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Review Article

The Effectiveness of Psychologically Informed Environments in Homelessness Services: A Systematic Review

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Objectives: Psychologically informed environments have shown promise in supporting people experiencing homelessness, yet evidence of effectiveness and mechanisms is lacking. This systematic review evaluated current evidence on their effectiveness in homelessness settings.
Methods: A mixed-method approach combined quantitative evaluation studies with qualitative studies exploring mechanisms for change. Searches were conducted in MEDLINE, PsycINFO and CINAHL Plus, the Centre for Homelessness Impact Databases and Google, to identify published and grey literature using terms associated with psychologically informed environments, homelessness and impact (final search: 7 February 2024). Studies reporting psychologically informed environments involving people experiencing homelessness across all designs, dates and global locations were included. Studies without homelessness outcomes were excluded. Risk of bias was undertaken using the Centre for Homelessness Impact Tool. The quantitative component focused on studies evaluating outcomes concerning changes in behaviour, attitudes and symptoms. The qualitative component provided potential mechanisms for change. Findings were synthesised narratively, grouping findings in four domains: staff attitudes, staff well-being, client behaviour and client well-being.
Results: Thirteen studies met inclusion criteria. Staff outcomes showed reduced burnout and improved well-being (3 studies, 521 participants), while client outcomes demonstrated improved mental health and social behaviour (4 studies, 305 participants). Possible mechanisms for change (12 studies, 412 participants) included training, reflective practice and supportive relationships for staff. For clients, person-centred relationships, safe environments and empowerment were cited.
Conclusions: Psychologically informed environments show benefits to both staff and clients in homelessness settings, enhancing well-being, engagement and behavioural outcomes. However, the evidence base remains small and inconsistent, and lacking in equity-focused or participatory research. Greater involvement of people with lived experience and use of robust, controlled designs are needed to strengthen future evaluations and clarify how psychologically informed environments achieve their impact.

Keywords: homelessness; PIE; psychologically informed

Summary

- Creating and maintaining a psychologically informed environment (PIE) is effective to reduce staff burnout and turnover in homelessness settings.
- Creating and maintaining a psychologically informed environment when working with people experiencing homelessness is effective in improvements of mental health and asocial behaviour.
- Staff training, including a basic understanding of psychological trauma and its effects and how to provide trauma-informed care, is a key component of psychologically informed environments.

1. Introduction

The issue of homelessness continues to blight supposedly rich economies, such as that in the United Kingdom, with 3059 people counted as living on the streets of England in 2022, and much higher numbers when all forms of homelessness are considered [1]. Many initiatives have been proposed to support people experiencing homelessness (PEH) over the past decades, with the number of PEH notably reducing during the pandemic with the 'Everybody In' policy that made changes at individual and systemic levels. A significant proportion of PEH have suffered childhood trauma and/or currently experience trauma and retraumatisation, which affects psychological and emotional functioning [2, 3]. This complex trauma can explain underlying attachment, emotional regulation and interpersonal difficulties, which contribute to current emotional and behavioural difficulties including substance use and mental health problems. A psychological approach can address this complex trauma by enabling the development of healthy coping skills, addressing attachment issues and promoting emotion regulation skills. This has implications for system configuration and staff training.

Two forms of psychological approaches in the configuring of services have been found to be effective when serving PEH: firstly, the trauma-informed care approach [4]; secondly, the psychologically informed environment (PIE) framework [5]. The concept of PIEs was first described by Maguire et al. [3] and Johnson & Haigh [6]. It was then operationalised in a set of guidelines written by a multidisciplinary group of people including a government advisor, a psychologist, a social worker and a psychotherapist [5].

These guidelines first laid out the five PIE principles for working in a psychologically informed way: (1) having consistent, evidence-based psychological theory guiding practice; (2) attending to the needs of staff through training and reflective practice; (3) taking an empirical approach to all practice, ensuring value for commissioners and, more importantly, the people who are experiencing homelessness whom we serve; (4) bringing psychological theory to the built environment; and (5) an underpinning principle of always attending to relationships.

Although PIE services are highly prevalent (a Google search on 'psychologically informed environments homeless' indicated over 43k hits), the research on effectiveness and mechanisms lags behind the use. This may be due to lack of research funding in this area, the difficulties in reducing constructs to researchable questions and possibly the lack of research, particularly impact evaluations, in the homelessness field.

The original guidelines were written deliberately to be flexible to enable adaptation to the context of implementation. Homelessness is a complex issue. For PEH, experiences and circumstances are incredibly diverse. This, together with the range and variety of services in the homelessness sector, creates challenges when undertaking research and determining the evidence base for this intervention. What is considered 'PIE' can be varied, meaning that in a review, we need to be robust about the criteria set by the service evaluators or researchers. This review is based on these principles. The interventions were required to explicitly include PIE concepts and practice, and the inclusion criteria required the interventions to make use in some form of the five principles [5] or the seven principles [6] that are fundamental to PIE. Therefore, where papers had made clear that they were appealing to PIE principles and were able to describe at least one of those principles as a target outcome, it was included. The most common principle was working with staff, which often included reflective practice and/or training. This review builds on and updates two previous reviews [7, 8]. The first focused on PIEs for single homeless people [7], and the second took a broader approach to consider evaluative evidence for PIEs for PEH [8]. There have been a number of academic studies and third-sector reports, both qualitative and quantitative, that have been published since these initial reviews which are included in this study.

Experiences of homelessness are strongly shaped by intersecting social identities. UK research shows that women's experience of homelessness is closely linked to domestic abuse and gendered stigma [9], while LGBT people tend to be overrepresented in homelessness services yet often overlooked in terms of housing and support needs [10]. Fitzpatrick et al. [11] found that Black people are almost four times more likely to become homeless than White people, and deeply embedded structural disadvantage contributes to the inequality of risk for experiencing homelessness. A recent international review shows help-seeking and recovery are hindered among women, trans women and nonbinary PEH, shaped by intersecting barriers including domestic abuse, stigma, poverty, mental health challenges and discrimination [12]. These findings indicate that analyses of homelessness interventions, including PIE, must take account of equity dimensions if they are to be meaningfully generalisable.

Although intersectional characteristics of gender, race, age and class have also been shown to affect the homelessness workforce, the literature is scant. For example, Wilkinson et al. [13] found that Black staff reported significantly lower burnout and fewer traumatic work-related events compared to non-Black racialised staff experienced higher PTSD symptoms and burnout. Broader workforce

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Table 1: Search terms.

(Boolean operator) keyword	Search terms
Psychologically informed environments	'psychologically informed' OR 'psychologically informed environment' OR 'PIE' OR 'Psychology informed services' OR 'Psychological support'
AND Homelessness	'homeless' OR 'unhoused' OR 'homelessness' OR 'homeless persons' OR 'houseless'
AND Impact	'outcomes' OR 'benefits' OR 'effects' OR 'impact' OR 'effectiveness' OR 'consequences'

studies demonstrate that burnout is compounded by intersectional stressors, including gender, race, age and class [14, 15].

