WHAT WORKS: OVERVIEWS OF REVIEWS

The effectiveness of crisis and post-crisis responses for victims and survivors of sexual violence:

An overview of findings from reviews

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AUSTRALIA'S NATIONAL RESEARCH ORGANISATION FOR WOMEN'S SAFETY

to Reduce Violence against Women & their Children

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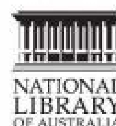

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WHAT WORKS: OVERVIEWS OF REVIEWS

The effectiveness of crisis and post-crisis responses for victims and survivors of sexual violence:

An overview of findings from reviews

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Acknowledgement of lived experiences of violence

ANROWS acknowledges the lives and experiences of the women and children affected by domestic, family and sexual violence who are represented in this report. We recognise the individual stories of courage, hope and resilience that form the basis of ANROWS research.

Caution: Some people may find parts of this content confronting or distressing. Recommended support services include 1800RESPECT (1800 737 732) and Lifeline (13 11 14).

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Executive summary

Background

Sexual violence is highly prevalent globally, and rates of reported sexual violence in Australia continue to rise. It can be both a standalone crime and a form of domestic and family violence. Sexual violence can adversely affect the physical and mental health and social wellbeing of victims and survivors, who might require support from legal, medical, counselling and advocacy services. Various specific interventions have been developed over time to support recovery and reduce the impact after sexual violence. Interventions typically fall into two categories: crisis responses delivered in the immediate aftermath of a sexual violence event, often in specialist sexual assault centres or in healthcare settings and comprising specialised medico-legal and counselling services; and post-crisis responses, typically therapeutic interventions implemented as long-term efforts to address psychological and emotional impacts. The aim of this review is to provide an overview of the state of the evidence from existing systematic reviews in relation to the effectiveness of crisis and post-crisis interventions for victims and survivors of sexual violence.

Methods

Using a systematic approach, an overview of reviews was conducted to allow for evidence from a large body of research literature to be synthesised, compared and contrasted in a systematic way. Reviews assessed for inclusion were identified by systematically searching multiple sources from the period January 2010 to October 2020. To allow for comparability to the Australian context, only reviews that included studies from high-income countries were included. Individual studies were excluded. The search identified nine reviews for inclusion, three of which focused on crisis responses, four on post-crisis psychological responses, and two on both.

Results

Reviews of crisis responses to sexual violence were largely limited to interventions that seek to improve coordination and collaboration between the different service responses (e.g. health and legal), and responses provided by practitioners in healthcare settings. The most commonly evaluated interventions were sexual assault response teams (SARTs) and sexual assault nurse examiner (SANE) programs. Reviews commonly assessed crisis responses for improvements in collaboration, criminal justice outcomes, increased referrals, and victims' and survivors' experiences of care. While there is emerging evidence that these interventions are effective across all four of these outcomes, the evidence base is limited and the quality of the evidence overall poor. Studies that evaluated crisis responses were largely qualitative or descriptive.

In terms of post-crisis responses that support recovery and seek to improve mental health and wellbeing outcomes for victims and survivors, the most commonly evaluated interventions were cognitive, behavioural and psychoeducational interventions, as well as supportive psychotherapy and counselling. Evaluations report on mental health outcomes as well as victims' and survivors' experiences of care. Post-crisis responses, specifically cognitive and behavioural interventions, were found to be effective at improving some mental health outcomes for victims and survivors, most commonly post-traumatic stress, depression and anxiety. While these findings are of interest, it is important to note that this evidence base is also small and lacking methodological rigour.

Key factors associated with effectiveness or acceptability of crisis responses included the degree of participation and quality of relationships between medical and legal representatives within SARTs; appropriate resourcing of SARTs; and the relationship between health workers, including counsellors, and victims and survivors. Factors associated with effectiveness for post-crisis responses included the individual and tailored delivery of interventions, the informal support available to victims and survivors, treatment duration and timing, the availability of specialist training in sexual violence for frontline providers, and the victims' and survivors' relationship with the counsellor delivering the intervention.

Directions for future research

Stronger evidence is needed to evaluate the effectiveness of responses to sexual violence. Some specific recommendations for future research include the following:

- Conduct more and better quality studies, including randomised and non-randomised controlled studies that compare interventions.
- Collect data from victims and survivors themselves to allow for the triangulation of data from multiple sources.
- Develop quantifiable measures of the effectiveness of SARTs.
- Evaluate the impact of SARTs and SANEs on victim and survivor outcomes (currently limited to process outcomes).
- Examine the role of health practitioners in first-line response and referral, beyond SANE or SART programs.
- Improve the quality of reporting and include a description of the intervention methods used, the time elapsed since the sexual assault, history of childhood or previous sexual abuse, and the nature of the assault.
- Examine what interventions work for whom and how they work for different individuals and contexts (e.g. sexual assault by a stranger versus intimate partner sexual violence).
- Evaluate the effectiveness of training non-specialists to provide common mental health interventions.
- Evaluate non-clinical support services for victims and survivors of sexual violence, including advocacy services and informal supports.
- Conduct research with larger and more representative samples, including with LGBTQ+ and non-Caucasian populations.
- Evaluate Australia-based interventions. The majority of primary studies included in reviews were based in the United States, limiting transferability to the Australian context.
- Evaluate what works to effectively respond to Aboriginal and Torres Strait Islander victims and survivors of sexual assault. Evidence should be generated in collaboration with communities and services.

Implications for policy and practice

There is a need to continue to support specialised support services for victims and survivors of sexual violence. While further research is needed, given the prevalence of mental health issues associated with victims and survivors, cognitive and behavioural interventions could be considered an appropriate response for improving mental health symptoms. In addition, support to frontline responders (e.g. through training and protocols) to deliver specialised, patient-centred, trauma-informed support for victims and survivors that responds to their needs should be prioritised. Finally, given models such as SARTs may improve system responses to victims and survivors, collaborative responses to sexual violence and interventions that integrate specialist sexual violence response services into existing health services should be further explored and evaluated, particularly in the Australian context.

Background

Sexual violence is highly prevalent globally, and rates of reported sexual violence in Australia continue to rise.[1] It can be both a standalone crime and a form of domestic and family violence.[1, 2] Sexual violence can adversely affect the physical and mental health and social wellbeing of victims and survivors, who as a result may require support from legal, medical, counselling and advocacy services.[3-6] Various specific interventions have been developed over time to support recovery after and reduce the impact of sexual violence.[3, 6, 7] Interventions typically fall into two categories: *crisis responses* delivered in the immediate aftermath of a sexual violence event, often in specialist sexual assault centres or in healthcare settings;[5] and *post-crisis responses,* typically counselling interventions implemented as long-term efforts to address psychological and emotional impacts.[3, 7, 8] Despite these interventions, victims and survivors continue to face barriers to reporting and accessing sexual violence support services, and there is a need to examine the effectiveness of interventions.[2, 9]

The aim of this review is to provide an overview of the state of the evidence from existing systematic reviews in relation to the effectiveness of crisis and post-crisis interventions for victims and survivors of sexual violence. It also provides an overview of the evidence demonstrating effectiveness, with a focus on findings and recommendations that are relevant to policymakers and practice design decision-makers. The overview of reviews is structured as follows:

1. overview of the methods used
2. results reporting the effectiveness findings as well as factors associated with effectiveness for each outcome, first for crisis responses, followed by post-crisis responses
3. evidence gaps and directions for future research
4. implications for policy and practice.

