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Staff Wellbeing and Retention in Children's Social Work: Systematic Review of Interventions

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Abstract

Objective: To systematically review international evidence on the effectiveness and cost-effectiveness of interventions targeting the mental health, wellbeing, and retention of child and family social workers, and their impact on child and family outcomes. *Method:* Systematic review and narrative synthesis of quantitative comparative studies. Published or unpublished research was sought via twelve bibliographic databases, websites, contact with experts, and citation tracking. Studies in any language were eligible for inclusion. Quality was assessed using Cochrane appraisal tools. *Results:* Fifteen studies were identified from 24 papers. Three studies considered individual-level interventions, with mixed and inconclusive findings. Eleven considered organisational interventions, with mixed but more promising findings. One study considered community-level interventions, with positive findings but a serious risk of bias. Only one study considered costs. *Conclusion:* The quality of evidence overall does not warrant clear recommendations for services. Organisation-level interventions show some promise. Robust, high quality interventional studies are needed.

Keywords: child welfare, child protection, mental health, burnout, systematic review

Staff Wellbeing and Retention in Children's Social Work: Systematic Review of Interventions

Poor workforce retention, mental health, and wellbeing are pressing concerns within social work, and known to be associated, with each other (Middleton & Potter, 2015; Mor Barak et al., 2001; Ravalier & Boichat, 2018). They represent some of the worst outcomes among comparable human service occupations. For example, in the UK the average working life of social workers is under eight years (Curtis et al., 2009), compared to 16 for a nurse and 25 for a doctor (Bowyer & Roe, 2015). Studies have highlighted that social workers are experiencing concerning levels of pressure in relation to workloads (McFadden et al., 2019) and high levels of stress, leading to burnout, which is linked to poor mental health (Hussein, 2018) and presenteeism (Ravalier & Boichat, 2018; Ravalier & Walsh, 2017).

There are multiple reasons why social workers are particularly vulnerable to adverse outcomes. These include high work demands, ineffective bureaucratic structures, and little opportunity for advancement. The role also occurs within an environment of rapidly changing policy and subsequent role uncertainty. For child and family social work there is particular pressure, from negative societal perceptions, adverse media representation, a culture of blaming social workers when things go wrong, and severity of repercussions (Griffiths et al., 2019; Hussein, 2018; Warner, 2018). Furthermore, child and family social work is a highly emotional context. Families have often experienced high levels of trauma and are more likely to be hostile to social work intervention (Hussein, 2018) because the possible consequences being so serious, namely children potentially being removed into out-of-home care. Relationships between families and workers are likely to be worse in a climate of risk aversion (Gupta & Blumhardt, 2016).

Research highlights how some organisational factors are related to the development of resilience to burnout (McFadden et al., 2018; McFadden et al., 2019), suggesting that efforts

to improve employee mental health or wellbeing may have domino effects on staff retention (Bryson et al., 2014; NICE, 2009). Increasing social worker wellbeing, mental health, or retention may also benefit child and family outcomes, due to improved staff performance and relationships with client families.

To our knowledge, no evidence synthesis has examined the effectiveness or cost-effectiveness of interventions to improve the retention, mental health, and wellbeing of child and family social workers. In addition, we are not aware of any syntheses that consider whether improvements in workforce outcomes of social workers have domino effects on children and their families. The few available systematic reviews with partial relevance are limited by at least one of the following: narrow parameters for outcome or interventions; lack of focus on child and family social workers specifically; and out-of-date literature searches. There are some existing reviews of retention of human service workers that do include child and family social workers. Webb and Carpenter (2011) examined a range of retention strategies across teachers, nurses, or any type of social worker. Meanwhile, Romero and Lassmann (2016) review studies of child welfare workers but focus solely on mentoring interventions and their effect on retention and job satisfaction. Two further reviews examine interventions' effects on discrete aspects of wellbeing but in social work populations outside our field of interest: Elliott et al. (2012) focus on building capacity and resilience in the dementia care workforce; while Trowbridge and Mische Lawson (2016) consider the effectiveness of mindfulness interventions on social work trainees.

Taking into account the gaps identified above, there is an evident need to synthesise the effectiveness of interventions to improve workforce outcomes of child and family social workers. The overarching review question was:

- What are the effects of workforce interventions on the mental health, wellbeing and/or retention of child and family social workers?'

Two further secondary review questions were asked:

- How cost-effective are workforce interventions aimed at improving the retention, mental health, and wellbeing of child and family social workers?
- Do workforce interventions to improve the retention, mental health, and wellbeing of child and family social workers also have an impact on child and family outcomes?

In defining wellbeing, researchers can take a eudemonic perspective, considering people's judgements about the meaning and purpose of their life (Bryson et al., 2014) or hedonic approaches, focusing on everyday feelings, or 'affect', that people experience. Examining worker wellbeing also needs to consider job-specific outcomes, such as job satisfaction and occupational stress. Where temporary stress can be perceived positively and improve performance, prolonged stress is associated with chronic anxiety, emotional problems and psychosomatic illness (Lloyd et al., 2002). Thus, indicators of chronic negative stress, including burnout, secondary trauma and presenteeism, represent more reliable measures of wellbeing for this review. Mental health conditions, primarily depression and anxiety disorders, are examined in this review separately from subjective wellbeing.

In operationalising the concept of retention, while some studies provide staff retention rates, turnover is considered the most accurate indicator of retention (Baginsky, 2013; Gandy et al., 2018). Turnover refers to the frequency at which staff leave and is not necessarily negative, with intention to leave considered the strongest single predictor of turnover (Bowyer & Roe, 2015).

'Interventions' are defined in the review as any activity, programme, policy, or practice change that disrupts the system and it is recognised that multiple interacting elements of social workers' lives, operating across any socioecological level, may determine work-outcomes. Influences on child welfare workforce outcomes are well documented, and interventions to improve the mental health, wellbeing, and retention of social workers may be

equally far-ranging to include resilience training, models of working, improved supervision, enhanced training, or strategies to address workloads via increased service funding and bureaucracy reduction.

Method

A narrative systematic review of quantitative comparative studies was conducted. Full methods are reported in Turley et al. (2020) and also summarised below. The protocol is registered on the International Prospective Register of Systematic Reviews (PROSPERO), reference CRD42020165030.

Study Eligibility Criteria

Population

The population of interest were professionally qualified child and family social workers in any geographical region. Populations that also include other child welfare staff were eligible providing the majority of participants were qualified social workers. Studies that delivered interventions to an indirect population (e.g. policy makers, commissioners or families) but measured their effect on child and family social workers were also eligible. Social workers working in fields outside of child protection (e.g. adult social care) were excluded and this was also the case if the field of social work was not specified. Mixed populations were excluded if separate results were not presented for child and family social workers. Also excluded were pre-service social worker trainees and students as well as child welfare staff who were not qualified social workers (or where qualified staff were not the majority of the study population).

Intervention

Any type of within-service intervention (i.e. activity, practice, program or policy) was included, provided its aim was to disrupt current system practices and impact upon the

existing workforce. The intervention's theory of change could operate within or across any socio-ecological domain.

Comparator

Studies were only included if they had a comparison group of people who had not taken part in the intervention. Eligible comparators were usual practice or alternative intervention. Pre-service education interventions can potentially have an important effect on social workers but were considered outside of the scope of this review, which focused only on interventions for the qualified workforce.

Outcomes

These could be measured via validated instruments, participant self-reports, or routinely collected workplace data.

Primary Outcomes

Personal and Work-Specific Indicators of Wellbeing

- Hedonic wellbeing, i.e. the everyday feelings that people experience including the type and the adequacy of those feelings.
- Eudemonic wellbeing, i.e. the extent to which a person feels a sense of purpose or having achieved their potential.
- Job satisfaction
- Presenteeism and sickness absenteeism
- Stress outcomes:
 - Burnout and its component elements (emotional exhaustion, depersonalisation or personal accomplishment)
 - Secondary trauma, compassion fatigue / satisfaction, or vicarious trauma
 - Other measures of stress (occupational or otherwise)

Mental Health

- Common mental health condition symptomology

Retention

- Intentions to leave / stay
- Rates of turnover / retention

Secondary Outcomes

Any studies meeting the eligibility criteria above were further examined for the following:

- Child and family outcomes
 - Out-of-home placements (the number of children entering out-of-home care, re-entering out-of-home care or being reunified with their families)
 - Satisfaction with services: quantitative measures, from the perspective of children and/or their families
 - Social worker-client relationships: quantitative measures of the quality of the relationship, from the perspective of children and/or their families
- Economic data, reporting full or partial sibling economic evaluations:
 - Cost-offset due to workforce interventions
 - Cost difference between workforce interventions and comparator
 - Measures of benefits in monetary terms or incremental cost-effectiveness ratios that measure benefit in units specific to the wellbeing, mental health, and retention of child and family social workers

Study Design

Quantitative comparative evaluations that compare eligible outcome(s) in intervention and control groups were included, whether interventional (randomised controlled trials or quasi experiments) or natural experiment studies. Where applicable, sibling qualitative or process evaluations were included alongside their eligible quantitative evaluation to capture

additional descriptions of the intervention, participants, or context. Studies solely evaluating an intervention using qualitative research or non-comparative (uncontrolled) studies were excluded.

No reporting restrictions were applied on the date, geography or language of publications. Where applicable, non-English language papers were translated and assessed for eligibility against our inclusion criteria. There was no restriction according to whether or not the publication was peer-reviewed.

Information Sources

Twelve bibliographic databases were searched from their inception, covering a range of disciplines: Child Development & Adolescent Studies; Social Policy & Practice; Sociological abstracts (includes social services abstracts); HMIC; CINAHL; Embase; ALL Medline (includes Medline in Process and Medline ePub); PsycINFO; Scopus; REPEC – IDEAS; NHS EE; and Econlit.

Supplementary searches were also conducted to help identify further potential research, including grey literature and any ongoing studies. Sources included browsing websites, contacting experts, and citation tracking of included papers and potentially relevant systematic reviews.

Search Strategy and Study Selection

Comprehensive searches for published and unpublished research were conducted during the period July-December 2019. Full details of search strategy are available in Turley et al. (2020). The search strategy was designed in Scopus and combined three search concepts: population; outcomes; and, study design. Once finalised by testing and refined against a set of key papers, the Scopus strategy was then tailored to the remaining databases.

