 90s (Bergen, 1995; Finkelhor & Yllo, 1982;
16 Russell, 1990). Whilst there have been some limited attempts to unpack and understand this
17 complex and hidden problem (Tarzia, 2021), sexual IPV remains, for the most part, heavily
18 stigmatised and wrapped in silence. This was the case even though women survivors of sexual
19 violence by an intimate partner can also be exposed to ongoing abuse (Mahoney, 1999), often
20 alongside physical or psychological violence that can last for many years (Easteal &
21 McOrmond-Plummer, 2009; World Health Organization, 2013). A qualitative study (Tarzia,
22 2021) highlighted the complexity of women's emotional responses to sexual IPV which were
23 intrinsically tied to their level of awareness of what constitutes abuse, as well as the feelings
24 women had for the perpetrator and the broader patriarchal norms around heterosexual relations.
25 They found that women struggled to identify and name sexual IPV when it took the form of
26 non-physical coercion and demonstrated that women struggled no matter what type of sexual
27 IPV they experienced.

Accounting for heterogeneity

Significant heterogeneity between study in this area of research was expected (Castellvi et al., 2017; Zhang et al., 2019). We tested population group and income level as possible sources of that heterogeneity. However, it is clear from the high levels of heterogeneity within group statistics that other factors are also at work. Studies from countries of different income levels were not evenly distributed, with a particular lack of studies from low-income countries. This affected our ability to explore income level as a moderator. However, some important patterns were identified. The large variation in IPV prevalence rates between low-middle income countries and high-income countries reported in this review, are consistent with the different social, economic and political circumstances that are associated with IPV and limit women's ability to leave abusive relationships, such as economic insecurity, gender inequitable norms, high levels of societal stigma, economic insecurity, discriminatory family law and inadequate support services (L. M. Sardinha & Catalán, 2018). Currently mental health provision and understanding of mental health problems/needs resulting from IPV are poor in LMICs, with long-term studies or research studying lifetime IPV in LMI countries being relatively limited. In addition, globally there is a mismatch between the high need for mental health care and persistent scarcity of financial resources, workforce and infrastructure resources for mental health services, with research indicating that more than half of people with a mental health problem are not receiving treatment globally (Kohn, Saxena, Levav, & Saraceno, 2004). There are also large variations in mental health expenditure per capita in high-income and low-income countries, and significant differences in the presence of mental health workforces of psychiatrists, nurses, psychologists, and social workers across low-high income countries (World Health Organization, 2018). Contrary to the global North, in LMICs mental health is not often construed as a medicalised issue, meaning women exposed to IPV experiencing psychological distress may not necessarily go to a doctor or clinic to report these symptoms,

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3 but rather may turn to their religious/faith leader or to their network of friends and family
4 (Rathod, Kingdon, Pinninti, Turkington, & Phiri, 2015). ‘Stakeholder collaboration’ (World
5 Health Organization, 2018) with wider communities such as faith-based organisations was
6 adopted in LMICs in recent years as a means of intersectoral integration aimed at more
7 responsive mental health and social care services in community-based settings.
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12 In addition, although globally IPV against women is embedded in a broader system of unequal
13 power relations characterized by widespread gender-based discrimination, gender norms and
14 stereotypes (Garcia-Moreno et al., 2015), in LMICs women generally have less access to the
15 resources and power that make avoiding, reporting, or escaping IPV possible (Collins, 2004;
16 World Health Organization, 2013). Acute and chronic circumstances such as poverty, conflict,
17 natural disasters, disease and infection, and lack of access to support services and legal
18 protections are all factors that increase vulnerability to IPV (World Health Organization, 2005).
19 Nevertheless, the lived experiences of women in LMICs are not uniform, but rather are context-
20 dependent and shaped by local norms and social structures.
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38 **Strengths and limitations of this review**

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40 Several factors contributed to the quality of this study. A comprehensive search of the global
41 literature, including citation tracking, was conducted. Double screening of a random sample of
42 search results was employed. Our data extraction process was rigorous and thorough; a
43 statistical expert was responsible for extracting, checking, and calculating (if necessary)
44 quantitative data from the included papers, alongside three other reviewers. The large dataset
45 allowed for accuracy in moderator and sensitivity analyses.
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53 Additionally, we reported studies using clinical (i.e. healthcare seeking), perinatal and
54 community samples, as different types of studies are useful. Whilst community samples give a
55 better estimate of population prevalence, clinical and perinatal samples are essential for
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3 understanding the impact of IPV on health services and can inform adaptations to clinical care
4 and health service provision. In our review, several studies in non-English speaking countries
5 conducted interviews in native languages with translated and validated screening tools (e.g.,
6 Chinese, Japanese), which may improve the generalisability of results. Moreover, the study
7 provided insights on what patterns of exposure to IPV were more strongly associated with
8 different mental health outcomes. A further strength is the involvement of experts by
9 experience by way of a Survivors' Panel who contributed to the review at multiple, key stages,
10 grounding our approach, conceptualisations and data interpretations in lived experiences.

11
12 Although we adopted thorough and comprehensive literature searches in this review, it is
13 possible that the exclusion of non-English language studies may have limited the
14 generalisability of our findings. Moreover, other limitations include our review being limited
15 by the mental health outcomes that are reported in the literature, which tend to use medical
16 constructs (e.g., depressive symptoms, suicidal ideation) and means that we were unable to
17 explore the constructs of particular interest to our Survivor Panel, such as understanding
18 'symptoms' as protective coping strategies and broader mental health outcomes relating to
19 wellbeing. Hindering this review is the fact that studies from different income countries were
20 not evenly distributed, affecting the analysis. The limitations of the reported analyses reflect
21 the reliance on the availability and quality of existing data/literature. Although there has been
22 an increase in the number of national population-based surveys with such data, there are gaps
23 in the availability of data in some geographical regions. Furthermore, most estimates in this
24 study are based on women's self-reported experiences of IPV. Given the sensitive nature of the
25 issue, the true prevalence of physical, psychological, and sexual IPV is likely to be much
26 higher. Survey design and implementation, including interviewer training, play an important
27 role in enabling disclosure and affect survey results (World Health Organization, 2001).

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3 Only instances of female victims were included in the review and meta-analysis which may be
4 considered a limitation. In addition, the included studies mostly originated from the global
5 North and were heterogeneous in various respects, including study design, setting and
6 measurement of exposure and outcome variables. Interpretation of results pertaining to mental
7 health outcomes is complicated since the spectrum covered by different screening instruments
8 varies from mild (not requiring intervention) to severe (requiring intervention). Moreover,
9 heterogeneity, as measured by I^2 remained high, probably indicating further methodological,
10 clinical, and population heterogeneity within subgroups, settings, and study designs,
11 demanding caution. The sensitivity analysis exploring the methodological factors of study
12 design and adjustment of OR as sources of heterogeneity in the meta-analyses, produced little
13 evidence that these systematically impacted on the results. As would have been expected,
14 survey studies tended to produce higher prevalence rates, but study design had less impact on
15 meta-analyses estimating the association between IPV and mental health outcomes. In the few
16 meta-analyses where OR adjustment did explain heterogeneity, the studies with adjusted OR's
17 had higher OR's. This is contrary to what would normally be expected as adjustment for
18 confounding factors more commonly minimises the adjusted OR. Complexities inherent in
19 identifying and defining IPV types ought to be considered; we extracted data pertaining to IPV
20 types as reported by studies, so if a study reported physical IPV without measuring other IPV
21 types, we took that data with the knowledge they could have explored other IPV types. We
22 have treated type of IPV as distinct because that is how they are treated in the literature, but in
23 reality they will be overlapping with blurred boundaries. Additionally, careful interpretation of
24 study findings should take into account the overall quality of the literature evidence used in our
25 meta-analyses. It is worth noting that in general, study quality for over 20% of the studies fell
26 short of expected study reporting (ICROMS) standards.
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Implications for practice, policy, and research

Despite the limitations in available data, this study clearly establishes the persistently high global prevalence of intimate partner violence. Crucially, IPV is preventable; there has been a substantial increase in the body of knowledge on what works to prevent violence against women and girls in the last decade (Jewkes et al., 2021; World Health Organization, 2019).

The evidence on the association between exposure to IPV and different mental health outcomes has important implications for the delivery of interventions and services. Women affected by IPV are, by definition, uniquely disadvantaged and at risk of developing health problems (Stockman, Hayashi, & Campbell, 2015), generally have poorer health outcomes than unaffected women (Stubbs & Szoeki, 2021), and where children are part of the family systems where IPV is being perpetrated, this poses additional risk of significant harm to both the child and mother (Devaney, 2015; Osofsky, 2018). As a result, women who experience IPV need tailored, nuanced care that is trauma-informed (Covington, 2016), and services need support to identify women experiencing IPV both in healthcare settings (Sohal et al., 2020) and the community. Considering the poor resources mentioned earlier, the integration of perinatal mental health into maternal and child health (MCH) services ought to be considered, as this is a time during which many women are in regular contact with health services. Staff supporting women during this phase need to be trained to be sensitive to question issues that might be linked to IPV, and sensitively suggest resources that are available to them. Moreover, knowing the prevalence of IPV and trauma history in help-seeking women, mental health services should take women's trauma histories, including current/active IPV, and have trauma-informed approaches in place. The expansion of support and care within MCH services and outside of health services (e.g. community-based services, traditional healers, religious organisations) can be effectively achieved by upskilling non mental health specialist providers to provide mental health promotion, prevention and treatment interventions (World Health Organization, 2021a).

Research, such as that from Taylor Salisbury et al. (2021), ought to be undertaken on how to integrate the community-based non-specialist workforce with existing systems and places where women would interact with support with services in the community (Taylor Salisbury et al., 2021). Ultimately, we need to work with women in the community to understand where women go to find places of support and connection and undertake research seeking to understand from women themselves what they would like to receive as services/supports and how they would like to receive them.

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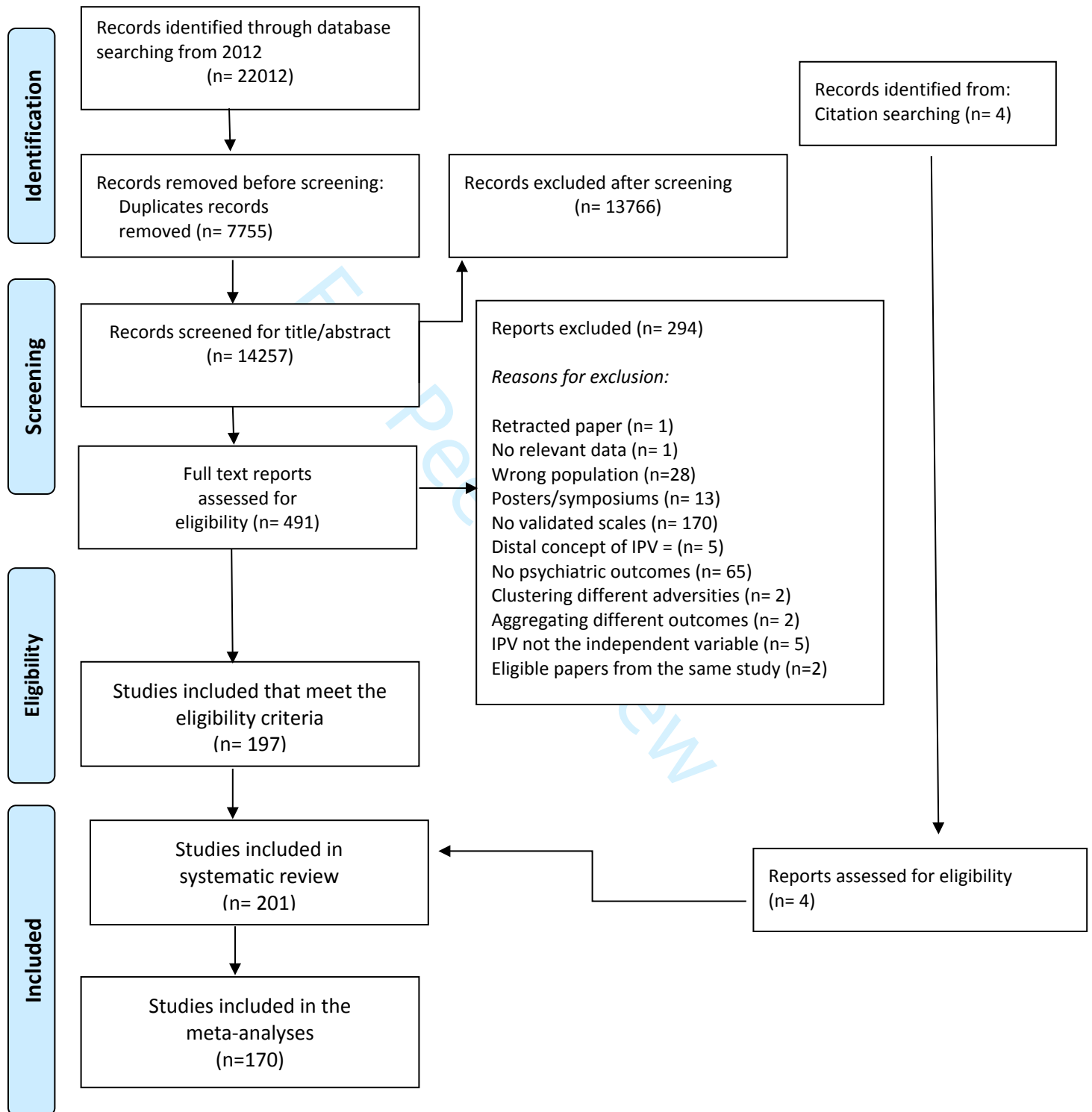
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FIGURE 1. PRISMA 2020 Flow Diagram