This systematic review therefore seeks to build on the previous literature, taking a more robust approach, and answering the following research questions:

Primary Question: How, and in what way, are PIEs effective for clients and staff in homelessness settings and services?

Secondary Question: What resources are needed to implement a PIE?

2. Materials and Methods

2.1. Search Strategy. A mixed-method review methodology was used to examine the effectiveness of PIE in the homelessness sector [16], following PRISMA 2020 guidance, with additional attention to equity-relevant reporting in line with the PRISMA-Equity 2012 extension [17]. In practice, this meant that, alongside standard appraisal domains, whether studies reported demographic characteristics relevant to equity was noted (e.g. PROGRESS-Plus: gender, sexual orientation and gender identity, ethnicity, age, disability and socioeconomic position). Where such information was absent, this was explicitly recorded and considered a limitation in the synthesis.

Evaluation studies using quantitative data were complemented by qualitative studies which provided possible mechanisms for the changes in outcomes for staff and clients. The search strategy encompassed databases that were deemed relevant to the research question by the research team. It aimed to identify both published and unpublished studies. Between 1 May and 23 June 2023, systematic searches were made in three databases (MEDLINE, PsycINFO and CINAHL Plus), and using the Google search engine, to find reviewed academic articles and grey literature, including theses and reports found on websites of charities in the homelessness sector. The search strategy incorporated terms related to PIE and homelessness (see Table 1). These terms were combined using Boolean operators. Additional information about the search strategy can be found in the preregistered protocol for this review [Prospero: https://www.crd.york.ac.uk/PROSPERO/ on 16 November 2023: CRD42023436793]. Additionally, both the Implementation and Effectiveness Evidence and Gap Maps (IGM/EGM) from the Centre for Homelessness Impact were screened for relevant studies. A final search was conducted on 7 February 2024 to capture any articles published since the initial searches. No new studies or reports were found that met the inclusion criteria.

2.2. Inclusion and Exclusion Criteria. The inclusion and exclusion criteria were determined to answer the research questions (see Table 2). The evaluation of services and interventions using a PIE approach was the focus of this review. Articles were included if at least 50% of the sample were PEH, if services or interventions were specified as PIE, and if the data reported provided evaluative evidence for PIE. No restrictions were applied to publication dates, location or language (unless translation was not possible due to time or financial constraints).

This systematic review included quantitative, qualitative and mixed-methods studies. The qualitative component focused on studies that examined the impact of PIE on staff and client experiences in services within the homelessness sector. The quantitative component focused on studies measuring the impact of PIE on a variety of outcomes, such as changes in behaviour, attitudes and symptoms.

2.3. Screening and Study Selection. The results of the database searches were exported to Rayyan, and duplicates were removed. Three authors [RW, DI and PA] independently screened the studies according to the inclusion and exclusion criteria. Initially, titles and abstracts were screened, and once studies which did not meet the criteria were excluded, screening of the full text of the remaining articles was conducted. Additional articles from the Implementation and Effectiveness EGM were subsequently screened in the same way. Conflicts were resolved through discussion until consensus was reached (see Figure 1).

2.4. Data Extraction. Data were manually extracted from each study by three authors [RW, DI and PA], including country where study was conducted; type of literature; study design; setting; study participants including demographic information (e.g. gender, sexual orientation and ethnicity); and outcomes. For the qualitative component, the data extracted for analysis were the reported themes and quotes. For the quantitative component, outcomes extracted for analysis included data on client behaviour, client well-being, staff attitude, staff behaviour and staff well-being.

2.5. Analytic Plan. A convergent segregated approach [18] was employed to synthesise and integrate the findings. This approach to integration was employed to combine both qualitative and quantitative findings and was chosen because the qualitative and quantitative research components were expected to address different aspects of the impact of PIE in the homelessness sector. This approach to synthesis assumes

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Table 2: Inclusion and exclusion criteria.

Criteria	Inclusion	Exclusion
Population	At least 50% of sample are people experiencing homelessness during data collection Street homeless Precarious living—temporary hostel, emergency accommodation and under threat of eviction	People who have stable housing
Status	Specified as a psychologically informed environment (PIE)	Organisation or service not designated as PIE
Comparison	No comparison group, waitlist control, alternative approach and control group	Reports and protocols which do not report outcomes for people experiencing homelessness or in the service of people experiencing homelessness, literature reviews or meta-analyses
Study design	All study designs, including controlled trials (randomised and nonrandomised), intervention studies, service evaluations and qualitative studies	
Date	All dates included	No locations excluded
Location	Global	No languages excluded unless translation not possible due to time or financial constraints
Language	All languages (if translation is possible)	
Types of publication	Peer-reviewed journal articles and grey literature (dissertation theses, reports, articles in press, service evaluations and conference papers)	
Databases	Global search engines, including Google Scholar, plus four electronic databases were searched encompassing psychology, education and medical literature: PsycINFO, MEDLINE (EBSCO), Web of Science and CINAHL Plus	Any other databases or search engines

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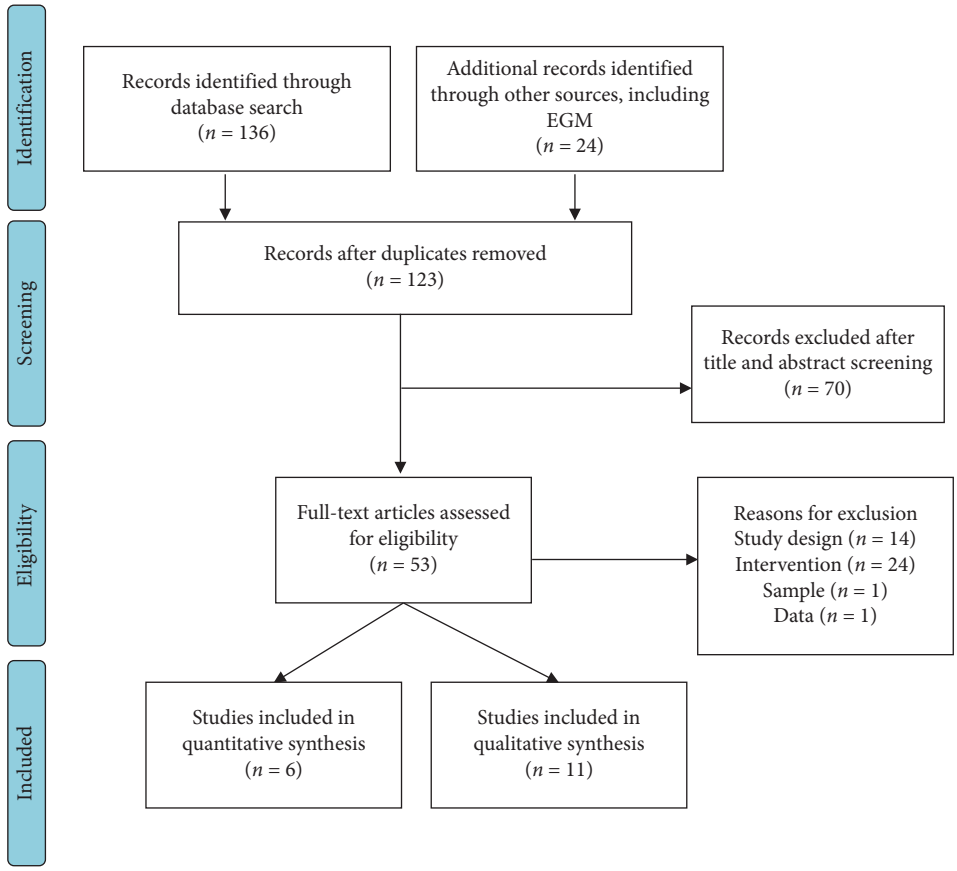


