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Psychosocial interventions to improve the mental health of survivors of human trafficking: a realist review [H1]

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**More than 50 million people globally are subjected to modern slavery and human trafficking. Mental health adverse consequences of extreme exploitation are prevalent and often severe. We conducted a systematic and realist review on evaluations of psychosocial interventions for survivors of human trafficking. The review aimed to identify the influence of these interventions on the mental health and wellbeing of trafficked people and examine how they worked for which survivors in which contexts. We searched nine databases (Ovid**

**MEDLINE, Embase, PsycInfo, Global Health, CINAHL Plus, SCIELO, Science Citation Index, Social Science Citation Index, Cochrane Database of Systematic Reviews, and Cochrane CENTRAL) for published evaluations of psychosocial interventions for survivors of human-trafficking. We followed a realist approach to analyse the data and reported on the limitations of the studies identified. Four mechanisms of change were triggered by the various intervention activities: (1) awareness and understanding; (2) trust, safety, and security; (3) agency, autonomy, empowerment, and social connections; and (4) self-reflection, self-expression, and self-care. Improving mental health after traumatic events is an ongoing, nonlinear process. Intervention effectiveness and transferability would benefit from more transparent programme theories and well articulated assumptions that identify the pathways to change.** Background [\[H2\]](#)

Globally, more than 50 million people are subjected to modern slavery.<sup>1</sup> The most accepted definition of human trafficking centres around the use of force, deception, or coercion for the purpose of exploitation, including sexual exploitation, forced labour, or the removal of organs.<sup>2</sup>

Trafficked individuals are exposed to harmful living and work conditions, different forms of control, violence, abuse, and intense isolation.<sup>3-5</sup> These hazards can occur over extended periods, impairing the physical and mental health of survivors.<sup>6-8</sup> Mental health consequences can include post-traumatic stress disorder (PTSD), substance misuse, mood and anxiety disorders, and dissociative symptoms,<sup>3,5,7,9,10</sup> and ADHD or adjustment disorders among youth.<sup>11</sup> The socioeconomic instability, stigma, and legal challenges post-trafficking are associated with difficulties in reintegrating into the community or the wider society.<sup>5,12</sup>

Survivors of human trafficking have rights and entitlements to protection and legal support.<sup>13</sup> Although they are frequently isolated, survivors do come into contact with services, including police, immigration, health care, and non-governmental organisations (NGOs).<sup>14</sup> Their psychosocial outcomes depend on the access to appropriate services that address their biological, behavioural, cognitive, emotional, social, and environmental needs.<sup>15</sup>

Reviews on the effectiveness of post-trafficking interventions have found insufficient evidence on what works to support the mental health of survivors.<sup>14,16</sup> No meaningful suggestions on how to address the diverse needs of trafficking survivors were provided in these reviews. Greater understanding is required about what interventions can meet the needs of survivors across different contexts.

This Review aims to inform intervention development by combining systematic and realist approaches<sup>17</sup> to review and analyse the literature on psychosocial interventions for survivors of human trafficking. This Review examines whether interventions work, how, in which contexts, and for which groups of survivors.

## Methods [H2]

The Review follows methodological guidelines for realist reviews set out by Booth and colleagues.<sup>18</sup> It included three main review phases: (1) a scoping review to develop the first iteration of the conceptual model; (2) a systematic search to identify and select appropriate studies; and (3) a realist approach to data extraction and analysis. The realist approach relies on the analysis of context–mechanism–outcome (CMO) configurations as the basis **[A: change from “building blocks” ok? We try not to use metaphors for the international readers]** of the explanation of how an intervention works, for whom, and under what circumstances.<sup>19</sup> The approach **[A: addition correct?]** is based on the assumption that interventions trigger mechanisms (ie, responses to the intervention activities) in the target population, which occur along a causal pathway to the desired outcomes.<sup>19,20</sup>

We adapted our published protocol for this Review<sup>21</sup> to include male survivors and to limit the inclusion criteria to English publications. We expanded the double screening to all articles rather than just 10% of the search results. The guidelines for quality appraisal in realist reviews<sup>22</sup> reject the use of technical checklists and instead recommend that reviewers assess the studies in relation to the data-generation process, methodological credibility, and coherence. We opted not to use appraisal checklists in our Review on the basis of these recommendations. We describe and acknowledge methodological limitations of the studies when making specific inferences about the evidence.