From: Matthew J Page et al. *BMJ* 2021;372:bmj.n71

For more information, visit www.prisma-statement.org.

<http://mc.manuscriptcentral.com/tva>

Figure 2: Forest plot representing pooled odds ratios of association between types of IPV in the past year and depression by population sub-group

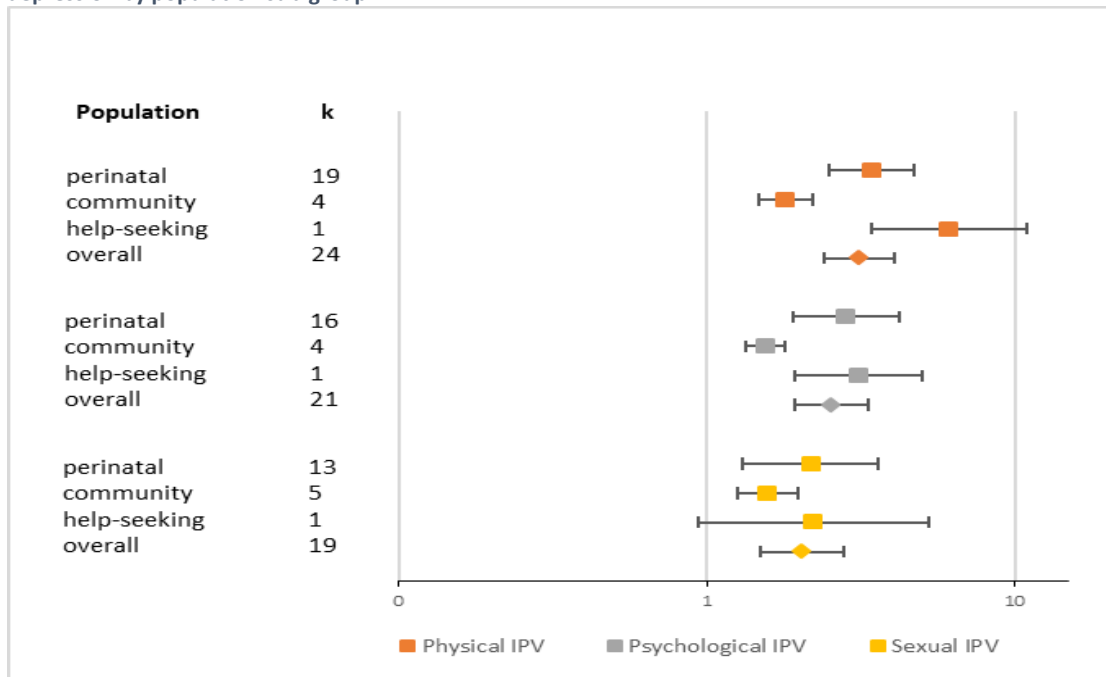


Figure 3: Forest plot of pooled prevalence rates of 'any IPV' and IPV subtypes in the past year by World Bank Income level

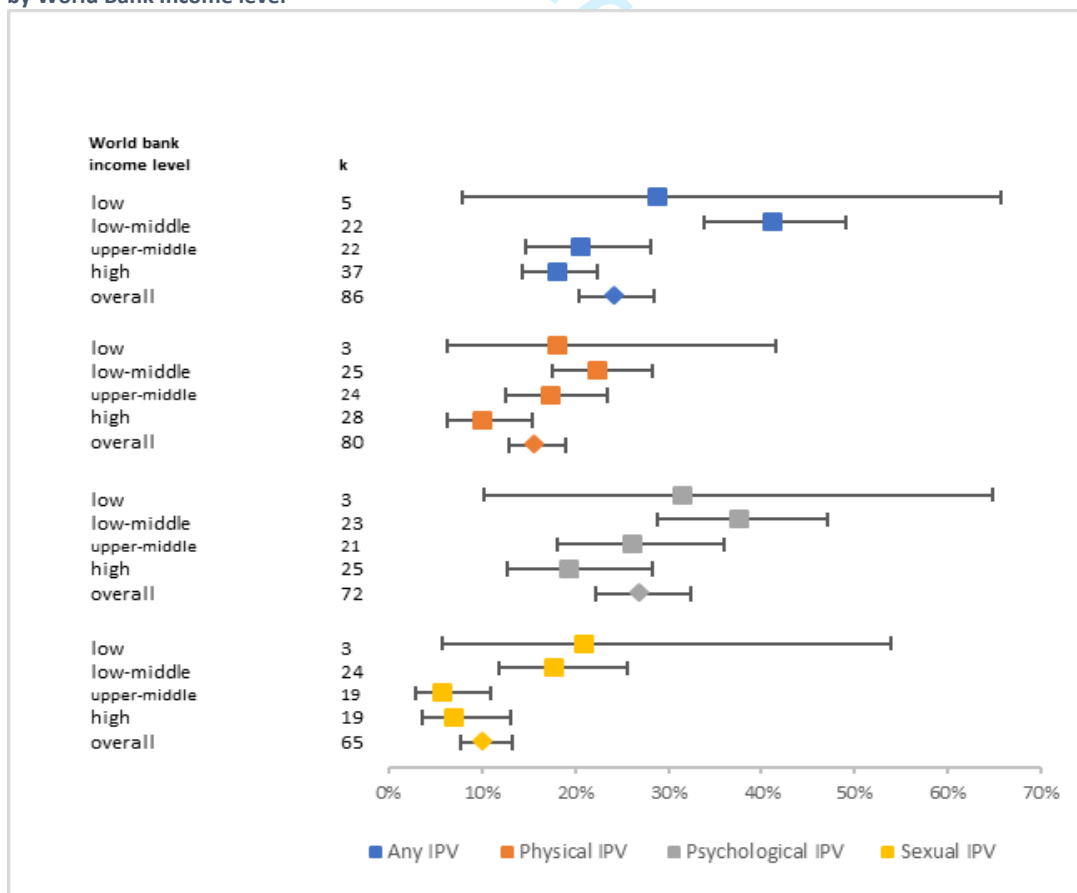
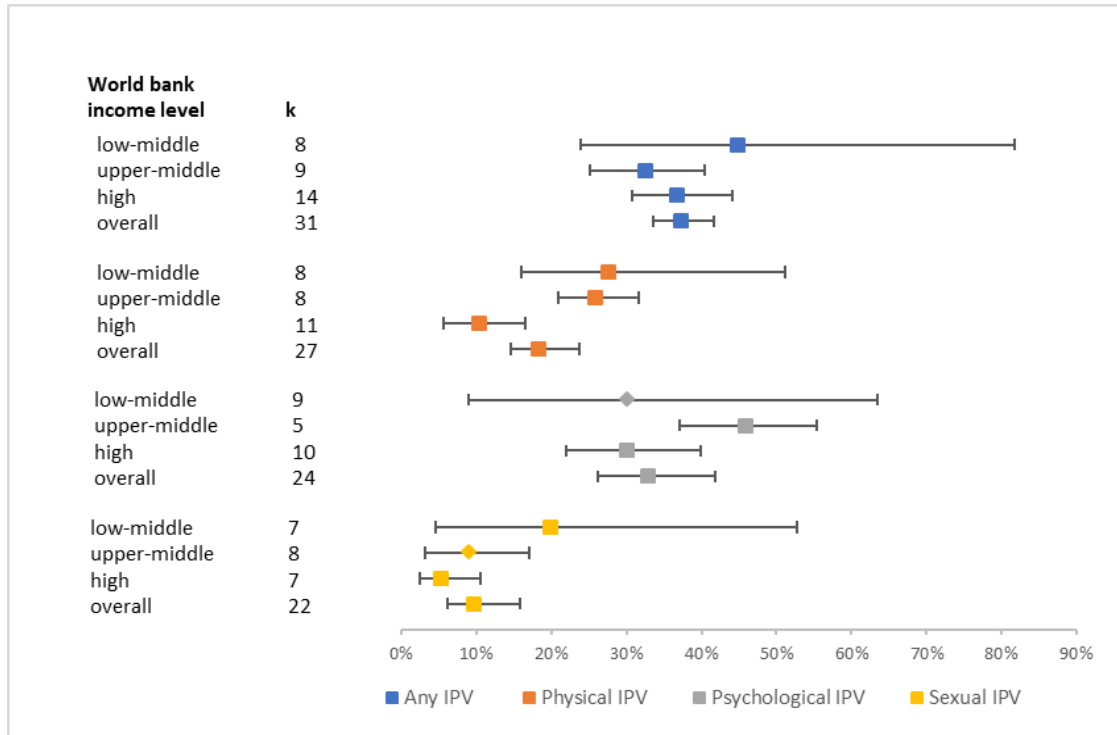