Figure 1: PRISMA diagram. From: Moher, D., Liberati, A., Tetzlaff, J., Altman, D.G. The PRISMA Group. (2009). Preferred Reporting for Systematic Reviews and Meta-Analyses. The PRISMA Statement. PLoS Med 6 (7): e1000097/ https://doi.org/10.1371/journal.pmed1000097.

that the data and results of quantitative studies, along with the quantitative component of the mixed-methods studies, are complemented by the qualitative data and results [19].

For the quantitative synthesis, narrative synthesis was chosen over meta-analysis due to the clinical and methodological diversity of the included studies. The quantitative narrative synthesis aimed to explore how studies have measured the impact of PIE and present evidence on its effectiveness. For the qualitative synthesis, qualitative studies and mixed-methods studies that included a qualitative component underwent a narrative synthesis to bring together evidence exploring the experiences of staff and clients. The qualitative component consisted of the results or findings section of the studies, including quotes and the authors' interpretations of their qualitative data, and was used to explain potential mechanisms for change. The reporting of this review adheres to the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) statement (see Figure 1) [20].

2.6. Data Synthesis. Data were synthesised narratively, grouping findings by outcome domain (staff attitudes, staff well-being, client behaviour and client well-being). Equity-related findings were integrated across outcomes, with attention to whether studies provided subgroup analyses or drew on single-gender/identity-specific contexts. Where equity reporting was absent, this was explicitly recorded as a limitation in the synthesis.

2.7. Quality Appraisal. A quality appraisal was conducted to systematically assess the trustworthiness and relevance of the included literature using a protocol provided by the Centre for Homelessness Impact. This included the use of two appraisal tools (one each for quantitative and qualitative studies) whereby an overall confidence level for each study was identified as either low, medium or high. At least two independent reviewers were involved in this process to ensure the quality of the review.

Critical appraisal of the quantitative studies which provided evidence for this review was undertaken using the Centre for Homelessness Impact's tool, which appraises studies 'based on seven items related to (1) study design, (2) blinding, (3) power calculations, (4) attrition, (5) description of the intervention, (6) outcome definition and (7) baseline balance. Each of these seven items is rated as implying high, medium or low confidence in study findings. Overall quality is assessed using the "weakest link in the chain" principle: our confidence in study findings can only be as high as the lowest rating given to any of the critical items'.

In addition to these quality domains, reporting of equity-related characteristics (gender, sexual orientation and gender identity, ethnicity, age and disability) in line with

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PRISMA-Equity 2012 guidance [17] was noted. Studies that did not provide demographic information were flagged as having limited transferability.

3. Results

The evidence for this evaluation of PIE comes from 13 studies conducted in nine European countries: France, Ireland, Italy, the Netherlands, Poland, Portugal, Spain, Sweden and the United Kingdom. All were published in English, nine in peer-reviewed journals, one as a thesis and three in reports distributed by organisations. See Table 3 for study characteristics. Studies and reports providing quantitative data were used to determine the effectiveness of PIE with qualitative data providing an explanation of the mechanisms by which change took place. Although 16 reports within the Implementation EGM mentioned PIE, seven were excluded as they did not describe a PIE service, three were reporting attitudes or protocols relating to PIEs, and three were based in a PIE service but not providing an evaluation. Ten articles in the Effectiveness EGM mentioned PIE but nine of these were excluded as they were not describing a PIE service.

3.1. Study Design and Participants. Six studies provided quantitative data using before-and-after comparison studies, or by capturing data at one point in time. Ten studies provided qualitative data through interviews, focus groups and survey questions. Sample sizes ranged from eight to 246 participants with two studies not reporting sample size. Participants included frontline and programme staff as well as PEH (adults, young people and children). Demographic information was limited across the included studies. Seven studies reported gender, and four studies reported ethnicity of participants.

3.2. Settings. Settings included organisations providing a range of services including emergency and temporary accommodation including hostels; medium/high supportive housing including complex needs; outreach services; treatment services; drop-in homeless centres; residential staffed mental health rehab and recovery units; and a financial skills programme for young people. These settings would be described as serving PEH as well as those experiencing housing insecurity.

3.3. Outcomes. Outcomes were grouped into staff attitudes and staff well-being, and client behaviour and client well-being. These outcomes were chosen as they are the outcomes reported in the literature. There was wide variability in each study in terms of what was being evaluated and whether that was a service or a specific intervention. The quantitative data provide evidence for effectiveness (see Tables 4 and 5) with qualitative data providing information on possible mechanisms for change. The quantitative data take the form of cross-sectional or pre-/postmeasurement, and therefore, there are no data on long-term changes or maintenance of effects.

Outcomes were varied across studies, as was the quality of outcomes. Some made use of symptom change, whereas others made use of more transdiagnostic outcomes, such as well-being and functioning. For staff, well-being, engagement and cognitive outcomes, such as attitudes towards work and attitudes towards service users, were used. A number of well-being measures, such as burnout and engagement, were used, theoretically linked with staff stress, turnover and being person-centred.

For service users, behavioural measures were used. These are particularly relevant when thinking about the effectiveness of PIE services as interventions that follow the model tend to target the behaviours that interfere with tenancy sustainment [21].

One specific measure used to assess overall effectiveness of PIEs is the Pizazz [22]. This is a general, composite measure of PIE adherence and performance and was used by one study.

3.4. Staff Outcomes (See Table 4)

3.4.1. Staff Attitudes. Staff attitudes were measured in two studies [23, 24]. The study by Lenzi et al. [23] identified a range of homelessness services in eight European countries which were modelled on PIE, but focused their evaluation on two domains, namely staff training and a service which promotes clients' capabilities (which could be considered instrumental to developing a psychological framework). A psychological framework is one of the five key areas of PIE and describes the 'particular school of thought on human development and personal change' that is being used; hence, training can ensure all staff are able to communicate how the service can enable individuals to make changes in their lives [[5], p.8]. The outcome related to staff attitude was work engagement, measured by the Utrecht Work Engagement Scale [25] at one point in time and completed by 497 staff members. Engagement was conceptualised as the extent to which the staff felt a sense of fulfilment in their work. Overall, a psychological approach was associated with higher work engagement for staff. The associations were significant, although relatively weak: staff training ($\beta = 0.20$, SE = 0.10, $t = 1.96$, $p = 0.05$) and a service which promotes clients' capabilities ($\beta = 0.37$, SE = 0.05, $t = 6.74$, $p < 0.001$). It is worth noting that, unsurprisingly, training was only positively associated with increased work engagement when it was deemed to be useful.