### Scoping review [H3]

First, we conducted a scoping review to identify definitions, classifications, care models and treatments, and theories about conditions and circumstances associated with migration, violence, exploitation, trauma, and coping. We searched for specific concepts for the CMO configuration. For context, we searched for trafficking definitions, experiences, relationships, laws and entitlements, life transitions, visibility, and diagnostic settings. For psychosocial health, we searched for mental health and psychotherapy, acute stress disorder, depression, anxiety, substance use disorder, developmental trauma and dissociative symptoms, and psychological crisis. For mechanisms, we searched for diagnostic processes, environmental risks (to diagnosis), trauma and recovery, neurobiological processes and bodily manifestations, coping and resilience, social support, and meaningful occupation. For outcomes, we searched for common diagnoses among trafficking survivors, trauma-related disorders, especially PTSD and complex PTSD (ie, definitions, diagnosis criteria, classificatory systems, and nosology); comorbidities; and symptom manifestation in the life course. The full scoping search terms and references are provided in the appendix (p 1).

We hypothesised initial CMO configurations on the basis of our scoping findings and developed a conceptual model of the care pathways for post-trafficking interventions. We consulted a group of service providers working in UK-based NGOs and survivors connected to two other survivor NGOs on the suitability and relevance of the conceptual model. The resulting framework guided the subsequent stages of our Review.

### Systematic review search strategy and selection criteria [H3]

Second, we conducted a systematic review, following the PRISMA guidelines.<sup>23</sup> The search strategy covered the concepts of human trafficking and modern slavery, mental health and psychosocial interventions, and mental health and psychosocial outcomes. These **concepts [A: correct?]** were expanded by reviewing key terms used in relevant articles, existing literature searches on related topics, and ongoing review and discussions with the research team.

The final MEDLINE search was then amended to run across the other databases. Nine social-science databases were searched: Ovid MEDLINE, Embase, PsycINFO, Global Health, CINAHL Plus, SciELO, Science Citation Index, Social Science Citation Index, Cochrane Database of Systematic Reviews, and Cochrane CENTRAL. Complete search strategies for MEDLINE, Embase, PsycINFO, and Global Health, including the changes in subject headings, are provided in the appendix (p 9). We cross-checked references from the published reviews of post-trafficking interventions and searched the grey literature for additional resources.

AB, MH, and LK double screened identified articles. Articles were included if they were about evaluations of interventions of interest with the target population. We did not exclude publications on the basis of methodological criteria, publication type, or date of publication.

We extracted data on publication type, population, methods, and findings for all eligible articles. The components of the interventions identified were classified within the pathway of care hypothesised in our conceptual model. The CMOs for these components were extracted and qualitatively analysed within and across interventions.

### Realist review [H3]

Finally, we used the realist approach to analyse the data. The realist framework has been increasingly adopted in the health field to address questions commonly posed by implementation

sciences and process evaluation.<sup>27,28</sup> We followed the Realist and Meta-narrative Evidence Syntheses: Evolving Standards (RAMESES) publication standards<sup>22</sup> for reporting findings from realist reviews. On the basis of these principles, we examined how interventions intended to modify or actually modified the context of trafficking survivors by triggering changes in resources and reasoning and, as a result, affected their social and psychological outcomes.<sup>20,24</sup>

## Results [H2]

The systematic review identified 41 articles that evaluated psychosocial interventions targeting human trafficking survivors (figure 1). Study characteristics of the included evaluations are provided in the appendix (p 46). Most of the interventions evaluated were implemented in high-income countries (HICs; USA,<sup>29–51</sup> UK,<sup>52</sup> and Canada<sup>53</sup>). Fifteen were from low-income and middle-income countries (LMICs; Cambodia,<sup>54–59</sup> India,<sup>60–63</sup> Nepal,<sup>64,65</sup> Ghana,<sup>66</sup> the Democratic Republic of the Congo,<sup>67</sup> Uganda,<sup>68</sup> and Haiti<sup>69</sup>). Most interventions targeted survivors of sexual exploitation.<sup>30–40,43–46,48–50,53,54,56–59,62–65,67</sup> One focused on labour exploitation,<sup>69</sup> two addressed all forms of exploitation,<sup>51,68</sup> and four did not specify.<sup>29,55,61,66</sup> The target populations were most frequently youth and children,<sup>30–35,37,38,40,44–46,48–50,54–57,61,62,64,65,67–69</sup> with a minority of studies focused on adults<sup>39,42,52,53</sup> or all age-groups.<sup>41,43,58,63,66</sup> Most targeted female survivors,<sup>35,42–45,50,52,54,55,57–60,62,64,65,67,68</sup> but some included all genders<sup>29,33,39,43,48,51</sup> and two focused on male survivors.<sup>53,61</sup>

## Pathway of care stages [H3]

The conceptual model describing key stages on the pathway of care for human trafficking survivors includes four stages of post-trafficking interventions: (1) identification; (2) immediate stabilisation; (3) recovery; and (4) reintegration (figure 2). Firstly, in the identification stage, definitions of trafficking influence prevention and responses to trafficking, affecting which cases are visible. Protocols for the identification of survivors can increase the recognition of trafficking and support the exit of survivors from exploitation. Secondly, in the immediate stabilisation stage, access to services depends on the system of rights and entitlements for survivors, determining the responses to urgent needs to resolve crisis situations. Thirdly, during the recovery stage, survivors might rely on networks of resources and referrals to access interventions that promote their social, psychological, and psychiatric stabilisation and prepare them for independent living. Finally, in the reintegration stage, long-term autonomous living and the inclusion of survivors will vary according to local opportunities and social norms on trafficking, social cohesion, and environments.