Figure 4: Forest plot of pooled prevalence rates of lifetime 'any IPV' and IPV subtypes by World Bank Income level



er Review

Summary table

Critical findings
<p>Prevalence: Lifetime and past year experience of ‘any IPV’ experienced by women is highly prevalent globally. Overall, nearly four in ten (37.3%) women aged 16 and over had experienced ‘any IPV’ in their lifetime, and one in four women (24%) had experienced ‘any IPV’ in the past year. Psychological IPV in the past year and lifetime was the most prevalent form of IPV, whilst sexual IPV in the past year and lifetime was the least prevalent among women. We found significant variations in population subgroups: women in the community are at a significantly high risk of experiencing any form of IPV and sexual IPV in the past year, and lifetime psychological IPV; help-seeking women are at a significantly high risk of experiencing physical IPV in the past year; and women in the perinatal period are at a significantly high risk of experiencing lifetime physical IPV. Prevalence rates differed significantly ($p=0.037 - p<0.001$) for ‘any IPV’ and all subtypes by income country level. The highest prevalence of ‘any IPV’ in the past year was reported in low-middle income countries, 41.2% (95% CI 33.8%-49.1%, $k=22$, $I^2=99.3\%$) compared to a 18.0% in high-income countries (95% CI 14.3%-22.4%, $k=37$, $I^2=99.2\%$).</p> <p>Mental health harms of IPV: Significant associations were found between depression, psychological distress and suicidal ideation and any types of IPV, as well as the combined measure for ‘any’ lifetime or past year IPV, suggesting that differential exposures to IPV impact mental health in unique ways. This points to the importance of disaggregating analyses of IPV subtypes in research.</p> <p>The highest increase in odds of depression was associated with the experience of physical violence for both women in the perinatal period and help-seeking.</p> <p>Help-seeking women were at the highest risk for depression across all forms of violence experienced in the past year. The experience of sexual IPV in the past year contributed to the highest risk of psychological distress among women.</p>
Implications of the review for practice, policy, and research
<p>The evidence on the association between exposure to IPV and different mental health outcomes has important implications for the delivery of interventions and services. Women who experience IPV need tailored, nuanced care that is trauma-informed and services need support to identify women experiencing IPV both in healthcare settings and the community. The integration of perinatal mental health into maternal and child health (MCH) services should be considered, as this is a time during which many women are in regular contact with health services. Staff supporting women during this phase need to be trained to be sensitive to question issues that might be linked to IPV, and sensitively suggest resources that are available to them.</p> <p>Likewise, knowing the prevalence of IPV and trauma history in help-seeking women, mental health services should take women’s trauma histories, including current/active IPV, and have trauma-informed approaches in place. The expansion of support and care within MCH services and outside of health services (e.g. community-based services, traditional healers, faith-based organisations) can be effectively achieved by upskilling non mental health specialist providers to provide mental health promotion, prevention and treatment interventions.</p> <p>There is a need to work with women in the community to understand where women go to find places of support and connection and undertake research seeking to understand from women themselves what they would like to receive as services/supports and how they would like to receive them.</p>

Table S1. Characteristics of the included studies

	First Author, (Year)	Study design (Country)	Population	Sample size (% fe/male)	Measures of intimate partner violence (IPV)	Types of intimate partner violence (IPV)	Mental health outcomes
Studies adopting clinical sample (1 – 138) (perinatal, IPV exposed women, help-seeking)							
1	Baker et al. (2020)	Survey (USA)	US incarcerated women	112 100% female	The cumulative trauma experiences (CTEs)	Sexual violence, non-sexual violence	Depression & PTSD Patient Health Questionnaire (PHQ-9), Posttraumatic Checklist for DSM-5 Civilian Version (PCL-5)
2	Charak et al. (2020)	Survey (UK)	UK trauma exposed sample	1051 68.4% female 31.6% male	Modified version of Life Events Checklist (LEC)	Physical violence, violence with a weapon, sexual violence	Anxiety, depression & PTSD Generalized Anxiety Disorder-7 (GAD-7), Patient Health Questionnaire-9 (PHQ-9), PTSD-Checklist for DSM-5-Civilian Version (PCL-5)
3	Conway et al. (2020)	Cohort (Australia)	Australian pregnant women	615 100% female	Composite Abuse Scale (CAS)	Physical violence, emotional violence	Maternal depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
4	Daugherty et al. (2020)	Survey (Spain)	Spanish IPV women	82 100% female	Composite abuse scale-short form (CAS-SF)	Psychological violence, physical violence, sexual violence	Depression, anxiety, PTSD Patient Health Questionnaire depression subscale (PHQ-9), Generalized Anxiety Disorder Scale (GAD-7), PTSD Checklist for DSM-5 (PCL-5)
5	Edhborg et al. (2020)	Survey (Bangladesh)	Bangladeshi postpartum women	656 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, sexual violence, emotional violence	Maternal depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
6	Ezzati-Rastegar et al. (2020)	Survey (Iran)	Iranian pregnant women	456 100% female	Conflict Tactics Scale (CTS)	Psychological violence, physical violence, sexual violence, financial violence	Anxiety & depression General Health Questionnaire-28 (GHQ-28)
7	Fitzpatrick et al. (2020)	Cohort (Australia)	Australian pregnant women	1507 100% female	Composite Abuse Scale (CAS)	Emotional violence, physical violence	Anxiety, depression, general mental health

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3							Edinburgh Postnatal Depression Scale (EPDS), Short For 36 (SF36)
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6	Ford-Gilboe et al. (2020)	Cohort (Canada)	Canadian women	462 100% female	Composite Abuse Scale (CAS)	Physical violence, emotional violence, harassment	Depressive symptoms and PTSD symptoms Center for Epidemiologic Studies Depression Scale Revised (CESD-R), PTSD checklist, Civilian Version (PCL-C)
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12	Hou et al. (2020)	Cohort (China)	Pregnant women in China	813 100% female	The Short Form of the Revised Conflict Tactics Scale (CTS2S)	Physical violence, psychological violence, sexual violence	Postnatal depression Edinburgh Postnatal Depression Scale (EPDS)
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15	Jouriles et al. (2020)	Survey (USA)	US Mothers seeking services from advocacy centres	356 100% female	Victimization subscale from the Behavioural Risk Factor Surveillance System (BRFSS)	Physical violence, psychological violence, sexual violence	Psychological distress Brief Symptom Inventory (BSI)
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20	Kandeger and Naziroglu (2020)	Survey (Turkey)	Turkish IPV women	102 100% female	Severity of Violence Against Women Scale (SVAWS)	Physical violence, psychological violence, sexual violence	Suicidal ideation Suicidal Ideation Scale (SIS)
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23	Kita et al. (2020)	Cohort (Japan)	Japanese pregnant women	562 100% female	Index of Spouse Abuse (ISA)	Physical violence, non-physical violence	Antenatal and postnatal depressive symptoms Japanese version of the Hospital Anxiety and Depression Scale (HADS)
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28	Manongi et al. (2020)	Survey (Tanzania)	Pregnant women Tanzania	1116 100% female	Modified Swahili version of the WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual violence	Perinatal depression Edinburgh Postnatal Depression Scale (EPDS)
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33	McNaughton et al. (2020)	Cohort (South Africa)	South African pregnant women	1480 100% female	Violence Against Women Instrument (VAWI)	Physical violence, sexual violence	Emotional distress Hopkins Symptoms Checklist (HSLC-25)
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36	Moreira et al. (2020)	RCT (Portugal)	Portuguese IPV women	23 100% female	Conjugal Violence Exposure Scale (CVES) Research Version	IPV exposure	Depression, PTSD, CPSD The Patient Health Questionnaire-9 (PHQ-9), ICD-11, International Trauma Questionnaire (ITQ)
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3 4 5	16 17	Nair et al. (2020)	Survey (India)	Indian women with severe mental illness (SMI)	100 100% female	Indian family violence and control scale (IFVCS)	IPV exposure	Suicide behaviours Suicide behaviours questionnaire revised (SBQ-R)
6 7 8 9	17 18	Reyes et al. (2020)	Survey (USA)	Hispanic women	150 100% female	Revised Conflict Tactics Scale (CTS-2)	Physical violence, psychological violence, sexual violence	Alcohol misuse and drug misuse Alcohol Use Disorder Identification Test (AUDIT), Drug Abuse Screening Test (DAST)
10 11 12 13 14 15 16 17 18	18 19	Roberts et al. (2020)	Survey (UK)	UK men/women seeking treatment for gambling disorder	204 9.3% female 90.7% male	Jellinek–Inventory for assessing Partner Violence (JIPV)	IPV exposure	Depression, anxiety & alcohol use The Patient Health Questionnaire-9 (PHQ-9), Generalised Anxiety Disorder – (GAD-7), Alcohol Use Disorders Identification Test Consumption Questions (AUDIT-C)
19 20 21	19 20	Sapkota et al (2020)	Randomised controlled trial (Nepal)	Nepalese pregnant women	140 100% female	Abuse Assessment Screen (AAS)	Physical violence, sexual violence, emotional violence	Anxiety & depression Hospital Anxiety and Depression Scale (HADS)
22 23 24 25 26	20 21	Signorelli et al. (2020)	Case-control (Italy)	Italian women	114 100% female	Revised Conflict Tactics Scale (CTS-2)	Sexual coercion, injury, physical violence, psychological violence	Depressive symptoms & PTSD symptoms Hamilton Depression Rating Scale (HDRS), Davidson Trauma Scale (DTS)
27 28 29 30	21 22	Tasa-Vinyals et al. (2020)	Survey (Spain)	Spanish individuals with severe mental illness (SMI)	102 47.1% female 52.9% male	Traumatic Life Events Questionnaire (TLEQ)	Physical violence, psychological violence, sexual violence	PTSD & psychotic symptoms Distressing Event Questionnaire (DEQ), Brief Psychiatric Rating Scale (BPRS)
31 32 33 34 35	22 23	Thananowan et al. (2020)	Survey (Thailand)	Thai women	400 100% female	Abuse Assessment Screen (AAS)	Physical violence, sexual violence, emotional violence	Depressive symptoms & stress The Center for Epidemiologic Studies Depression Scale (CES-D), Thai version of Perceived Stress Scale (T-PSS–10)
36 37 38 39	23 24	Tran et al. (2020)	Survey (Bangladesh)	Bangladesh pregnant women	2000 100% female	WHO Multi-Country Study on Women’s Health and Domestic Violence	Controlling behaviour, sexual violence, emotional violence, physical violence	Maternal common mental disorders Self-reporting Questionnaire (SRQ-20)

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3 4 5 6 7 8 9	24 4 5 6 7 8 9	Tutty et al. (2020)	Cohort (Canada)	Canadian women	587 100% female	Composite Abuse Scale (CAS)	Physical violence, emotional violence, harassment	Depression, psychological distress & PTSD The Center for Epidemiological Studies–Depression (CES-D-10), Symptom Checklist–10 (SCL-10), The PTSD Checklist
10 11 12 13	25 10 11 12 13	Wadji et al. (2020)	Case-control (Cameroon)	Dyads Cameroon	64 100% female	Revised Conflict Tactics Scale (CTS-2)	Psychological violence, physical violence, Sexual violence,	Anxiety & depression Hospital Anxiety and Depression Scale (HADS), Symptom Checklist (SCL-27-plus)
14 15 16	26 14 15 16	Watson-Singleton et al. (2020)	Survey (USA)	African American women	171 100% female	Index of Spouse Abuse (ISA)	Physical violence	Alcohol abuse Brief Michigan Alcoholism Screening Test (bMAST)
17 18 19 20 21 22 23	27 17 18 19 20 21 22 23	Williams et al. (2020)	Survey (USA)	US mixed online sample	230 61.7% female 34.4% male 3.9% transgender	Revised Conflict Tactics Scale—Victimization (CTS2). The Sexual Experiences Survey, Short Form Victimization (SES-SFV)	Psychological violence, physical violence, sexual violence, Adverse Childhood Experiences	Depressive symptoms, PTSD symptoms & opioid misuse The PROMIS1 Depression 8a The PTSD Checklist for DSM-5 (PCL-5) PROMIS Prescription Pain Medication Misuse 7a Scale
24 25 26	28 24 25 26	Chaves et al. (2019)	Cohort (Australia)	Australian pregnant women	52,509 100% female	Abuse Assessment Screen (AAS)	Physical violence, frightened of partner	Postnatal depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
27 28 29 30	29 27 28 29 30	Islam et al. (2019)	Survey (Bangladesh)	Bangladeshi married mothers	426 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Psychological violence, sexual violence, physical violence	Postpartum depression & postpartum suicidal ideation Edinburgh Postnatal Depression Scale (EPDS)
31 32 33 34 35 36	30 31 32 33 34 35 36	Kokka et al (2019)	Randomized controlled trial (Greece)	Greek IPV women	60 100% female	Women Abuse Screening Tool (WAST)	Physical violence and emotional violence	Depressive symptom, anxiety & stress symptoms Beck Depression Inventory (BDI), Perceived Stress Scale 14 (PSS-14), Depression, Anxiety, and Stress Scale (DASS-21)
37 38 39 40	37 37 38 39 40	Mathew et al. (2019)	Survey (India)	Indian women with depression	100 100% female	Index of Spouse Abuse (ISA)	Physical violence, non-physical violence	Depression Hamilton Depression Rating Scale (HDRS)