Screening of abstracts and full-texts was done by two reviewers, with any disagreement were resolved by consensus or arbitration involving a third author where

necessary. The full papers of any eligible studies were also screened a second time for economic data by a health economist. Where multiple publications reported the same study, they were treated as one larger evaluation of the same intervention. The paper reporting the majority of the applicable outcomes and study methods was assigned as the main paper for citing in the review results.

Data Extraction and Risk of Bias Assessment

Data extraction of included studies was conducted by duplicate reviewers using an a priori form made of up three main components:

1. Description of the intervention.
2. Study characteristics and findings.
3. Economic data (if applicable).

The quality of included studies was assessed using the Cochrane eight domain-based evaluation for RCTs and quasi-RCTs (Higgins & Green, 2011). Each domain was rated as low, unclear, or high risk of bias. For non-randomised quasi-experimental studies, the ROBINS-I tool was used (Sterne et al., 2016). Studies were appraised by two independent reviewers in duplicate and any disagreement was resolved by consensus.

We considered applying the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) (Guyatt et al., 2008) to assess evidence certainty but as the evidence quality was weak and fractured it did not seem appropriate to try and draw quality informed recommendations.

Data Analysis and Synthesis

Meta-analysis was judged to be inappropriate due to the substantial heterogeneity of eligible studies in terms of evaluation design, population, geographical region, intervention type, and outcome measures used.

Therefore, a narrative synthesis was performed, organised by intervention level (individual, organisational or community). When groups of similar interventions were assessed by two or more studies, findings were shown on Harvest plots (Ogilvie et al., 2008).

Harvest plots summarise the body of evidence for a given outcome, according to applicable studies' evaluation design, risk of bias, and direction of intervention effect. Each study is represented by a bar that is plotted along the x-axis according to the direction of effect on the outcome of interest (no effect or statistically significant effects favouring the intervention or control). Statistical significance was considered to be a p value of 0.05 or less. The height of each bar on the y-axis indicates the category of research design: RCT; and, quasi-experimental comparative study that either used techniques to improve intervention and control group comparability (CS1) or did not (CS2). Studies were colour-coded according to their category of bias risk (high, medium, or low).

In the narrative synthesis of intervention effectiveness, effect sizes and their 95% confidence intervals are reported for significant effects where these are available in reviewed papers. Where inferential statistics are quoted without effect sizes, or effect sizes quoted without confidence intervals, this means that these statistics were not reported in the source papers. This is also the case where expected statistical details are missing (e.g. precise p-values, some standard deviations).

Results

Study selection and study characteristics

Database and grey literature searching retrieved 3908 unique records of which 2775 were excluded for not meeting inclusion criteria. Subsequently, 1133 records were screened at title and abstracts, and then 248 full-text papers. A total of 15 studies (reported in 24 papers) met the review inclusion criteria. Further information is shown in the PRISMA flow diagram (Figure 1).

Examples of studies that were not found to meet the inclusion criteria are Crowder and Sears (2017) - wrong population; McGarrigle and Walsh (2011) wrong population; Strand and Dore (2005) - wrong intervention and study design; and Maxwell et al. (2016) – wrong population and intervention.

An overview of the characteristics of included studies is presented in Table 1 – main publication only. For the five studies reported in multiple publications, the results write-up usually cites only the main study. Sibling papers are listed in Table 2. One manuscript (Strand & Bosco-Ruggiero, 2011) reported separate evaluations of two different interventions (clinical consultation and mentoring) which are treated in this review as two separate studies.

Of the 15 studies, nine took place in the U.S., four in the UK, one in Spain, and one in Australia. Nine studies examined both wellbeing and retention outcomes. There were a total of ten studies measuring retention and 13 studies assessing wellbeing. Wellbeing was measured with regards to job satisfaction ($n=8$), burnout outcomes ($n=7$), compassion fatigue or compassion satisfaction ($n=2$), other indicators of stress ($n=3$), and hedonic wellbeing ($n=1$). No studies evaluated eudemonic wellbeing, presenteeism, sickness rates, or secondary trauma. Turning to the secondary review outcomes, only one eligible study included some cost data and none quantitatively evaluated the effect of interventions on children and their families, as defined in our review criteria.

With the exception of two RCTs, the majority of studies were quasi-experimental, comprising cross sectional post-test only designs ($n=6$), longitudinal pre-post designs ($n=6$), and one longitudinal interrupted time series without a concurrent control group. Quasi-experimental studies were further categorised on whether they were utilised additional analytic techniques to improve comparability between intervention and control groups (CS1) or not (CS2). The majority of quasi-experimental studies were categorised as CS2 studies for the harvest plots. However, one outcome reported by Strolin-Goltzman (2010) incorporated

propensity score matching for the individual-level analysis of burnout and was classified as CS1. Comparison control groups were mostly usual practice, although in Brown (1984) the control group held peer support meetings in the same way as the intervention group, but the group leader did not receive any training. Stanley et al. (2012a) also used two control groups: local authorities where no pilot projects were located (usual practice), and host local authorities where pilot projects were situated but the sample were not participating in them.

Sample size varied between studies. Eight studies had sample sizes that were less than one hundred each for the intervention and control groups (Alford et al., 2005; Barbee & Antle, 2011; Biggart et al., 2016; Brown, 1984; Kinman & Grant, 2016; Medina & Beyebach, 2014; Shackelford et al., 2006; Strolin-Goltzman, 2010). In addition, two studies had considerably larger control groups than their intervention. Stanley et al. (2012a) reported data for an intervention group consisting of 58 participants and two control groups consisting of 491 and 365 participants. While the mentoring program evaluated by Strand and Bosco-Ruggiero (2011) included 144 in intervention 1113 in control participants.

Risk of Bias

Table 1 presents a summary of the risk of bias evaluations. Two RCTs (Biggart et al., 2016; Glisson et al., 2006) were judged to have an unclear risk of bias. While of the thirteen non-randomised quasi-experimental studies, four were judged to have a moderate risk of bias (Byrne, 2006; Kinman & Grant, 2016; Medina & Beyebach, 2014; Shackelford et al., 2006), seven had a serious risk of bias (Alford et al., 2005; Barbee & Antle, 2011; Brown, 1984; Renner et al., 2009; Stanley et al., 2012a; Strand & Bosco-Ruggiero, 2011 [two studies reported in one paper]) and two had a critical risk of bias (Carpenter et al., 2010; Strolin-Goltzman, 2010).

A common issue across studies was their limited reporting of methodological details often making it necessary to assign an unclear or 'no information' judgment to elements of

study designs that were not explicitly stated (such as researcher blinding of participant-related outcomes, incomplete outcome data addressed, bias due to confounding, and bias due to selection). Furthermore, none of the studies reported power analyses before data collection or following the analysis, so it was not possible to determine whether studies had large enough sample sizes to detect significant intervention effects. Given that many of the sample sizes were small it is likely that several studies were underpowered.

Intervention Description

Studies evaluated individual-level interventions ($n=3$), organisational-level strategies ($n=11$), and one community-level program ($n=1$). Full intervention descriptions are tabulated in Table 2 and summarised below.

Individual Level

All three individual level interventions aimed to build the emotional resilience of social workers. One Australian study, Alford et al. (2005), evaluated a written emotional expression activity in which participants recorded their recent stresses and emotions in journals over three consecutive days. Two UK studies evaluated resilience training. Biggart et al. (2016) examined a two-day emotional intelligence training to reduce burnout. Kinman and Grant (2016) provided three training days over a period of two months specifically for newly qualified children and family social workers in England during their first year of practice. Workshops included meditation and mindfulness, cognitive behavioural skills, and supervision for reflective practice.

Organisational Level

Of the eleven organisational-level interventions, the majority focused on the provision and/or quality of interpersonal support from colleagues, focusing on supervision ($n=5$) and peer support ($n=1$). Remaining studies evaluated participatory organisational development approaches ($n=2$) and service delivery models ($n=3$).

One peer support intervention in the U.S. involved the establishment of mutual help stress-management staff groups (Brown, 1984). This intervention involved training social workers from a large child protective agency to set up and coordinate the staff groups. The small groups were expected to meet for 1-1.5 hours per week to discuss their work situations over a 20-week period.

With regards to the supervisory interventions, one UK study examined a multi-component program of high-quality supervision provision, protected casework, and access to training for newly qualified social workers (Carpenter et al., 2010). The program was delivered over the course of a year, and the supervisors of these social workers were also given the opportunity to attend supervision skills training.

The four remaining U.S.-based interventions focused on training to improve supervisory skills. Shackelford et al. (2006) evaluated supervisor 'learning labs' delivered in a group format to child welfare supervisors and regional directors over two years. Renner et al. (2009) evaluated 'Missouri's Strategic Plan for Supervision' which involved the design and implementation of a strategic plan for strengthening skills among public child welfare supervisors. Two further supervision studies focused on more personalised 'transfer of learning' interventions working with individual supervisors via sustained intensive consultation and purposeful organisational support (Strand & Bosco-Ruggiero, 2011). Supervisors created their own professional development plans to outline desired learning objectives they hoped to achieve during the consultation process. The second transfer of learning approach evaluated was the 'Mentoring Program', where supervisor mentees were paired with manager mentors. Again, supervisor mentees designed a professional development plan to guide their activities for the year, meeting monthly with their mentors who helped develop and support attainment of their plan. Additional activities included those

supported by the agency (e.g. shadowing a commissioner for the day), training, and program-wide quarterly meetings.

Two U.S.-based participatory organisational development studies involved staff teams in decision-making and work-related problem-solving. Both interventions were delivered for at least one year. The Availability, Responsiveness and Continuity (ARC) intervention involved groups of caseworkers from varying case management teams using strategies to create the organizational social contexts necessary for successful service innovation implementation. ARC agents delivered components focused around building participation, collaboration, and innovation, and were trained in working with a range of stakeholders to remove service barriers created by bureaucratic red tape, misinformation, ineffective procedures, poor communication, and mistrust (Glisson et al., 2006). The design teams intervention brought together mixed groups of child welfare staff from all levels (including caseworker, supervisor, and management) to specifically identify causes of high staff turnover and to develop feasible solutions (Strolin-Goltzman, 2010). Again, the teams were guided by external facilitators (MSW educated workers who were trained in design teams facilitation).

