

# Rapid review on trauma-informed care in primary care settings

## Summary report – Part B

### Tables

Table 1. Summary of identified TIC systematic reviews and primary studies regarding implementation of TIC as a model of care

| Citation – First author, year             | Evidence-base   | Population/condition                         | Intervention/Comparison   | Reported outcomes   |
|---|---|--|---|---|
| <i>Reviews</i>                            |   |  |   |   |
| <a href="#">Varghese 2021<sup>8</sup></a> | 31 articles, including data-based studies (n=15) and thought pieces (n=16)<br><br>Evidence up to Dec 2020 | Primary care                                 | Intervention: TIC in primary care   | <p>Defining attributes of TIC in primary care:</p> <ul style="list-style-type: none"> <li>• safety (e.g. safety in relationships, interactions and environment)</li> <li>• empowerment (e.g. shared decision making, strengths-based care)</li> <li>• support (e.g. advocacy)</li> </ul> <p>Antecedents of TIC:</p> <ul style="list-style-type: none"> <li>• trauma competence (e.g. knowledge and/or training)</li> <li>• health care professional readiness (e.g. self care and organisational support)</li> <li>• survivor readiness</li> </ul> <p>Consequences of TIC:</p> <ul style="list-style-type: none"> <li>• improved patient satisfaction</li> <li>• improved health care engagement</li> </ul> |
| <a href="#">Oral 2020<sup>9</sup></a>     | 144 articles included across a range of topics:   | Implementation of TIC in healthcare settings | Intervention: TIC practices including physician training and adoption of trauma/ACE screening | Reported improvements following implementation of TIC included:   |

| Citation – First author, year              | Evidence-base  | Population/condition                           | Intervention/Comparison  | Reported outcomes  |
|--|--|--|--|--|
|  | <ul style="list-style-type: none"> <li>• TIC and ACEs</li> <li>• Implementation of TIC in healthcare</li> <li>• Changes in practice related to TIC</li> <li>• Impact of TIC on child and family health outcomes</li> <li>• Statewide TIC efforts</li> <li>• Primary prevention of childhood adversity and trauma</li> <li>• Barriers and gaps related to implementation of TIC</li> </ul> <p>Evidence up to Mar 2019</p> |  |  | <ul style="list-style-type: none"> <li>• improved provider-patient communication</li> <li>• improved physician knowledge, attitudes and confidence</li> <li>• increased referral to mental health services</li> </ul> <p>Some studies reported the impact of TIC interventions on child and family health outcomes, such as:</p> <ul style="list-style-type: none"> <li>• reductions in depression or PTSD symptoms</li> <li>• fewer behaviour problems</li> </ul> <p>The review authors note the need for further research to better assess the impact of TIC on child and family health outcomes</p> |
| <a href="#">Bendall 2021</a> <sup>12</sup> | <p>13 studies</p> <p>Evidence up to Jan 2018</p>   | <p>Help-seeking young people (12–25 years)</p> | <p>Intervention: interventions or systems of care that was specifically described as “trauma-informed,” “trauma-integrated,” or “trauma-sensitive”</p> <p>Note: Studies implementing only a “trauma-focused” intervention were excluded. However, studies that included a trauma-focused intervention (e.g. TF-CBT) as part of an initiative described as “trauma-</p> | <p>100 individual TIC practices identified across 13 studies, under 10 broad components:</p> <ul style="list-style-type: none"> <li>• interagency collaboration</li> <li>• service provider training</li> <li>• safety</li> <li>• leadership, governance, and agency processes</li> <li>• youth and family/carer choice in care</li> <li>• cultural and gender sensitivity</li> </ul>  |

| Citation – First author, year             | Evidence-base  | Population/condition  | Intervention/Comparison   | Reported outcomes   |
|---|--|---|---|---|
|   |  |   | informed,” “-integrated,” or “-sensitive” were included   | <ul style="list-style-type: none"> <li>• youth and family/carer participation</li> <li>• screening and assessment</li> <li>• psychoeducation</li> <li>• therapeutic interventions</li> </ul> <p>11 studies reported on outcomes, categorised across 4 levels:</p> <ul style="list-style-type: none"> <li>• service users</li> <li>• service providers</li> <li>• the service</li> <li>• the wider service system</li> </ul> <p>2 studies reported on clinical outcomes, both with positive effects regarding reduction in either PTSD symptoms or mental health problems. 1 of these studies also reported program satisfaction and reduction in caregiver strain. Major methodological limitations in the studies were noted</p> |
| <a href="#">Purtle 2020</a> <sup>10</sup> | 23 studies, including 5 RCTs, 17 pre-post studies<br><br>Evidence up to Jul 2017 | Mixed settings: 6 implemented in child welfare agencies, 6 in psychiatric hospitals, 4 in general medical settings (e.g., emergency departments, primary care clinics), 1 in a juvenile justice facility, and 1 in a school | Intervention: trauma-informed organisational interventions that included a staff training component<br><br>Authors noted that often multiple trauma-informed intervention components were implemented concurrently with training, therefore the extent to which outcomes are attributable to training, and not other components, is unclear | Staff outcomes: Improvements in staff knowledge, attitudes and/or behaviours post-training (12 out of 14 studies), usually retained at ≥1 month after training occurred (7 out of 9 studies)<br><br>Client outcomes: 5 out of 8 studies that assessed the effects of TIC on client outcomes reported some improvements, such as: <ul style="list-style-type: none"> <li>• reduced seclusion/restraints in psychiatric hospital settings</li> <li>• improved behaviour in school or juvenile justice settings</li> </ul>   |