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3 4 5 6	32 4 5 6	Riedl et al. (2019)	Survey (Austria)	Austrian patients	2031 53.2% female 46.8% male	Hurt-Insult-Threaten-Scream-Scale (HITS)	Physical violence, psychological violence	Trauma-related symptoms & psychological distress Essen Trauma Inventory (ETI), Brief Symptom Inventory (BSI)
7 8 9 10 11 12 13	7 8 9 10 11 12 13	Sullivan et al. (2019)	Survey (USA)	US IPV women	298 100% female	Revised Conflict Tactics Scale (CTS-2), Sexual Experiences Survey (SES) Psychological Maltreatment of Women—Short Version (PMWI-S)	Physical violence, sexual violence, psychological violence	Depression & PTSD Center for Epidemiologic Studies Depression Scale (CES-D), Post-traumatic Diagnostic Scale (PDS)
14 15 16 17 18	14 15 16 17 18	Tho Nhi et al. (2019)	Cohort (Vietnam)	Vietnamese pregnant women	1274 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual violence	Depression Edinburgh Postnatal Depression Scale (EPDS)
19 20 21 22 23 24	19 20 21 22 23 24	Thomas et al. (2019)	Cohort (USA)	US pregnant adolescents	930 100% female	Revised Conflict Tactics Scale (CTS2)	IPV exposure IPV perpetration Bilateral violence	Depression & anxiety Center for Epidemiologic Studies Depression Scale (CES-D), Generalized Anxiety Disorder Scale (GAD-7), Revised Prenatal Distress Questionnaire (PDQ)
25 26 27 28	25 26 27 28	Ahmad et al. (2018)	Survey (Malaysia)	Malaysian postpartum women	5727 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional/psychological, violence, physical violence, sexual violence	Postnatal depression Malay version of the Edinburgh Postnatal Depression Scale (EPDS)
29 30 31 32 33 34 35	29 30 31 32 33 34 35	Barcelona de Mendoza et al. (2018)	Survey (USA)	US pregnant women	398 100% female	Pregnancy Risk Assessment Monitoring System (PRAMS), Center for Disease Control and Prevention	Physical violence, emotional violence	Depression, PTSD & pregnancy-specific anxiety The Edinburgh Postnatal Depression Scale (EDS) Post-traumatic checklist (PCL-5), Revised Prenatal Distress Questionnaire
36 37 38	36 37 38	Behnken et al. (2018)	Survey (USA)	US non-pregnant women accessing family planning clinics	763 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual coercion, psychological violence	Depression, anxiety, PTSD, alcohol & drug abuse

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							World Mental Health Composite International Diagnostic Interview (WMH-CIDI)
39	Bondade et al. (2018)	Survey (India)	Indian infertile women	100 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Psychological violence, physical violence, sexual violence	Depression, anxiety & suicidal ideas Hamilton Depression Rating Scale (HAM-D; HDRS), Hamilton Anxiety Rating Scale (HAM-A)
40	Choi et al. (2018)	Cohort (Hong Kong)	Chinese abused women	100 100% female	Chinese version of the Abuse Assessment Screen (C-AAS)	Psychological violence, physical violence, sexual coercion	Depressive symptoms & PTSD Beck Depression Inventory, version II (BDI-II), Chinese version of the Impact of Event Scale-Revised (IES-R)
41	Field et al. (2018)	Survey (South Africa)	South African pregnant women	376 100% female	Revised Conflict Tactics Scale (CTS2)	Emotional violence, verbal violence, physical violence, sexual violence	Major depressive episode, anxiety disorder, alcohol and drug use & suicidal ideation Mini-International Neuropsychiatric Interview (MINI Plus Version 5.0.0)
42	Honda et al. (2018)	Survey (Japan)	Japanese IPV women	145 100% female	Japanese version of the Domestic Violence Screening Instrument (DVSI)	Physical violence, sexual violence, psychological violence	Severe depression and suicidality, anxiety and mood disturbance, and response to trauma General Health Questionnaire 30 (GHQ 30), Impact of Event Scale-Revised (IES-R)
43	Mahenge et al. (2018)	Survey (Tanzania)	Tanzanian postpartum women	500 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, sexual violence	Postpartum depression Patient Health Questionnaire depression subscale (PHQ-9)
44	Mandal et al. (2018)	Survey (Australia)	Australian postnatal women	2621 100% female	Composite Abuse Scale (CAS)	IPV exposure	Postnatal depression & anxiety Depression, Anxiety and Stress Scale (DASS-21; Lovibond and Lovibond, 1995)

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3 4 5 6	45	Mittal et al. (2018)	Survey (USA)	US women	175 100% female	Abuse Behavior Inventory (ABI), Women's Experiences of Battering (WEB)	Physical violence, psychological violence, sexual violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
7 8 9 10 11 12 13	46	Rurangirwa et al. (2018)	Survey (Rwanda)	Rwanda pregnant women	921 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, psychological violence, sexual violence	Major depressive disorder, generalised anxiety disorder, PTSD, & suicidal ideation The Mini International Neuropsychiatric Interview version 5.0.0 (MINI; Sheehan, 1998)
14 15 16 17 18	47	Santos and Monterio (2018)	Survey (Brazil)	Brazilian women	369 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence, sexual coercion	Symptoms of depressive anxious mood Self-Reporting Questionnaire (SRQ-20)
19 20 21 22	48	Tabb et al. (2018)	Survey (Brazil)	Brazilian pregnant women	701 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Psychological violence, physical violence, emotional violence	Suicidal ideation Clinical Interview Schedule (CIS-R)
23 24 25 26 27	49	Tho Tran et al. (2018)	Cohort (Vietnam)	Vietnamese pregnant women	1274 100% female	Modified version of the WHO Multi-Country Study on Women's Health and Life Experiences Questionnaire	Emotional violence, physical violence, sexual violence	Postnatal depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
28 29 30	50	Woldetensay et al. (2018)	Cohort (Ethiopia)	Ethiopian pregnant women	4680 100% female	HITS (Hurt, Insult, Threaten and Scream)	IPV exposure	Prenatal depressive symptoms Patient Health Questionnaire depression subscale (PHQ-9)
31 32 33	51	Yu et al. (2018)	Survey (China)	Chinese pregnant women	797 100% female	Abuse Assessment Screen (AAS)	Psychological violence, physical violence, emotional violence	Prenatal depression Center for Epidemiologic Studies Depression Scale (CES-D)
34 35 36	52	Achchappa et al. (2017)	Survey (India)	Indian HIV+ women	99 100% female	Abuse Assessment Screen (AAS)	Psychological violence, physical violence, sexual violence	Depression Beck Depression Inventory (BDI)
37 38 39	53	Dami et al. (2017)	Survey (Greece)	Greek primary care sample	142 87.3% female 12.7% male	HITS (Hurt, Insult, Threaten and Scream)	Reported as the scale; Hits, hurt, insult (threaten), scream	Depression Patient Health Questionnaire depression subscale (PHQ-9)

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3 4 5 6	54	Dworkin et al. (2017)	Survey (USA)	US substance abuse patients	219 49% female 51% male	The National Women's Study PTSD Module (NWS-PTSD)	Sexual violence, physical violence	PTSD Clinician Administered PTSD Scale (CAPS)
7 8 9 10 11	55	Gibbs et al. (2017)	Survey (South Africa)	South African pregnant women	275 100% female	World Health Organization's (WHO) violence against women survey and modified for South Africa	Sexual violence, physical violence	Depressive symptoms Patient Health Questionnaire depression subscale (PHQ-9)
12 13 14 15	56	Islam et al. (2017)	Survey (Bangladesh)	Bangladeshi postpartum mothers	426 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, sexual violence, psychological violence	Postpartum depression Bangla version of the Edinburgh Postpartum Depression Scale (EPDS)
16 17 18 19 20 21 22	57	Miller-Graff and Cheng (2017)	Survey (USA)	US pregnant women	101 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual violence, psychological violence	Depressed mood, PTSD & sleep Center for Epidemiologic Studies Depression Scale (CES-D), PTSD Checklist for DSM-5 (PCL-5), Pittsburgh Sleep Quality Index (PSQI)
23 24 25 26	58	Oliveira et al. (2017)	Survey (Brazil)	Brazilian postpartum women	456 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence	PTSD Posttraumatic Stress Disorder Checklist–Civilian Version (PCL-C)
27 28 29 30 31	59	Peltzer and Pengpid (2017)	Survey (Thailand)	Thai women	207 100% female	Severity of Violence Against Women Scale" (SVAWS) and The Danger Assessment Scale (DAS)	Physical violence, sexual violence, psychological violence, danger	Depression symptoms & suicidal behaviour Edinburgh Postnatal Depression Scale (EPDS), The Danger Assessment Scale (DAS)
32 33 34 35 36	60	Rogathi et al. (2017)	Cohort (Tanzania)	Tanzanian pregnant women	1013 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual, violence	Depression during pregnant and postpartum Swahili version of The Edinburgh Postpartum Depression Scale (EPDS)
37 38 39	61	Wolford-Clevenger et al. (2017)	Survey (USA)	US women seeking shelter	134 100% female	Coercive Tactics subscale and the Revised Conflict Tactics Scale subscale	Physical violence, psychological violence	Depression, PTSD, suicide ideation & suicide attempt

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62	Bernstein et al. (2016)	Survey (South Africa)	South African HIV+ pregnant women	623 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual violence	Depression, psychological distress, alcohol use & drug use, The Edinburgh Postnatal Depression Scale (EPDS), Kessler 10 scale (K-10), Alcohol Use Disorders Identification Test (AUDIT), Drug Use Disorders Identification Test (DUDIT)
63	DeCou et al. (2016)	Survey (USA)	US treatment-seeking incarcerated women	186 100% female	Severity of Violence Against Women Scale (SVAWS)	Physical violence, sexual violence	PTSD & symptoms of dissociation PTSD Checklist–Civilian Version (PCL-C), Dissociative Experiences Scale–II (DES-II)
64	Ferrari et al. (2016)	Survey (UK)	UK IPV help-seeking women	260 100% female	Composite Abuse Scale (CAS)	Emotional violence, physical violence, harassment	Depression, anxiety, PTSD, & psychological distress symptoms Patient Health Questionnaire depression subscale (PHQ-9), Generalized Anxiety Disorder Scale (GAD-7), Weathers' Posttraumatic Stress Disorder Check List, Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM)
65	Finnbogadottir et al. (2016)	Cohort (Sweden)	Swedish pregnant women	1939 100% female	NorVold Abuse Questionnaire (NorAQ) modified from the Abuse Assessment Screen (AAS)	Emotional violence, physical violence	Depression & alcohol use The Edinburgh Postnatal Depression Scale (EPDS), Alcohol Use Disorders Identification Test (AUDIT)
66	Kastello et al. (2016)	Survey (USA)	US pregnant women	239 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence, sexual violence	PTSD Davidson Trauma Scale (DTS)