The final three organisational strategies concerned service delivery models. In the UK, Stanley et al. (2012a) evaluated 'social work practices' pilots which established social worker-led organisations independent of local authorities. This relocated statutory social work support for children and young people in out-of-home care from the public to the private or independent sector, an approach made possible by changes to legislation (the Children and Young Persons Act 2008 (UK)). Meanwhile, strengths-based services were the focus of two studies. In the U.S., Byrne (2006) evaluated the family 'Strengths-Based Service Planning model', a more participatory family inclusive service planning tool. The intervention group comprised of direct service social workers and supervisors who had

reported receiving training in the model and implemented it in their work. Similarly, (Byrne, 2006; Medina & Beyebach, 2014) evaluated an intervention in Spain whereby child protection workers received 30 hours formal training in Solution Focused Brief Therapy for families, which was delivered in two 15-hour workshops taught two months apart. They also received additional supervision (one five-hour session every month for six months), which appears to be specific to the service model although it is not clearly stated.

Community Level

One study took place within the community context (Barbee & Antle, 2011) and evaluated the Neighbourhood Place model operating in Kentucky, U.S. This involved co-location and integrated service delivery of social services with other agencies in a community-based setting that is convenient to the clients served. Each site included a child welfare team consisting of supervisors and child welfare workers. Co-located services provided support for mental health, housing and health, among others.

Intervention Effectiveness

Evidence tables summarising the findings of each study are available in Turley et al. (2020) and are summarised below.

Effects of Individual-Level Interventions

All three of the individual-level studies evaluated brief interventions to improve the emotional resilience of child and family social workers. None examined mental health, retention, or the review's secondary outcomes of interest (family or economic). The Harvest plot in Figure 2 summarises the wellbeing outcomes, study type, risk of bias, and direction of effect.

The impact of emotional resilience training was evaluated in two UK studies with inconsistent findings. Biggart et al.'s (2016) RCT found no effect on emotional exhaustion, psychological strain, or physiological strain at 12-months follow-up (study 2). Conversely,

Kinman and Grant (2016) found promising short-term effects for newly qualified social workers, with moderate effects on compassion satisfaction and psychological distress (Cohen's $d = 0.54$ and 0.42 respectively) eight weeks after the intervention (study 3). There was not an effect on compassion fatigue in the intervention group, but the authors noted that as the outcome is usually a concern over time, it was likely to be less relevant to newly qualified helping professions.

Just one quasi-experimental study with a serious risk of bias examined the short-term effects of journaling emotions about work (Study 1). Findings indicated a medium effect on reduction in psychological distress (Cohen's $d = 0.74$) at two-week follow-up, but no effect on hedonic wellbeing (as measured by positive and negative affect scale). The study also identified a medium sized effect of increased job satisfaction (Cohen's $d = 0.58$) (Alford et al., 2005).

Effects of Organisational-Level Interventions

Eleven studies evaluated interventions targeting the organisational context of child and family social workers, namely: harnessing interpersonal support; participatory organisational development; and service delivery models. Effects on wellbeing and/or retention was measured, but not mental health or the review's secondary outcomes.

The Harvest plots in Figure 3 provide a summary of the wellbeing and retention outcomes, study type, risk of bias, and direction of effect across all organisational level interventions. Unsurprisingly, given the heterogeneity between studies, effects across all types of organisational interventions were mixed and inconclusive. Most studies had a high risk of bias (7/11).

Harnessing Interpersonal Support.

One study (Brown, 1984) looked at the effects of training staff to lead the delivery of mutual stress management groups for other staff aimed at increasing job satisfaction. In the

U.S.-based quasi-experimental study, an active control group was used in which untrained staff also ran peer groups. After 20 weeks, there were no statistically significant effects on job satisfaction, burnout, or expected tenure on the job.

The five remaining interpersonal support studies examined interventions targeting supervision. Effects were measured between nine months and three years from the start of the intervention.

Enhanced supervision provision and professional support for newly qualified social workers (NQSWS) was evaluated in one UK study by Carpenter et al. (2010) (study 6). Nine months after the program began, there were no significant effects on intrinsic or extrinsic job satisfaction measures, stress (as measured by the general health questionnaire), or intentions to leave.

Interventions to improve supervisory skills were assessed in four remaining U.S. studies, showing consistent improvements in job satisfaction among child and family workers where measured. Two cross-sectional post-intervention studies, reported in Strand and Bosco-Ruggiero (2011) found small but significant improvements in job satisfaction for the individualised 'transfer of learning' strategies. In the Mentoring program (study 12), the intervention group reported greater total satisfaction than the control group (mean score 139.8 versus 136.3, $p < .001$). In the Clinical Consultation program (study 13), satisfaction was also higher in the intervention group than the control group (mean score 144.3 vs 137.6, $p < .05$). Meanwhile, one interrupted time series observed an overall rise in annual job satisfaction (Renner et al., 2009). Lowest mean scores were reported in 2003 (mean 2.51/5 [sd 1.13] and 2.42/5 [sd 1.09] for social workers and supervisors respectively) rising to the highest by the end of the study in 2008 (mean 2.95/5 [sd 1.09] for social workers and 3.05/5 [sd 1.04] for supervisors). A drop in satisfaction was observed in 2006, the first year the

intervention was first introduced. It is not reported whether changes were significant across time-points.

The retention outcomes of efforts to improve supervisory skills were more mixed (Strand & Bosco-Ruggiero, 2011). After the clinical consultation program evaluation, there was no significant difference between intervention and control group in participants' mean scores for whether they planned to leave. Following the mentoring program, 15% of the intervention group reported that they planned to leave their current job, compared to 20% of the control group ($p < .001$).

However, in the studies that looked at actual turnover or retention rates the results were less positive. The learning labs intervention for supervisors resulted in no statistically significant difference between intervention and control group in turnover rates over the last ten months of the intervention (Shackelford et al., 2006) (study 10). Conversely, Renner et al. (2009) reported either no effect or fluctuating retention patterns across its six-year evaluation period, depending on type of staff (study 9). Prior to the intervention, the retention rates for supervisors decreased between 2003 and 2004 but then remained relatively constant (between 89.18 and 90.64 per cent), with no notable impact of the intervention from 2006 onwards. Retention rates for workers slightly increased in the first year (from 79.69 to 82.15 per cent), which was followed by an 8 per cent decrease from 2004 to 2008. This decrease was not linear, and retention increased from 75.42% in 2006 to 78.11% in 2007 before falling again to 73.95% in 2008. It is worth noting that any potential intervention effects may have been confounded by major changes the authors describe that took place in the Missouri social work context during 2006 (performance-based contracting, change in political leadership bringing in a new strategic plan).

Participatory Organisational Development.

Two U.S.-based studies examined interventions actively involving staff in problem-solving organisational issues. This included one RCT with an unclear risk of bias (Glisson et al., 2006) and one quasi-experimental study with a critical risk of bias (Strolin-Goltzman, 2010).

Consistent improvements to wellbeing outcomes were reported in both studies when assessed for those participants present at both the start of the intervention and at follow-up. Neither study showed significant effects on wellbeing outcomes when assessed for all study participants regardless of whether they received the intervention from the start. These findings represent a composite view of the entire participating agencies/teams as a snapshot prior to the intervention and again post-intervention.

In respect of effect on wellbeing, the ARC intervention regression analysis for those social workers who were team members at both baseline and follow-up ($n=118$) reported significantly less emotional exhaustion ($\beta=-3.2$, $p=.01$) and depersonalisation ($\beta=-1.56$, $p=.01$) than the control group (Glisson et al., 2006 - study 7). When the analysis was performed for all 218 subjects who were members of the sampled teams at the end of the study, no statistically significant improvements were observed. A similar pattern resulted in the Designs Team intervention evaluated by Strolin-Goltzman (2010) (study 14). At intervention follow-up (28-32 months after baseline) the individual-analysis revealed positive effects of the intervention on a combined measure of 'job satisfaction and agency commitment' ($F=6.62[1]$, $p=.012$). The percentage of participants reporting 'I can do my job and not burnout' rose in the intervention group from 53% at baseline to 83% at follow-up ($p=.007$) whereas no significant rise was observed in the control group. Again, wellbeing effects were not replicated in the team-level analysis, with no significant changes to burnout or job satisfaction. Comparability between these two sets of results is limited due to the same wellbeing outcomes being measured and calculated in different ways.

With regards to retention outcomes, the ARC intervention significantly reduced turnover rates when evaluating all 235 participants who joined the study at baseline (Glisson et al., 2006). After the one-year follow-up period, 65% of the caseworkers in the control condition quit their jobs versus 39% in the intervention condition ($p < .0001$). Regression analyses indicated an even larger main effect of ARC after controlling for team random effects, location, and individual level covariates such as age, education, and gender ($\beta = -3.2$, $p = .01$). Conversely, the analysis of the design team intervention found no significant difference between intervention and control group in turnover rates (Strolin-Goltzman et al., 2009).

Intentions to leave were only assessed for the design team intervention, with both the county and individual-level analyses revealing after the intervention there were significantly lower percentages of participants who had looked for a job in the past year - individual-level analysis (Strolin-Goltzman et al., 2010): 68% of the control group vs 32% in the intervention group ($F = 4.23[1]$; $p = .04$); team analysis (Strolin-Goltzman et al., 2009): 69% of controls vs 53% in the intervention group ($F = 8.1$; $p < .05$).

Service Delivery Models.

Three quasi-experimental studies evaluated the effect of service delivery models on staff. Byrne (2006) and Medina and Beyebach (2014) examined training in and use of strengths-based services in the U.S. and Spain respectively, while Stanley et al. (2012a) implemented five social work practice pilot schemes in the UK.

Strength-based services had inconsistent effects on burnout between two studies. In study 8, Medina and Beyebach (2014) found that having received training in Solution Focused Brief Therapy had a small but significant effect on global burnout scores (Cohen's $d = -0.46$) and when calculating it for the experimental group only, there was a medium effect (Cohen's $d = -0.59$). Conversely in study 5, regression analysis by Byrne (2006) showed no

significant effect on burnout ($\beta = -.045$, $p = .363$). Byrne (2006) also evaluated the effect on compassion fatigue (not significant) and compassion satisfaction (significantly higher on four of the scale items measuring compassion satisfaction when compared to the control group, $p \leq 0.05$). Furthermore, following the intervention there was slightly lower percentage of intervention participants with intentions to stay (95.2% compared to 98.5% of the control group) though it is not reported whether this difference was significant.