| Citation – First author, year                   | Evidence-base  | Population/condition  | Intervention/Comparison  | Reported outcomes  |
|---|--|---|--|--|
| <a href="#">Gundacker 2021</a> <sup>11</sup>    | <p>17 studies, all US-based, reporting on various outcomes including:</p> <ul style="list-style-type: none"> <li>• how well training was received/valued</li> <li>• gained knowledge or skills</li> <li>• applied learning into practice</li> <li>• impact of training on overall practice</li> </ul> <p>Evidence up to Aug 2020</p> | Primary care providers  | Intervention: trauma-informed curricula  | <p>Primary care providers reported improved knowledge, attitudes and behaviours following training</p> <p>Of the 2 primary studies that reported on impact of training, 1 reported no change in patients' depression or PTSD scores, the other reported some increases in patient scores on partnership and information (latter was not statistically significant) with no difference in rapport (which was excellent at baseline).</p>                        |
| <i>Primary studies</i>                          |  |   |  |  |
| <a href="#">Sala-Hamrick 2021</a> <sup>13</sup> | <p>Longitudinal study – comparisons over time (2015–2018)</p> <p>Qualitative component – Focus groups with providers (3 groups, n=5, n=3, n=9)</p>   | Paediatric Primary Care Clinic serving low-income and minority families | Trauma-Informed Paediatric Primary Care, including screening, identifying and discussing traumatic stressors, and providing support to all families who attended wellness visits at the centre | <p>Providers reported:</p> <ul style="list-style-type: none"> <li>• successfully forming safe and trusting relationships with their patients</li> <li>• opportunities for collaborative and strengths-based conversations about trauma, leading to: <ul style="list-style-type: none"> <li>○ higher rates of identification of trauma and behavioural health needs</li> <li>○ higher rates of families receiving behavioural healthcare</li> </ul> </li> </ul> |
| <a href="#">Ashby 2019</a> <sup>14</sup>        | Retrospective chart review   | Pregnant adolescents attending an obstetric and paediatric medical home | Trauma-informed program incorporating principles of TIC including organisational changes, staff training, and patient screening  | Approximately 30% of participants reported a history of trauma   |

| Citation – First author, year              | Evidence-base         | Population/condition   | Intervention/Comparison   | Reported outcomes  |
|--|-----------------------|--|---|--|
|  |                       | 2007–2008 (n=429)<br>2012–2013 (n=415)   | Comparison: Historical patient group treated by ‘care as usual’ prior to implementation of trauma-informed program  | Following implementation of the trauma-informed program: <ul style="list-style-type: none"> <li>• higher rates of attendance at prenatal appointments (<math>p&lt;0.001</math>)</li> <li>• lower rates of low birthweight babies (<math>p&lt;0.02</math>)</li> <li>• no significant differences were reported pre- and post-intervention for median gestational age, weight in grams at birth, or pre-term delivery</li> </ul>   |
| <a href="#">Kokokyi 2021</a> <sup>15</sup> | Cross-sectional study | Phase 1: patients (n=296) and primary care physicians (n=60)<br><br>Phase 2: patients (n=151) and primary care physicians (n=36) | TIC<br><br>Phase 1: patient and physician opinions on aspects of TIC (understanding trauma, safety, trust, peer support, collaboration, empowerment, cultural sensitivity)<br><br>Following Phase 1, recommendations were made regarding administration of TIC: physician training, booking longer appointment times, patient education, support groups for patients, and clinical pathways<br><br>Phase 2: patient and physician opinions on recommendations | Phase 1: Physicians reported higher frequency rates of TIC than patients reported receiving it, and physicians viewed TIC as more important than patients did. The highest rated aspects of TIC for both groups were trust, safety, and collaboration.<br><br>Phase 2: Patients and physicians reported physician training in TIC would be helpful and likely to improve patient care. Physicians reported higher helpfulness rating scores than patients regarding patient engagement recommendations (such as information pamphlets and patient trauma resources). |
| <a href="#">Bergman 2019</a> <sup>17</sup> | Qualitative study     | Primary care providers working in Veterans Health Administration primary care clinics (N=28)                                     | PCPs perspectives on providing trauma-sensitive care to women with sexual trauma history  | Challenges/barriers: <ul style="list-style-type: none"> <li>• insufficient time</li> <li>• lack of perceived proficiency and/or personal comfort</li> <li>• fostering a positive patient-provider relationship</li> </ul>  |

| Citation –<br>First author,<br>year   | Evidence-base                           | Population/condition  | Intervention/Comparison  | Reported outcomes  |
|---|---|---|--|--|
|   |   |   |  | <p>Solutions included, but not limited to:</p> <ul style="list-style-type: none"> <li>• increased time for examinations such as Pap and pelvic examinations</li> <li>• access to mental health professionals</li> <li>• receiving training regarding gender-specific and trauma-sensitive care</li> <li>• displaying patience, empathy and careful communication with patients</li> </ul>  |
| <a href="#">Purkey 2018</a> <sup>16</sup>   | Qualitative study – in depth interviews | Women with 2 or more non-psychiatric diagnoses with an ACE score of 4 or higher, recruited from an academic family health team (N=26) | Primary care experiences of women with a history of childhood trauma and chronic disease | <p>Themes:</p> <ul style="list-style-type: none"> <li>• importance of continuity of care</li> <li>• challenges with family medicine residents</li> <li>• provider awareness of abuse history</li> <li>• distress due to triggering events</li> <li>• characteristics of clinic staff and space</li> <li>• engagement in care plans and choice</li> </ul> <p>This paper also provides some examples of how to apply the principles of TIC in primary care</p> |
| <p>ACE: adverse childhood experience; PCP: primary care provider; PTSD: posttraumatic stress disorder; RCT: randomised controlled trial; TF-CBT: trauma-focused cognitive behavioural therapy; TIC: trauma-informed care.</p> |   |   |  |  |