## Identification stage [H3]

Interventions in the identification stage focus on screening procedures and protocols. Formal identification of trafficking survivors offers rights and protection.<sup>13</sup> Opportunities for identification of trafficking cases can occur at different stages of the trafficking cycle.<sup>4</sup> Interventions that aim to improve mechanisms for identification of victims of human trafficking focused on increasing frontline workers' efficiency, and consistency of screening tools and procedures. Although we use the term survivors in most of this Review, we use the term victims in the identification stage as they are yet to be identified and exit the trafficking situation.

Five interventions sought to improve the identification of victims (table 1) [A: only table 1 is cited within the text; please indicate where to cite the remaining 4 tables. All tables must be linked in-text], by use of outreach, training, and the development of screening tools and protocols. Key mechanisms in these interventions were improving provider awareness and understanding of

trafficking, the tool, and the protocol; generating trust; and ensuring privacy between screening staff and potential victims to facilitate disclosures [A: semi colons added in the right places in this list?].

Four interventions were implemented in institutional contexts such as health care<sup>47,49</sup> and judicial facilities<sup>32,48</sup> in the USA. In a community-based intervention in India,<sup>63</sup> staff proactively visited red-light districts to identify potential victims.<sup>63</sup> In some interventions, medical records were included for validation.<sup>47,49,63</sup>

Three interventions conducted training to strengthen health-care staff awareness and compliance. Two included other staff, such as security, reception,<sup>47</sup> or senior management,<sup>48</sup> to improve consistency within the institution.<sup>48</sup>

Screening protocols can incorporate multiple options for victims' disclosure. For example, a hospital-based intervention incorporated opportunities for potential victims to speak privately and included non-verbal disclosure options to avoid alerting anyone accompanying the potential victim.<sup>47</sup> The Indian NGO used bone x-rays to identify minors whose age was uncertain.<sup>63</sup> The juvenile detention centre intervention in the USA outsourced the most detailed and sensitive parts of their screening to an external youth organisation to improve disclosures.<sup>48</sup>

Provider commitment and compliance were high<sup>47</sup> and tools were deemed appropriate in the settings for which they were designed.<sup>47,49</sup> All five interventions reported identifying survivors from the tools. The inclusion of non-verbal disclosure options nearly doubled the numbers of disclosure compared with the interview-only method.<sup>47</sup> However, the perspectives of some providers on the appropriateness of screening minors on sexual activity or substance use affected their implementation.<sup>49</sup> Among the included interventions, only one carried out regular reviews to assess compliance, disclosures, and the acceptance of rescue plans.<sup>47</sup>

Intervention models advocating so-called backyard abolitionism and vigilante rescue<sup>70</sup> [A: we don't use quotation marks for emphasis, does this addition (in red) work?] were encouraged by religious-affiliated NGOs in the USA that trained community members to seek and identify trafficking survivors. However, there is little evidence that these approaches deliver meaningful outcomes.<sup>71,72</sup>

### Stabilisation and immediate safety [H3]

In the stabilisation stage, assessments are conducted to establish the immediate needs of survivors. These needs typically include safety and access to basic resources and psychological, medical, and legal support. [A: support? To avoid repetition of needs?].<sup>73-75</sup>

We identified 16 studies in the stabilisation stage (Table 2). Most interventions addressed safe housing,<sup>29-31,39,43,45,55,59,63,65,66</sup> crisis intervention,<sup>29,51,62</sup> medical,<sup>29,30,51,62</sup> legal,<sup>29,39,43,47,51,57</sup> or social support and services.<sup>43,47,59,66</sup> Social support and services included referrals to specialised services, such as dental, psychiatric counselling, and forensic assessments.<sup>31,34,40,43,47,57,66</sup>

Many stabilisation interventions applied trauma-informed care approaches that helped survivors develop new associations by reorienting memories to resilience and strength.<sup>30,34,40,43,45,51,62,76</sup>

Appropriate training of providers improves awareness and understanding of the trafficking issues and their impact on survivors, whereas referrals aim to ensure sufficient provision of care. Referrals work by triggering mechanisms of safety and security and linkages with other services.