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3 4 5 6 7 8 9	67	Sanchez et al. (2016)	Survey (Peru)	Peruvian pregnant women	634 100% female	Adapted version of Demographic Health Survey Questionnaires and Modules: WHO Multi-Country Study on Violence Against Women	Physical violence, sexual violence	Maternal antepartum depression & sleep disturbances Patient Health Questionnaire depression subscale (PHQ-9), Ford Insomnia Response to Stress Test (FIRST)
10 11 12	68	Tanimu et al. (2016)	Survey (Nigeria)	Nigerian women	393 100% female	Composite Abuse Scale (CAS)	Physical violence, emotional violence, harassment, sexual violence	Depression Patient Health Questionnaire-2 (PHQ-2)
13 14 15	69	Ziaei et al. (2016)	Survey (Bangladesh)	Bangladeshi pregnant women	1212 100% female	Modified version of Conflict Tactic Scale (CTS)	Physical violence, sexual violence, emotional violence, controlling behaviour	Emotional distress Self-Report Questionnaire (SRQ-20)
16 17 18	70	Abdelhai and Mosleh (2015)	Survey (Egypt)	Egyptian pregnant women	376 100% female	Hurt, Insulted, Threaten, Scream inventory (HITS)	Physical violence, emotional/psychological violence	Depression & anxiety Hospital Anxiety and Depression Scale (HADS)
19 20 21	71	Alhusen et al. (2015)	Survey (USA)	US pregnant women	166 100% female	Abuse Assessment Screen (AAS)	Exposure to IPV	Depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
22 23 24 25 26	72	Barrios et al. (2015)	Survey (Peru)	Peruvian pregnant women	1521 100% female	Demographic Health Survey Questionnaires and Modules: WHO Multi-Country Study on Violence Against Women	Physical violence, sexual violence	Depression symptoms Patient Health Questionnaire depression subscale (PHQ-9)
27 28 29	73	DeCou et al. (2015)	Survey (USA)	US treatment-seeking incarcerated women	102 100% female	Severity of Violence Against Women Scale (SVAWS)	Physical violence, sexual violence	PTSD PTSD Checklist–Civilian Version (PCL-C)
30 31 32 33	74	Flanagan et al. (2015)	Cohort (USA)	US pregnant women	180 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence	Depression and stress Center for Epidemiologic Studies Depression Scale (CES-D), Perceived Stress Scale (PSS)
34 35 36 37 38	75	Fonseca-Machado et al. (2015)a	Survey (Brazil)	Brazilian pregnant women	358 100% female	Brazilian version of instrument developed for WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence	Prenatal depression Edinburgh Postnatal Depression Scale (EPDS)

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3 4 5 6 7 8	76 Fonseca-Machado et al. (2015)b	Survey (Brazil)	Brazilian pregnant women	358 100% female	Brazilian version of instrument developed for WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence	Anxiety & PTSD State-Trait Anxiety Inventory (STAI), Posttraumatic Stress Disorder Checklist - Civilian Version (PCL-C)
9 10 11 12 13 14 15 16	77 Hink et al. (2015)	Survey (USA)	US female trauma patients	81 100% female	Partner Violence Screen (PVS) and Woman Abuse Screening Test Short (WAST-Short)	Exposure to IPV	Mental illness, alcohol & drug abuse MINI International Neuropsychiatric Interview version 5.0.0 (MINI 5.0.0), Alcohol Use Disorders Identification Test (AUDIT), Drug Abuse Screening Test (DAST-10)
17 18 19 20 21	78 Jackson et al. (2015)	Cohort (USA)	US Mexican pregnant women	320 100% female	The Pregnancy Risk Assessment Monitoring System (PRAMS), Center for Disease Control and Prevention	Physical violence, sexual violence, emotional violence	Maternal depression symptoms & perceived stress Edinburgh Postnatal Depression Scale (EPDS), Revised Perceived Stress Scale (PSS)
22 23 24	79 Khadra et al. (2015)	Survey (Lebanon)	Lebanese IPV women	85 100% female	The Composite Abuse Scale (CAS) Physical Abuse subscale	Physical violence	PTSD PTSD Checklist-Civilian Version (PCL-C)
25 26 27 28	80 McFarlane et al. (2015)	Survey (USA)	US IPV women	300 100% female	Severity of Violence Against Women Scale (SVAWS) and The Danger Assessment Scale (DAS)	Psychological violence, physical violence, sexual violence	Depression, anxiety & PTSD Post-Traumatic Stress Disorder Scale, Brief Symptom Inventory (BSI)
29 30 31 32	81 Mertin et al. (2015)	Survey (Australia)	Australian IPV women	87 100% female	Adapted Conflicts Tactics Scale (ACTS)	Exposure to IPV	Depression & anxiety Symptom Checklist 90 Revised (SCL-90-R)
33 34 35 36 37 38	82 Tirado-Munoz et al. (2015)	RCT (Spain)	Spanish women receiving drug abuse treatment who reported IPV	14 100% female	Composite Abuse Scale (CAS) and Psychological Maltreatment of Women Inventory (PMWI)	Psychological violence, emotional violence, aggressiveness	Depression Spanish version of the Beck Depression Inventory (BDI-II)

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3 4 5	83 Tsai et al. (2015)	Cohort (USA)	South African pregnant women	1121 100% female	Conflict Tactics Scale (CTS)	Physical violence	Depression Edinburgh Postnatal Depression Scale (EPDS)
6 7 8 9 10 11 12 13	84 Van Parys et al. (2015)	Survey (Belgium)	Belgian pregnant women	1894 100% female	Abuse Assessment Screen (AAS) and WHO Multi- Country Study on Women's Health and Domestic Violence	Physical violence, sexual violence	Depression, anxiety & stress Abbreviated Psychosocial Scale which included Centre for Epidemiologic Studies Depression Scale, the Spielberger Trait Anxiety Scale, and Schar Subjective Stress Scale
14 15 16	85 Agrawal et al. (2014)	Cohort (USA)	US postnatal women	734 100% female	Conflict Tactics Scale (CTS)	Emotional violence, physical violence, sexual violence	Depression & stress Center for Epidemiologic Studies Depression Scale (CES-D)
17 18 19 20 21	86 Cort et al. (2014)	Cohort (USA)	US IPV women	32 100% female	Abusive Behaviour Inventory (ABI)	Physical violence, psychological violence	Depression & PTSD Hamilton Rating Scale for Depression (HRSD), PHQ-9, 2001), Modified PTSD Symptom Scale (MPSS)
22 23 24 25 26 27 28 29	87 Flanagan et al. (2014)	Survey (USA)	US IPV victim and perpetrators	362 100% female	Psychological Maltreatment of Women Inventory-Short version (PMSI-S); Revised Conflict Tactics Scales (CTS-2); Sexual Experiences Survey (SES)	Psychological violence, physical violence, sexual violence	Depression, PTSD, alcohol & drug abuse Center for Epidemiologic Studies Depression Scale (CES-D), Posttraumatic Stress Diagnostic Scale (PDS), Alcohol Use Disorders Identification Test (AUDIT), Drug Abuse Screening Test (DAST)
30 31 32 33 34 35 36 37	88 Hellmuth et al. (2014)	Cohort (USA)	US pregnant women	180 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence	Depression, alcohol misuse & stress Center for Epidemiologic Studies Depression Scale (CES-D), Alcohol Use Disorders Identification Test (AUDIT), Perceived Stress Scale (PSS)

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3 4 5	89	Kabir et al. (2014)	Survey (Bangladesh)	Bangladeshi postpartum women	660 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, sexual violence, emotional violence	Maternal depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
6 7 8 9	90	Kelly and Pich (2014)	Cohort (USA)	US IPV women	22 100% female	Index of Spouse Abuse (ISA)	Physical violence, non- physical violence	Depression & PTSD Center for Epidemiologic Studies Depression Scale (CES-D), PTSD Checklist–Civilian Version (PCL-C)
10 11 12	91	Lara Ma et al. (2014)	Survey (Mexico)	Mexican pregnant women	250 100% female	Intimate Partner Violence Evaluation Scale	Physical violence, verbal violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
13 14 15 16 17	92	Ludermir et al. (2014)	Survey (Brazil)	Brazilian pregnant women	1120 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence, controlling behaviour	Common mental disorders Self-Reporting Questionnaire (SRQ-20)
18 19 20 21	93	McFarlane et al. (2014)	Cohort (USA)	US IPV women	46 100% female	Severity of Violence Against Women Scale (SVAWS) and The Danger Assessment Scale (DAS)	Psychological violence, physical violence, sexual violence	PTSD & psychological distress Post-Traumatic Stress Disorder (PTSD) Scale, Brief Symptom Inventory (BSI)
22 23 24	94	Nongrum et al. (2014)	Cohort (India)	Indian pregnant women	150 100% female	Abuse Assessment Screen (AAS)	Exposed to IPV Non-exposed to IPV	Perinatal depression Edinburgh Postnatal Depression Scale (EPDS)
25 26 27	95	Reichenheim et al. (2014)	Survey (Brazil)	Brazilian postpartum women	810 100% female	Brazilian version of the Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence	Common mental disorders Self-Reporting Questionnaire (SRQ-20)
28 29 30 31	96	Symes et al. (2014)	Survey (USA)	US women	300 100% female	Severity of Violence Against Women Scale (SAVAWS)	Sexual violence, physical violence, risk of lethality	Anxiety & PTSD Post-Traumatic Stress Disorder Scale (PTSD), Brief Symptom Inventory
32 33 34 35 36 37	97	Almeida et al. (2013)	Survey (Portugal)	Portuguese pregnant women	184 100% female	Conflict Tactics Scale (CTS)	Psychological violence, physical violence, sexual violence	Depression & psychological symptoms Inventory of the Clinical Evaluation of Depression (IACLIDE), Brief Symptom Inventory (BSI)
38 39 40	98	Ayub et al. (2013)	Survey (Pakistan)	Pakistan women	640 100% female	Women's Experience with Battering (WEB)	Verbal violence, physical violence	PTSD & suicide ideation

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3							Mini-International Neuropsychiatric Interview (MINI)	
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5	99	Dennis and Vigod (2013)	Cohort (Canada)	Canadian pregnant women	166 100% female	Assessment of Interpersonal Violence and Substance Use (ALPHA)	Physical violence, psychological violence, sexual violence, child abuse	Depressive symptoms Edinburgh Postnatal Depression Scale (EPDS)
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9	100	Edmond et al. (2013)	Cohort (USA)	US IPV women	50 100% female	Composite Abuse Scale (CAS)	Physical violence, emotional abuse, harassment	Depression, PTSD & alcohol abuse Diagnostic Interview Schedule IV (DIS-IV)
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13	101	Faisal-Cury et al. (2013)	Survey (Brazil)	Brazilian pregnant women	701 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence	Postpartum depression Self-Report Questionnaire (SRQ-20)
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16	102	Fisher et al. (2013)	Cohort (Vietnam)	Vietnamese pregnant women	497 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, sexual violence, emotional violence	Postnatal depression & suicidal thoughts Edinburgh Postnatal Depression Scale – Vietnam Validation (EPDS)
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20	103	Illangasekare et al. (2013)	Survey (USA)	US IPV women	96 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual violence, psychological violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
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23	104	Jaquier et al. (2013)	Survey (USA)	US IPV women	212 100% female	Conflict Tactics Scales-2 (CTS-2); Sexual Experiences Survey (SES) and the Psychological Maltreatment of Women Inventory (PMWI)	Physical violence, sexual violence, psychological violence	Depression, PTSD & self-harm Center for Epidemiologic Studies Depression Scale (CES-D), Posttraumatic Stress Diagnostic Scale (PDS), Deliberate Self-harm Inventory (DSHI)
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29	105	Kamimura et al. (2013)	Survey (USA)	US help-seeking women from Family Justice Centres	117 100% female	Danger Assessment	Danger assessment	Depression, psychological distress & mental health Patient Health Questionnaire -9 (PHQ-9), General Health Questionnaire (GHQ), Short Form (SF)-12
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35	106	Mahenge et al. (2013)	Survey (Tanzania)	Tanzanian pregnant women	1180 100% female	Conflict Tactics Scale (CTS)	Physical violence, sexual violence	Depression, anxiety & PTSD John Hopkins Symptoms checklist with 25 questions (HSCL-25),
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107	Mapayi et al. (2013)	Survey (Nigeria)	Nigerian women	373 100% female	Composite Abuse Scale (CAS)	Exposure to IPV	Depression & anxiety Hospital Anxiety and Depression Scale
108	Ogbonnaya et al. (2013)	Cohort (USA)	US pregnant women	76 100% female	Conflict Tactics Scale 2 (CTS2)	Physical violence	Depressive symptoms Center for Epidemiologic Studies Depression Scale (CES-D)
109	Peterson et al. (2013)	Survey (USA)	US IPV women	42 100% female	Danger Assessment (DA) and Index of Spouse Abuse (ISA)	Danger assessment	Depression & PTSD Beck Depression Inventory, Second Edition (BDI-II), Posttraumatic Stress Diagnostic Scale (PDS)
110	Sabri et al. (2013)	Survey (USA)	US African-American and African-Caribbean women	431 100% female	Severity of Violence against Women Scale (SVAWS), Women's Experiences of Battering (WEB), Danger Assessment (DA) instrument	Physical violence, sexual violence, psychological violence,	Depression & PTSD Center for Epidemiologic Studies Depression Scale (CES-D-10), Primary Care Post-Traumatic Stress Disorder Screening (PC-PTSD)
111	Saito et al. (2013)	Survey (Thailand)	Thai pregnant women	421 100% female	Psychological Maltreatment of Women Inventory-Short Form (PMWI-SF), and the Severity of Violence Against Women scale (SVAW)	Physical violence	Mental health Short Form 12-Item Health Survey (SF-12)
112	Wong et al. (2013)	RCT (Hong Kong)	Hong Kong IPV women	197 100% female	The Chinese version of the Abuse Assessment Screen (C-AAS), Revised Conflict Tactics Scales (CTS2)	Psychological violence, physical violence, sexual coercion	Depressive symptoms The Chinese version of the Beck Depression Inventory Version II (C-BDI-II)
113	Young-Wolff et al. (2013)	Survey (USA)	US IPV women	412 100% female	The Psychological Maltreatment of Women Inventory-Short version (PMWI-S), The Sexual Experiences Survey (SES),	Physical violence, sexual violence, psychological violence	Depression, PTSD, alcohol & drug problems Center for Epidemiologic Studies Depression Scale (CES-D), Posttraumatic Diagnostic Scale