Methods

Using a systematic approach, an overview of reviews was conducted to allow for evidence from a large body of research literature to be synthesised, compared and contrasted in a systematic way, and presented in a single document.[10] This current overview of reviews was conducted within the context of a larger ANROWS-led "What Works" study that is mapping the available evidence for interventions that seek to reduce the prevalence and the impact of violence against women more broadly.

Screening process and study selection

Reviews were identified for inclusion by systematically searching multiple sources, including the database Scopus and websites of key organisations in the violence against women field, from the period January 2010 to October 2020. The details are outlined in Appendix B. Studies were assessed for inclusion using the criteria outlined in Table 1.

Studies were first screened for inclusion by title and/or abstract. Reasons for excluding studies were documented. Relevant studies were uploaded into a designated EndNote library for full-text screening. During the early phase of the study, all reviews were discussed with the team until clarity around inclusion and exclusion was established, and the research team demonstrated confidence and consistency in decision-making. All review studies identified for inclusion were cross-checked by a second reviewer, and any disagreement addressed through discussion with the entire team.

Data charting and synthesis

Data from included studies were systematically extracted using a purposely designed data extraction template. To allow for easy extraction and analysis, the data extraction form was administered using Survey Monkey (which can be exported into Word or Excel).

Table 1: Inclusion criteria

Topic	Inclusion criteria
Study aim and intervention	To review, summarise or synthesise effectiveness evidence of crisis and/or post-crisis responses to sexual violence
Types of violence	Sexual violence
Study design	All review studies, providing a systematic approach to study selection was used
Quality	While no formal quality assessment was conducted, only reviews that clearly described the methods used were included
Years	Studies published between 1 January 2010 and 31 October 2020
Countries	Reviews that included high-income countries. Reviews limited to only low- or middle-income countries were excluded
Publication type	Reviews published as peer-reviewed journal articles as well as research (grey literature) reports were included. Publications not available or accessible in full text were excluded
Language	Only studies published in the English language were included

Data analysis was conducted using Excel and Word files. Findings were analysed per outcome and intervention type. Review study results at the intervention type level, in relation to specific outcomes, are only described as effective ("works") if findings were statistically significant; the review included high-evidence studies, specifically randomised controlled trials (RCTs) and non-RCTs with appropriate forms of control; and review authors expressed confidence in the quality of included primary studies. Positive findings that were based on lower evidence studies such as non-RCTs without appropriate forms of control, pre–post studies and qualitative studies are described as "positive". Findings are described as "mixed" when the results from included studies conflict. The term "no impact" is used when the intervention is not associated with a statistically significant change, and the term "harmful" is limited to results that demonstrate a statistically significant negative impact.

Results

Nine reviews were identified for inclusion that assessed the effectiveness of interventions for adult women (aged 15+) who have experienced sexual assault and/or other forms of sexual violence. Six reviews studied interventions for sexual assault (including, in some cases, child sexual assault),[3-5, 7, 11, 12] while three included interventions for victims and survivors of various forms of sexual violence, including sexual assault, intimate partner violence, dating violence, historical/child sexual abuse, stranger attacks and cyber experiences of sexual violence.[6, 8, 13] A detailed overview of the included review studies and their design is reported in Appendix A (Table A1).

Of the nine reviews included, three reviews were limited to crisis responses to sexual violence (provided immediately following the sexual assault)[4, 5, 13] and four to post-crisis responses (to address the impacts of the sexual assault);[3, 7, 11, 12] two included both types of responses.[6, 8]

Reviews of *crisis responses* to sexual violence were largely limited to interventions that seek to improve coordination and collaboration between the different service responses (e.g. health and legal) and crisis responses provided by practitioners in healthcare settings. The most commonly evaluated interventions were sexual assault response teams (SARTs) and sexual assault nurse examiner (SANE) programs. SARTs are multidisciplinary interventions that bring together professionals who respond to sexual assault across legal, medical, counselling and advocacy sectors to increase collaboration and improve responses for victims and survivors.[4, 5, 8] A SANE is a nurse with specialist training who provides specialised healthcare and forensic examination to victims and survivors of sexual assault.[5, 6 4] SANEs also provide medical testimony and consultation to legal authorities in sexual assault cases and many SANEs are part of SARTs.[5] Included evaluations of crisis responses to sexual violence were generally limited to process outcomes, and did not assess the impact of these responses on outcomes for victims and survivors (e.g. mental health improvements). Specifically, evaluation of crisis responses report on improvements in collaboration, criminal justice outcomes, increased referrals, and victims' and survivors' experiences of care.

Post-crisis interventions seek to support recovery and improve mental health and wellbeing outcomes for victims and survivors through psychological interventions. The most commonly evaluated interventions were cognitive, behavioural and psychoeducational interventions, and supportive psychotherapy and counselling.[3, 6-8, 11, 12] Evaluations of these services report on mental health outcomes, specifically mental health outcomes more broadly, PTSD symptoms, symptoms of depression, anxiety symptoms, dissociation symptoms, symptoms of distress/fear, social adjustment, guilt, substance misuse and sexual function, as well as victims' and survivors' experiences of care/service feedback.

An overview of the outcomes and their definitions is included in Appendix A (see Table A2).

This review presents the effectiveness findings for each outcome, as well as factors associated with effectiveness. The synthesis of findings from the reviews of crisis responses are presented first, followed by the reviews of post-crisis interventions that aim to reduce the negative impacts of violence.

Crisis responses

Five reviews assessed crisis responses to sexual violence, with three focused on SARTs,[4, 5, 8] three on SANE programs[4-6] and two that included a range of other *crisis responses in healthcare settings*.[6, 13] The two reviews that covered interventions delivered in healthcare settings more broadly included a range of interventions such as trauma-informed care, STI and HIV testing, forensic examination and evidence collection, and psychological support offered during healthcare consultations.[6, 13] The effectiveness of these programs in relation to process outcomes, improvements in collaboration, number of referrals, criminal justice outcomes and victims' and survivors' experiences of care/service feedback are outlined below.