Table 2. Summary of identified systematic reviews on trauma-focused interventions published since 2020

| Citation – First author, year                        | Evidence-base                           | Population/condition | Intervention/Comparison  | Reported outcomes  |
|--|---|----------------------|--|--|
| <i>Overall trauma-focused interventions - adults</i> |   |                      |  |  |
| <b>PTSD</b>  |   |                      |  |  |
| <a href="#">Jericho 2022</a> <sup>21</sup>           | 82 RCTs<br><br>Evidence up to Jan 2020b | PTSD in adults       | Interventions: Trauma-focused psychotherapies, including EMDR, PE, CBT, NET, MCT, WET, VRET, BET, TARGET, SIT<br><br>Note only individual, face-to-face therapies were included<br><br>Comparison: waitlist or other psychotherapies | Network estimates indicated superior efficacy of meta-CT and CPT over other psychotherapies<br><br>WET and NET were found to be the most tolerable and acceptable treatments<br><br>WET, IPT and EMDR appear in the superior half of therapies for both efficacy and acceptability   |
| <a href="#">Weber 2021</a> <sup>22</sup>             | 22 RCTs<br><br>Evidence up to Nov 2019  | PTSD in adults       | Interventions: psychological treatments for PTSD, including TF-CBT, EMDR, CBT<br><br>Comparisons: active or passive nonpharmacological controls or other psychological treatments  | TF and non-TF interventions yielded large effect size for PTSD severity from pre-test to follow-up <ul style="list-style-type: none"> <li>Higher effect sizes were observed for civilian compared to military populations and for studies with larger proportions of female participants</li> <li>No subgroup differences reported for treatment format (group vs. individual), number of sessions, treatment analysis or follow-up duration</li> </ul><br>Medium effect sizes were observed for depressive symptoms |
| <a href="#">Lewis 2020</a> <sup>23</sup>             | 114 RCTs<br><br>Evidence up to May 2018 | PTSD                 | Interventions: manualised therapies for PTSD, including CBT-T (such as CPT, CT, PE), EMDR  | Severity of PTSD symptoms post-treatment:  |

| Citation –<br>First author,<br>year               | Evidence-base                          | Population/condition | Intervention/Comparison  | Reported outcomes  |
|---|--|----------------------|--|--|
|   |  |                      | Comparison: waitlist, treatment-as-usual, other therapies                                      | <ul style="list-style-type: none"> <li>• strongest evidence of effect for the studies categorized as CBT-T, and EMDR <ul style="list-style-type: none"> <li>○ CPT, CT, and PE had the strongest evidence of effect</li> <li>○ Some evidence in support of NET, non-trauma CBT, PCT, group CBT-T and internet-based CBT</li> <li>○ Emerging evidence in support of single-session CBT-T, RTM, VRE, and WET</li> </ul> </li> </ul>   |
| <a href="#">Mavranouzouli 2020a</a> <sup>24</sup> | 90 RCTs<br><br>Evidence up to Jan 2018 | PTSD in adults       | Interventions: psychological interventions, including EMDR, TF-CBT<br><br>Comparison: waitlist | EMDR, combined somatic/cognitive therapies, TF-CBT and self-help with support appeared to be most effective in reducing PTSD symptoms post-treatment versus waitlist<br><br>Effects were retained for EMDR and TF-CBT at 1–4-month follow-up<br><br>Some limited evidence (small trials) showed large effects on remission of PTSD for psychodynamic therapy, non-TF-CBT, relaxation, IPT and PCT versus waitlist<br><br>Exploratory sub-analyses suggest no significant differences for different specific TF-CBT interventions |

| Citation – First author, year               | Evidence-base   | Population/condition                                    | Intervention/Comparison   | Reported outcomes   |
|---|---|---|---|---|
| <a href="#">Bisson 2021</a> <sup>25</sup>   | 6 pre-incident RCTs<br>69 post-incident RCTs<br><br>Evidence up to May 2019                       | PTSD in adults – prevention                             | Intervention: any intervention aimed at preventing PTSD, either pre-incident or post-incident<br><br>Comparison: various, including no intervention, usual care, waitlist, advice leaflet                           | Pre-incident preparedness <ul style="list-style-type: none"> <li>No interventions significantly prevented PTSD symptoms</li> </ul> Post-incident interventions <ul style="list-style-type: none"> <li>Emerging evidence that some interventions may be helpful in preventing PTSD but most studies reported non-significant differences between interventions and controls</li> <li>strongest results were for CBT-T in individuals already with some symptoms</li> </ul> |
| <b>PTSD and comorbid conditions</b>         |   |   |   |   |
| <a href="#">Grubaugh 2021</a> <sup>26</sup> | 14 studies: 5 RCTs, 8 open trials, 1 within-group controlled trial<br><br>Evidence up to Mar 2020 | PTSD and comorbid severe mental illness                 | Intervention: PTSD psychotherapy, including CBT, PE, EMDR, brief treatment program  | Interventions reduced PTSD symptomatology from pre- to post-treatment, with slightly larger effects observed for PE, EMDR and BTP than CBT. Positive effects were also observed on general psychopathology and psychotic symptoms<br><br>Individual vs group mode of delivery did not moderate effects  |
| <a href="#">Rozek 2021</a> <sup>28</sup>    | 33 studies – 23 PTSD-specific, 4 suicide-specific, 6 combined;<br><br>Evidence up to Jan 2021     | PTSD co-occurring with suicidal thoughts and behaviours | Interventions: PTSD-specific - CBT, PE, EMDR, PCT, NET, COPE; combined - DBT-PE, DBT-PTSD; suicide-specific - BCBT, PACT, DBT<br><br>Comparison: various, some studies did not include comparison or control groups | Interventions appeared to decrease both PTSD and suicide-related symptoms, with most research relating to PTSD treatments, particularly CPT and PE  |