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3					The Conflict Tactics Scale-2 (CTS-2), Past Abusive Behavior Inventory		(PDS), Alcohol Use Disorders Identification Test (AUDIT), Drug Abuse Screening Test (DAST)	
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6	114	Zakar et al. (2013)	Survey (Pakistan)	Pakistani women	373 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence	Poor mental health Self-Reporting Questionnaire (SRQ-20)
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9	115	Al-Modallal (2012)	Survey (Jordan)	Palestinian help-seeking women in refugee camps	267 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Controlling behaviour/psychological violence	Depression, anxiety & stress Center for Epidemiologic Studies Depression Scale (CES-D), Depression Anxiety Stress Scales
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13	116	Budhathoki et al. (2012)	Cohort (Nepal)	Nepalese pregnant women	72 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence	Postpartum depression Edinburgh Postnatal Depression Scale (EPDS)
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16	117	Comeau and Davies (2012)	Survey (Canada)	Canadian IPV women	309 100% female	A modified version of the Index of Spouse Abuse (ISA)	Physical and non-physical violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
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20	118	Fleming et al. (2012)	Survey (USA)	US IPV women	192 100% female	Conflict Tactics Scale (CTS2)	Physical violence, sexual coercion, psychological violence, injury	PTSD PTSD Checklist—Civilian
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23	118	Gerber et al. (2012)	Survey (USA)	US seeking-treatment for headache from HC	92 100% female	STaT (slapped, threatened and throw) Partner Violence Screen (PVS)	Lifetime IPV	PTSD Seven-item modified Breslau screening tool for PTSD
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27	120	Gilchrist et al. (2012)	Survey (Spain)	Spanish drug user women in treatment	118 100% female	Composite Abuse Scale (CAS)	Exposure to IPV	Major depression, PTSD, self-harm, suicide attempts, borderline personality & substance use disorders (SUD) Spanish Psychiatric Research Interview for Substance and Mental Disorders (PRISM)
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34	121	Groves et al. (2012)	Survey (South Africa)	South African pregnant women	1500 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, Psychological violence, Sexual violence	Emotional distress Hopkins Symptom Checklist (HSLC-25)
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37	122	Holden et al. (2012)	Survey (USA)	US pregnant women	602 100% female	Woman Abuse Screening Tool (WAST)	Exposure to IPV	Depression, alcohol abuse & drug abuse
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8	123	Illangasekare et al. (2012)	Survey (USA)	US HIV+ women receiving care in HIV clinics	196 100% female	Partner Violence Screen	Exposure to IPV	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
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11	124	Lobato et al. (2012)	Survey (Brazil)	Brazilian postpartum mothers	811 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence	Postpartum depression symptoms, alcohol & drug misuse Edinburgh Postnatal Depression Scale (EPDS), TWEAK, CAGE
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16	125	Matseke et al. (2012)	Survey (South Africa)	HIV-positive and HIV-negative pregnant women	1502 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual violence, emotional violence	Psychological distress Kessler Psychological Distress Scale (K-10)
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19	126	Miszkurka et al. (2012)	Survey (Canada)	Canadian pregnant women	5162 100% female	Abuse Assessment Screen (AAS)	Physical violence, Threats, Armed threats, Sexual violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
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22	127	Nathanson et al. (2012)	Survey (USA)	US IPV women	101 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, physical violence, sexual coercion, injury victimization	Depression, alcohol and drug abuse & PTSD Structured Clinical Interview for DSM-IV (SCID), Clinician Administered Posttraumatic Stress Disorder Scale (CAPS)
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28	128	Norwood and Murphy (2012)	Survey (USA)	US partners of IPV perpetrators seeking counselling for perpetration	216 100% female	Revised Conflict Tactics Scale (CTS2), Multidimensional measure of emotional abuse (MMEA), Sexual Experiences Survey (SES)	Physical violence, sexual coercion, emotional violence, sexual violence	PTSD PTSD Checklist–Civilian Version (PCL-C)
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34	129	Quelopana (2012)	Survey (Chile)	Chilean pregnant women	163 100% female	Women Abuse Screen Tool (WAS)	Psychological violence, physical violence, sexual violence	Postpartum depressive symptoms Postpartum Depression Screening Scale (PDSS)
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3 4 5 6 7 8 9 10	130	Saito et al. (2012)	Survey (Thailand)	Thai post-partum women	274 100% female	Psychological Maltreatment of Women Inventory-Short Form (PMWI—SF), and the Severity of Violence Against Women scale (SVAW)	Psychological violence, physical violence, sexual violence	Depressive symptoms Short Form 12-Item Health Survey (SF-12)
11 12 13 14 15 16 17	131	Sullivan et al. (2012)	Survey (USA)	US substance abuse IPV exposed women	143 100% female	Conflict Tactics Scale-2 (CTS-2), Sexual Experiences Survey (SES) Psychological Maltreatment of Women Inventory (PMWI)	Psychological violence, physical violence, sexual violence	Depression, PTSD & alcohol problems Center for Epidemiologic Studies Depression Scale (CES-D), Posttraumatic Stress Diagnostic Scale (PDS), Alcohol Use Disorders Identification Test (AUDIT)
18 19 20	132	Woolhouse et al. (2012)	Cohort (Australia)	Australian pregnant women	1507 100% female	Short version of the Composite Abuse Scale (CAS)	Emotional violence, physical violence	Postnatal depression Edinburgh Postnatal Depression Scale (EPDS)
21 22 23 24	133	Zacarias et al. (2012)	Survey (Mozambique)	Mozambique IPV women	1442 100% female	Conflict Tactic Scales-Version 2 (CTS2), Controlling Behaviors Scale – Revised (CBS)	Psychological violence, Physical violence, Sexual violence, Injury	Depression & anxiety Symptom Check List- Revised (SCL-90-R)
25 26 27	134	Zou et al. (2012)	Survey (China)	Chinese pregnant women	846 100% female	Chinese version of the Abuse Assessment Screen (AAS)	Emotional violence, physical violence, sexual violence	Postnatal depression Edinburgh Postnatal Depression Scale (EPDS)

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Studies adopting community sample (135- 201) (household survey, large populations survey, students, community-based studies)

30 31 32	135	Ahmadabadi et al. (2020)	Cohort (Australia)	University students	1528 100% female	Modified version of the Composite Abuse Scale (CAS)	Physical violence, emotional violence, harassment	Depression & anxiety Composite International Diagnostic Interview (CIDI)
33 34 35	136	Aye et al, (2020)	Survey (Burma)	Myanmar national sample	2383 49.6% female 50.4% male	Modified version of the Conflict Tactics Scale (CTS)	Physical violence, sexual violence, emotional violence	Mental distress Hopkins Symptom Checklist-10 (HSL-10)
36 37 38	137	Bedford et al. (2020)	Survey (China)	Chinese low-income women	156 100% female	Chinese Abuse Assessment Screen (C-AAS)	Emotional violence, physical violence	Depression, anxiety & stress Depression Anxiety Stress Scale (DASS-21)

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3 4 5	138	Brar et al. (2020)	Survey (Malawi)	Malawian adolescent girls	995 100% female	Conflict Tactics Scale (CTS)	Emotional violence, physical violence, sexual violence, controlling behaviour	Depression Center for Epidemiologic Studies Depression Scale (CES-D-10)
6 7 8 9 10 11 12 13 14 15 16	139	Brown et al. (2020)	Cohort (Australia)	Australian women	1507 100% female	Composite Abuse Scale (CAS)	Emotional violence, physical violence, sexual violence	Symptoms of depression, anxiety, PTSD, & depressive symptoms during pregnancy Center for Epidemiologic Studies Depression Scale (CES-D), Beck Anxiety Inventory (BAI), Post-Traumatic Stress Disorder Checklist–Civilian version (PCL-C), Edinburgh Postnatal Depression Scale (EPDS)
17 18 19 20 21 22 23	140	Dardis et al. (2020)	Cohort (USA)	US college students	1268 68.5% female 31.5% male	Conflict Tactics Scale – short version	Sexual assault; intimate partner violence; psychological/verbal violence	Depressive symptoms and PTSD symptoms Center for Epidemiologic Studies Depression Scale (CES-D), PTSD Checklist for Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5)
24 25 26	141	Falb et al. (2020)	Survey (Syria)	Syrian married women	214 100% female	WHO Multi-Country Study on Women’s Health and Domestic Violence	Physical violence, sexual violence, emotional violence	Depression Patient Health Questionnaire (PHQ-9)
27 28 29 30	142	Morris et al. (2020)	Survey (Kenya)	Kenyan women	873 100% female	Adapted versions of the Abuse Assessment Screen (AAS) and Partner Violence Screen (PVS)	Emotional violence, physical violence, sexual violence	Depression Patient Health Questionnaire Depression Scale (PHQ-8)
31 32 33	143	Mugoya et al. (2020)	Survey (USA)	African American low-income women	664 100% female	Select items from the Revised Conflict Tactics Scale (CTS2)	Physical violence, psychological violence	Depression symptoms Center for Epidemiologic Studies Depression Scale (CES-D)
34 35 36 37 38	144	Richardson et al. (2020)	RCT (India)	Indian women	3010 100% female	Demographic and Health Survey’s (DHS) Domestic Violence Module, which were adopted from the Conflict Tactics Scale (CTS)	Controlling behaviour, psychological violence, physical violence	Symptoms of mental distress General Health Questionnaire (GHQ-12) translated into Hindi