Internal and external barriers affected intervention adherence and introduced unintended consequences. For example, survivors are more likely to accept support when they have good rapport with the provider. However, demands on providers meant survivors might see different providers each time.<sup>31</sup> Residential-based interventions affected different groups of survivors differently. For example, older survivors need more freedom and might need to earn money for their family, resulting in higher numbers of dropouts **than seen in younger survivors [A: is the comparator added here correct?]**.<sup>59</sup> Staff rotations and turnover hindered the formation of stable relationships and rapport building.<sup>62</sup> External barriers, such as language and cultural differences,<sup>30,34</sup> the immigration processes,<sup>30,73,77</sup> or administrative bureaucracies (eg, unannounced clinic closures), created difficulties with making appointments and losses of paperwork, which delayed access to services **[A: edits to sentence structure ok? we've also added this to the end of the previous paragraph to avoid a paragraph of a single sentence]**.<sup>29</sup>

Interventions with stabilisation components reported improved mental health,<sup>29,40,43,46,62</sup> including a reduction in PTSD symptoms,<sup>43,66</sup> depression and anxiety,<sup>43</sup> self-harm,<sup>40,62</sup> suicide ideation or attempts, and emotional distress.<sup>40</sup> However, one intervention reported mixed findings **in structural factors** regarding housing and immigration status, ranging from improved, unchanged and deterioration between intake and close of their case.<sup>29</sup>

## Recovery [H3]

The recovery stage aims to promote the functioning and autonomy of survivors in the medium and long term. This stage includes three subcomponents: rebuilding an autonomous life, psychological integration, and pharmacological intervention. We identified 25 studies in this stage: 15 addressed rebuilding an autonomous life (Table 3) and 24 covered psychological intervention (Table 4).

### Rebuilding an autonomous life [H4]

Information and resources regarding rebuilding an autonomous life aim to prepare survivors for independent living through access to education, training, health care, legal assistance, and support to develop healthy relationships.<sup>78,79</sup> The most common intervention components were training programmes, case management,<sup>29,35,40,44,46,51,66</sup> and mentorship.<sup>35,37,45,55,66</sup> Training programmes include employment skills,<sup>29,35,36,45,51,55,57,63,65,66</sup> education,<sup>29,35,36,46,51,55,66</sup> and life skills.<sup>29,35,37,40,44,46,53,55,57,63,65</sup>

Healthy interpersonal relationships are hypothesised as important facilitators to healing.<sup>35,66,79–81</sup> These relationships were promoted through residential programmes that established pseudo-family environments, group-based activities that developed social connections, and mentorship with groups external to the intervention.<sup>35–37,45</sup>

Theories on intervention programmes **[A: is this theories in general, or is Intervention programme theory a recognised type?]** and how success is defined can be inconsistent. In one intervention in the USA, some providers felt the intervention lacked structure, emphasised therapy, and offered too much freedom to survivors.<sup>45</sup> Additionally, interventions developed in **the US and Western Europe [A: ok to change this to “high-income countries”? We do not use the term “the west”]** can focus on concepts of individualism and independence that might be incompatible with the implementation context, such as in Nepal where family and communities **are of great importance [A: edit in red ok?]**,<sup>65</sup> and in Cambodia where opportunities for girls to assert independence are restricted.<sup>55</sup>

Empowerment, autonomy, and agency are potential key mechanisms for survivors to lead independent lives by supporting their decision making and desires for the future. These mechanisms might be triggered through skills training and individually tailored support and mentoring. Models that engage survivors who are further on the recovery journey to act as peer providers might help newly identified survivors through their healing journey.<sup>29,35,60</sup> In an intervention in the USA, the mentorship component documented improvements in self-worth, job competence, and future orientation.<sup>36</sup>

In an intervention targeting 12 – 15 year old runaway youths who have experienced sexual exploitation **[A: are runaway youths people who have run away from their homes or the exploiters?][A: what age bracket did they use to define youths?]** in the USA, significant **[A: statistically significant? Clinically significant? Or just “substantial”? we retain use of “significant” for clinical or statistical significance]** within case comparisons showed improvements between baseline assessments and those done 12 months later regarding condom use, emotional distress, suicidal ideation, and suicide attempts, and there were no changes in substance use (ie, alcohol and drug use) **[A: we do not talk about non-significant changes as changes so we’ve edited here].<sup>44</sup>** These improvements were most beneficial for those with the lowest baseline measures of connectedness and self-esteem.<sup>44</sup> Another study assessing an intervention in Cambodia found no or minimal change between pre-assessment and post-assessment PTSD symptoms, self-perception of functioning, and anxiety and depression symptoms. However, the qualitative reports and observations by providers in this study suggested improvements in psychological recovery, independence, and social relationships.<sup>55</sup> Interventions in the USA<sup>46</sup> and India<sup>63</sup> that targeted survivors with previous prostitution convictions focused on reducing reoffending, which was hypothesised to reduce future vulnerability to sexual exploitation. In the US study, half of the survivors committed new offences post-intervention, although none were related to prostitution.<sup>46</sup> Another US study noted indirect pathways to outcomes.<sup>29</sup> **[A: correct to add ref #29 here?]** For example, **English ability [A: edit ok? or “English language education” if they weren’t specifically classes?]** in the form of English classes as one of a range of training services provided by subcontractors to survivors, was positively associated with health status. Improvements in education and employment were also positively associated with mental health.<sup>29</sup> An evaluation of a Ghanaian residential-care intervention found that survivors’ perception of social support mediated the relationship between reintegration and PTSD symptoms, whereas the relationship between perceived social support and PTSD **symptoms** was moderated by dysfunctional coping mechanisms.<sup>66</sup>