The evaluation of 'social work practices' by Stanley et al. (2012a) found no significant effect on burnout components of emotional exhaustion or personal accomplishment one year after the intervention was implemented, though levels of depersonalisation were significantly lower among the intervention group ($\beta = -1.29$; $p = .006$) than either of the control groups (study 11). There was no significant effect on job satisfaction.

None of the studies evaluating organisational-level interventions provided quantitative child and family outcome measures meeting the review's eligibility criteria.

Effects of Community-Level Interventions

The one study evaluating a community intervention, the U.S.-Based Neighbourhood Place Program involving co-location and service integration (Barbee & Antle, 2011), measured turnover. Although the study was predominantly qualitative, a quantitative effect on turnover was included using a quasi-experimental design judged to have a serious risk of bias.

Administrative data indicated that the average turnover rate was lower in the program than the average rate in urban settings in Kentucky (13% versus 44%), meaning that six employees left per year rather than 23.

Intervention Cost-effectiveness

Only one study considered costs in the evaluation of their workforce intervention. Barbee & Antle (2011) included a partial economic evaluation in the form of a cost-offset analysis. For every 100 staff members, 23 leave each year compared to only six across the Neighbourhood Place sites so that \$320,000 is saved annually to the Louisville office. The price year for the cost saving is not given. The cost saving is based solely on costs that would have been incurred to replace an employee. However, the authors did not consider the set-up and the on-going implementation costs of this type of model, nor did they consider other cost savings that maybe accrued at Neighbourhood Place sites due to reduced employee travel, familiarity of employees with client areas, and the increased number of cases closed. None of these impacts were formally identified, measured, and valued even though employees refer to them in their feedback.

Discussion and Applications to Practice

This systematic review that included 15 studies represents the most comprehensive investigation conducted to date on the role of interventions to improve the mental health, wellbeing and/or retention of child and family social workers. Overall, the quality of the evidence in the studies was weak, which suggests that caution is needed in interpreting the findings on intervention effects. Although all studies had a comparison group who did not receive the intervention, recommended analytical techniques to reduce selection bias and improve comparability between groups (Craig et al., 2012) were mostly not performed. Samples tended to be small, so perhaps not sufficiently powered to detect significant effects. Reporting of methods and results was incomplete.

The findings about the effects of individual-level interventions were mixed and inconclusive. A short, single component intervention may not have a sustained positive impact on wellbeing and, in turn, retention, if the underlying issues leading to job-related stress are not addressed. More positive results have been found for individual level

interventions for physicians (West et al., 2016). However, this may not be a reasonable comparison for social work, as physicians have better pay and a lot more public support.

For the organisational-level interventions we reviewed there were some more promising results. Evidence from other human service professions shows some further support for the benefits of supervision, with a systematic review exploring the characteristics of successful interventions for retention of early career nurses finding that most programs with a mentor/supervision component reported a decrease in turnover and increase in retention rates (Brook et al., 2019).

The one community-level intervention included in the review (Neighbourhood Place), reported positive results on turnover, but the results should be viewed with a high degree of caution given its methodological limitations.

None of the studies measured any of the outcomes relating to the impact on children and families identified for this study. However, Stanley et al. (2012a) examined the impact of social work practices on the number of placements children experienced and found a mixture of positive effects and no effects.

The study evaluating the Neighbourhood Place community intervention was the only study that considered costs alongside effectiveness. A partial economic evaluation provided indications that the intervention was potentially cost-saving. The study did not include a full cost-effectiveness analysis that would allow decision makers to make evidence-based funding decisions on the allocation of limited resources. It is not possible to conclude whether workforce interventions are cost-effective due to the lack of economic evaluations of these interventions.

The review is limited by its sole focus on intervention effectiveness. We recognise the importance of a mixed-method approach when evaluating interventions in complex systems. Synthesising the findings from qualitative and process evaluations is important in

determining whether the lack of an intervention effect stems from the failure of the program or its implementation. Qualitative or realist syntheses can also unveil *how* the intervention works, helping decision-makers understand in which contexts particular strategies are most likely to be beneficial and how approaches could be optimised or tailored to the local setting (Booth et al. 2019; Burchett 2020).

Also, our review focuses on qualified child and family social workers, so does not represent the full literature for broader social worker populations or child welfare staff who are not professionally qualified. This decision was informed by the unique challenges that child and family social workers can face. Several studies were excluded from our review because they either analysed interventions in social workers serving adult populations, within unspecified contexts, or a range of fields.

In light of the evidence-base, it is not possible to make clear recommendations for future policy and practice. Different types of interventions offered a small evidence base and inconsistent outcomes. However, on the basis of the limited evidence available, organisation-level interventions seem to show more promise than individual-level interventions. This fits with a more sociological approach to improving children's services which emphasises the importance of organisational culture as opposed to a more individualistic approach to workforce development. However, caution is needed because the evidence base is limited and the more well-developed evidence base in other people-focused professions shows more some encouraging results from individually-focused staff wellbeing initiatives, and we only identified a single study of a community-level intervention.

It is possible that studies showing no effect might reflect problems of implementation, applying the intervention in wrong settings or poorly developed program theory. To address this gap we need to think better about how interventions are developed and this may involve the co-production of interventions. They need to be well-designed and well-theorised. They

also need to address both the causes or the problems and be feasible in the context to which they are going to be placed.

Some commentators argue the need for more fundamental changes in child welfare practice - a paradigm shift from risk management to supportive relationships with parents and wider family (e.g., Featherstone et al., 2014). Although the main rationale for such change is the well-being of families and communities, if such change could be achieved within a service, it would be worth also measuring the impact on the wellbeing of staff.

The possible promise of interventions at an organisational level may also be relevant for other groups of staff working in child welfare, or for social workers in other fields, but this cannot be confidently assumed since we only considered interventions for qualified child and family social workers. A future evidence synthesis covering a wider pool of staff in child welfare, or social workers in fields not covered by this review, may be warranted.

More adequately-powered and thoroughly reported studies are needed, perhaps especially on interventions at the organisational and community levels. There is a need to also evaluate interventions to reduce workload and bureaucracy impact on social worker well-being, mental health, and retention. This was the focus of a recent study in Sweden (Barck-Holst, 2020) that showed positive effects of reduced working hours.

This review highlights the lack of evidence around the cost-effectiveness of workforce interventions. Future evaluations need to measure, value, and compare the costs and effects of workforce interventions against a suitable comparator. This type of analysis will allow decision makers to make evidence based decisions around the allocation of finite resources whilst improving the retention, mental health and wellbeing of child and family workers. Finally, evaluations need to include the effectiveness for children and families.

It is clear there are pressing concerns about poor workforce mental health and wellbeing in children's social care and there are high levels of social worker turnover. As a

result, there is an urgent need to understand what interventions might be effective in reducing these problems and supporting social worker retention. However, this review has highlighted a paucity of research in this area. The findings could possibly be suggesting that interventions might be more effective when applied at an organisational level. Due to the lack of studies and the poor quality of both the methods used and the reporting in the existing studies, it is not possible to be certain of these effects. The relatively poor evidence base highlights the need for more and better research in this area.

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Publications marked with an asterisk were included in the review – both main and sibling papers included ($n=24$).

Table 1: Overview of Included Studies

Study ID (citation)	Intervention type	Risk of bias	Research design	Study category
Individual-level				
1 Alford et al., 2005	Written emotional expression	Serious	QE, longitudinal pre-post	CS2
2 Biggart et al., 2006	Resilience training	Unclear	RCT	RCT
3 Kinman & Grant, 2016	Resilience training - for NQSWs	Moderate	QE, longitudinal pre-post	CS2
Organisational-level				
4 Brown, 1984	Peer Support	Serious	QE, longitudinal pre-post	CS2
5 Byrne, 2006	Service delivery - strengths based	Moderate	QE, cross-sectional post-test	CS2
6 Carpenter et al., 2010	Supervision - provision and training for NQSWs	Critical	QE - cross-sectional post-test	CS2
7 Glisson et al., 2006	Participatory organisational development	Unclear	RCT	RCT
8 Medina & Beyebach, 2013	Service delivery - strengths based	Moderate	QE, longitudinal pre-post	CS12
9 Renner et al., 2009	Supervision - skills building	Serious	QE, interrupted time series	CS2
10 Shackelford et al., 2006	Supervision - skills building	Moderate	QE - longitudinal pre-post	CS2
11 Stanley et al., 2012a	Service delivery – social work practices	Serious	QE, cross-sectional post-test	CS2
12 Strand & Bosco-Ruggiero, 2011	Supervision - skills building (Mentoring)	Serious	QE, cross-sectional post-test	CS2
13 Strand & Bosco-	Supervision - skills building	Serious	QE, cross-sectional post-test	CS2

Study ID (citation)	Intervention type	Risk of bias	Research design	Study category
Ruggiero, 2011	(Clinical consultation)			
14 Strolin- Goltzman, 2010	Participatory organisational development	Critical	QE, longitudinal pre-post	CS2 & CS1
Community-level				
15 Barbee & Antle, 2011	Community services co- location and integration	Serious	QE, Cross- sectional post- test	CS2

Key: RCT = Randomised controlled trial (RCT), QE = Quasi-experimental. QE studies were further categorised as those using additional analytic techniques to improve comparability between intervention and control groups (CS1) or those that did not (CS2)