| Citation –<br>First author,<br>year                    | Evidence-base  | Population/condition                                    | Intervention/Comparison   | Reported outcomes  |
|--|--|---|---|--|
| <a href="#">Simpson 2021</a> <sup>30</sup>             | 28 RCTs<br><br>Evidence up to Jul 2021   | PTSD and comorbid substance use disorder (SUD)          | Intervention: psychotherapy, including trauma-focused and non-trauma-focused interventions and manualized SUD treatment | TF-interventions outperformed all comparators on PTSD outcomes at post-treatment but this did not carry through to follow-up<br><br>Both PTSD and SUD outcomes improved across TF-, non-TF treatments and control groups<br><br>In most models, treatment delivery modality (individual vs group) did not moderate effects |
| <a href="#">Zeifman 2021</a> <sup>27</sup>             | 21 studies<br><br>Evidence up to Nov 2020  | PTSD and comorbid borderline personality disorder (BPD) | Interventions: psychotherapies, including TF and non-TF PTSD treatments, BPD-specific treatments                        | Findings suggest that TF treatments reduce PTSD and BPD symptoms, however it is unclear whether TF treatment is equally efficacious to gold standard BPD-specific treatment  |
| <a href="#">Atchley 2021</a> <sup>29</sup>             | 17 studies<br><br>Evidence up to Jul 2019  | PTSD and dissociative symptoms                          | Interventions: various, including trauma-focused group therapy, PE, NET   | Trauma-focused treatments often reduced PTSD and dissociative symptoms<br><br>Exposure treatments were not found to be harmful to patients with higher dissociative symptomatology   |
| <b>PTSD related to specific populations/situations</b> |  |   |   |  |
| <a href="#">Slade 2021</a> <sup>32</sup>               | 18 studies, including 5 studies on clinical effectiveness of interventions and 13 qualitative studies<br><br>Evidence up to Oct 2020 | Post-traumatic stress following childbirth              | Interventions: psychological interventions, including EMDR, TF-CBT, debriefing and expressive writing                   | All interventions showed some effectiveness reducing post-traumatic stress symptoms however the review authors note that further research is needed to determine true effects  |

| Citation – First author, year                 | Evidence-base   | Population/condition   | Intervention/Comparison   | Reported outcomes   |
|---|---|--|---|---|
| <a href="#">Baas 2020</a> <sup>31</sup>       | 13 studies, including 3 RCTs. 6 of the studies were for TF-therapy<br><br>Evidence up to Jun 2019 | PTSD during pregnancy  | Interventions: various, including TF-CBT, exposure therapy, EMDR  | EMDR reduced PTSD symptoms in short term and in follow-up (up to 36 months) (note all EMDR studies were case series)<br><br>TF-CBT also reduced PTSD symptoms                 |
| <a href="#">Haerizadeh 2020</a> <sup>33</sup> | 6 RCTs<br><br>Evidence up to Nov 2018   | Medical event-induced PTSD symptoms in adults  | Interventions: psychological interventions, including exposure-based CBT, EMDR  | Exposure-based CBT interventions reduced PTSD symptoms posttreatment compared to control groups<br><br>Weak evidence suggests EMDR may be superior to other active treatments |
| <a href="#">Mabunda 2022</a> <sup>34</sup>    | 10 studies, including 6 RCTs<br><br>Evidence up to Dec 2018                                       | Mental health disorders in Africa  | Interventions: cultural adaptation of psychological interventions, including TF-CBT and NET, delivered by lay health workers  | Interventions were associated with symptom improvement, such as depression and PTSD   |
| <a href="#">Luteijn 2020</a> <sup>35</sup>    | 32 studies, including 21 on PTSD treatment, 11 on SUD treatment<br><br>Evidence up to Jan 2020    | Individuals with mild intellectual disability or borderline intellectual functioning (MID-BIF) with PTSD or SUDs | Interventions: PTSD treatments mainly included EMDR or CBT (imaginary exposure) – often adapted to individuals with MID-BIF); SUD treatments mainly included CBT or mindfulness | Intervention studies showed a reduction in PTSD or SUD symptoms in individuals with MID-BIF   |
| <a href="#">Byrne 2022</a> <sup>36</sup>      | 11 studies<br><br>Evidence up to Mar 2020   | PTSD and associated symptoms for both adults and children with mild, moderate, or severe intellectual delay      | Interventions: EMDR or CBT  | Weak evidence suggests that EMDR and CBT are both acceptable and feasible treatment options among adults and children with varying levels of intellectual delay               |
| <b>Complex trauma</b>                         |   |  |   |   |
| <a href="#">Han 2021</a> <sup>37</sup>        | 32 studies – 19 RCTs  | Trauma in adults in primary care or community setting (not   | Interventions: Trauma-informed interventions, including EMDR, TF-   | Reports that evidence to support trauma informed interventions for  |