One evaluation in the USA that assessed outcomes by intervention components found that frequent visits by a nurse practitioner to survivors were associated with reductions in emotional distress, suicidal ideation, suicide attempts, and self-injury, which were sustained 12 months after intervention **[A: edits okay?]**. Nurse visits with the families of survivors, a different component, were also associated with significant **[A: statistically significant? we retain use of “significant” for clinical or statistical significance only]** reductions in survivors’ suicidal ideation.<sup>40</sup>

#### **Psychological integration [H4]**

Psychological integration centres **support with** the grounding and integration of traumatic memories of survivors and **help them to** build on the support and skills gained in the earlier stages as part of an ongoing journey towards psychological healing **[A: edit to sentence structure ok and additions in**



**red correct?]**. The interventions with components on psychological integration focused largely on psychoeducation, trauma-exposure therapies, and creative therapies.

Some survivors might have been exploited by people they trust and might not recognise their experiences as exploitative.<sup>42,58</sup> Psychoeducation raises awareness about exploitation, trauma, and emotional and behavioural consequences for survivors and their families.<sup>30,33,40,54,56,62,63,67</sup> It was also used to introduce therapy to survivors and carers for whom these concepts were unfamiliar.<sup>30,50</sup> Psychoeducation includes internet safety<sup>40</sup> and awareness of control and coercion<sup>56</sup> to reduce the risk of re-exploitation.

The trauma exposure therapies included were trauma-informed cognitive behaviour therapy (CBT), eye movement desensitisation and reprocessing (EMDR), and trauma narrative therapy. Several interventions drew upon theories of trauma recovery, post-traumatic growth theory, developmental traumatology resilience theory, and positive youth development theory.

Creative and recreation components incorporated games, stories, music, dance, drawing, yoga, and meditation.<sup>30,33,35,40-43,54,57,60,63,68</sup> These activities helped survivors identify, acknowledge, manage, and express thoughts and emotions, and were hypothesised to ground and centre oneself, develop healthy practices, promote socialisation and relaxation, and generate self-care and self-expression. For example, music therapy reportedly enabled survivors to learn to use their voice to advocate for themselves.<sup>57</sup> Lyrics were personalised with the words of survivors to support information retention.<sup>57</sup> In art therapy, survivors drew images depicting safety, memories, and the future.<sup>58,61</sup> Drawings were used to support EMDR therapy, hypothesised to reduce symptoms of PTSD and depression, and dysfunctional trauma-related cognitions.<sup>61</sup> The use of puzzles and poetry represented struggles encountered post-trafficking and showed hope, self-worth, and optimism for the future.<sup>42</sup>

Psychotherapy might be delivered by staff who are not nationals of the country where the intervention occurred (eg, Dutch therapists in India<sup>61</sup>), national staff sometimes supervised by staff of other nationalities,<sup>67</sup> or jointly,<sup>57</sup> because specialised mental health providers are often in short supply **[A: edits to sentence correct?]**. For non-therapeutic activities **[A: ok?]**, social workers or volunteers were sometimes involved in delivery.<sup>51,56,67,69</sup> **[A: ok to group references together at the end? 51, 67, and 69 were after "delivered" previously, but I'm struggling to understand why they would apply to just "delivered"]** In instances when the providers were survivors themselves, exposure to another survivor's journey to recovery might facilitate the building of trust and empowerment, altering survivors' perceptions of their own healing potential. Components delivered in group settings might also promote the mechanism of safety, security, and validity through normalising shared experiences and responses and fostering a sense of community.<sup>41,42,50,55,63</sup>

Some interventions were adapted, typically from use in HICs to LMICs. Adaptations incorporated culturally relevant games, stories, imagery, songs, and art.<sup>54,56,57,60,67</sup> For child survivors, animals were used to generate empathy and validate feelings.<sup>54</sup> Some interventions adapted the intervention protocol by changing the delivery mode (ie, one-to-one vs group),<sup>50,62</sup> how therapists are trained and monitored,<sup>61</sup> or the administration or adaptation of the mental health assessment.<sup>33,67</sup> However, even after adaptation, therapeutic interventions could remain unfamiliar and could clash with local norms and beliefs about healing, increasing the survivors' experience of conflict and reducing their participation or disclosure.<sup>58-61</sup>