Table 2: Intervention Description

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
Individual-level interventions				
1. Alford et al., 2005	Written emotional expression (journaling) to reduce stress reactions	<p>Underpinned by narrative and constructivist/ constructionist theoretical approaches which view meaning-finding and story making as central to the therapeutic process.</p> <p>Authors state that by expressing emotions in words, individuals change the way they think about a stressor and construct a version of the experience they can more easily understand and deal with.</p>	<p>Who received the intervention and where? Child protective services officers in Queensland, Australia.</p> <p>What? Participants received an instruction to write in a journal about their recent stresses, emotions and related thoughts and plans.</p> <p>When and how much? Participants were instructed to write in their journal for 15-20 min each day for 3 consecutive days.</p> <p>Who provided? Not reported.</p>	<p>Modifications? None reported.</p> <p>Fidelity? It is not reported whether participants followed the intervention protocol as instructed. Three out of the 34 intervention participants were lost to the study (did not complete post-intervention data collection).</p>
2. Biggart et al., 2016	Emotional intelligence training for social workers to reduce burnout rates and improve practice over time.	Informed by emotional intelligence theory, i.e. making good decisions in emotionally demanding contexts requires good emotion self-knowledge, as well as the ability to understand complex emotional situations and be empathetic to others. Emotional intelligence skills are associated with less burnout, and individuals high in emotional intelligence are less likely to appraise a situation as stressful.	<p>Who received the intervention and where? Child and family social workers recruited from 8 local authorities in England.</p> <p>What? The Anchors of Emotional Intelligence programme (from the RULER programme developed by the Centre for Emotional Intelligence), was adapted into two days training. Content topics included: What is Emotional Intelligence? Function of emotions; Identifying emotions; the Mood Meter; Using emotions in thinking; Understanding emotions; Managing emotions; Introduction of the Meta-Moment and The Blueprint; and Interpreting Emotional Intelligence Individual feedback profiles.</p>	<p>Modifications? None reported.</p> <p>Fidelity? 9% intervention group ($n=8$) did not attend the training.</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
3. Kinman and Grant, 2017	Multi-modal intervention emotional resilience training for social workers in their first year of practice; to improve resilience and and well-being	<p>Training sessions were selected to enhance the characteristics that underpin emotional resilience. Resilience helps social workers manage complexities of the job more effectively, enhance decision-making capacities, adapt positively to the challenges of constantly changing work environment, as well as protect their health and wellbeing.</p> <p>Furthermore, social workers' experiences of support during their newly qualified year have strong effects on their professional confidence and their well-being.</p>	<p>When and how much? Two-day training session. It is unclear whether the programme was delivered face-to-face or online.</p> <p>Who provided? Not reported.</p> <p>Who received the intervention and where? Newly qualified children and families' social workers (1st year of qualified practice) who were supported by the Assessed and Supported Year in Employment (ASYE) Programme, from five local authorities in England (a mixture of Unitary Councils, Shire Counties and Inner City Boroughs).</p> <p>What? Training workshops included: Meditation and mindfulness; cognitive behavioural skills; supervision for reflective practice; peer coaching; goal setting and personal organisation; self-knowledge and action planning. To maximise relevance and engagement, each session used examples, case studies and exercises firmly embedded in the everyday realities of social work. The training was supported by a series of self-directed activities designed to consolidate learning.</p> <p>When and how much? Workshops delivered on three separate days over a period of two months.</p> <p>Who provided? Training was delivered by experts in the techniques utilised and by experienced practitioners who had no involvement in supporting the participants formally during their ASYE programme.</p>	<p>Modifications? Not reported.</p> <p>Fidelity? None reported.</p>
Organisational-level				
4. Brown, 1984	Mutual help stress-management staff groups to increase job satisfaction among group members. The intervention	A clear programme theory is not reported. It is unclear if the intervention is specifically designed to manage stress, job satisfaction or both. The authors note evidence on the value of social support networks and small staff groups to increase	<p>Who received the intervention and where? Social workers from a large child protective agency in New Jersey were trained to each lead and recruit a staff group. Four staff groups were established (after one leader dropped-out) from October 1981 to June 1982.</p> <p>What? The exact nature of the intervention is difficult to determine from the report. The intervention seems to comprise both the training of group leaders and the running of mutual-help small groups</p>	<p>Modifications? None reported.</p> <p>Fidelity? One group leader dropped out and their group had to discontinue (reason unspecified).</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
	included training child welfare workers to lead and establish the staff groups.	<p>feelings of caring and recognition for work performance, clarify roles, gain information for use of resources, improve decision-making, reduce feelings of isolation and improve problem-solving.</p> <p>A small group approach, with its possibilities for collective group support, problem-solving, and sharing of personal and professional resources could be useful in helping staff to manage work stress more constructively.</p>	<p>established by the trainers. It is unclear precisely what happened in each group but the authors state that they were focused on problem-solving and taking constructive action in relation to what was happening at work. Group leader training focused on what it would be like to lead the staff group.</p> <p>The practice framework emphasized the following areas of group leader and member collaborative activity: (i) Orientation/structuring: clarifying purposes, roles and tasks of the groups; (ii) Social/emotional: giving and receiving support and recognition, allow expression of job-related feelings, encouraging group interaction, and increase possibilities for self-awareness as professionals through feedback by others. (iii) Cognitive/conceptual: analyse practice problems, use of a problem-solving approach; (iv) Task/action: using group for constructive agency change.</p> <p>When and how much? The groups were expected to meet for 1-1/2 hours each week to discuss their work situations for a 20-week period. The number of training sessions are not specified but it appears the leaders regularly met and discussed the development of the groups.</p> <p>Who provided? The author trained the group leaders, who in turn conducted the staff groups.</p>	<p>Participating group leaders reported low member dropout and relatively high attendance, goal achievement, group cohesiveness and increased socialisation (data not provided).</p>
5. Byrne, 2006	Family strengths-based service planning model for social worker resilience	<p>Hypothesis that a less adversarial, more participatory, and more family inclusive service planning tool, impacts upon social workers' self-efficacy and overall resilience.</p> <p>The conceptual model assumes a complex interplay of personal demographic and professional factors as well as workplace and organisational contextual factors. It</p>	<p>Who received the intervention and where? Direct service social workers and service supervisors who reported receiving training in SBSP and implemented the model in their work. Workers were from 5 offices in the Northeast Regions of the Massachusetts Department of Social Services.</p> <p>What? This study evaluates a Family strength-based service planning (SBSP) model that was already in practice. The intervention group included workers who had been trained in and use the SBSP model, which was a recent pilot project within the Massachusetts Department of Social Services (DSS). It is not reported how the</p>	<p>Modifications? None reported.</p> <p>Fidelity? 136 participants reported participating in the SBSP training, of which 126 (84.8%) also implemented use of the service plan in their ongoing work.</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
<p>6. Carpenter et al., 2010</p> <p>(sibling papers: Carpenter 2011, Carpenter 2012)</p>	<p>New Qualified Social Worker (NQS) pilot programme, which provides comprehensive professional support (training and regular supervision) to NSQWs.</p>	<p>Programme theory not explicitly presented.</p> <p>The programme was launched as a response to a growing concern that the transition from social work student to post qualified practice was, in many instances, problematic for both agencies and individual practitioners. It is designed to ensure that NQSWs receive consistent, high quality support and that those supervising them are confident in their skills to provide support.</p>	<p>specific training and service plan was implemented with the intervention group, however the author provides a description of SBSP approaches. The plan begins by identifying the extent of the family situation but also builds on the families' areas of strength and success, using a planning worksheet. Goals are identified in action terms by and for both the family and social worker, with each service plan being co-constructed.</p> <p>When and how much? Not reported.</p> <p>Who provided? Not clearly reported. DSS sponsored the family-strengths-based service planning training. Of the SBSP group, 39% reported receiving supervisory support, 7% with peer unit supervision, and an additional 30.5% reported continuing support through both their supervisors and unit.</p> <p>Who received the intervention and where? Newly qualified social workers (from 89 organisations consisting of 87 local authorities and two voluntary and community sector organisations) from England.</p> <p>What? Children's Workforce Development Council (CWDC) work with employers to deliver a comprehensive programme of support for NSQWs. Provides high quality supervision; access to training and a protected workload; a comprehensive induction schedule through their first year of employment; easy-to-use guidance materials; and a professional development plan designed to increase confidence and maximise capability. It is a process through which NQSWs develop their skills, knowledge and understanding over the course of a year in order to meet a set of 11 'outcome statements'. NQSWs are expected to compile a portfolio showing progress towards these outcome statements and are supported by their supervisor, who may also be their line manager, and a local programme coordinator. NSQW participants are entitled to 10% of their time being ring fenced for training activities and collating portfolio evidence; access to additional funds to support their development; two-weekly supervision meetings as a minimum (reducing after three months as</p>	<p>Over two-thirds reported using the new format often or very often.</p> <p>Modifications? None reported.</p> <p>Fidelity? During the course of the year, 22% of NQSWs initially registered were withdrawn from the programme. Considerable variation in programme retention rates between local authorities. Implementing the programme in organisations was a considerable</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
7. Glisson et al., 2006	Availability, Responsiveness, and Continuity (ARC) organisational intervention, delivered to caseworker teams. The intervention is designed to improve the work environments of children's service systems and reduce caseworker turnover.	<p>Authors describe that previous studies indicate that work characteristics such as culture and climate affect employee turnover, service quality and outcomes; that future efforts to improve children's service systems should focus on creating positive organisational climates; and interventions must focus on small groups or teams within an organisation to be successful, because resistance to change and innovation in an organisation forms at small group levels.</p> <p>The intervention is informed by general systems theory, diffusion of innovations theory, sociotechnical</p>	<p>appropriate) and involvement in the early professional development pilot to support second and third years post qualification.</p> <p>When and how much? Delivered over the course of a year.</p> <p>Who provided? CDWC provided: funding to employers; training, support and advice to those individuals nominated to co-ordinate the programme in their organisation; guidance material for all NQSWs and their supervisors; and training for those supervising NQSWs. Each participating employer was required to appoint a programme coordinator. These received training from CWDC to oversee the implementation in their organisation. Programme coordinators liaised with the support advisors commissioned by CWDC to assist employers in programme delivery. NQSWs supervisors (who could be their line manager) delivered the supervision sessions, who had the opportunity to attend training in supervision skills.</p> <p>Who received the intervention and where? Caseworkers from 13 case management teams (5 urban and 8 rural) that provide welfare and juvenile justice systems were assigned to receive the ARC intervention condition. South-eastern state (Tennessee) U.S.</p> <p>What? ARC change agents held regular team meetings with caseworkers to implement twelve intervention components in three stages, briefly summarised below.</p> <p><i>Collaboration:</i> 1) support the organisational leadership use of the ARC model. 2) cultivate personal relationships (e.g. with administrators, service providers, opinion leaders). 3) Access or develop networks among stakeholders.</p> <p><i>Participation:</i> 4) Build teamwork within work units to facilitate participation, information sharing and support. 5) provide information and training to support improvement efforts. 6) Establish a feedback system to provide performance information to work teams and management. 7) Implement participatory decision-making within</p>	<p>challenge especially in the first year.</p> <p>Modifications? None reported.</p> <p>Fidelity? Not reported.</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
8. Medina & Beyebach, 2014	Service training in solution focused brief therapy (SFBT) plus additional supervision	SFBT seeks to initiate and maintain conversations with service users about their strengths and resources. It is expected that the adoption of more cooperative and strengths-based (and less deficit-oriented) professional beliefs and practices	<p>teams for input into problem-solving efforts that address the way services are delivered. 8) Resolve conflicts at the interpersonal, intra- and inter-organisational levels.</p> <p><i>Innovation:</i> 9) develop goal setting procedures to define performance goals. 10) Use continuous quality improvement techniques for changing policies and practices to support the work of frontline service providers. 11) Redesign job characteristics to eliminate service barriers. 12) Ensure self-regulation and stabilisation of change effort via information and training.</p> <p>When and how much? Intervention for 1 year, in 2-hour weekly case management team meetings in 5-6 week blocks. In addition, four workshops, each 1 or 2 full days in length, were held with the regional directors and leaders of the ARC teams. Quarterly meetings held with the regional directors to review progress and discuss the recommendations provided by the ARC intervention teams for administrative and policy changes. Finally, meetings were held with key opinion leaders and stakeholders in the community to describe the efforts of the ARC intervention.</p> <p>Who provided? Five ARC change agents (doctoral and masters-level social workers, psychologists, and counsellors), each working with two or three teams. Agents followed the ARC Facilitators guide. Prior to implementing the intervention, the agents were trained in the ARC model by the University of Tennessee Children's Mental Health Services Research Centre 20 hours per week for 6 months. Additional training was provided in between the intervention delivery blocks.</p> <p>Who received the intervention and where? 152 child protection workers from 34 teams in Tenerife, Spain.</p> <p>What? Formal training in SFBT plus a supervision period. SFBT training which consisted of the basic-solution-focused principles and intervention techniques (Miracle Question, scaling questions, exceptions and pre-treatment changes questions, safety questions,</p>	<p>Modifications? None reported.</p> <p>Fidelity? Between baseline and 6 months follow-up, drop out ranged from</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