| Citation – First author, year                | Evidence-base   | Population/condition  | Intervention/Comparison  | Reported outcomes  |
|--|---|---|--|--|
|  | Evidence up to Jun 2019   | military, refugee or war-related trauma populations or incarcerated populations), most studies focused on child abuse, sexual assault, or domestic violence | CBT/CBT, mindfulness-based stress reduction program, TREM, general TF therapy, psychodynamic therapy, stress inoculation therapy, present-focused therapy, CPT | psychological outcomes is inconsistent: <ul style="list-style-type: none"> <li>15 studies found trauma-informed interventions led to improvements in 3 main psychological outcomes: <ul style="list-style-type: none"> <li>PTSD symptoms (11 of 23 studies)</li> <li>depression (9 of 16)</li> <li>anxiety (5 of 10)</li> </ul> </li> </ul>                |
| <a href="#">Coventry 2020</a> <sup>38</sup>  | 116 studies (of which 24 were in community settings, 2 in primary care clinics); 94 RCTs<br><br>Evidence up to Apr 2017 | Complex trauma – subgroups included post-combat deployment veterans, war-related, childhood sexual abuse, refugees, domestic violence                       | Interventions: psychological and pharmacological interventions; trauma-focused psychological interventions included: TF-CBT and EMDR                           | Trauma-focused psychological interventions reduced PTSD symptoms more than non-trauma-focused interventions across trauma subgroups, however effects among veterans and war-affected populations were not as strong<br><br>TF-CBT was consistently associated with the largest effects<br><br>TF-CBT and EMDR also reduced depressive and anxiety symptoms |
| <a href="#">Melton 2020</a> <sup>39</sup>    | Coventry 2020 describes effectiveness studies<br><br>In addition, 8 qualitative studies reported on acceptability       | Complex trauma – qualitative studies were identified in the following populations: IPV, veterans, childhood sexual abuse and asylum seekers                 | Interventions: various, including PE and TF-CBT  | Qualitative acceptability review: <ul style="list-style-type: none"> <li>Mixed patient views regarding group therapies – some finding this acceptable but others not wanting to participate</li> <li>Examples of patient views included that trauma-focused treatments were 'worth it' as they were seen to be effective</li> </ul>                        |
| <b>Other mental health conditions</b>        |   |   |  |  |
| <a href="#">Dominguez 2021</a> <sup>40</sup> | 11 RCTs   | Depression  | Interventions: TF therapy, predominately EMDR  | TF treatments (predominately EMDR) reduced depressive  |

| Citation – First author, year                          | Evidence-base   | Population/condition  | Intervention/Comparison   | Reported outcomes   |
|--|---|---|---|---|
|  | Evidence up to Oct 2019   |   | Comparison: any other psychological and pharmacological treatments including standard care and waitlist   | symptoms post-treatment, compared to control conditions   |
| <a href="#">Martinez 2021</a> <sup>41</sup>            | 14 studies, including 8 RCTs<br><br>Evidence up to Oct 2019                               | Depressive or bipolar disorders in adults exposed to adverse stress early in life<br><br>Note no studies in bipolar disorder patients were identified | Interventions: any intervention (psychological, pharmacological, psychosocial, or a combination) aimed at treating depressive or bipolar disorders in adults with early adverse stress<br><br>Comparison: various, no control group, no intervention, waitlist, other therapies | Psychological, pharmacological, and combined treatment interventions reduced depressive symptoms in the short- and mid-term<br><br>Sensitivity analyses suggest psychological or combined treatment interventions had greater effect sizes than pharmacological interventions (although no statistically significant differences) |
| <a href="#">Bloomfield 2020</a> <sup>42</sup>          | 24 studies, including 1 RCT, 4 case series and 19 case reports<br><br>Evidence up to 2018 | Psychotic and dissociative symptoms in adult survivors of developmental trauma  | Interventions: psychological or pharmacological treatment, including 'third wave CBT'<br><br>Comparison: only 1 study used a comparison which was treatment-as-usual  | Weak evidence to suggest third-wave CBT reduced dissociation or other trauma symptoms, however, due to low methodological quality the authors note it is unknown which treatments are most effective in this clinical group and more research is needed   |
| <i>Overall trauma-focused interventions - children</i> |   |   |   |   |
| <a href="#">Romano 2021</a> <sup>43</sup>              | 21 studies across 9 reviews<br><br>Evidence up to May 2019                                | Children exposed to IPV   | Interventions: various, 9 studies evaluated trauma-specific interventions<br><br>Comparison: no treatment, services-as-usual  | Overall, improvements in child outcomes (such as externalising and internalising behaviours, trauma-related symptoms, social behaviours) were reported following interventions, however the authors note that TF approaches had smaller overall effect sizes than non-TF interventions  |