Survivors and providers from different sociocultural backgrounds might have different interpretations of the pathways of care. For example, in southeast Asia, Cambodian survivors prioritised external healing, such as vocational and social skills, whereas the workers who were from the USA **[A: is this edit ok? tried to make the cultural comparison more clear. Is it correct that these US workers were in Cambodia?]** emphasised internal, emotional healing, which might be considered private by **some** survivors.<sup>59</sup> Aligning provider and survivor backgrounds can improve rapport, uptake, adherence, and outcomes.<sup>30,45,57,67</sup> However, there might still be important sociocultural misalignments when interventions involve substantial differences in sociocultural backgrounds between the provider and survivor, particularly regarding the expression of emotion and concepts of blame and shame.<sup>56</sup> Bilingual Hispanic survivors in the USA described preferring to receive therapy in Spanish to improve their own experiences **of the intervention** and enable more families members to participate in joint components.<sup>45</sup>

Studies of interventions largely reported positive mental health outcomes, including reductions in PTSD symptoms, severity of depression, shame symptoms, and conduct problems, alongside improvements in self-esteem and the ability to focus, relax, and manage stress. Survivors receiving the creative intervention components described how play, movement, and dance helped them manage their emotions, improve self-value, and assert boundaries.<sup>41,42,60</sup> Although emotional triggers were still reported, survivors were more aware of their feelings and were able to exercise a sense of control and power gained from the intervention.<sup>41</sup> There were also mixed findings across interventions; for example, child survivors in India who took part in EMDR did not report significantly **[A: as in not statistically or clinically significant? Or “substantially different”? Please advise]** different reductions in PTSD symptoms, depression symptoms, or dysfunctional trauma compared with the control group.<sup>61</sup> The **practicalities** of the lives of survivors mean they might go in and out of services, leading to inconsistent attendance that affects group dynamics and outcomes.<sup>35, 62</sup>

Some evaluations included the perspectives of providers. In one study in Haiti, providers attributed the success of the intervention to the training they received, which reportedly improved their ability to understand, support, and manage behaviours.<sup>69</sup> The benefits gained might extend beyond the intervention for providers who continue to work with trafficked survivors.<sup>38</sup> Peer-providers reportedly gained a sense of pride, leadership skills, and used the experience as a form of self-care.<sup>35,45,60</sup> Nevertheless, new approaches required appropriate ongoing support and supervision. Providers who were newly trained on trauma-informed CBT were found to default to advising, rather than helping, survivors to devise their own solutions.<sup>54</sup> Barriers, such as burnout, staff turnover, and a mismatch of geographic spread between survivors and providers, negatively affected intervention outcomes.<sup>38</sup>

#### **Pharmacological interventions [H4]**

We did not identify any evaluations on drug treatments. A previous systematic review suggested that medication is efficacious in treating PTSD in the short-term, particularly the use of SSRI and venlafaxine.<sup>82</sup> Guidelines for the treatment of psychotic symptoms in trafficking survivors include antipsychotic medications as first-line treatment for active psychosis.<sup>83</sup> However, another systematic review suggested psychological interventions were more effective in reducing complex PTSD symptoms in populations with chronic exposure to trauma.<sup>84</sup> Pharmacological interventions might be done through referrals to specialised care. For instance, Bath and colleagues<sup>34</sup> reported that access to high levels of care resulted in an increase in prescriptions for psychotropic medication and psychiatric hospitalisation among participants.

### Reintegration [H3]

In the reintegration stage, survivors are supported to transition into safe, independent, and stable community life. However, social norms that discriminate against trafficking survivors are rife, making reintegration sometimes impossible.<sup>80,81,85</sup>

Eight interventions included components that support reintegration (Table 5). These interventions involved re-establishing contact with the family and raising awareness to improve the understanding of the family and community of trafficking and its impact, and connecting the survivors with local health, housing, education, or legal support.<sup>40,46,51</sup> Contact might involve repeated visits to assess acceptance and safety<sup>45,57</sup> or provide behavioural management support to families.<sup>40,45,65</sup> When returning to the community of origin was not possible, alternatives included temporary foster care for minors, relocating to other communities, or housing options.<sup>46,63,65</sup>

In some contexts, the ability to earn an income and contribute to the family financially can improve social status of survivors and increase the likelihood of successful reintegration, making vocational training and livelihood options important components.<sup>65</sup>

### Discussion [H2]

We reviewed how psychosocial interventions for survivors of human trafficking work for diverse groups in different contexts. The context in which interventions were implemented influenced the delivery and the ability of the intervention to prompt core mechanisms. Individual care pathways were influenced by the scope and nature of service provision and depended on the identified needs of survivors, the availability of resources, and local policies. Survivors' cultural backgrounds, **[A: what do you mean by this? The survivor's understanding of culture? What/whose culture? Or do you mean the providers understanding the culture of the survivors?]**, trust in providers, and personal circumstances affected their uptake and adherence to interventions. The recovery and reintegration stages focused on developing skills and enabling environments for independent living, formation of healthy relationships, and ways to process trauma.