9. Renner et al., 2009	'Missouri's Strategic Plan for Supervision' to strengthen and support child welfare supervisor skills. The plan was designed primarily through a supervisor self-directed strategic process and aimed to improve retention of front-line workers.	An explicit programme theory is not clearly presented. Targeted supervision skills, organisation structure and commitment, and job satisfaction because they influence retention.	<p>compliments and solution-focused homework tasks) by showing videotapes of actual therapy sessions, exercising the techniques in role-plays and having group discussions. After the training, participants received an additional 30 hours of supervision which was also solution-focused: each session started by reviewing positive changes, stories of success and highlighting families and workers resources. Stuck cases were discussed in the group in a variety of solution-focused formats. It is unclear if the supervision was provided in an individual or group format.</p> <p>When and how much? 30 hours of training SFBT (two 15-hour workshops that were taught two months apart) plus 30 hours of supervision (one five-hour session every month) over six months.</p> <p>Who provided? SFBT training was provided by author (Mark Beyebach)</p> <p>Who received the intervention and where? Public child welfare supervisors from Missouri Children's Division.</p> <p>What? Co-designed strategic systematic plan to strengthen supervisory skills and provide additional support to supervisors. Developed by a work group using a participatory design process of (1) defining child welfare supervision; (2) articulating what supervisors need to enhance workers' skills and retain workers; (3) enhancing clinical and administrative supervision training; and (4) delineating resources needed to achieve desired goals. Work group meetings were then held to complete the plan. Plan addressed four core areas—supervisor training, supervisor support, clinical supervision, and management and administrative supervision. During the first year, the group began implementation of the plan, promoted an enhanced basic supervisor and clinical supervision training, participated in creating a supervisory case review tool and a time study and planned a biannual supervisory training conference.</p>	<p>15% ($n=11$) in the intervention group to 26% ($n=21$) in the control group. The authors state this was not due to drop out, rather local authorities reduced the number of contracts due to the current financial crisis in Spain.</p> <p>Modifications? None reported.</p> <p>Fidelity? It is not reported how well the strategic plan was implemented, or the proportion of supervisors who actually received supervision training and support.</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
10. Shackelford et al., 2006	'Mississippi Structured Clinical Casework Supervision Demonstration Project' - Supervisor learning labs aimed at improving clinical casework supervision.	<p>No explicit programme theory presented, particularly with regards to why the intervention might improve turnover rates.</p> <p>The intervention was one that supervisors could adjust to fit their own unit's needs. The labs were designed to promote creation of an organisational culture in the child welfare agency in which support, learning, clinical supervision, teamwork, professional best practice and consultation were the norm.</p>	<p>When and how much? Implementing the plan began in 2006, but it is not reported how long activities lasted for.</p> <p>Who provided? The National Resource Center for Organizational Improvement (NRCOI) and Missouri Children's Division supervisors. The division director promised full support to the work group and was available to hear recommendations following each meeting.</p> <p>Who received the intervention, and where? Child welfare supervisors and regional directors who were required to join as an equal participant from four rural regions of Mississippi. Two intervention groups formed, one of 10 counties (10 supervisors with one regional director) and one of 11 counties (9 supervisors with one regional director).</p> <p>What? Learning lab model was designed by the supervisors involved in the project to improve clinical casework supervision in their district. Learning labs were delivered in a group format, enabling peer-to-peer support and promoting participant interdependence, encouraging them to rely on each other for expertise and experience. The labs were needs based and allowed the participating supervisors to determine their own knowledge and skills needs. The supervisors shaped the curriculum which consisted of 12 modules. Case scenarios were offered by the participants in the projects as real situations in which they were struggling with their supervisory role. A solution-based focus was maintained, and supervisors were challenged to apply the solutions in their own units.</p> <p>When and how much? Twelve modules, which included 19 days of learning labs were conducted within each region separately over a 2-year period. Two one and one-half-day joint conferences were also held with both regions at the end of each project year.</p> <p>Who provided? Lab leaders (not defined).</p>	<p>Modifications? None reported.</p> <p>Fidelity? Supervisory changes within the agency presented a problem in the implementation of the programme as some retired, others resigned or changed areas. Even though the group members changed there was continuous and full participation of the supervisors.</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
<p>11, Stanley et al., 2012a</p> <p>(sibling papers: Stanley et al., 2012b; Stanley et al., 2013; Hussein et al., 2014)</p>	<p>Social Work Practices (SWPs) pilot - smaller social work-led organisations independent of local authorities. The aim was to improve the morale and retention of social workers and bring decision-making closer to front-line practice.</p>	<p>Supporters argue SWPs would free social workers from the restrictions imposed by local authority procedures and the demands of crisis work and high caseloads in order to have more hands-on time for building relationships and focus their efforts and energies on looked after children.</p> <p>Key drivers giving rise to the pilots were: creating less bureaucratic organisations; more responsive to the needs of children and young people; improving retention of staff through the higher morale generated by staff involvement in smaller, 'flatter' (non-hierarchical) organizations; increasing the consistency and continuity experienced by children and young people in out-of-home care; and, subsequent to the change of government in the UK, an aim of reducing the size of the public sector by relocating services to independent or private providers.</p>	<p>Who received the intervention and where? Social workers in local authorities in England.</p> <p>What? Social worker-led organisations, independent of local authorities. Relocating statutory social work support for children and young people in out-of-home care from the public to the private or independent sector.</p> <p>Each SWP differed substantially, as shown below.</p> <p><i>SWP A:</i> An in-house SWP which has remained within the local authority as a separate and discrete unit. Cohort of 180 young people aged 14-21.; <i>SWP B:</i> A professional practice run as a private company by an organisation that already delivered social care training. Cohort of 80 children and young people aged 8-17 with high levels of need.; <i>SWP C:</i> A voluntary organisation already providing the local authority's care leaving service. Taking on the attributes of an SWP was a gradual process for an already established service. Cohort of 582 young people aged 16-24 at start-up (increased to 727 by Nov 2011).; <i>SWP D:</i> An SWP run by a voluntary organisation with a long history of providing services for local authorities. The SWP was a new venture for this organisation and staff were recruited specifically to this service. Cohort of 120 children and young people aged 0-17.; <i>SWP F:</i> A professional practice run as a social enterprise established by a group of social work practitioners who formerly worked for the host local authority and who moved out to form the SWP, taking with them responsibility for many of the children with whom they already worked. Cohort of 148 children and young people aged 8 and above.</p> <p>When and how much? The pilots were established between 2009 and 2012. Six pilots were originally identified by the Department for Children, Schools and Families (DCSF) and five started up in 2009-10. By March 2012, four of the original six SWP pilots were functioning as independent SWPs.</p>	<p>Modifications? None reported.</p> <p>Fidelity? Establishing the SWPs took longer than anticipated – difficult to identify providers who were able to meet criteria. One of the original six failed to start up as the local authority was diverted by an Ofsted (regulatory) report that required it to refocus on its core functions and which resulted in major restructuring of children's social care services in that authority. Implementation of the SWP model was uneven with significant variation between sites and substantial dilution of the model in practice. Some of the key features of the original model such as autonomy from the local authority, devolution of budgets</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
<p>12. Strand and Bosco-Ruggiero, 2011</p> <p>(sibling paper: Strand and Bosco-Ruggiero, 2009)</p>	<p>Mentoring programme for supervisors</p>	<p>Framed within the context of transfer of learning, a blend of objectivist and constructivist perspectives.</p> <p>The intervention was designed to address organisational culture. By enrolling upper and mid-managers as mentors, the agency hoped to send a message to staff regarding the importance of supporting future leaders.</p> <p>The goals of the programme were to: increase organisational commitment; build leadership capacity; increase retention; enhance the ability to navigate and negotiate within the agency and the community; and increase opportunities for career and personal development. While promotion to a new job was not a goal of the program, readying mentees to take advantage of opportunities for a job change</p>	<p>Who provided? The UK Government (DCSF). SWPs entailed the transfer of statutory powers away from the local authorities to the independent sector. This required legislation to be enacted and the Children and Young Persons Act 2008 enabled local authorities participating in the pilots to transfer responsibilities for children in out-of-home care to social work providers who were not local authorities. The stipulation was that the functions transferred would be undertaken by or supervised by registered social workers. A five-year period for SWPs to be piloted and evaluated was specified.</p> <p>Who received the intervention and where? Mentor-mentee pairs made up of staff managers as mentors and direct line staff as mentees. Took place within a mid-size state public child welfare agency in the United States.</p> <p>What? Programme elements included a day-long orientation programme to establish the goals and parameters of the program. Mentees developed a professional development plan during the first month of the program. Mentors gave mentees feedback on progress and shared information about professional opportunities via monthly meetings or emails. The programme featured regular monthly contact between the mentor and mentee; agency supported activities (i.e. shadow a commissioner for a day), individual planned activities; program-wide quarterly meetings; trainings; and an end-of-the-year programme designed to bring closure and facilitate on-going, contact between the dyads where desired.</p> <p>When and how much? The mentor-mentee pairs were expected to have a face-to-face meeting within the first month of the relationship and monthly contact the rest of the year. Intervention programme delivered over four years from 2006.</p> <p>Who provided? Public child welfare agency training division. Training academy staff, field office staff, and outside consultants provided admin and evaluation. The human resources department of the agency reviewed all programme applications, and a selection</p>	<p>to front-line staff, a flattened hierarchy and a round-the clock service for children were implemented only partially.</p> <p>Modifications? Programme changes in 2007 – All mentees were involved in the shadowing and mock interview process, since these activities had been so successful the previous year. Closer monitoring of pairs by team leaders was initiated for the 2007 cohort by hiring outside consultants as team leaders. The 2007 team leaders established monthly contact with each pair and filed quarterly reports with the director of the mentoring program. Changes allowed the evaluation team to track implementation</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
<p>13. Strand and Bosco-Ruggiero, 2011</p> <p>(sibling papers: Strand and Badger, 2005; Strand and Badger, 2007)</p>	<p>Clinical Consulting Program; Clinical Consultation for Child Welfare Supervisors Program</p>	<p>Framed within the context of transfer of learning training intervention. Transfer of learning is framed as a blend of objectivist and constructivist perspectives.</p> <p>A strength-based model guided the program's philosophy. A consultation model, rather than a training model, was adopted because of its potential to focus on and enhance an individual supervisor's own identified needs and established competencies, over time.</p>	<p>Who received the intervention? Child welfare supervisors from field offices of the social work/public agency partnership in New York. Participants drawn from preventive services, foster care, court-ordered supervision units, family preservation, and preventive units across the different agencies.</p> <p>What? The programme provides consultation to child welfare supervisors to assist them with their roles as educators, mentors and coaches to casework staff. Supervisors create their own professional development plans, which outline desired learning objectives.</p> <p>Face-to-face meetings with the faculty member took place with groups of seven to nine supervisors. Participants established goals for themselves, which they addressed over the project. Participants shared examples from their own practices relevant to each session focus, including a sample of a process recording from a supervisor-supervisee session. Groups used handouts based on the literature. Groups focussed on how good casework practice could be enhanced through the supervisory relationship.</p>	<p>of the programme more closely.</p> <p>Fidelity? Process evaluation conducted to assess whether different components of the programme were being implemented (e.g. development plans completed, regular meetings attended)</p> <p>Modifications? Curriculum revisions at the end of the pilot year (year 1) – refocused on clients with mental health issues (typically schizophrenia, bipolar disorder and major depressive disorder). Substance abuse session refined to focus on both mental health and substance abuse. In Year Two, supervisors were asked to log the number of times they had met with in planned individualised</p>