| Citation – First author, year                     | Evidence-base   | Population/condition                             | Intervention/Comparison  | Reported outcomes  |
|---|---|--|--|--|
| <a href="#">Bennett 2021</a> <sup>44</sup>        | 15 RCTs and 5 non-randomised controlled trials<br><br>Evidence up to Dec 2018   | PTSD in maltreated children                      | Interventions: psychological treatments that targeted PTSD symptoms, including TF-CBT, exposure therapy, CBT, CPP, and other therapies<br><br>Comparison: waitlist, treatment-as-usual or other intervention | TF-CBT reduced PTSD symptoms in maltreated children<br><br>Prolonged exposure was also noted as a promising therapy but requires more research   |
| <a href="#">Xiang 2021</a> <sup>45</sup>          | 56 RCTs<br><br>Evidence up to Dec 2020  | PTSD in children and adolescents                 | Interventions: psychotherapies, including CPT, BT, TF-CBT (individual or group), EMDR<br><br>Comparison: waitlist, treatment-as-usual, other therapies   | CPT, BT, individual TF-CBT, EMDR and group TF-CBT had significant reductions in PTSD symptoms at post-treatment and follow-up, compared with control conditions  |
| <a href="#">McTavish 2021</a> <sup>46</sup>       | 15 RCTs – 8 for children only, 9 for children and caregivers (2 studies had study arms for both)<br><br>Evidence up to Jun 2016 | Children and adolescents exposed to sexual abuse | Interventions: psychotherapies, including CBT, TF-CBT, PE, stress inoculation therapy, EMDR, family network meetings, psychotherapy, Risk Reduction through Family Therapy                                   | TF-CBT for children and involving their caregivers may reduce some mental health symptoms, such as PTSD, depression, and anxiety   |
| <a href="#">Mavranouzouli 2020b</a> <sup>47</sup> | 32 RCTs<br><br>Evidence up to Jan 2018  | PTSD in children                                 | Interventions: psychological and psychosocial therapies, including TF-CBT and EMDR<br><br>Comparison: waitlist   | Individual TF-CBT interventions (including CT, NET, exposure therapy/PE, Cohen TF-CBT/CPT) consistently reduced PTSD symptoms post-treatment compared with waitlist<br><br>EMDR and group TF-CBT were also reported to be effective in reducing PTSD symptoms but to a lesser extent |

| Citation – First author, year                            | Evidence-base   | Population/condition   | Intervention/Comparison   | Reported outcomes   |
|--|---|--|---|---|
| <a href="#">John-Baptiste Bastien 2020</a> <sup>48</sup> | 27 RCTs, meta-analysis included 16 studies<br><br>Evidence up to Jul 2019   | PTSD in children, adolescents and young adults<br><br>Trauma included war-related trauma, natural disasters, sexual abuse, IPV | Interventions: psychological therapies, including TF-CBT, PE, EMDR, NET<br><br>Comparison: various, including waitlist or other therapies | Overall, psychological interventions were better than control conditions at reducing PTSD symptoms<br><br>Subgroup analyses suggested that: <ul style="list-style-type: none"> <li>• EMDR and TF-CBT were superior at reducing PTSD symptoms compared with general (non-TF) CBT</li> <li>• EMDR was superior at reducing PTSD symptoms compared with TF-CBT (note smaller number of EMDR studies with high heterogeneity)</li> <li>• There was no significant difference between non-TF CBT and controls</li> </ul> |
| <a href="#">Sanchez de Ribera 2020</a> <sup>49</sup>     | 9 meta-analyses   | Sexually abused children and adolescents   | Interventions: any treatment modality, including: trauma-focused CBT, CBT, psychodrama, play therapy, and eclectic interventions          | While interventions (particularly CBT) for child sexual abuse appeared to have positive effects, all meta-analyses showed a high risk of bias and poor methodological quality   |
| <i>Specific interventions – EMDR</i>                     |   |  |   |   |
| <b>PTSD</b>  |   |  |   |   |
| <a href="#">Morris 2021</a> <sup>50</sup>                | 8 studies: 3 RCTs, 1 nonrandomized quasiexperimental study, 1 pre–post study, and 3 case studies<br><br>Evidence up to Nov 2020 | Trauma among first responders  | Intervention: EMDR<br><br>Comparison: various, including supportive counselling or no treatment   | All studies reported significant reductions in PTSD symptom severity  |
| <a href="#">Kaptan 2021</a> <sup>51</sup>                | 22 studies  | PTSD in adults and children  | Intervention: Group EMDR  | Group EMDR protocols significantly reduce symptoms of PTSD  |

| Citation – First author, year               | Evidence-base   | Population/condition  | Intervention/Comparison  | Reported outcomes  |
|---|---|---|--|--|
|   | Evidence up to May 2020   |   | Comparison: No treatment, waitlist, TF-CBT<br>12 studies used a one-arm design with pre-treatment/post-treatment assessments | Improvements were also reported for depression and anxiety   |
| <a href="#">Manzoni 2021</a> <sup>52</sup>  | 8 RCTs<br>Evidence up to Jan 2020   | PTSD in children and adolescents  | Intervention: EMDR<br>Comparison: waitlist/placebo, CBT  | EMDR reduced PTSD, anxiety symptoms and depressive symptoms post-treatment and was superior to waitlist/placebo and comparable with CBT        |
| <b>Other mental health disorders</b>        |   |   |  |  |
| <a href="#">Carletto 2021</a> <sup>53</sup> | 11 controlled studies; 9 included in meta-analysis<br>Evidence up to Sep 2020   | Depression – predominately adults   | Intervention: EMDR<br>Comparison: no intervention, waiting list, treatment-as-usual, or other types of intervention          | EMDR had a significant effect on reducing depressive symptoms  |
| <a href="#">Yan 2021</a> <sup>54</sup>      | 8 RCTs<br>Evidence up to Nov 2020   | Major depressive disorder in adults   | Intervention: EMDR<br>Comparison: no intervention, waiting list, or other types of intervention                              | The meta-analysis suggests that EMDR was more effective in reducing depressive symptoms than 'no intervention' and CBT                         |
| <a href="#">Perlini 2020</a> <sup>55</sup>  | 15 studies, including 6 RCTs, 2 pilot RCTs, 2 controlled studies and 5 case reports<br>Date of literature search not stated, most recent trials included published 2020 | Trauma in affective disorders, such as bipolar disorder (BD) (3 studies) and major depressive disorder (12 studies) | Intervention: EMDR<br>Comparison: treatment-as-usual, waitlist, other therapies; some studies with no comparator             | EMDR reduced depressive symptoms post-treatment, effects were partly maintained at follow-up<br>Note 2 of the 3 studies on BD were case series |
| <a href="#">Yunitri 2020</a> <sup>56</sup>  | 17 RCTs with 647 participants   | Anxiety disorders – predominately adults  | Intervention EMDR<br>Comparison: passive or active controls  | EMDR was associated with significant reductions in anxiety, panic, phobia, and behavioural/somatic symptoms post-                              |