The evaluation in Focus Ireland's Therapeutic Service [24] captured changes in staff attitudes attributable to the introduction of PIE and was conducted using a questionnaire survey based on the Enabling Environments Service Self-Assessment Tool. The survey was distributed twice, at the beginning of the pilot scheme and again 12 months later, and completed by 15 staff members. The questionnaire covered the five domains of PIE. Survey results suggested a large and positive increase in staff attitudes in all domains following the introduction of PIE. Overall, at the beginning of the pilot period, the mean score was 4.7, increasing by

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Table 3: Study characteristics.

Author(s)	Country	Literature	Design		Setting	Participants				Quantitative					Qualitative
			Quantitative	Qualitative		Staff	PEH	Gender/sex (as reported)	Ethnicity	Staff well-being	Staff attitude	PEH behaviour	PEH well-being	Measure	Method
Benson & Brennan (2018)	Ireland	Published		X	Emergency accommodation, medium/high supportive housing, outreach and treatment services	$n = 8$		100% women	nr						Interview
Boobis (2016)	UK	Grey		X	Drop-in homeless centre, residential staffed mental health rehab and recovery units	nr		nr	nr						Interview and focus groups
Buckley & Tickle (2023)	UK	Published	Pre–post	X	Community outreach programme and complex needs hostels	4 teams		7 females and 2 males	nr		Implementing 5 PIE areas			Pizazz	Pizazz
Buckley, Tickle & McDonald (2021)	UK	Published		X	Hostels	$n = 9$		nr	nr						Interview
Cumming, Skeate, & Anderson (2017)	UK	Grey		X	A housing service for young people	nr	nr	nr	nr						Survey data
Fieldhouse & Greatorex (2020)	UK	Published		X	A financial skills programme for young people	$n = 4$	$n = 6$	nr	nr						Interview and focus groups
Lenzi et al. (2021)	France, Ireland, Italy, the Netherlands, Poland, Portugal, Spain and Sweden	Published	Cross-sectional		A range of services providing for people experiencing homelessness	$n = 497$		62% women	nr	Burnout	Work engagement			Range of questionnaires	
Martin (2022)	UK	Grey		X	Community outreach programme	$n = 11$	$n = 5$	11 males and 5 females	6 White British and others not reported						Interview
Parkes et al. (2022)	UK	Published	Pre–post	X	Outreach services and hostels	$n = 12$ staff $n = 8$ peers	$n = 30$	78% men	96% White			Substance use	Health, anxiety and addiction	MAP, SURE, PHQ-9, GAD-7 and CARE	

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Table 3: Continued.

Author(s)	Country	Literature	Design		Setting	Participants				Quantitative					Qualitative
			Quantitative	Qualitative		Staff	PEH	Gender/sex (as reported)	Ethnicity	Staff well-being	Staff attitude	PEH behaviour	PEH well-being	Measure	Method
Parry et al. (2021)*	UK	Published		X	Housing organisation	$n = 6$ staff $n = 5$ instructors	$n = 30$	50% female and 1 transgender	60% White, 27% mixed ethnicity, 7% Black, 7% Asian and 3% other.						Interview and focus groups
Quinney & Richardson (2014)	UK	Published	Cross-sectional	X	Hostels		$n = 8$	nr	nr			Substance use, engagement and volunteering	Focus on future and increase in emotional maturity	Study own	Interview
Quinton et al. (2021)*	UK	Published	Pre–post		Housing organisation		$n = 246$	57% female, 38% male, 1% transgender, 0.4% nonbinary and 3% missing data	56% White, 22% Black, 16% mixed, 3% Asian and 2% missing			Mental skills	Resilience and well-being	CD-RISC, EPOCH and Youth Experience Survey 2.0	
Ward (2014)	Ireland	Grey	Pre–post	X	Community service	$n = 15$	$n = 13$ parents $n = 8$ children	Nr	nr		PIE domains	Mental health, strengths and difficulties		Study survey SDQ	Focus groups and interviews
							$n = 13$ parents		nr				Well-being and severity of problems	CORE	

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Table 4: Effectiveness of PIE for staff outcomes.

PIE service or intervention	Patient group	Outcomes
Supporting individuals facing severe and multiple disadvantage in the Midlands, UK Buckley & Tickle (2023)	4 staff teams	Collective team assessment services according to PIE criteria Community service: 11/16 improved Hostel A: 16/16 improved Hostel B: 13/16 improved Hostel C: 13/16 improved Of the 16 Pizazz categories, 8 showed improvement across all four services: psychological awareness; approaches and techniques; psychological model; reflective practice; sector engagement; buildings and grounds; networks and surroundings; and centrality of relationships. No explicit numerical ratings of categories from each team for time 1 and time 2 were disclosed. Changes in ratings for each category were graphically shown in a slider graph that had 'poor', 'basic', 'progression' and 'advanced' as labels.
Providers working in a range of homelessness services across eight countries Lenzi et al. (2021)	497 staff	Increased work engagement associated with staff training and a service which promotes clients' capabilities ($\beta = 0.20$, $p = 0.05$; $\beta = 0.37$, $p < 0.001$, respectively). Training only positively associated with increased work engagement when deemed to be useful. When training was available, staff reported less emotional exhaustion (burnout) compared to staff working in organisations where no training was provided ($\beta = -1.35$, $p < 0.05$). Staff reported less burnout in services that developed a psychological framework and managing relationships ($\beta = -1.47$, SE = 0.30, $t = -4.83$, $p < 0.001$).
Focus Ireland's Therapeutic Service Ward (2014)	15 staff	65% increase in positive staff attitudes following a 12-month pilot study. Greatest gains in attitudes towards boundaries and empowerment, with smaller gains related to openness. Mean overall score for PIE pre: 4.7, post: 6.5 Greatest increase in domain for 'boundaries' within the service with an increase in mean scores of 2.8. Smallest change was 'openness' which referred to external relationships with increase in mean scores of 0.9.

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Table 5: Effectiveness of PIE for client outcomes.