Study ID	Brief description	Authors' rationale for intervention	Intervention characteristics	Whether delivered as planned
<p>14. Strolin-Goltzman, 2010</p> <p>(Sibling papers: Strolin, 2006; Strolin-Goltzman et al., 2009)</p>	<p>Design and Improvement Teams— whereby groups of employees work together to solve the organisational issues driving turnover in the organisation.</p>	<p>Mechanisms for organisational learning and improvement founded on the principles of action theory and organisational learning theory.</p> <p>Uses specific solution-focused activities to move participating child welfare agencies from 'Model 1' toward "Model II" learning organisations. (which encourages questioning and minimal defensiveness). Allows resolution of difficult problems by immediately working toward the identification and treatment of the problem.</p>	<p>When and how much? The main paper, Strand and Bosco-Ruggiero 2011, states six sessions were held over six months. But cited sibling papers describing the intervention indicate ten sessions were held.</p> <p>Who provided? Administration for Children's Services (ACS) held overall responsibility for providing the training. They collaborated with New York City Social Work Education Consortium and 6 schools of social work in New York. A faculty member from a school of social work in the New York metropolitan area delivered sessions. Faculty were experienced practitioners, who taught social work practice or clinical courses.</p> <p>Where? Mid-size state public child welfare agency in the United States with approximately 4000 staff members, located in a dozen regional offices around the state.</p> <p>Who received the intervention, and where? Public child welfare agency staff selected from all levels (caseworker, supervisor, management) and units (CPS, foster care, prevention, adoption, etc.). 12 counties in rural and suburban regions of a North-eastern state completed a Workforce Retention Survey to identify problems, in 2002. The DT intervention was then implemented in 5 of the 12 counties in 2003. Three regions in upstate New York completed the intervention.</p> <p>What? The teams begin by identifying the problems that employees perceive to be the causes of turnover within their agency through informal focus groups and an agency wide survey called the Workforce Retention Survey. The DT then prioritise the issues by feasibility and importance. Each of the teams follow a specific solution-focused logic model that guides them toward developing solutions to the identified causes of turnover in their organisation. There are 7 structured steps of the logic model: (1) Clearly identifying the problem and/or need; (2) Assessing causes of problem; (3) Evaluating its effects on retention and workforce stability; (4) Pondering the ideal situation; (5) Discussing solutions</p>	<p>sessions with supervisees before they attended the consultation. They were also provided with a standardised form to record process from individual sessions with supervisees.</p> <p>Fidelity? Not reported.</p> <p>Modifications? None reported.</p> <p>Fidelity? To ensure intervention fidelity, facilitators participated in ongoing meetings with project director to debrief DT progress and challenges. Of the 5 counties that initiated the intervention, 3 completed the intervention and have sustained Design Teams institutionalised into their agencies.</p>

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<p>already in place; (6) Developing new feasible solutions; (7) Identifying specific action steps that team members had to complete prior to the next meeting.</p> <p>DT sessions began with a brief debriefing (approximately 10 minutes) of the events since the last meeting.</p> <p>When and how much? The DT intervention was implemented in 2003. The DTs met for 2 hours, twice a month for the first year. After one year of intervention, external facilitation of the teams was phased out with the expectation that the DTs would be sustained independently for two years.</p> <p>Who provided? Two external facilitators employed by a local university. All of the facilitators are MSW educated group workers who completed a two day initial training on DT facilitation.</p>				
Community-level interventions				
15. Barbee and Antle, 2011	<p>Neighbourhood Place (NP) Model.</p> <p>Co-location and integrated service delivery of social services with other agencies in a community-based setting that is convenient to the clients served.</p>	<p>Thought to reduce job stress by: i) maintains a common philosophy of care and streamlines paperwork and processes; ii) enhances access for clients iii) improves knowledge of and collaboration with service providers; iv) helps workers gain familiarity with clients, their neighbourhoods and circumstances; v) cuts travel time down and eases client acceptance of other service provider help.</p> <p>Presume reports of enhanced success with families, collaboration</p>	<p>Who received the intervention and where? 17 neighbourhood place (NP) child welfare staff members in 8 NP sites in Louisville, Kentucky. NP child welfare workers operated as state employees governed by state-wide governance structure and standards of practice.</p> <p>What? Each site included a child welfare team consisting of a supervisor and between 5 and 8 child welfare workers. Co-located services included comprehensive mental health agency, health departments, mental health workers affiliated with public schools, workers who manage Medicaid, Food Stamps, and TANF payments as well as workers who can aid clients with housing and workforce development training. All of the partner agencies contributed by donating space for offices, time of leaders and staff in working together to develop coordination and collaboration tools and new</p>	<p>Modifications? None reported.</p> <p>Fidelity? Not reported.</p>

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		and lower stress contribute to positive feelings about the job and staff retention.	<p>protocols for assessing, engaging and referring clients and other in-kind resources.</p> <p>When and how much? The authors state that NP models have operated in the city for 18 years, however it is not clear if this duration applies to the specific study sites.</p> <p>Who provided? Partner agencies.</p>	