Previous reviews of psychosocial interventions for human trafficking survivors mainly addressed questions of effectiveness and noted methodological limitations of existing evaluations.<sup>16,74,86–88</sup> To our knowledge, this Review is the first study to examine how these interventions worked in their particular context of implementation and for diverse groups of victims and survivors. Most intervention components influenced four key sets of mechanisms: awareness and understanding; trust, safety, and security; agency, autonomy, and empowerment; and self-reflection, self-expression, and self-care. Developing universal tools for the identification of trafficked persons is hindered by the diverse forms of trafficking and inconsistent definitions.<sup>13,89</sup> Few interventions incorporated multiple methods of disclosure and some approaches used were ethically questionable, such as the use of x-rays to assess age,<sup>63</sup> which are inaccurate to appropriately assess age **[A: are they an inaccurate method of assessing age? Why aren't they appropriate?]** while exposing youth to unnecessary radiation.<sup>90</sup>

As noted in previous reviews,<sup>14,16,74</sup> many interventions in the stabilisation stage adopted a trauma-informed care approach that prioritises safety in their models while emphasising trust, choice, and empowerment.<sup>91</sup> This approach responds to the urgent psychosocial needs of survivors, addresses distress, and fosters a return to adaptive levels of functioning.<sup>92</sup>

In the recovery stage, survivors were offered support, training, and therapies to address stressors and facilitate access to resources. Interventions aimed to build competence, autonomy, and agency in survivors to sustain the orientation of future goals towards autonomous living [A: edit ok?]. These interventions often relied on assumptions about the effect of social environments on intrinsic motivation and on the development of intrinsic motivation through internalisation and integration.<sup>93</sup>

Interventions focusing on improving the mental health of survivors sought to promote adaptation and autonomy through an increased capacity to regulate emotions. It was encouraging that many interventions used evidence-based approaches for PTSD such as narrative based trauma exposure. However, there was a lack of use of simple low-intensity approaches such as teaching grounding techniques to cope with reliving experiences. Also given the common comorbidity with depression, it was concerning to see lack of use of behavioural activation. The effectiveness of mental health diagnostic protocols in contexts where specialised mental health providers are in short supply has been questioned.<sup>94</sup> Training providers in trauma-informed care is particularly valuable in these contexts.

The causal pathways to improved mental health might be mediated by other factors, notably language proficiency and employment opportunities.<sup>29</sup> Survivors identified outside of their country of origin might not have legal rights to work or sufficient proficiency in the language of the destination country, or English, to receive services. When possible, survivors should be given the choice of the language in which they receive services and support, which can promote autonomy and decision making and be inclusive to their carers or family, potentially improving reintegration outcomes. The importance of language accessibility and the cultural appropriateness of interventions targeting survivors of trafficking has been noted by previous reviews of trafficking interventions.<sup>16,74,86,87</sup>

Contextual barriers, particularly administrative bureaucracy alongside rights or funding, had a negative effect on the continuity of care, hindering the stabilisation and recovery of survivors. Survivors of trafficking might encounter many stressors during the reintegration stage, including debt, unemployment, family tensions, fear of retaliation, discrimination, and stigma.<sup>12,79,80</sup> These stressors can negatively affect the mental health of survivors and reduce their perceptions of their ability to lead independent lives.

Generally, intervention contexts, modes of provision, and implementation strategies were similar between HICs and LMICs. However, visibility and prioritisation of specific forms of trafficking or victim profile (eg, sex trafficking, forced labour, women, or minors) varied by settings. This might be determined by the local, national, and international trafficking agenda, which might be reflected in the investments in, design, and delivery of interventions by NGOs and governments.<sup>13,16</sup> Administrative barriers were more noticeable in HICs, where the complexity of referral networks, documentation requirements, and government provision were found to be difficult to navigate even for local service providers. Thus, without individual case support, survivors are unlikely to be able to access the full range of support needed.