PIE service or intervention	Participant group	Outcomes
Parkes et al. (2022)	68 adults with problem substance use accessing a peer-delivered relational intervention	Substance use decreased in all measures except opioids Alcohol pre: 16, post: 15 Heroin pre: 15; post: 9 Cocaine (crack) pre: 15; post: 11 Opioids pre: 17; post: 23 Benzos pre: 9; post: 7 Gabapentinoids pre: 11; post: 7 Cannabis pre: 13; post: 13 SURE (substance use recovery calculator) pre: 39.5; post: 46.5 CARE (consultation and relational empathy) pre: 50; post: 49 Patient Health Questionnaire (PHQ-9), generalised anxiety disorder (GAD-7), Maudsley Addiction Profile (MAP) measure showed improvements for client well-being PHQ-9 pre: 14.2 (7.3); post: 13.6 (6.5); mean diff − 0.6 (−0.3–2.2) GAD-7 pre: 14.3 (6.3); post: 11.7 (6.9); mean difference − 2.6 (−5.4 to 0.2) MAP pre: 31.0 (12.4); 28.3 (12.7); mean diff − 2.5 (−6.6 to 1.5)
Quinton et al. (2021)	246 young people	Significant improvement in resilience Means (mental skills were only measured in Time 2) Goal setting: 2.95 Effort: 3.16 Problem solving: 3.13 Time management: 2.99 Emotion regulation: 2.82 Group work: 3.12 At Time 2, higher levels of engagement and optimism were associated with greater perceptions of experiencing all mental skills. Groupwork was the only mental skill significantly associated with resilience and all well-being subscales. Means on Time 1 and Time 2 Resilience: 3.28, 3.45 Engagement: 2.92, 3.29 Perseverance: 3.20, 3.41 Optimism: 3.07, 3.33 Connectedness: 3.44, 3.58 Happiness: 2.91, 3.23 Significant differences were found in all factors—all increased. Significant result for time. Also, at both time points, resilience was associated with engagement, perseverance, optimism, connectedness and happiness.

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Table 5: Continued.

PIE service or intervention	Participant group	Outcomes
Quinney & Richardson (2014)	8 hostel residents	Percentage of participants who reported a change in the following outcomes at the end of the study. 100% focus on the future 100% increase in emotional maturity 87.5% reduction in substance use 62.5% engaging in education or vocational training 50% volunteering 87.5% moved onto lower support accommodation
Ward (2014)	$n = 13$ aggregate data from family interventions for the therapeutic interventions which include the CORE and severity of problems	Average reduction on CORE - well-being 1.5 (scale 1–16) - symptoms 7.0 (scale 1–48) - functioning 9.2 (scale 1–48) - risk 2.2 to 2.1 TOTAL CORE distress reduced by 7.3 on average Children's scores on Strengths and Difficulties Questionnaire (SDQ) Emotional symptoms pre: 4.7, post 3.2 Conduct problems pre: 3.1, post: 0.6 Hyperactivity/inattention pre: 4.7, post: 1.8 Peer relationship problems pre: 2.9, post 1.2 Pro-social behaviour pre: 7.2, post: 8.7 Total difficulties pre: 15.4, post: 6.7

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65% to 6.5 at the 12-month mark. The largest improvements were in attitudes towards boundaries and empowerment, with smaller gains related to openness.

The qualitative data suggest various mechanisms which may have contributed to these changes in attitude. The study by [26] explored the perspectives of frontline staff using the Pizazz (PIEs Assessment and Self-Development for Services). Staff identified having a person-centred approach as key to being psychologically aware and developing a psychological framework, which was reinforced by staff support across teams. Providing training and reflective practice can mitigate the stress and burnout which is often associated with frontline work in homelessness settings. These related concepts of support, training and reflective practice may, in part, explain the improvement in attitudes for the studies reported by Lenzi et al. [23] and Ward [24], with a more consistent and structured approach to work [30]. Additionally, the importance of managing relationships was raised by participants in [27], including themes of 'acknowledging and addressing the power imbalance' and 'focusing on connection' between staff and clients, which demonstrated how human connection encourages staff to be available for clients and develop a more person-centred approach. This feeds into the next section of improvements in staff well-being, as well as improvements in client well-being which is discussed later.

Some staff-focused evaluations reported workforce demographics. Lenzi et al. [23] surveyed 497 staff across eight countries, of whom 62% were women. Although this shows a female-majority workforce, no further subgroup analysis was provided. Benson & Brennan [28] included only female keyworkers, which shaped perspectives but again offered no comparison by gender. Several other studies exploring staff attitudes (e.g. [26, 27]) did not report staff gender, ethnicity or sexual orientation. No studies examined whether changes in staff attitudes differed by gender, ethnicity or other equity factors.

3.4.2. Staff Well-Being. Staff well-being was measured in one study by Lenzi et al. [23] using the Link Burnout Questionnaire (LBQ; [29]) which was administered at one point in time to 497 staff. The PIE domains of staff training and the development of a psychological framework were shown to improve well-being by reducing burnout [23]. Burnout was conceptualised across four domains: psychophysical exhaustion, relational deterioration, professional inefficacy and disillusionment. For those services in which useful staff training was provided, there was a strong, negative association with burnout, that is when training was available, staff reported less emotional exhaustion compared to staff working in organisations where no training was provided ($\beta = -1.35$, SE = 0.58, $t = -2.34$, $p < 0.05$). Similarly, there was a strong, negative association between services that were capability fostering and burnout ($\beta = -1.47$, SE = 0.30, $t = -4.83$, $p < 0.001$). Capability fostering is most closely linked to developing a psychological framework and managing relationships within the PIE framework and is described as '"promoting users" opportunities to restore their freedom to choose and realize their life goals' [[23], p. 231]. This particular outcome was the most consistent across both outcomes demonstrating that higher levels of capability fostering are strongly linked to both greater work engagement and less burnout for frontline staff.

When asked for their perspectives in the qualitative data, staff identified a range of mechanisms that contributed to their well-being. In Focus Ireland's Therapeutic Service [24], staff described regular coffee mornings which fostered a sense of belonging and improved relationships between staff and clients. It was also important for staff to establish healthy boundaries within these relationships and communicate clearly. One staff member said, 'Since commencing the PIE training I have become more aware of my communication with clients. I am aware that every interaction with a client is a form of intervention'. These changes were seen by staff as empowering and contributed to their sense of well-being. Communication was also important with management to ensure staff felt supported: 'Since starting the PIE training, I feel I have become more open with expressing my vulnerability in relation to my work. I also feel that management are more understanding to our need for support'. Staff reported feeling 'more confident in managing young people with complex needs. . .with less staff sickness and improved well-being and job satisfaction' which also led to improved retention of staff [[30], p.5].

Lenzi et al. [23] linked useful staff training to reduced burnout, but did not analyse whether these effects differed for men or women. Staff in Focus Ireland's Therapeutic Service [24] reported improved confidence and well-being, but demographics were not reported. Qualitative accounts from St Basils [30] also highlighted staff well-being and retention benefits, but without any demographic breakdown.

Overall, staff well-being outcomes were positive but never disaggregated by gender or other equity characteristics.