| Citation – First author, year               | Evidence-base  | Population/condition   | Intervention/Comparison   | Reported outcomes   |
|---|--|--|---|---|
|   | Evidence up to Dec 2018  |  |   | treatment, particularly compared to passive control. However, EMDR did not reduce symptoms of traumatic feelings  |
| <a href="#">Adams 2020</a> <sup>57</sup>    | 6 studies, including 2 RCTs, 1 pilot study, 2 case series and 1 case report<br><br>Evidence up to Jul 2018 | Psychosis  | Intervention: EMDR<br><br>Comparison: 1 study compared to PMR or treatment-as-usual, 1 study compared to waitlist or PE and 4 had no controls | Overall, EMDR was associated with reductions in delusional and negative symptoms of psychosis, however evidence for reductions in auditory hallucinations and paranoid thinking was mixed<br><br>EMDR did not lead to adverse events and appears to be safe and feasible in this population, however more research is needed  |
| <b>Range of disorders included</b>          |  |  |   |   |
| <a href="#">Cuijpers 2020</a> <sup>58</sup> | 77 RCTs<br><br>Evidence up to Nov 2017   | Mental health problems – 48 studies on PTSD, 17 anxiety, 3 depression, 9 other | Intervention: EMDR<br><br>Comparison: control groups (waiting list, care-as-usual, relaxation, other) or other psychological treatments       | EMDR reduced PTSD post-treatment: <ul style="list-style-type: none"> <li>• with largest effect sizes compared to control groups (particularly waitlist controls)</li> <li>• overall, EMDR appeared to be more effective than other therapies, however, studies with lower risk of bias showed no significant difference between EMDR and other psychotherapies</li> </ul> Positive effects of EMDR on phobias and test anxiety were suggested in 4 studies each, compared with controls |

| Citation – First author, year                          | Evidence-base   | Population/condition   | Intervention/Comparison  | Reported outcomes   |
|--|---|--|--|---|
| <a href="#">Portigliatti Pomeri 2020</a> <sup>59</sup> | 7 studies, including 2 RCTs<br><br>Date of literature search not stated, most recent trials included published 2019 | Cancer patients – diagnosed with PTSD or anxiety-depression disorder spectrum  | Intervention: EMDR<br><br>Comparison: 3 studies used a control group and 2 studies compared with CBT | All studies reported reduction of PTSD and/or psychological symptoms after EMDR   |
| <b>Specific therapies – TF-CBT</b>                     |   |  |  |   |
| <b>PTSD</b>  |   |  |  |   |
| <a href="#">Ennis 2021</a> <sup>60</sup>               | 21 studies – 17 RCTs<br><br>Evidence up to Oct 2020   | PTSD under ongoing threat – war-related or community violence (14 studies), domestic violence (5 studies), work-related traumatic events (e.g. firefighters, military) (2 studies) | Interventions: TF-CBT, CPT, NET<br><br>Comparison: waitlist control or other therapies               | TF-CBT reduced PTSD symptoms posttreatment, compared with waitlist controls. However, there were mixed findings for domestic violence samples on long-term outcomes<br><br>TF-CBT does not appear to be contraindicated for individuals at elevated risk of trauma exposure. However, review authors note more research is needed |
| <b>Trauma in vulnerable children</b>                   |   |  |  |   |
| <a href="#">Chipalo 2021</a> <sup>61</sup>             | 4 studies – 2 RCTs<br><br>Evidence up to Oct 2019   | Trauma symptoms in refugee children  | Interventions: TF-CBT  | TF-CBT reduced trauma symptoms in all 4 trials<br><br>The review authors note there is still limited evidence whether TF-CBT is effective for all refugee children  |
| <a href="#">Thomas 2020</a> <sup>62</sup>              | 10 studies, including 5 RCTs, 3 pre-post studies, 1 secondary analysis, 1 qualitative study                         | Trauma symptoms in children and youth in low and middle-income countries<br><br>Implemented in low-resource community settings, such as  | Interventions: TF-CBT<br><br>Comparison: waitlist or treatment-as-usual                              | TF-CBT improved PTSD symptoms and psychosocial difficulties and was superior to waitlist or treatment-as-usual  |