Improved collaboration

Three reviews reported on the impact of coordinated service responses, in particular *SART programs*, on improved collaboration outcomes.[4 5 8]

- One review (of eight studies) found positive results across three primary studies indicating that SARTs improved the overall quality of multidisciplinary relationships between stakeholders. The review found SARTs increased

cross-system contact and information exchange and improved role clarity, communication and collective decision-making.[4] For example, one included primary study that reported findings from interviews with rape victim advocates across 23 rape crisis centres in California found SARTs increased contact among members and improved cross-system relationships, in particular between advocacy and law enforcement.[4]

- Another review (of 12 studies) that looked at SANEs' roles within SARTs identified a range of barriers to improved collaboration associated with SART programs, including a lack of role clarity, communication issues, confidentiality concerns and criminal justice system relations.[5]
- A rapid review (of an unspecified number of studies) concluded that there is promising evidence that coordinated responses, such as SARTs, can increase communication between different providers and streamline support.[8]

Increased referrals

Two reviews reported on the impact of *SANE and SART programs* on victims' and survivors' referrals to support services.[4, 8]

- One review (of 8 studies) found across four primary studies that SARTs increase victims' and survivors' referrals to services.[4] The review included a quasi-experimental study which found that victims and survivors who accessed both SANEs and SARTS were offered the most services on average (including transportation to the hospital, clothing and rape crisis counselling) when compared to cases not involving either intervention or only involving SANEs.[4]
- Another rapid review of post-crisis literature refers to the above review in reporting that SARTs have been shown to increase victims' and survivors' referrals to services.[8]

Criminal justice outcomes

- One review (of 8 studies) of *SANE and SART programs* included a quasi-experimental study that found support from SANEs and SARTs was associated with significantly greater participation in the criminal justice system, reduced time between assault and reporting, and better forensic evidence collected.[4] The study also found that cases with SANE and SART involvement were more likely to result in arrest and charges being filed by the prosecutor. However, there was no impact on conviction rates and sentence lengths. Another study included in this review found no statistical difference between cases involving a SART and those not involving a SART in relation to charges being filed or later dismissed, however these findings need to be interpreted with caution given the study's methodological limitations.[4]
- One review (of 20 studies) of *crisis responses in healthcare settings* found that forensic examination to support criminal investigation was only performed for a variable proportion of patients across 10 primary studies.[13] The review noted the conduct of forensic examination depended partly on the setting at presentation and that in many cases, examination was either not expected or not wanted by the patient.[13]

Victims' and survivors' experiences of care/ service feedback

Two reviews examined the effectiveness of *SANE and SART programs* in improving victims' and survivors' experiences of care.[4, 6]

- One review (of eight studies) that included four relevant primary studies concluded SARTs support improved communication with victims and survivors.[4] Based on stakeholder self-reports, the review found SARTs reduce secondary trauma for victims and survivors as the intervention reduces the number of times they are required to recount their stories (see Table A2).[4]

Two reviews examined the effectiveness of *crisis responses in healthcare settings* more broadly in improving victims' and survivors' experiences of care.[6, 13]

- One review (of 20 studies) found that there is inconsistency in the information and services provided to victims and survivors of sexual violence, particularly in relation to HIV advice and mental health support.[13] This review found that victims and survivors report mixed experiences with crisis responses, with negative experiences stemming from not being believed or abuse being minimised by healthcare providers.[13]

Key factors identified within the reviews as contributing to the effectiveness or acceptability of the crisis interventions are noted in Table 1 below.

Table 1: Crisis response factors affecting effectiveness

Factor	Results
Participation and relationships between medical and legal representatives in SARTs	Two reviews noted the importance of meaningful representation and good relationships between medical and legal representatives in SARTs.[4, 5] One review noted that inadequate staffing for *SANE and SART programs* negatively affected the medical and forensic care provided to victims and survivors, the availability of evidence for successful prosecution, and the time for collaboration across disciplines[4]
Goal alignment in SARTs	Two reviews reported that a lack of clarity around the goal of a SART among its members is a key inhibitor to effective implementation and can lead to conflict over roles.[4, 5] For example, one review found confusion regarding whether the goal of the SART was to reduce post-assault trauma or to obtain evidence to assist with prosecutions.[4] Another review similarly found goal confusion between SANEs, who are focused on forensic evidence collection, and rape crisis advocates, who are focused on providing specialised support.[5] Increased communication, debriefing meetings, feedback, conflict resolution, joint training, respect and appreciation for other members' professions are essential for successful SARTs.[5] Addressing barriers to information sharing between agencies can also be important to reduce tensions between members[4]
Resourcing SARTs	One review stressed that for SARTs to function effectively these programs need to be resourced adequately[4]
Therapeutic alliance (relationship between health workers, such as counsellors, and clients)	The therapeutic relationship and the healthcare provider's ability to provide patient-centred, trauma-informed care was identified as a key factor that informed effectiveness in three reviews.[6, 8, 13] Strong patient-provider relationships increased victims' and survivors' positive experiences of services and were associated with long-term outcomes such as healing, while negative experiences were associated with lower engagement with services and worse health and wellbeing outcomes.[13] Engagement with care and improvement in mental health outcomes were also associated with patients' perceptions of control over their care.[13] Specialised training in sexual violence for healthcare providers, including in trauma-informed approaches, is required[6, 8, 13]

Post-crisis responses

Six reviews assessed the effectiveness of post-crisis psychological interventions that support recovery for victims and survivors of sexual violence, mostly cognitive, behavioural and psychoeducational interventions and supportive psychotherapy and counselling.[3, 6, 7, 8, 11, 12] *Cognitive therapy* assists individuals to identify and change dysfunctional beliefs.[7] These forms of therapy include cognitive restructuring therapy, cognitive processing therapy (CPT), prolonged exposure (PE), eye movement desensitisation and reprocessing therapy (EMDR), stress inoculation therapy (SIT), assertiveness training (AT) and clinician-assisted emotional disclosure.[7] *Behavioural therapy* targets physical stress reactions through controlled breathing or muscle relaxation.[7] *Supportive psychotherapy/ counselling* is less structured but generally aims to normalise experiences and offer a supportive environment to address trauma-related symptoms and situations.[7] *Psychoeducational video interventions* consist of a brief psychoeducational video, generally provided by nurses in the emergency department at the time of a forensic medical exam 72 hours to 7 days after a rape or sexual assault.[6, 12]

The effectiveness of these interventions in relation to a range of victim and survivor mental health and wellbeing outcomes is outlined below.