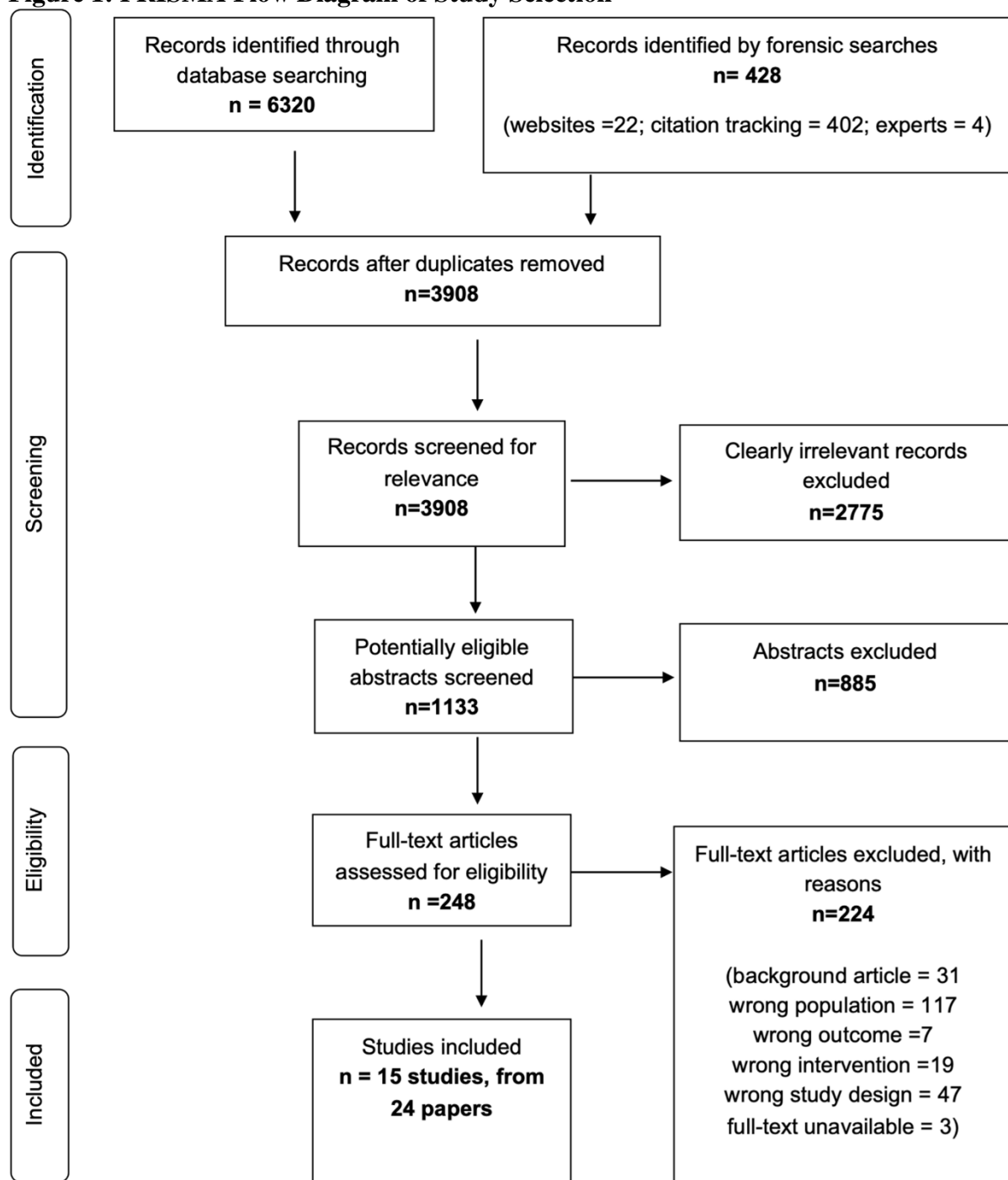
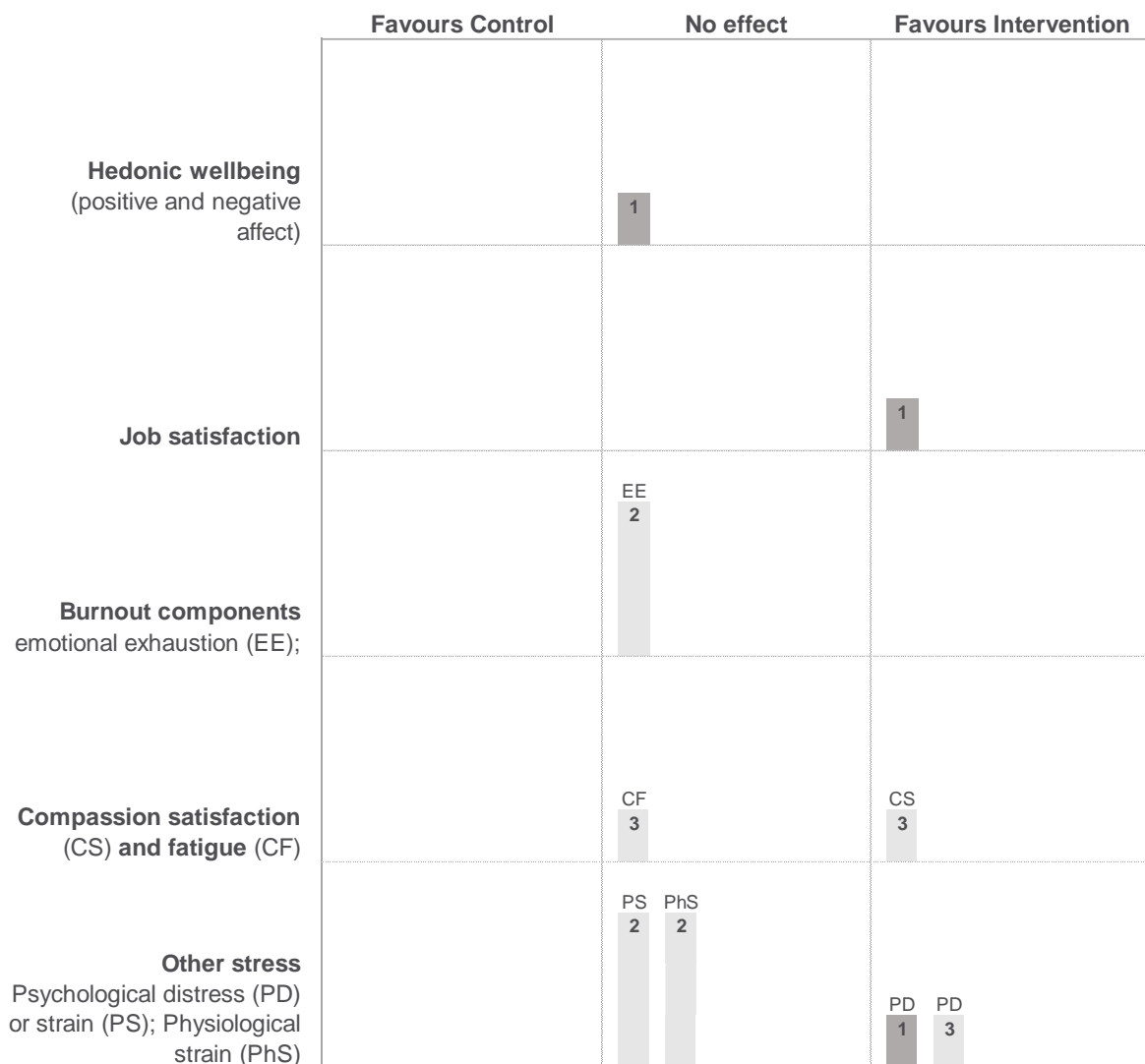
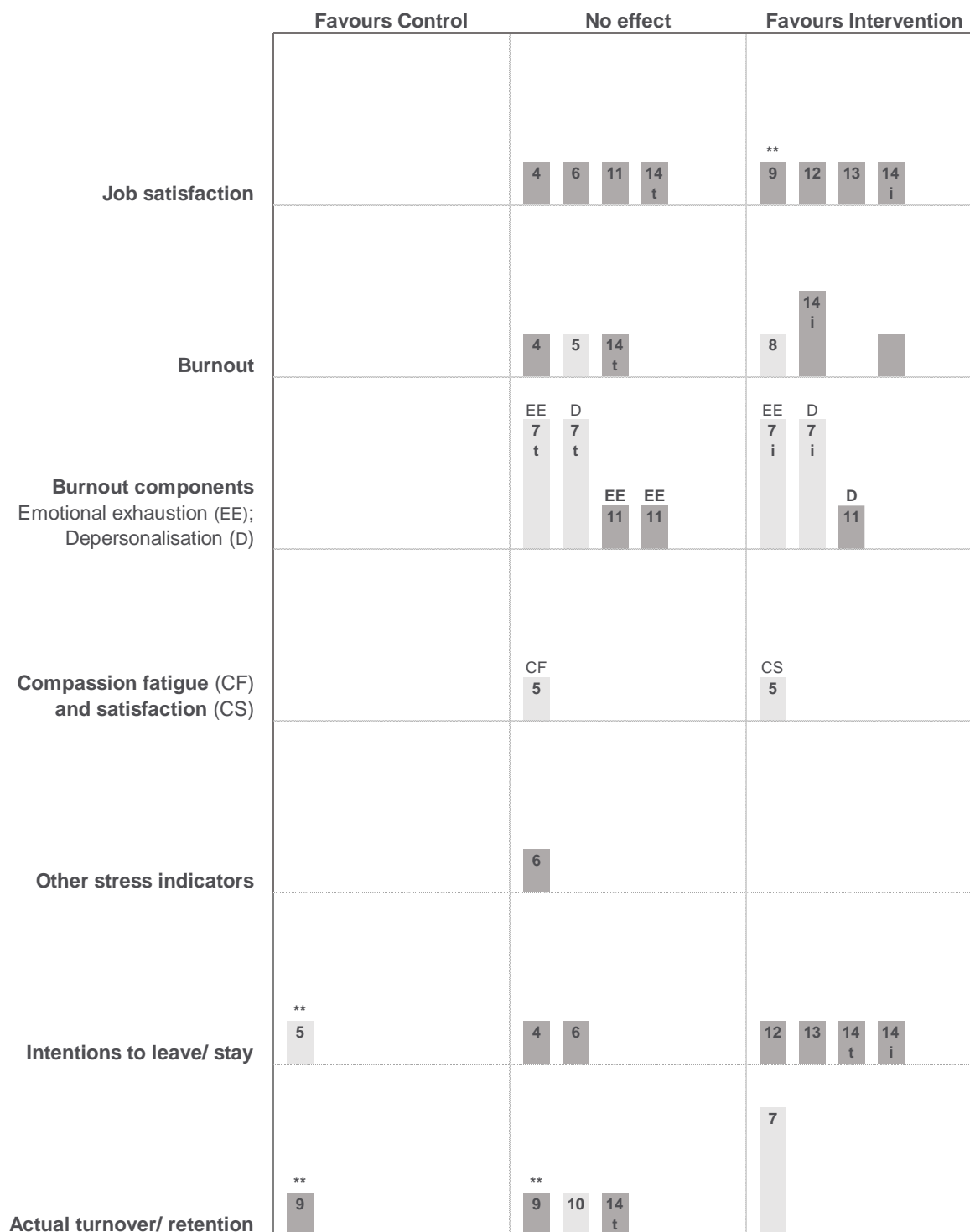
Figure 1: PRISMA Flow Diagram of Study Selection

Figure 2: Effects of Individual-Level Interventions on Wellbeing



Each bar in this harvest plot represents a study with its ID number: height indicates study type (high = RCT; low = CS2); colour shows consolidated risk of bias ratings (darker grey = high, light grey = medium).

Figure 3: Effects of Organisational Interventions on Wellbeing and Retention



Each bar in this harvest plot represents a study with its ID number: height shows study type (high = RCT, mid-height = CS1; low = CS2); colour shows consolidated risk of bias (darker grey = high, light grey = medium); ** statistical significance of effect not reported. Study 7 & 14 identify findings of team ('t') and individual analyses ('i') separately.