| Citation – First author, year                    | Evidence-base   | Population/condition   | Intervention/Comparison   | Reported outcomes  |
|--|---|--|---|--|
|  | Evidence up to Feb 2020   | schools, community centres, public health clinics or hospitals, non-governmental organisations and home-based care settings  |   | The majority of studies involved training of lay counsellors, review authors suggest that it is feasible to provide cost-effective treatment in low-resource countries   |
| <i>Specific interventions – exposure therapy</i> |   |  |   |  |
| <b>PTSD</b>                                      |   |  |   |  |
| <a href="#">McLean 2022</a> <sup>63</sup>        | 65 studies<br><br>Evidence up to Oct 2020   | PTSD in adults<br><br>Includes some stratified results by population type, such as refugees, civilians or military, and by trauma type, such as natural disaster, combat or sexual assault | Intervention: exposure therapy<br><br>Comparison: various, including waitlist, treatment-as-usual, other TF therapies, non-TF therapies | Exposure therapy reduced PTSD symptoms: <ul style="list-style-type: none"> <li>the largest effect was compared to waitlist and TAU</li> <li>a smaller effect compared to non-TF therapy</li> <li>not different from TF therapy or medication (SSRIs)</li> </ul> Larger effect sizes were seen in: <ul style="list-style-type: none"> <li>studies of refugees and civilians compared with those in military samples</li> <li>studies of PTSD related to natural disasters and transportation accidents vs. other traumatic events</li> <li>studies of individual vs. group therapy</li> </ul> |
| <a href="#">Siehl 2021</a> <sup>64</sup>         | 56 studies in review; 19 studies in meta-analysis<br>28 RCTs<br><br>Evidence up to Mar 2020 | PTSD in adults or children in vulnerable populations such as refugees or post-conflict settings  | Intervention: NET, FORNET<br><br>Comparisons: active or non-active controls groups  | NET decreased PTSD symptoms in short and long-term in adults, perpetrators and children  |
| <a href="#">Grech 2020</a> <sup>65</sup>         | 10 RCTs   | PTSD   | Intervention: NET   | All studies reported greater reductions in PTSD symptoms at 3–   |

| Citation – First author, year             | Evidence-base  | Population/condition  | Intervention/Comparison  | Reported outcomes  |
|---|--|---|--|--|
|   | Date of literature search not stated, most recent trials included published 2014             |   | Comparison: non trauma-focused therapy, e.g. supportive counselling or psychoeducation   | 6 months follow-up in the NET groups (statistically significant in 6 of the 10 trials)   |
| <a href="#">Zhou 2020</a> <sup>66</sup>   | 18 RCTs<br><br>Evidence up to Jan 2019   | PTSD  | Intervention: modified PE (mPE) and the PE combined with drug (PE/d).<br><br>Comparison: PE  | Active treatment groups all reduced PTSD symptoms, with no significant difference between mPE + PE/d and PE on PTSD scores or posttreatment dropout rate   |
| <i>Specific interventions – virtual</i>   |  |   |  |  |
| <b>PTSD</b>                               |  |   |  |  |
| <a href="#">Knaust 2020</a> <sup>67</sup> | 18 studies, including 9 RCTs, 3 pilot studies, 6 case studies<br><br>Evidence up to Jul 2020 | PTSD, majority of the primary studies examined male soldiers with combat-related PTSD | Interventions: virtual trauma interventions (usually based on PE or EMDR), Virtual Reality Exposure Therapy (VRET), Multi-Modal Motion-Assisted Memory Desensitization and Reconsolidation (3MDR), Action-Centered Exposure Therapy (ACET) | Improvements in PTSD symptoms were observed post-treatment for all of the interventions and usually maintained at 3- or 6-month follow-up  |
| <a href="#">Simon 2021</a> <sup>68</sup>  | 13 RCTs<br><br>Evidence up to Jun 2020   | PTSD in adults  | Intervention: Internet-based cognitive and behavioural therapy<br><br>Comparison: face-to-face or Internet-based psychological treatment, psychoeducation, waitlist, or care as usual  | Some beneficial effects of internet-based CBT, such as reductions of PTSD symptoms, and possible reduction of depression and anxiety symptoms post-treatment compared with waitlist                                |
| <a href="#">Jones 2020</a> <sup>69</sup>  | 38 studies, including 29 RCTs<br><br>Evidence up to May 2020                                 | PTSD in military, veterans and public safety personnel                                | Intervention: virtual TF-therapy, including PE, CPT<br><br>Comparison: in-person therapy   | PE, CPT, and behavioural activation and therapeutic exposure delivered via videoconferencing significantly reduced PTSD symptoms in veterans and/or military members, however the evidence for CBT was conflicting |

| Citation –<br>First author,<br>year   | Evidence-base | Population/condition | Intervention/Comparison | Reported outcomes                        |
|---|---------------|----------------------|-------------------------|--|
|   |               |                      |                         | Facilitators and barriers also discussed |
| <p>BCBT: brief cognitive behaviour therapy; BET: brief eclectic therapy; BD: bipolar disorder; BPD: borderline personality disorder; BT: behavioural therapy; BTP: brief treatment program; CBT: cognitive behavioural therapy; CBT-T: cognitive behavioural therapy with a trauma focus; COPE: concurrent treatment of PTSD and substance use disorders using prolonged exposure; CPP: child parent psychotherapy; CPT: cognitive processing therapy; CT: cognitive therapy; DBT: dialectical behaviour therapy; EMDR: eye movement desensitization and reprocessing; FORNET: forensic offender rehabilitation narrative exposure therapy; IPT: interpersonal therapy; IPV: intimate partner violence; MCT: metacognitive therapy; MID-BIF: mild intellectual disability or borderline intellectual functioning; NET: narrative exposure therapy; PACT: postadmission cognitive therapy; PCT: present centred therapy; PE: prolonged exposure; PMR: progressive muscle relaxation; PTSD: posttraumatic stress disorder; RCT: randomised controlled trial; RTM: reconsolidation of traumatic memories; SIT: stress inoculation training; SSRI: selective serotonin reuptake inhibitor; SUD: substance use disorder; TARGET: trauma affect regulation: guide for education and therapy; TAU: treatment-as-usual; TF: trauma-focused; TF-CBT: trauma-focused cognitive behavioural therapy; TREM: trauma recovery and empowerment model; VRET: virtual reality exposure therapy; WET: written exposure therapy.</p> |               |                      |                         |  |

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These tables accompany *Rapid review on trauma-informed care in primary care settings – Summary report – Part A*.

Reference list provided in *Rapid review on trauma-informed care in primary care settings - Summary report – Part C – References*.