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3 4 5 6 7 8 9	145	Sezgin and Punamaki (2020)	Survey (Turkey)	Turkish women	1569 100% female	Revised Conflict Tactics Scale (CTS-2)	Physical violence, psychological violence, assault, sexual coercion, emotional neglect	PTSD symptoms & psychiatric distress National Stressful Events Survey PTSD Short Scale (NSESSS-PTSD), General Health Questionnaire (GHQ-28)
10 11 12 13 14	146	Stein et al. (2020)	Survey (USA)	US Latinas	77 100% female	Revised Conflict Tactics Scale (CTS-2)	IPV exposure	Depressive symptoms & PTSD Center for Epidemiologic Studies Depression Scale (CES-D), Posttraumatic Diagnostic Scale (PDS)
15 16 17 18 19 20 21 22	147	Winter et al. (2020)	Survey (Kenya)	Women in informal settlements Kenya	361 100% female	Modified version of the domestic violence module Demographic and Health Surveys (DHS)	Psychological violence, sexual violence, physical violence	Mental health, psychological distress, MDD & alcohol use Patient Health Questionnaire-9 Depression Scale (PHQ-9), Swahili version of the Kessler Scale of Psychological Distress (K10), 36-Item Short Form Health Survey (SF-36)
23 24 25 26 27	148	Xu et al. (2020)	Survey (China)	Chinese men/ women	2268 52% female 48% male	WHO Multi-Country Study on Women's Health and Domestic Violence	Controlling behaviour (personal and financial), Physical violence, Psychological violence, Sexual violence	Depressive symptoms Center for Epidemiologic Studies Depression Scale (CES-D)
28 29 30 31 32 33	149	An et al. (2019)	Survey (Korea)	Korean women	3160 100% female	Massachusetts Youth Risk Behavior Survey	Physical violence, sexual violence	MDD, anxiety, PTSD & alcohol abuse Korean version of the CIDI2.1 (K-CIDI 2.1) (WHO-Composite International Diagnostic Interview (K-CID)
34 35 36 37 38	150	Esie et al. (2019)	Cohort (Bangladesh)	Bangladeshi married women	3290 100% female	Revised Conflict Tactics Scale (CTS) and WHO Multi-Country Study on Women's Health and Domestic Violence	Psychological violence, physical violence, sexual violence and injury	Major depressive episodes Edinburgh Postnatal Depression Scale (EPDS)

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3 4 5 6	151	Han et al. (2019)	Cohort (Korea)	Korean married adults	9217 51% female 49% male	Conflict Tactics Scale (CTS)	Verbal violence, physical violence	Depressive symptoms Center for Epidemiologic Studies Depression (CES-D-11) Scale
7 8 9 10	152	Lysova et al. (2019)	Survey (Canada)	Canada general population	14,575 49% female 51% male	Revised Conflict Tactics Scale—Victimization (CTS2)	Physical violence, sexual violence	PTSD symptoms Primary Care PTSD Screen for DSM-5
11 12 13	153	Nyato et al. (2019)	Survey (Tanzania)	Adolescent and young women	3013 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Sexual violence, emotional violence, physical violence	Depression symptoms Patient Health Questionnaire (PHQ-4)
14 15 16 17 18	154	Ross et al. (2019)	Survey (USA)	US college students	885 66% female 34% male	SCIRS Sexual Coercion and Severity of Violence Against Women Scale (SVAWS)	Sexual violence, sexual coercion	Depression & anxiety symptoms The Hopkins Symptom Checklist (HSCL)
19 20 21 22	155	Voth Schrag et al. (2019)	Survey (USA)	US female college students	435 100% female	The Abusive Behavior Inventory (revised) (ABI(R)), The Scale of Economic Abuse (SEA)	Economic abuse, physical violence, sexual violence	Depression & PTSD symptoms Center for Epidemiologic Studies Depression (CES-D), the PTSD Checklist for DSM-5 (PCL-5)
23 24 25 26	156	Wong et al. (2019)	Survey (Hong Kong)	Chinese college students	1015 58.5% female 41.5% male	The sexual abuse subscale of the Chinese Revised Conflict Tactic Scale (CTS-2)	Sexual coercion, sexual violence	Anxiety & depression Chinese version of the Hospital Anxiety and Depression Scale (HADS)
27 28 29 30 31 32	157	Wright et al. (2019)	Survey (USA)	US women aged 24-32	7392 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual violence	Depression & alcohol dependence Center for Epidemiologic Studies Depression (CES-D), Alcohol Dependence measure from the DSM-IV
33 34 35 36	158	Yuan and Hesketh (2019)	Survey (China)	Chinese women	2987 100% female	Revised Conflict Tactics Scale (CTS2) and the Composite Abuse Scale (CAS)	Psychological violence, physical violence, sexual violence	Depression Center for Epidemiologic Studies Depression (CES-D)
37 38 39 40	159	Alangea et al. (2018)	Survey (Ghana)	Ghanian women	2000 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Sexual violence, physical violence, economic violence, emotional violence	Depression Center for Epidemiologic Studies Depression (CES-D)

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3 4 5	160	Chang et al. (2018)	Survey (USA)	US men and women	101 71% female 29% male	Hurt, Insulted, Threatened With Harm, and Screamed at Them Scale (HITS)	Exposure to domestic partner violence	Suicidal behaviours Suicidal Behaviors Questionnaire–Revised (SBQ-R)
6 7 8 9	161	Gibbs et al. (2018)	Survey (South Africa)	South African women	680 100% female	Adapted version of the WHO MCS survey, the UN Multi-Country Study for women (UNMCS)	Physical violence, sexual violence	Depression & suicidal ideation Center for Epidemiologic Studies Depression (CES-D)
10 11 12 13	162	Indu et al. (2018)	Survey (India)	South Indian women	60 100% female	Domestic Violence Questionnaire (DVQ)	Physical violence, sexual violence	Depression & anxiety MINI (Mini International Neuropsychiatric Interview) Malayalam Version
14 15 16 17 18	163	Kavak et al. (2018)	Survey (Turkey)	Turkish women	1025 100% female	Domestic Violence Scale (DVS)	Emotional violence, verbal violence, physical violence, sexual violence, financial control	Probability of suicide Suicide probability scale
19 20 21	164	Maru et al. (2018)	Survey (USA)	Asian American women	173 100% female	Revised Conflict Tactics Scale (CTS2)	Psychological violence, sexual coercion, physical violence	Lifetime suicidal ideation/intent Columbia Suicide Severity Rating Scale (C-SSRS)
22 23 24	165	Mathur et al. (2018)	Survey (Kenya and Zambia)	Kenyan and Zambian young women	3693 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Sexual violence	Depression & anxiety PHQ-4 mental health scale
25 26 27 28 29 30	166	Qin and Yan (2018)	Survey (China)	Older Chinese	453 56.3% female 43.7% male	Potentially Harmful Behavior (PHB) scale adapted from WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, verbal violence, psychological violence	Poor mental health General Health Questionnaire (GHQ)
31 32 33	167	Ridings et al. (2018)	Cohort (USA)	US female caregivers	548 100% female	Revised Conflict Tactics Scale (CTS2)	Exposure to IPV	Depression Beck Depression Inventory–2nd Edition (BDI-II)
34 35 36 37 38 39	168	Ruiz-Perez et al. (2018)	Survey (Spain)	Spanish general population	4507 51% female 49% male	WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, emotional violence, sexual violence	Depression, mood disorders, PTSD, alcohol and substance abuse, suicidal ideation, & personality disorders SF-12 questionnaire, MINI International

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							Neuropsychiatric Interview
169	Shah et al. (2018)	Survey (USA)	US general population	1615 58% female 42% male	National Intimate Partner and Sexual Violence Survey	Threat, physical violence, sexual violence	Psychotic experiences World Health Organization (WHO) Composite International Diagnostic Interview (CIDI) psychosis screen
170	Simmons et al. (2018)	Cohort (USA)	US general population	879 53% female 47% male	Conflict Tactics Scale (CTS)	IPV Victimization IPV Perpetration	Depression Diagnostic Interview Schedule (DIS) for DSM-IV
171	Yalch and Levendosky (2018)	Survey (USA)	US young adult women	654 100% female	Revised Conflict Tactics Scale (CTS2)	Exposure to IPV	Hazardous alcohol use Alcohol Use Disorder Identification Test (AUDIT)
172	Gehring and Vaske (2017)	Cohort (USA)	US adolescent	9863 52.4% female 47.6% male	Conflict Tactics Scale (CTS)	Exposure to IPV	Depressive symptoms & alcohol related problems Center for Epidemiologic Studies Depression (CES-D), Diagnostic and Statistical Manual of Mental Disorders
173	Kapiga et al. (2017)	Survey (Tanzania)	Tanzanian women	1021 100% female	WHO Multi-Country Study on Women's Health and Domestic Violence	Physical violence, sexual violence, controlling behaviour	Poor mental health Self-Report Questionnaire (SRQ-20)
174	Liu et al. (2017)	Survey (USA)	Multi countries general population	34676 44.6% female 55.4% male	WHO World Mental Health (WMH) surveys	Physical violence (experience as a child), sexual violence (by romantic partner)	PTSD Composite International Diagnostic Interview (CIDI)
175	Mendonca et al. (2017)	Cohort (Brazil)	Brazilian women	390 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Psychological violence, physical violence, sexual violence	Mental health Self-Report Questionnaire (SRQ-20)
176	Yalch et al. (2017)	Survey (USA)	US female students	654 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual violence, psychological violence	Trauma symptoms Trauma Symptom Checklist (TSC-33)
177	Ally et al. (2016)	Survey (Brazil)	Brazilian men and women	3007 64% female 36% male	Revised Conflict Tactics Scale (CTS2)	Victimisation, perpetration	Alcohol disorders Brazilian version of the Composite International Diagnostic Interview (DSM-5)

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3 4 5 6	178	Al-Modallal (2016)	Survey (Jordan)	Jordanian college female students	97 100% female	The Safe Dates–Physical Violence Victimization Scale	Physical violence, sexual violence	Depressive symptoms & stress Center for Epidemiologic Studies Depression (CES-D), Depression Anxiety Stress Scales
7 8 9 10	179	De Barros et al. (2016)	Survey (Brazil)	Brazilian women	245 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual violence	Common mental disorders Self-Reporting Questionnaire (SRQ-20)
11 12 13 14	180	Ulloa et al. (2016)	Survey (USA)	US general population	7187 60% female 40% male	Modified version of the Conflicts Tactics Scale (CTS)	No violence, unidirectional violence, bidirectional violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
15 16 17 18 19 20	181	Hellemans et al. (2015a)	Survey (Belgium)	Turkish population in Belgium	392 50.2% female 49.8% male	Modified version of the Conflicts Tactics Scale (CTS), WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, psychological violence	Mental health Mental Health Inventory (MHI-5)
21 22 23 24 25 26	182	Hellemans et al. (2015b)	Survey (Belgium)	Flanders general population	1448 48% female 52% male	Modified version of the Conflicts Tactics Scale (CTS), WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Physical violence, psychological violence	Mental health Mental Health Inventory (MHI-5)
27 28 29	183	Kulwicki et al. (2015)	Survey (USA)	Arab US women	312 100% female	Danger Assessment Scale (DAS)	Physical violence, threats, psychological	Depressive symptoms Center for Epidemiologic Studies Depression Scale (CES-D)
30 31 32 33	184	La Flair et al. (2015)	Cohort (USA)	US female healthcare workers	215 100% female	Modified version of the Abuse Assessment Screen (AAS)	Physical violence, sexual violence, emotional violence	Depression & PTSD Center for Epidemiologic Studies Depression Scale short form (CESD-10), PTSD screen (PC-PTSD)
34 35 36 37 38	185	Ouellet-Morin et al. (2015)	Cohort (UK)	UK mothers	978 100% female	Conflict Tactics Scale (CTS)	Exposure to IPV	Depressive disorders & psychosis spectrum symptoms Diagnostic Interview Schedule (DIS) for DSM-IV, Michigan Alcoholism Screening Test, Drug