Improvement in general mental health outcomes

One review (of an unspecified number of studies) that assessed effectiveness of *cognitive and behavioural interventions* (specifically CPT, PE, SIT and EMDR) in improving mental health outcomes found promising evidence that these psychological therapies reduce symptoms of depression, anxiety and PTSD following sexual violence.[8] The review

found that CPT, SIT and EMDR were particularly effective for victims and survivors with complex needs, such as complex forms of PTSD, multiple and ongoing traumas or experiences of childhood sexual abuse, while exposure therapy is most effective for more contained or single trauma symptoms, and may pose risks for clients with severe and complex needs.[8]

The same review also examined *supportive psychotherapy and counselling interventions* and found that, while supportive counselling may be well received by victims and survivors, there is comparatively less evidence that these interventions are effective at reducing psychological distress symptoms.[8] The review also reported that there is emerging evidence that informal supports (e.g. from victims' and survivors' family and friends) may be effective, although this needs to be investigated further.[8]

Improvement in PTSD symptoms

Four reviews found *cognitive and behavioural interventions* to be effective in improving PTSD symptoms.[3, 7, 11, 12]

- A meta-analysis (of six studies) found evidence that cognitive and behavioural interventions (in particular CPT, PE, SIT and EMDR) are associated with decreased symptoms of PTSD in victims and survivors of rape and sexual assault.[7] Analysis of the various cognitive and behavioural interventions found all six primary studies (RCTs and quasi-randomised trials) demonstrated improvements in PTSD.[7]
- Another meta-analysis (of 10 studies) found a moderate mean effect size for nine primary studies that examined improvements in post-traumatic stress for a range of interventions including CBT, CPT, cognitive restructuring and imagery modification, PE, SIT, a psychoeducational video intervention and interpersonal psychotherapy (with a focus on coping strategies).[3] The meta-analysis found a statistically significant, positive change from pre- to post-treatment for these interventions and this positive result was also observed at three- and 12-month follow-up.[3]
- One review (of nine studies) found cognitive and behavioural interventions resulted in significantly greater reductions in the percentage of participants with a PTSD diagnosis, symptoms and/or symptom severity when compared with a control group.[11] Interventions included AT, clinician-assisted emotional disclosure, CPT, EMDR, PE and SIT.[11] Long-term follow-up was only conducted in one study of CPT and PE, which found improvements in PTSD symptoms at six years post-treatment for both these interventions.[11]
- A review (of 10 studies) found that all four included primary studies that assessed post-traumatic stress symptoms reported a decrease in the severity of symptoms at follow-ups.[12] Two studies were assessed to have a low risk of bias and two a high risk.[12] The strongest support was found for treatments involving exposure and processing of the trauma such as brief-CPT or PE.[12]

One review (of nine studies) that assessed *supportive psychotherapy/counselling interventions* for improvements in PTSD symptoms found mixed results. One included primary study found that supportive psychotherapy combined with psychoeducation resulted in a statistically significant reduction in PTSD (avoidance and intrusion only) symptoms in comparison to a control group.[11] This study did not find superiority of supportive counselling when compared to a waitlist group.[11]

Two reviews that examined *psychoeducational video interventions* reported mixed results for reduction in PTSD symptoms.

- One review (of 10 studies) found conflicting results reported by two primary studies.[12] While one found no impact, a second study found a reduction in post-traumatic stress symptoms at six weeks post-assault for those with a prior sexual assault history.[12] However, for those with no history of sexual assault, there were slightly higher symptoms of PTSD at six weeks compared to standard care, with no difference at six months follow-up. [12]
- An evidence synthesis found that women who had no prior history of sexual violence reported lower PTSD scores at follow-up than those with a previous history of violence.[6]

Improvement in symptoms of depression

Four reviews examined the effectiveness of *cognitive and behavioural interventions* in reducing symptoms of depression, with three reporting positive impacts[3, 11 7,] and one mixed results.[12]

- A meta-analysis (of six studies) found that for the various

cognitive and behavioural treatments assessed across both the RCTs and quasi-randomised trials, all six studies demonstrated improvements in depression.[7] Analysis of the four RCT studies found improvement in depression for PE, EMDR and CPT interventions specifically.[7]

- Another meta-analysis (of 10 studies) found eight primary studies that assessed depression outcomes across a range of cognitive and behavioural interventions. This meta-analysis found that depression outcomes were moderately influenced with a statistically significant improvement from pre- to post-treatment. This effect was maintained at three-month follow-up but not at six months.[3]
- One review (of nine studies) that examined seven studies for depression outcomes found effectiveness for CPT and EMDR.[11] A long-term follow-up study found that CPT and PE resulted in decreases in the percentage of participants who met the criteria for a diagnosis of major depressive disorder at six years post-treatment.[11]
- A review (of 10 studies) found four studies that assessed the impact of individual CBT-based interventions on symptoms of depression, two of which found effectiveness and two that found no effect. [12]

One review (of nine studies) found that studies that compared *supportive counselling* to a waitlist group found no statistically significant improvement in symptoms of depression.[11]

One review (of 10 studies) reported a positive impact for *psychoeducational video interventions* on symptoms of depression as reported by one primary study (assessed as of high risk of bias).[12] The study found that for women with a prior sexual assault history, viewing the video prior to their forensic exam was associated with reduced depression symptoms at six weeks and six months.[12]

Improvement in anxiety

Four reviews examined the effectiveness of *cognitive and behavioural interventions* for improving anxiety, with three reporting positive results,[3, 7, 11] and one reporting no impact.[12]

- A meta-analysis (of six studies) that included four relevant studies (RCTs and quasi-randomised trials) found three demonstrated improvements in anxiety. Analysis of the RCT studies only demonstrated improvements in anxiety for PE and EMDR interventions specifically.[7]
- Another meta-analysis (of 10 studies) found a small mean effect size from pre- to post-treatment across four primary studies that assessed anxiety symptoms following CBT, PE, SIT and a psychoeducational video intervention.[3] The positive change was not maintained at three-month follow-up.[3]
- Another review (of nine studies) found one study reporting improvements in anxiety symptoms following AT.[11]
- A review (of 10 studies) found two primary studies (assessed as of high or unclear risk of bias) that assessed reduction in anxiety symptoms, both reporting no impact.[12]

One review (of nine studies) found *supportive psychotherapy* combined with psychoeducation improved anxiety symptoms.[11] This study did not find superiority of supportive counselling when compared to a waitlist group.[11]

Two reviews examined the effectiveness of *psychoeducational video interventions* for anxiety, reporting mixed results.