3.5. Client Outcomes (See Table 5)

3.5.1. Client Behaviour. Four studies investigated PIE services which led to changes in clients' behaviour [24, 31–33]. All four studies showed positive improvements in behaviours related to problematic substance use and engagement in work and training. PIE services in Scotland and England providing a peer-delivered, relational intervention [31] demonstrated a reduction in problem substance use for 30 participants, although it is worth noting that this was self-reported and not independently verified. Reductions measured in median days of usage for the cohort for the previous 30 days were reported as 19 to five for alcohol, six to two for heroin, 11 to two for crack cocaine and ten to two for gabapentinoids. However, there was no change in opioid use and an increase in cannabis use from 15 days to 30. Additionally, participants completed the substance use recovery evaluator (SURE) [34], a measure developed with people in recovery and used to measure recovery from drug and alcohol dependence. Overall, total SURE scores improved from 39.5 to 46.5, with higher scores representing recovery as progressing. The intervention was described as both

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reducing harms and increasing health-promoting behaviours and quality of life for PEH with substance-related problems.

The study by [32] focused closely on the experience of eight initial participants in a pilot project across Westminster (London), using appreciative inquiry within PIE services. These participants were described as being in the homeless system 'for a very long time, they were very well known to a number of hostels and staff, and had not significantly responded to services previously' [[34], p. 136]. In line with Parkes et al. [31], this study also demonstrated reductions in drug use (seven out of eight participants reported a reduction in use), together with five participants engaging in education or vocational training, four volunteering and seven moving on to lower support accommodation. No formal measures were used but participants were asked about outcomes and support workers confirmed these reports [32]. Although statistical tests were not performed and so significance cannot be commented on, the proportion of participants reporting these positive outcomes is encouraging. Quinton et al. [33] used six subscales on the Youth Experience Survey 2.0 (YES-2) [35] to measure changes in mental skills for 246 young PEH.

Qualitative interviews with the group of young people by [36] provided a range of possible mechanisms for how PIE services can lead to improved behaviour for PEH. It is difficult to link specific areas of PIE to individual outcomes as the interaction and combination of the five areas can contribute to positive outcomes. However, suggested contributors are indicated. Themes included having basic living needs met (physical environment and social spaces), feeling validated within a relationship that is nonjudgemental and empowering (managing relationships, staff training and support), feeling safe and secure (developing a psychological framework, physical environment and social spaces, staff training and support), enabled to build confidence by acquiring new life skills and finding hope (staff support) and improved relationships through developing positive social networks (managing relationships). Similar views were expressed by young people at St Basils, as improved relationships with staff resulted in feelings of being understood [30]. Clients also reported an increased ability to engage with welfare and benefits systems, and their increased hope and confidence led to positive changes in behaviour [31].

The MST4Life evaluation [33] is the only study to provide a full demographic profile (57% female; small numbers identifying as transgender and nonbinary; racially diverse sample) and to test subgroup effects. Despite baseline differences by ethnicity and learning difficulty, programme outcomes on resilience and behaviour were consistent across groups. The related realist evaluation [37] included one transgender participant in a mixed-gender youth cohort, but did not disaggregate outcomes. SHARPS recruited a predominantly male (78%) and White (96%) cohort, raising concerns about underrepresentation of women and racially minoritised groups [31]. Evaluations of client behaviour in Westminster hostels [32] and financial skills training [36] reported positive outcomes but did not present demographic breakdowns. Thus, while some evidence exists, most studies did not assess whether behavioural improvements varied by gender, sexuality or ethnicity.

3.5.2. Client Well-Being. Client well-being was measured in four studies: [24, 31–33]. Quinney & Richardson [32] reported all eight participants described themselves as focusing on the future and increasing in emotional maturity following the pilot project. The Mental Skills Training intervention (MST4Life) [33] measured resilience with the 10-item Connor–Davidson Resilience Scale (CD-RISC) [38, 39] and used the EPOCH measure of adolescent well-being which includes subscales on engagement, perseverance, optimism, connectedness and happiness. A total of 246 young people completed questionnaires before starting the programme and on completion. Resilience improved significantly over the intervention (F (1, 51) = 4.89, p = 0.032, η^2 p = 0.09, observed power = 58%), although the improved scores reached the mid-point of the scale which suggests there is still room for improvement in resilience. In terms of well-being, there was an overall significant improvement after the intervention (F (5, 60) = 2.46, p = 0.043, η^2 p = 0.17, observed power = 74%), and this included significant improvements on the individual scales for engagement, optimism and happiness. Perseverance and connectedness did not show a significant difference although there was an improvement in both.

Possible mechanisms for these improvements in well-being reported by clients in the qualitative studies were reduced anxiety when attending appointments because of the support provided by PIE services and the way in which these services removed the stigma clients had felt in the past, alongside a sense of empowerment to advocate for their own needs [31]. Young people also feel better understood by staff with a reduction in warnings issued, evictions and unplanned departures [30].

MST4Life [33] reported significant improvements in resilience and well-being, and explicitly confirmed that outcomes did not differ by gender, ethnicity or disability. Parry et al. [37] and St Basils [30] reported improved confidence, hope and reduced evictions for young people, but without demographic disaggregation. The Focus Ireland service [24] included children as well as adults but did not provide gender or ethnicity breakdowns, making it impossible to assess equity in well-being outcomes. Other client well-being evaluations [27, 40] reported positive relational or psychological effects but did not describe sample demographics. Overall, the only study to demonstrate equity in client well-being outcomes was MST4Life; most others either lacked reporting or presented samples skewed towards men.

Few studies explicitly reported service user involvement in the design or conduct of the evaluation. Some, such as MST4Life [33] and Appreciative Inquiry pilots [32], incorporated participatory elements, while others presented staff-led perspectives with no reported PPI.

3.6. Quality Appraisal. Overall, all the quantitative studies included received an overall confidence score of low because all studies had at least one score of low in one category. Low

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scores were mostly associated with study design and the lack of consideration for potential confounders which is commonly found within studies which are investigating this population. However, all studies received high scores for clearly defined interventions and outcome measures, and sampling (except for Lenzi et al. [23] as it was reporting on a range of interventions resulting in less information for each one). Therefore, it is possible to have some confidence in the results recognising the possibility of potential confounders (see Table 6).

In terms of the qualitative studies which led to an understanding of proposed mechanisms for the effectiveness of the interventions, although all the studies had elements of high quality, for example in recruitment of participants and rigorous data analysis, lack of quality in reporting the research team's possible biases and assumptions and some lack of detail in reporting methods led to an overall assessment of low to medium quality for the available evidence (see Table 7).

4. Discussion

This systematic review sought to answer a research question around the effectiveness of PIEs. Thirteen papers were identified, six reporting quantitative data and 11 reporting qualitative data. Although the papers reviewed were diverse in terms of populations (staff and service users) and measures, conclusions can be drawn about general effectiveness and hypothetical mechanisms of change.

4.1. Key Implications of Effectiveness. The overarching message from this review is that the evidence from PIEs in homelessness settings shows benefits to both staff and clients (see Tables 4 and 5). The quantitative data indicated that PIE services were effective in reducing burnout and increasing well-being of staff. Additionally, work engagement increased, and staff felt a sense of fulfilment in their work. Specifically, staff training was highlighted as a key domain of PIE which led to these outcomes. The qualitative data added further insight into mechanisms, citing increased support and empowerment at the individual level, and flexibility in structures at the systemic level. For clients, improvements were seen in mental health symptoms, such as anxiety and well-being, with improvements in asocial behaviours that may lead to tenancy breakdown or difficulties in relationships which exacerbate negative mental health outcomes. The qualitative data indicated that mechanisms of change may also be due to increased support, as well as a reduction in stigma in these services. Positive relationships with staff also ensured clients were able to engage and access external services with an increase in confidence and hope.