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5	186	Svavarsdottir et al. (2015)	Survey (Iceland)	Icelandic women	306 100% female	Woman Abuse Screening Test (WAST)	Overall score reported	PTSD Primary Care Post-Traumatic Stress Disorder (PC-PTSD) Screening Tool
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9	187	Wright et al. (2015)	Cohort (USA)	US female caregivers	2959 100% female	Conflict Tactics Scale (CTS)	Physical violence, threatened	Depression symptoms Composite International Diagnostic Interview (UM-CIDI)
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12	188	Decker et al. (2014)	Survey (Multi states: USA, India, Nigeria, South Africa, China)	Adolescent females from 5 countries	1112 100% female	Conflict Tactics Scale (CTS2)	Physical violence, sexual violence, threatened	Depression symptoms & suicidal ideation Center for Epidemiologic Studies Depression Scale (CES-D)
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17	189	Jeter et al. (2014)	Survey (USA)	US female students	232 100% female	Revised Conflict Tactics Scale (CTS2), Measure of Psychologically Abusive Behaviors	Psychological violence, physical violence	PTSD symptoms Posttraumatic Stress Disorder Checklist
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21	190	Renner et al. (2014)	Survey (USA)	US rural couples	548 50% female 50% male	Conflict Tactics Scale (CTS)	Physical violence, emotional violence	Depressive symptoms Center for Epidemiologic Studies Depression Scale
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24	191	Tiwari et al. (2014)	Survey (Hong Kong)	Chinese women	745 100% female	Chinese Version of the Abuse Assessment Screen (C-AAS); Chinese version of the Revised Conflict Tactics Scale (C-CTS2); The Chinese version of the Revised Controlling Behaviors Scale (C-CBS-R).	Physical violence, sexual violence	Depressive & PTSD symptoms Chinese version of the 21-item Beck Depression Inventory version II (C-BDI-II)
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32	192	Watkins et al. (2014)	Cohort (USA)	US young women	375 100% female	Revised Conflict Tactics Scale (CTS2)	Physical victimization, psychological victimization, physical IPA, psychological IPA	Depressive symptoms Depression Subscale of the Depression Anxiety Stress Scales (DASS-21)
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36	193	Adams et al. (2013)	Cohort (USA)	US low-income women	503 100% female	Conflict Tactics Scale (CTS)	Physical violence, sexual violence, emotional violence	Major depression & anxiety disorder WHO-CIDI-SF
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3 4 5	194	Kim et al. (2013)	Survey (Korea)	Korean national sample	3153 100% female	Conflict Tactics Scale (CTS)	Physical violence	Depression Center for Epidemiologic Studies Depression Scale (CES-D)
6 7 8 9 10	195	Meekers et al. (2013)	Survey (Bolivia)	Bolivian women	10,119 100% female	Bolivia Demographic and Health Survey [based on the Conflict Tactics Scale (CTS)]	Psychological violence, physical violence, sexual violence	Depression, anxiety & symptoms of psychotic disorders Self-Reporting Questionnaire 20 (SRQ-20), Self-Reported Questionnaire (SRQ-25)
11 12 13 14 15	196	Verduin et al. (2013)	Survey (Rwanda)	Rwandan general population	241 46.1% female 53.9% male	Revised Conflict Tactics Scale, Short Version (CTS2S)	IPV victims IPV perpetrators	Common mental disorders & suicidal ideation Self-Reporting Questionnaire—20 Items (SRQ-20)
16 17 18 19 20	197	Jina et al. (2012)	Survey (South Africa)	South African young women	1293 100% female	WHO Multi-Country Study on Women Health and Domestic Violence Against Women	Emotional violence, physical violence, sexual violence	Depression & alcohol use Center for Epidemiologic Studies Depression Scale (CES-D), Alcohol Use Disorder Identification Test (AUDIT)
21 22 23	198	Kaplan et al. (2012)	Cohort (USA)	US low-income women	2269 100% female	Revised Conflict Tactics Scale (CTS2)	Physical violence, sexual coercion, psychological violence	Psychological distress Brief Symptom Inventory (BSI-18)
24 25 26	199	La Flair et al. (2012)	Cohort (USA)	US female healthcare workers	1438 100% female	Abuse Assessment Screen (AAS)	Sexual violence, physical violence, psychological violence, stalking	Depressive symptoms Center for Epidemiologic Studies Depression Scale (CES-D)
27 28 29 30 31 32 33 34	200	Lucea et al. (2012)	Case-control (Baltimore, MD, USA and St. Croix and St. Thomas, U.S. Virgin Islands (USVI))	US African and African Caribbean women	781 100% female	Abuse Assessment Screen (AAS), Women's Experiences of Abuse (WEB); Severity of Violence Against Women instrument (SVAWS) and Danger Assessment Scale (DAS)	Emotional violence, physical violence, sexual violence	Depressive symptoms & PTSD Center for Epidemiologic Studies Depression Scale (CES-D), Primary Care Post Traumatic Stress Disorder Screening (PC-PTSD)
35 36 37	201	Nur et al. (2012)	Survey (Turkey)	Turkish women	1844 100% female	Conflict Tactic Scales (CTS2)	Physical violence, sexual violence	Mental distress General Health Questionnaire (GHQ-12)

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Text S1: Example search strategy

Database: Ovid MEDLINE(R) without Revisions <1996 to November 2020>

1 exp Domestic Violence/ (32702)
 2 exp Spouse Abuse/ (6065)
 3 exp Intimate Partner Violence/ (8264)
 4 exp Gender-Based Violence/ (207)
 5 Exposure to Violence/ (727)
 6 Physical Abuse/ (603)
 7 Rape/ (4047)
 8 ((abuse* or abusive or assault* or aggress* or batter* or coerci* or controll* or violen* or threat* or
 9 manipulati* or maltreat*) adj3 (physical* or sexual* or domestic or emotional* or psychological* or
 10 partner* or finan* or econom*)).ti,ab. (41690)
 11 (polyvictim* or poly victim*).ti,ab. (181)
 12 (rape* or raping).ti,ab. (7235)
 13 or/1-10 (64409)
 14 Battered Women/ or "battered wom?n".ti,ab. (2633)
 15 Sexual Partners/ (14989)
 16 Spouses/ (9036)
 17 (spouse or spousal or intima* or relationship* or men or women or wife or wives or husband* or
 18 boyfriend* or girlfriend* or couple*).ti,ab. (1825136)
 19 or/12-15 (1830704)
 20 exp Mental Health/ (30375)
 21 exp Mental Disorders/ (813467)
 22 exp anxiety disorders/ or exp "bipolar and related disorders"/ or exp mood disorders/ or exp neurotic
 23 disorders/ or exp personality disorders/ or exp "schizophrenia spectrum and other psychotic disorders"/ or
 24 exp psychotic disorders/ or exp schizophrenia/ or exp sexual dysfunctions, psychological/ or exp "trauma
 25 and stressor related disorders"/ or exp stress disorders, traumatic/ (271409)
 26 psych*.ti,ab. (486729)
 27 depress*.ti,ab. (282127)
 28 (anxiet* or anxious).ti,ab. (138444)
 29 suicid*.ti,ab. (50414)
 30 mood*.ti,ab. (54328)
 31 stress*.ti,ab. (575240)
 32 schizophreni*.ti,ab. (73587)
 33 (mania or manic).ti,ab. (9807)
 34 "post traumatic stress disorder*".ti,ab. (8132)
 35 PTSD.ti,ab. (18469)
 36 "complex trauma*".ti,ab. (397)
 37 (bipolar or bi polar).ti,ab. (42042)
 38 phobi*.ti,ab. (7007)
 39 panic*.ti,ab. (12866)
 40 "self harm".ti,ab. (4018)
 41 "self injur*".ti,ab. (3224)
 42 (social adj3 (function* or withdraw* or isolat*)).ti,ab. (24365)
 43 re-experiencing.ti,ab. (530)
 44 flashback*.ti,ab. (394)
 45 nightmare*.ti,ab. (1843)
 46 hyperarousal.ti,ab. (1361)
 47 "mood dysregulation".ti,ab. (260)
 48 guilt*.ti,ab. (6104)
 49 ((sleep* or concentrat*) adj3 (difficult* or problem* or troubl*)).ti,ab. (10165)
 50 insomnia*.ti,ab. (14536)
 51 "intrusive thought*".ti,ab. (688)
 52 intrusion.ti,ab. (4394)

47 hallucinat*.ti,ab. (8774)
 48 (delusion* or delud*).ti,ab. (6479)
 49 "hearing voice*".ti,ab. (203)
 50 "thought disorder*".ti,ab. (824)
 51 hopeless*.ti,ab. (3891)
 52 self-esteem.ti,ab. (14250)
 53 bulimi*.ti,ab. (5405)
 54 purging.ti,ab. (2783)
 55 "eating disorder*".ti,ab. (14473)
 56 anorexi*.ti,ab. (20017)
 57 "binge eat*".ti,ab. (4372)
 58 ("borderline personality disorder" or BPD).ti,ab. (8988)
 59 ("emotionally unstable personality disorder*" or EUPD).ti,ab. (32)
 60 ((drug* or alcohol or substance*) adj3 (use* or using or misuse* or misusing or abus*)).ti,ab.
 (220047)
 61 or/17-60 (1925413)
 62 11 and 16 and 61 (15453)
 63 Case-Control Studies/ or Control Groups/ or Matched-Pair Analysis/ or ((case* adj5 control*) or
 (case adj3 comparison*) or control group*).ti,ab. (603748)
 64 cohort studies/ or longitudinal studies/ or follow-up studies/ or prospective studies/ or retrospective
 studies/ or cohort.ti,ab. or longitudinal.ti,ab. or prospective.ti,ab. or retrospective.ti,ab. (1995219)
 65 Controlled Before-After Studies/ or Controlled Before-After.ti,ab,kw. (693)
 66 historically controlled study/ or historically controlled.ti,ab,kw. (301)
 67 ("clinical trial" or "clinical trial, phase i" or "clinical trial, phase ii" or clinical trial, phase iii or
 clinical trial, phase iv or controlled clinical trial or "multicenter study" or "randomized controlled trial").pt.
 or double-blind method/ or clinical trials as topic/ or clinical trials, phase i as topic/ or clinical trials, phase
 ii as topic/ or clinical trials, phase iii as topic/ or clinical trials, phase iv as topic/ or controlled clinical trials
 as topic/ or randomized controlled trials as topic/ or early termination of clinical trials as topic/ or
 multicenter studies as topic/ or ((randomi?ed adj7 trial*) or (controlled adj3 trial*) or (clinical adj2 trial*)
 or ((single or doubl* or tripl* or treb*) and (blind* or mask*))).ti,ab,kw. or ("4 arm" or "four
 arm").ti,ab,kw. (1245465)
 68 Cross-Sectional Studies/ or Prevalence/ or (cross-sectional or prevalence or transversal).ti,ab,kw.
 (815913)
 69 Interrupted time series/ or Interrupted time series.ti,ab,kw. (2511)
 70 exp Epidemiologic Studies/ (2122380)
 71 or/63-70 (3767805)
 72 exp Checklist/ or exp "Surveys and Questionnaires"/ or exp "Severity of Illness Index"/ or exp
 Therapeutic Index/ or exp Outcome Assessment, Health Care/ or exp "Outcome and Process Assessment,
 Health Care"/ or exp Patient Outcome Assessment/ or exp Symptom Assessment/ or exp
 Neuropsychological tests/ (2000243)
 73 (score* or scoring or scale* or outcome* or report* or tool* or "check list*" or checklist* or inventory
 or question* or assess* or measure* or test* or index or screen* or evaluat*).ti,ab,kw. (8633448)
 74 72 or 73 (9047760)
 75 62 and 71 and 74 (7415)
 76 limit 75 to (english language and yr="2012-Current") (3777)
 77 exp animals/ not humans.sh. (2415897)
 78 76 not 77 (3777)