- One review (of 10 studies) included two primary studies, which reported mixed impact.[12] One study found the intervention was associated with reduced anxiety at both two-week and two-month follow-ups (compared to standard care). A second study found no impact for victims with a previous history of sexual assault, and small effects indicating higher symptoms of anxiety in those without a prior sexual assault history at six weeks (compared to standard care). However, there was no difference at six months.[12]
- One evidence synthesis reported the intervention was found to reduce anxiety two months after the intervention but noted the evidence is limited.[6]

Improvement in dissociation

A meta-analysis (of six studies) that examined the effectiveness of *cognitive and behavioural interventions* for dissociation found two primary studies that reported an improvement in dissociation when compared to waitlist controls for EMDR.[7] Another primary study also found improvement in dissociation symptoms for prolonged exposure therapy.[7]

Improvement in distress/fear symptoms

Three reviews examined the effectiveness of *cognitive and behavioural interventions* for reducing distress/fear symptoms, two of which reported positive results[7, 11] and one mixed results.[12]

- One review (of nine studies) found that clinician-assisted emotional disclosure was associated with a significant improvement in distress/fear symptoms compared to no treatment. AT was also found to be associated with greater improvement in distress/fear symptoms in comparison to a no-treatment group, but only for some subscales (vulnerability, sexuality, and social and evaluation subscales of distress/fear measures).[11]
- A meta-analysis (of six studies) included one primary study that found supportive interpersonal therapy effective in producing lasting improvement in fear in six therapy sessions in comparison to a waitlist control group.[7]
- A review (of 10 studies) included three studies that assessed reduction in rape-related fears, one of which reported a positive impact and two no impact.[12] These two studies were assessed as of poor methodological quality.[12]

One review (of nine studies) that examined the effectiveness of *supportive psychotherapy/counselling* found that supportive psychotherapy plus information was associated with greater improvement in distress/fear than the comparison group.[11]

Improvement in social adjustment

A meta-analysis (of 10 studies) assessed the effectiveness of *cognitive and behavioural interventions* on social adjustment and found no impact.[3] The review found a small but non-significant improvement between pre- and post-treatment for interpersonal psychotherapy (with a focus on coping strategies) and CBT.[3]

Improvement in guilt symptoms

A meta-analysis (of six studies) that examined *cognitive and behavioural interventions* found that CPT and, to a lesser extent, PE can be associated with a reduction in feelings of guilt.[7] The one primary study that examined this outcome demonstrated significant improvements in guilt when compared with waitlist controls.[7]

Reduction in alcohol and substance misuse

One review (of 10 studies) examined *psychoeducational video interventions* for improvement in alcohol and substance use across two primary studies.[12] Both primary studies found the video intervention was associated with reduced marijuana use, and one found association with lower alcohol use.[12]

Improvement in sexual function

One review (of 10 studies) that examined *cognitive and behavioural interventions* for improvement in sexual function across two studies found mixed results.[12] One primary study (assessed as of high risk of bias) found no impact and one a positive impact. [12]

Victims' and survivors' experiences of care/service feedback

One review (of an unspecified number of studies) that examined *supportive psychotherapy/counselling interventions* found that counselling is associated with high rates of client satisfaction and positive feedback from victims and survivors.[8]

Key factors identified within the reviews as contributing to the effectiveness or acceptability of the post-crisis interventions are noted in Table 2 below.

Table 2: Post-crisis response factors affecting effectiveness

Factor	Results
Individual and tailored delivery	Three reviews noted the importance of individual, tailored interventions to address victims' and survivors' specific needs.[3, 8, 11] One review noted clinical services have been shown to be more effective when delivered individually, rather than in a group, and when tailored to the patient.[8] Another review noted the importance of considering patient preferences in selecting appropriate treatment.[11] A meta-analysis (of 10 studies) noted that sexual violence requires personalised interventions due to the extent that post-traumatic stress varies[3]
Informal support available	One review highlighted that good support from family and friends enhances the overall effectiveness of post-crisis responses to victims and survivors[8]
Treatment duration and timing	One review found that, while there is no consensus in the literature on treatment duration, a duration of four to five months or longer is necessary to allow for the establishment of a strong relationship with the therapist, and to progress through the necessary treatment stages, particularly for victims and survivors with complex needs.[8] A meta-analysis noted that it is necessary to repeat interventions to maintain their effects in the long term.[3] One review noted the timing of the delivery of psychoeducational video interventions (i.e. before or after a forensic examination is conducted) may be a factor in anxiety and depression symptom improvements[12]
Specialist training in sexual violence for frontline providers	One review notes that specialist training in sexual violence response for healthcare personnel or other staff delivering non-clinical services can prevent unhelpful responses to victims and survivors, which can increase PTSD symptoms.[8] This review reported that performance of staff in delivering interventions was enhanced if they received even limited training and were experienced in health conditions, trusted in the community and received supervision.[8] Clear referral pathways from crisis services to post-crisis treatments with training to support referral practices, particularly in health settings, can help increase the effectiveness of the overall response.[8] This was echoed in another review which noted the importance of the responses of healthcare providers in the immediate aftermath of sexual violence in supporting the long-term recovery of victims and survivors[6]
Relationship with therapist	One review noted that in relation to exposure therapy, a well-established relationship with the therapist is necessary to prevent distress or early dropout from victims and survivors[11]

Evidence gaps and directions for future research

This section highlights the evidence gaps and includes directions for future research. While there is some evidence to support the effectiveness of interventions responding to sexual violence against adult women, the quality of the existing evidence is overall poor, in particular in relation to crisis responses.

Studies that evaluated *crisis responses* were largely qualitative or descriptive, with few that included a comparison group or pre- and post- measures.[4-6, 8] This body of literature included an overreliance on the perspectives of staff already engaged in interventions and a lack of studies drawing from the victims' and survivors' own perspectives.[4, 5] Stronger evidence is needed to substantiate the effectiveness of crisis responses.[4, 5, 13]

While the evidence base for *post-crisis psychological responses* is more developed, and includes some RCT or quasi-experimental studies, overall the evidence base is small and lacks methodological rigour.[12] Conclusions were largely drawn from small sample sizes[3, 6, 7, 11, 12] with high drop-out rates.[6, 7]

Generalisability was also limited with the majority of studies conducted in the United States with predominately white, middle-class, heterosexual women.[6, 7, 8, 11, 12, 13]

Some specific recommendations include:

- Conduct more and better quality studies, including randomised and non-randomised controlled studies.[4, 6, 7]
- Collect data from victims and survivors themselves to allow for the triangulation of data from multiple sources.[4, 13]
- Develop quantifiable measures of the effectiveness of SARTs and further examine which types of SARTs are effective at achieving which types of improvements, and in which contexts. [4]
- Evaluate the impact of SARTs and SANEs on victim and survivor outcomes (currently limited to process outcomes).[4, 5]
- Examine the role of health practitioners, including counsellors, in first-line response and referral, beyond SANE or SART programs.[5, 6]
- Improve the quality of reporting and include a description of the intervention methods used, the time elapsed since the sexual assault, history of childhood or previous sexual abuse, and the nature of the assault.[3, 7, 12]
- Examine what interventions work for whom and how they work for different individuals and contexts (e.g. sexual assault by a stranger versus intimate partner sexual violence).[6-8]
- Evaluate the effectiveness of training non-specialists in sexual violence to provide common mental health interventions for victims and survivors.[11]
- Evaluate non-clinical support services for victims and survivors of sexual violence, including advocacy services and informal supports.[8]
- Conduct research with larger and more representative samples, including with LGBTQ+ and non-Caucasian populations.[7, 11-13]
- Evaluate Australia-based interventions. The majority of primary studies included in reviews were based in the United States, limiting transferability to the Australian context.
- Evaluate what works to effectively respond to Aboriginal and Torres Strait Islander victims and survivors of sexual assault.[14] Evidence should be generated in collaboration with communities and services.[14]

Implications for policy and practice

Some implications for policy and practice include the following.