The emotional cost of an unsuccessful migration [A: we don't use quotation marks for emphasis, could you expand on what you mean by failed migration?] has been documented in the literature.<sup>95</sup> Post-trafficking stigma can bias access to care,<sup>96</sup> and rejection and ostracism can affect the reintegration of survivors.<sup>97</sup> As a result, survivors might prefer to remain at their trafficking destination<sup>98</sup> or not to disclose their trafficking history.<sup>97</sup> None of the intervention components targeted discrimination at the community level, where barriers to social inclusion are associated. Buffering stress, regulating emotions, fulfilling a sense of belonging, and expanding opportunities can support mental health.<sup>99,100</sup> Research on post-trafficking experiences suggests responses should move beyond the individual-level to address contextual factors that interfere with social adaptation

and inclusion.<sup>14,16,96</sup> A global study on re-trafficking found interventions fail to tackle the long-term economic adversities of survivors.<sup>101</sup> These factors could be addressed through the reframing of trafficking by policy and services delivery<sup>96,102</sup> and **actions to reduce** discrimination within the family and community.<sup>96-98</sup>

Many of the included studies were based on small sample sizes, which lack the statistical power to explain potential effects on survivors' mental health. Some interventions did not report findings from the perspectives of survivors and were instead based on the impressions of intervention staff or researchers **due to** language restrictions. The use of a relatively short timeframe to assess effects on mental health might introduce bias to an ongoing, nonlinear process of recovery. How contexts interact with mechanisms to produce outcomes is rarely investigated. These processes are likely to work through multiple components that interact with each other and with the wider environment. Short-term, one-off evaluations are unlikely to capture how they affect the mental health of survivors. Studies did not report any long-term effects on the ability of interventions to reduce psychological harm and promote sustainable, long-term social inclusion.<sup>104</sup> The included studies focused predominantly on survivors of sexual exploitation of women and girls. The experience of trafficking and the effect on mental health can vary among people trafficked for sexual exploitation versus other forms of trafficking and among other genders.<sup>105,106</sup> Therefore, to what extent these findings are applicable to other survivor populations is unclear.

Most of the studies included in this Review were not designed and reported in ways suitable to realist interpretation. Studies were short of details on the intervention, the context, or hypothesised mechanisms. We used the available information to describe these elements, but understanding how the components contributed to changes in mental health of survivors was difficult due to insufficient detail [**A: edit ok?**]. Studies should make their programme theories, assumptions, and pathways to change more explicit. Despite an extensive search strategy, we did not include guidelines and specific post-trafficking assistance models and therefore might have missed some models.<sup>107,108</sup>

## Conclusion [H2]

There is growing recognition of the psychosocial needs of survivors of human trafficking. Our Review found a range of interventions designed to support the mental health of survivors, although none specifically addressing acute medical and psychiatric needs. We developed a pathway of care for survivors and described key mechanisms that were probably generated by the intervention activities. Overall, promising interventions were those that offered diverse opportunities for disclosure, adopted a trauma-informed care approach, aimed to build the long-term competencies of survivors, applied an integrated approach to the continuity of care, and fostered long-term social inclusion. Arts-based approaches are particularly promising for improved psychosocial health through offering therapeutic components alongside recreation and relaxation, which might expand on the ability of survivors to process traumatic experiences.

Positive effects of interventions have been hindered in some cases by administrative and structural barriers that restrict access to essential support and services for survivors. Best practices should foster and respect the agency and decision making of survivors, including the services and support they wish to accept and when and how they are delivered. Interventions that are developed and implemented in different settings should reflect on how and by whom services and support are delivered and consider the levels of adaptation that might be appropriate.

Assisting survivors of human trafficking towards recovery through potentially transferable models of care that improve the mental health of survivors is needed. Research is needed on the effect of

low-intensity therapies which can be delivered by non-specialists. Evidence is needed on whether pharmacological treatments are beneficial in promoting remission and reducing relapse from mental disorders in survivors. The development and evaluation of future interventions would benefit from better articulation of the intervention theory, how it might work for different survivors, and how the context might affect causal pathways and outcomes.

### Contributors [H6]

LK and JM conceptualised the manuscript. MH, AB, and LK screened the articles. JM, LK, AB, and SP did the extraction, analysis, and interpretation of data. SP and AB conducted the model consultation with survivors and providers. JM and LK drafted and revised the manuscript. All authors were involved in reviewing and commenting on manuscript for conceptual input.

### Declaration of interests [H6]

We declare no competing interests.

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**Figure 1: Systematic review flow chart**

**Figure 2: Stages on the pathways of care for human trafficking survivors [A: please give a title]**

Examples of interventions: (1) screening, identification, and rescue; (2) crisis intervention, basic needs, and case management; (3) case management; (3.1) housing, livelihood, meaningful occupation, and legal assistance; (3.2) counselling, psychoeducation, mental health treatments, and body and mind therapies; (3.3) medication and in-patient clinical treatment; (4) livelihood programmed, community-based interventions, and case management follow-up.