However, the range of evidence, while small, varies widely in how it has been measured and collected and identifies a need for more coherent evaluation of PIEs in the homelessness sector. A broad approach for this review was taken in which settings and services modelled on PIEs were included, and some of those focused on elements of PIE rather than all five domains which limits the ability to understand differences in effectiveness for different settings. However, all the services in this review demonstrated improvements in outcomes for staff and clients underpinning the effectiveness of a PIE approach. The quantitative data take the form of cross-sectional or pre-/postmeasurement, and therefore, there are no data on long-term changes or maintenance of effects. Therefore, although the evidence points to PIE being effective, there is insufficient evidence to be confident that these effects will be sustained.

Additionally, equity considerations are critical when interpreting the effectiveness of PIE. Our review shows that most evaluations do not report participant demographics or test subgroup outcomes. This absence limits the ability to determine whether PIE works equally well for women, LGBTQ + people, racially minoritised groups or people with disabilities, despite wider evidence that these populations experience homelessness differently and often more severely [9, 11, 12, 41]. The MST4Life programme stands out as the only study to analyse outcomes by gender, ethnicity and learning difficulty, finding no differences in effect [33]. However, this remains an exception. Without routine equity reporting, the overall effectiveness evidence base risks being skewed towards male and White experiences.

4.2. Key Learning on Implementation. Overall, there was, as to be expected, a range of psychological interventions badged as 'PIE', making use of the principles articulated. The fidelity of these varied from some that made use of more than one of the principles to one that was called a PIE but was limited to a psychosocial intervention recognisable as having a clear theoretical framework. There was not a consistent approach to implementation in terms of all five domains of PIE which was attributed to the complexity of systems, the complexity of the client group, a lack of funding and staff turnover [23, 26]. However, staff training was the most frequent feature of PIE services and was widely regarded as effective in increasing work engagement and reducing burnout for staff when it was deemed useful [23]. This suggests that services need to involve staff in identifying training needs to ensure training is relevant and useful for those on the frontline. In contrast, the effects of staff training on clients were not always explored but where it was, for example in the case of Peer Navigators (PN), clients reported a reduction in stress which was attributed to the skills training PN had received [31]. Implementation of PIE, for some or all of the domains, relies on staff support, staff feeling valued and staff being resourced to do their job well, which, in turn, results in a better service for clients [32, 33].

Implementation learning also suffers from underreporting of equity. Staff training, reflective practice and team formulation are widely described, yet very few evaluations explore whether staff outcomes (e.g. burnout and confidence) differ by gender, race or other identities. Broader research on workforce well-being suggests that intersectional factors shape burnout and resilience [13, 14], but this lens has not been applied in PIE studies. This is an important gap, as staff identity and well-being directly influence the delivery and sustainability of psychologically informed care.

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Table 6: Critical appraisal for quantitative studies.

Study	1a. Study design, end of intervention (potential confounders taken into account)	1b. Study design, longest follow-up if applicable (potential confounders taken into account)	2. Masking or blinding	3. Power calculation	4a. Losses to follow-up are presented and acceptable, end of intervention	4b. Losses to follow-up are presented and acceptable (longest follow-up if applicable)	5. Definition of intervention is clearly defined	6. Outcome measures are clearly defined and reliable	7. Baseline balance (N.A. for before vs. after)	Overall confidence	Longest follow-up (if applicable)
Buckley & Tickle (2023)—mixed methods	Low	Low	High	Medium	N/A	N/A	High	High	N/A	Low	N/A
Lenzi et al. (2021)	Low	Low	Low	Medium	N/A	N/A	Low	High	Low	Low	N/A
Parkes et al. (2022)—mixed methods	Low	Low	Low	High	N/A	N/A	High	High	N/A	Low	N/A
Quinney & Richardson (2014)—mixed methods	Low	Low	Low	Medium	N/A	N/A	High	High	N/A	Low	N/A
Quinton et al. (2020)	Low	Low	Low	Medium	N/A	N/A	High	High	N/A	Low	N/A
Ward (2014)—mixed methods	Low	Low	Low	Medium	N/A	N/A	High	High	N/A	Low	N/A

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Table 7: Critical appraisal for qualitative studies.

Study	Are the research methods clearly stated?	Is the qualitative methodology described?	Is the qualitative methodology appropriate to address the evaluation questions?	Is the recruitment or sampling strategy adequately described?	Is the recruitment or sampling strategy appropriate to address the evaluation questions?	Are the researchers' own position, assumptions and possible biases outlined?	Have ethical considerations been sufficiently considered?	Is the data analysis approach adequately described?	Is the data analysis sufficiently rigorous?	Is there a clear statement of policy recommendations?	Overall (including question for all studies)
Benson & Brennan (2018)	Medium	High	High	High	Medium	Low	High	High	High	High	Low
Boobis (2016)	High	Medium	High	Medium	High	Low	Low	Low	Low	High	Low
Buckley, Tickle, & McDonald (2021)	High	High	High	High	High	High	High	High	High	Medium	Medium
Cumming, Skeate & Anderson (2017)	High	Low	Low	Medium	High	Medium	Low	Low	Low	High	Low
Fieldhouse & Greatorex (2020)	High	High	High	High	High	Medium	High	High	High	High	Medium
Martin (2022)	Medium	High	High	High	High	High	High	High	High	High	Medium
Quinney & Richardson (2014)—mixed methods	Low	Medium	High	High	High	Low	Low	Low	Medium	Low	Low
Buckley & Tickle (2023)—mixed methods	Medium	High	High	Medium	High	High	Medium	High	High	High	Medium
Parkes et al. (2021)	High	High	High	High	High	Medium	High	High	High	High	Medium
Parkes et al. (2022)—mixed methods	High	High	High	High	High	Medium	High	High	High	Low	Low
Parry et al. (2021)	Medium	High	High	High	High	Medium	High	High	High	High	Medium
Ward (2014)—mixed methods	Medium	High	High	High	High	Low	High	High	High	Low	Low

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4.3. Patient and Public Involvement (PPI). Although PIE emphasises relational and participatory practice, the degree of service user involvement in the included evaluations was variable. Some studies employed explicitly participatory approaches, for example, Appreciative Inquiry in Westminster hostels [32], the codesign elements of MST4Life [33] and the organisation-wide participatory culture described at St Basils [30]. However, most evaluations did not report formal PPI in study design, data collection or interpretation. This represents a missed opportunity to align evaluation methods with PIE principles. Future research should embed coproduction and participatory methods throughout the research cycle, ensuring that service users help to define outcomes, shape interventions and interpret findings in ways that reflect lived experience.