Continue to support and evaluate tailored psychological interventions for victims and survivors of sexual violence

While further research is needed, given the prevalence of mental health issues associated with victims and survivors of sexual violence, cognitive and behavioural interventions could be considered an appropriate response for improving mental health symptoms such as post-traumatic stress,[3, 7, 11, 12] depression[3, 7, 11] and anxiety symptoms,[7, 11] in particular where victims' and survivors' needs are complex, severe or delayed.[8] Practitioners should consider the available evidence, presenting issues, characteristics and preferences of the victim and survivor in selecting a tailored treatment.[3, 7, 8, 11] Repeat interventions using individual rather than group modality may be more effective. [3, 7, 8]

Support frontline responders to deliver specialised, patient-centred, trauma-informed support for victims and survivors of sexual violence

Services for victims and survivors of sexual violence that respond to their needs, are delivered in an accepting environment and allow for patient autonomy, can play an important role in recovery.[8, 13] Patient control and empowerment should be reflected in guidelines for providers and measures of quality care after sexual violence.[13] The provision of trauma-informed care may also improve the experience of care by victims and survivors.[6, 8, 13] Acute post-sexual violence experiences can influence longer term recovery and as such, frontline providers play an important role.[6] Specialist training for frontline responders may improve patient-centred care, lead to increased referral from crisis to post-crisis support services, and improve victims' and survivors' experiences of care. [13, 8]

Further develop and evaluate collaborative responses to sexual violence and interventions that integrate specialist sexual violence response services into existing health services[8]

A coordinated response model, such as an SART, may improve system responses including victims' and survivors' experiences of care and increased referrals, and can have promising effects on criminal justice outcomes.[4, 8] Victims and survivors may be more likely to receive a service that meets their needs when services collaborate.[4, 8] However, to function effectively, SARTs need to be resourced appropriately.[4, 5]

Invest in evidence-based programs and policies for Aboriginal and Torres Strait Islander victims and survivors of sexual assault[14]

Collaboration and partnerships between service providers, community groups, funding bodies and researchers are critical for systematically building the evidence as to what works and under what conditions, particularly at the community level.[14] The evaluation of public health and other responses to Aboriginal and Torres Strait Islander sexual assault is heavily under-resourced and requires investment.[14]

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APPENDIX A:

Supplementary evidence

Review design

A detailed overview of the included review studies and their design is reported below. Two reviews included a meta-analysis:[3,7] one of randomised controlled trials,[3] and one of randomised controlled trials and quasi-experimental designs.[7] One was a non-systematic rapid review of qualitative and quantitative studies[8] and one was an evidence synthesis that included systematic reviews and randomised controlled trials.[6] Five were systematic reviews with narrative syntheses of study findings.[4,5,11-13] One of these included only studies with a control group,[11] one only included experimental repeated measures designs,[12] and the remaining three included a mix of relevant quantitative, qualitative and mixed method studies, including published and grey literature.

Table A1: Overview of included reviews (n=9)

Review	Review aim	Search period	Approach	N	Study designs	Intervention/s	Overall study results
Crisis care response for recent victims of sexual assault							
Adams & Hulton (2016)[5]	To identify the current research on the integration of the SANE among the SART and evaluate the gaps in research of the SANE's role, attitude, behaviour, and satisfaction within the collaborative SART	2004–2014	Systematic review	12	Qualitative studies (n=8); mixed method (n=4)	SART SANE	*Mixed* results regarding the effectiveness/appropriateness of this intervention for system-level outcomes: improved collaboration
Caswell et al. (2019)[13]	To systematically identify any existing patient-reported outcome and experience measures (PROMs and PREMs) for patients attending healthcare services after sexual violence	Database inception–Mar 2017	Systematic review	20	Qualitative studies (n=10); cross-sectional survey (n=8); mixed method (n=2)	Crisis responses in healthcare settings	*Mixed* results regarding the effectiveness/appropriateness of this intervention for outcome: victims' and survivors' experiences of care; and *mixed* on criminal justice outcomes
Greeson & Campbell (2013)[4]	To review the empirical literature on SARTs' effectiveness at improving multidisciplinary relationships, legal outcomes, and victims' help-seeking experiences; and the challenges SARTs face	Not stated	Systematic review	8	Qualitative studies (n=6); quasi-experimental study (n=1); retrospective cohort study (n=1)	SART SANE	*Positive* impact on the effectiveness/ appropriateness of this intervention in system level outcomes: improved collaboration; increased referrals; and improved criminal justice outcomes

Review	Review aim	Search period	Approach	N	Study designs	Intervention/s	Overall study results
Crisis care responses *and* post-crisis therapeutic interventions							
Burmester (2019)[8]	To summarise the available evidence on the nature and effectiveness of post-crisis support services for victims and survivors of sexual violence	Not stated	Rapid review	Not stated	Not stated	SART; cognitive and behavioural interventions; supportive psychotherapy/ counselling	*Positive* impact on the effectiveness/ appropriateness of cognitive and behavioural interventions in achieving mental health outcomes; *mixed results* for supportive counselling for achieving mental health outcomes and *positive* for SARTs on improved collaboration
Hegarty et al. (2016)[6]	To identify recent intervention studies relevant to recovery from domestic and sexual violence in primary care	1 Jan 2013–30 Mar 2016	Evidence synthesis	17[1]	Systematic reviews (n=10); RCTs (n=7)	Crisis responses in healthcare settings; SANE; cognitive and behavioural interventions	Results are *positive* for cognitive and behavioural interventions in achieving mental health outcomes
Post-crisis psychological interventions							
Kim & Kim (2020)[3]	To examine the specific effects of psychological interventions for women traumatised by sexual abuse and statistically evaluate interventions by calculating effect sizes in a meta-analysis	Database inception–Nov 2018	Meta-analysis	10	RCTs (n=10)	Cognitive and behavioural interventions; supportive psychotherapy/ counselling	Results *support effectiveness* of cognitive and behavioural interventions in achieving some mental health outcomes

1 Only findings relevant to sexual violence are included.

Review	Review aim	Search period	Approach	N	Study designs	Intervention/s	Overall study results
Lomax & Meyrick (2020)[12]	To evaluate the effectiveness of psychosocial interventions for reducing the harmful impact of sexual assault and rape	Database inception–6 April 2019	Systematic review	10	RCTs (n=2); controlled clinical trials (n=7); single cohort design (n=1)	Cognitive and behavioural interventions; psychoedu-cational video interventions	Results are *positive* for cognitive and behavioural interventions in reducing or preventing post-traumatic stress symptoms. Results are *mixed* on other mental health outcomes. Results are *mixed* for video interventions in improving mental health outcomes
Parcesepe et al. (2015)[11]	To examine the effectiveness of mental health interventions for adult female survivors of sexual assault	Jan 1985–Dec 2012	Systematic review	9	RCTs (n=7); non-RCTs (n=2)	Cognitive and behavioural interventions; supportive psychotherapy/ counselling	Results *support effectiveness* of cognitive and behavioural interventions in achieving some mental health outcomes
Regehr et al. (2013)[7]	To examine the effectiveness of psychotherapeutic interventions in reducing symptoms of distress and trauma for victims of sexual assault and rape	2009–2011	Meta-analysis	6	RCTs (n=4); quasi-experimental studies (n=2)	Cognitive and behavioural interventions	Results *support effectiveness* of cognitive and behavioural interventions in achieving some mental health outcomes

Note: SANE= sexual assault nurse examiner; SART= sexual assault response team.

Table A2: Outcome definitions and measures for crisis and post-crisis responses

Outcome	Definition	Measures used
Crisis responses		
Improved collaboration	Collaboration encompasses the quality of communication and collective decision-making among stakeholders, the rate of information exchange and the level of understanding of others' roles/role clarity in a multidisciplinary team[4]	The outcome was measured through qualitative self-reports in interviews from members of the multidisciplinary SARTs, which include SANEs.[4] It was also measured through self-reports attained through surveys and interviews, questionnaires (Index of Interpersonal Collaboration), and semi-structured interviews from members of SARTs, coordinators of SANE programs and key informants for SARTs[5]
Increased referrals	Increased referrals refer to the number of services to which victims and survivors are referred	This outcome was measured through the number of services offered to victims and survivors in cases that involve both a SANE and a SART as noted in archival records[4]
Criminal justice outcomes	Criminal justice outcomes include the preparation and results of sexual assault cases as they are being processed and prosecuted through the criminal justice system. They include the amount of forensic evidence collected, the proportion of patients for whom a forensic exam was performed, delays in reporting victim participation in the criminal justice process, the rate of cases resulting in the arrest of a suspect, the rate of cases that were filed by a prosecutor, the rate of cases resulting in conviction, the length of sentences and the number of cases that are dismissed	Forensic evidence collection, delays in reporting and victim and survivor participation in criminal justice processes were measured through a statistical comparison of sexual assault cases reported to the police involving a SANE and a SART, those involving only a SANE, and those not involving a SANE or SART, using archived SANE/SART, police and prosecutorial records.[4] The proportion of patients for whom a forensic exam was performed was measured through quantitative self-reports in survey questionnaires.[13] All other case outcomes were measured through statistical analysis of data from police reports and archived medical and legal data to compare the results of SANE/SART cases with non-SANE/SART cases[4]
Victims' and survivors' experiences of care/ service feedback	Victims' and survivors' experiences of services refer to their interactions with practitioners and service delivery at different stages of accessing sexual violence crisis services and post-crisis recovery support services. These include their experiences of the first crisis contact, forensic examination, safety planning and referral to other services	This outcome was measured through practitioners' qualitative self-reports of victims' and survivors' experiences from interviews with SART members and rape victim advocates.[4] It was also measured in healthcare settings through quantitative self-reports through surveys or questionnaires for victims and survivors, some of which used validated assessment tools including the Counselling Outcome Index.[6, 13] Qualitative self-reports from interviews with victims and survivors were also used to measure this outcome in healthcare settings,[13] as well as qualitative reports, with a specific method of data collection not specified[6]

Outcome	Definition	Measures used
Post-crisis responses		
Improvement in general mental health outcomes	Mental health outcomes refer to improvement/reduction in symptoms of PTSD, anxiety and depression. Some reviews reported on mental health outcomes in general; the findings for these have been separated from those for specific outcomes, below	The relevant review did not specify the measures for mental health outcomes[8]
Improvement in PTSD symptoms		PTSD outcomes were measured through clinician-rated and self-report measures. Clinician-administered PTSD scales included the PTSD Symptom Scale Interview and the Clinician-Administered PTSD Scale.[7] Self-report PTSD measures included the Impact of Event Scale, the PTSD Symptom Scale or a modified version of this scale, the PTSD subscale of the Derogatis Symptom Checklist and the Rape Aftermath Symptom Test.[7] Other validated scales used included the Post-Traumatic Diagnostic Scale or measures of post-traumatic stress severity[3, 11]
Improvement in symptoms of depression		A diagnosis of major depressive disorder was measured through the Mood Disorder Module of the structured clinical interview for DSM-IV.[12] Depressive symptoms were measured through scales including the Beck Depression Inventory,[12] the Depression subscale of the Derogatis Symptom Checklist, Center for Epidemiological Studies–Depression or the Hamilton Rating Scale for Depression[3, 7, 11]
Improvement in anxiety		Symptoms of anxiety were measured through the Four Dimensional Anxiety Scale, State-Trait Anxiety Inventory, the anxiety subscale of the Derogatis Symptom Checklist or the Beck Anxiety Inventory (BAI)[3, 7, 11, 12]
Reduction in dissociation symptoms		One review measured dissociation symptoms through the Dissociative Experiences Scale, a self-report measure[7]
Improvement in symptoms of distress/ fear		Symptoms of distress/fear were measured through the Rape Aftermath Symptom Test, the distress/fear subscale of the Veronen-Kilpatrick Modified Fear Survey or the Inventory of Interpersonal Problems[7, 11, 12]

Outcome	Definition	Measures used
Improvement in social adjustment	This outcome refers to social functioning and experiences in close relationships and work relationships[3]	Social functioning was measured through the Inventory of Socially Supportive Behaviours, Social Adjustment Scale, Experiences in Close Relationships Scale or Working Alliance Inventory[3]
Reduction in guilt symptoms		One review measured guilt using instruments such as the Trauma-Related Guilt Inventory, a self-report measure[7]
Reduction in alcohol and substance misuse		Alcohol and substance misuse were assessed via clinical interview, by using Time-Line Follow-back, the 10-item Alcohol Use Disorder Identification Test (AUDIT), the Drug Abuse Screening Test (DAST) and self-assessment of current alcohol and marijuana use by participants over the previous 14 days[12]
Improvement in sexual function		One review included two primary studies that examined self-reported sexual function[12]
Victims' and survivors' experiences of care/ service feedback	Experiences of care include victims' and survivors' feedback on interactions with service systems and with particular treatments. This outcome also includes victims' and survivors' engagement with and use of services	One review did not specify all the methods and scales that were used to measure this outcome, but referred to service evaluations and client satisfaction surveys from some studies[8]

APPENDIX B:

Methods continued

This review was conducted within the context of a larger "What Works" study; as such, the search method was designed to identify a broad range of reviews relevant to the effectiveness of interventions to respond to and reduce violence against women.

Search strategy and data sources

Reviews for inclusion were identified by searching multiple sources as outlined in Table B1 below.

Table B1: Search strategy and data sources

Data source	Description of data source	Period searched	N=records screened
Systematic search of Scopus	Scopus was identified as a suitable database as it covers all key journals that publish violence against women literature (as per a list of 50 journals created by the Office for Policy Studies on Violence Against Women at the University of Kentucky). The search terms are included below	1 January 2010–20 May 2020	2,883
Non-systematic Google search and non-systematic database searches	A number of non-systematic Google searches (incl. Google Scholar) were conducted	From January 2010	Not recorded
Systematic search of websites of key organisations in the violence against women field	A systematic search of relevant websites was conducted to identify relevant grey literature	From January 2010	68 websites
A systematic search of the ANROWS Library	The ANROWS Library is a collection of research records from the family violence and violence against women sector, designed for practitioners and service designers who may not have access to research databases	Searched from January 2010–October 2020	3,663
A systematic search of ANROWS publications	A systematic search of ANROWS publications was conducted	Searched from January 2010–October 2020	149

Search terms

The following search string was used in SCOPUS, limited to title, abstract and keywords only.

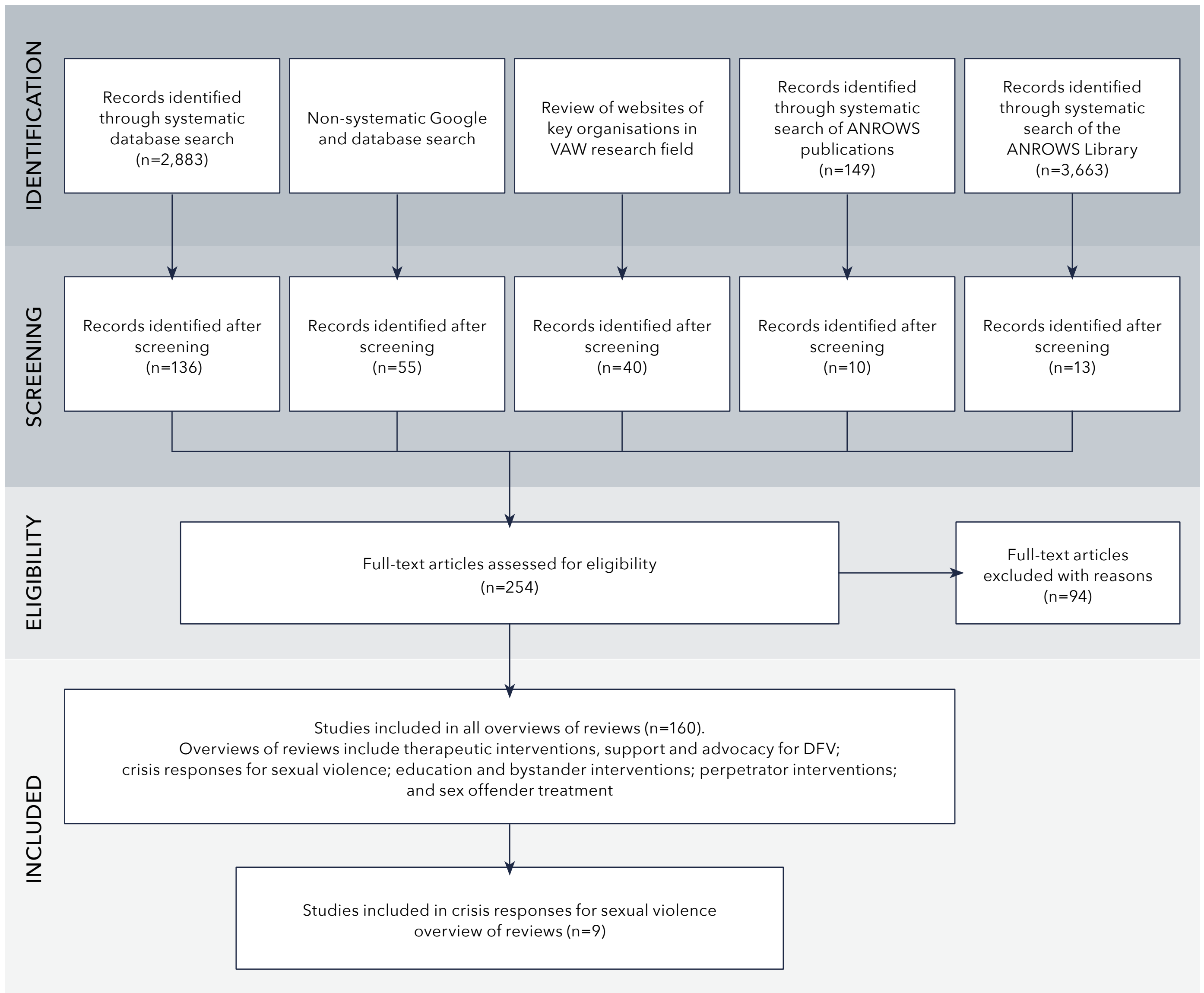
TITLE-ABS-KEY ("violence against" OR vaw* OR " domestic violence" OR gbv OR "gender violence" OR "gender-based violence" OR femicide OR feminicide OR "partner violence" OR "abuse of" OR "wife abuse" OR "abuse of wives" OR "wife battering" OR "battering of wives" OR "battering of" OR "spouse abuse" OR "family violence" OR "murdering of" OR "homicides of" OR rape OR "sexual violence" OR "sexual abuse" OR "sexual assault" OR "sexual harassment" OR "coerced sex" OR "unwanted sex" OR "unwanted fondling" OR "unwanted touching" OR "intimate partner abuse" OR "intimate partner psychological abuse" OR "intimate partner social abuse" OR "intimate partner verbal abuse" OR "intimate partner control" OR "intimate partner coercion" OR stalking OR "spiritual abuse" OR "technology facilitated abuse" OR "financial abuse" OR "education abuse" OR "health abuse" OR FGM* OR FGC OR "female genital mutilation" OR "sexual exploitation" OR "forced prostitution" OR "sexual slavery" OR "relationship debt" OR "cyberstalking" OR "account take over*" OR "image-based abuse" OR "fake social media" OR "online tracking" OR "online abuse")

AND TITLE-ABS-KEY (woman OR women OR female) AND TITLE-ABS-KEY (review OR meta-analysis OR synthesis)

Study identification

As per the PRISMA chart included in Figure 1 below, this process identified 254 reviews, of which nine regarded responses to sexual violence.

Figure 1: Overview of reviews PRISMA flow diagram



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