4.4. Quality Appraisal. The quality of the quantitative evidence within this field is heavily influenced by the challenges of recruiting participants within the population. All studies scored low when assessing the quality, and this was often due to a lack of identification of potential confounders or studies lacking sufficient detail in their reporting. In general, studies used robust interventions and validated measures to demonstrate the effectiveness of their interventions but given the issues raised, it is difficult to demonstrate confidence in the results.

For the qualitative studies, the quality of evidence also scored within the low to medium range, although many studies and reports scored highly in specific domains. For example, the appropriateness of the methodology and the recruitment strategies were mostly high. Most often, the depth and specificity of the reports were low in quality, and not all studies provided a clear set of policy recommendations. However, the qualitative data do provide a breadth of understanding of the mechanisms that contribute to the outcomes seen in services that are PIE.

From a quality perspective, the absence of demographic data is a recurring methodological weakness. Many studies provided rich qualitative insights or promising quantitative outcomes but failed to report the gender, ethnicity or sexuality of their participants. Several staff-only studies (e.g. [26, 28]) did not present any demographic characteristics. These omissions constrain transferability and reduce the confidence with which findings can be generalised to diverse populations.

The evidence for the effectiveness of PIE in homelessness settings is relatively sparse and is derived from a variety of studies and reports. Those that have produced clear outcomes have been used to determine the ways in which PIE is effective, and yet, this cannot be considered exhaustive. There are PIE services without published studies and reports which discuss PIE services without providing an evaluation. For example, a study by Parkes et al. [42] reports on a PIE setting but is investigating a COVID response rather than evaluating the PIE. A study by Schwaiger & Williamson [43] evaluates the benefits of a mentalisation-based treatment (MBT)-informed art group based in a PIE service, which identifies the supportive environment provided by a PIE rather than evaluating the PIE. Similarly, a study by Matheson et al. [44] performs an evaluation of being a PIE service in community pharmacies but this is not specifically aimed at serving PEH. Nevertheless, in this study, PIE is reported to be effective resulting in positive changes to staff behaviours and attitudes to their clients. A review of the Impact of Birmingham Changing Futures Together on System Change [45] provides an overview of the results of a course of PIE training in this wide-ranging programme and identifies several changes in participant attitudes and service changes which, although it does not provide robust data in evaluating effectiveness, does support the results found in this review.

Both previous PIE reviews [7, 8] highlighted the need for an evaluation framework that can be used across different services and programmes to build a coherent evidence base [7, 8]. This has not yet been realised. The Pizazz is an assessment and evaluative tool designed to enable individual services and organisations to reflect and think through their own practices, what barriers they face to working in a PIE way and a tool to formulate an action plan [22]. However, the need to understand effective mechanisms more widely across the homeless landscape, demonstrating how PIEs work in practice and what makes them effective, can only be suggested or implied from the current available literature.

4.5. Considerations for Implementation

4.5.1. Identified Facilitators to Implementing PIE. Specific facilitators included staff training, when perceived as useful, e.g. providing a basic understanding of psychological trauma and its effects and how to provide trauma-informed care, which led to greater self-efficacy and reduced tiredness [23, 28, 31]. This added to the importance of building a strong team, with positive communication between management and staff [24, 36]. Additionally, team formulation led to greater staff understanding of service users and upskilling to be more creative in the approach to support clients alongside increased collaboration with external agencies [46]. Autonomy in casework, alignment of values and a culture of reflective practice ensured all staff were open to new ways of working and increased motivation [26, 32, 36]. Establishing a peer network of PIE facilitators created support and shared expertise [40]. Evidence-based approaches to support staff well-being were seen as effective facilitators to implementing PIE [26]. Finally, inclusive approaches, such as MST4Life and St Basils [30, 33], demonstrate how participatory approaches can foster engagement across diverse groups.

4.5.2. Identified Barriers to Implementing PIE. A considerable number of barriers were identified when implementing PIE in homelessness settings. Concerning training, there is a lack of sufficient training being available [26, 28], shift patterns and understaffing mean staff cannot attend training or reflective practice [40, 46], and funding constraints prohibit costly training and reflective practice facilitators [26]. A lack of support from management to be more flexible

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in the structure and delivery of services creates a barrier for a PIE approach to be embedded [40]. The complexity of the system and wider systemic issues, for example deficit-based values together with trying to create a PIE in a non-psychologically informed space, can be a barrier [26, 46]. Staff then feel powerless to make changes because of systemic constraints [26]. This is amplified with staff attitudes, often influenced by the wider system, resulting in no desire for a change in practice [23, 31, 46]. Equally, staff feeling undervalued can decrease motivation and increase risk of burnout [26], with agency staff or high turnover of staff leading to a lack of continuity [46]. Finally, supervision based on problem and crises rather than a strengths-based approach was identified as an obstacle [23].

A key barrier is the lack of attention to equity and diversity in evaluation and reporting. Male-dominated cohorts (e.g. [31]) and all-female staff samples [28] illustrate the skewed representation within current evidence. The failure to collect or disaggregate data on gender, sexuality or ethnicity prevents services from understanding differential needs or tailoring interventions accordingly. This mirrors barriers documented more broadly in homelessness research, where LGBTQ+ and racially minoritised groups are underrepresented in evaluations.

4.5.3. Resources Needed to Implement PIE. In terms of cost to implement, there are initial steps that can be taken to become psychologically informed by investing in the training aspect of PIE which can then enable existing staff to make changes within the organisation. However, further identification of the cost to instigate a PIE service or to adapt an existing service to become PIE is needed to inform decision-making, planning and budgeting. Suggested resources included dedicated facilitators for staff reflective practice and training materials which can be tailored to the service and team psychological formulation meetings [24, 26, 36, 40, 46].

To implement PIE equitably, services require resources for systematic demographic data collection and analysis and for adapting practice in response. This may involve creating women-only or LGBTQ + safe spaces, embedding culturally competent staff training and investing in supervision that addresses the intersectional stressors staff themselves experience. Such resources are rarely mentioned in existing evaluations, but they are critical for ensuring PIE delivery that is both inclusive and effective.

5. Conclusion

The range of evidence for the effectiveness of PIEs, while small, varies widely in how it has been measured and collected and identifies a need for more coherent evaluation of PIEs in the homelessness sector. Therefore, although the evidence is promising in terms of the positive outcomes from implementing PIE, the number of studies and the breadth of evidence are lacking to date. The overarching message from this review is that the evidence from PIEs in homelessness settings demonstrates improvements in staff attitudes and well-being and improvements in clients' behaviour and well-being. Improvements are significant but vary in magnitude with the strongest associations being seen for staff well-being, client behaviour and client well-being.

There are a vast number of services described as PIE in a range of settings, and yet, the data on the evaluation of effectiveness are sparse, particularly in areas serving PEH. Robust evaluations will lead to a better understanding of how PIE services lead to better outcomes, and what those outcomes can be. The research methods need significant improvement, e.g. employing control methods and further refining the constructs to be investigated. Further qualitative methods as well as mechanisms using quantitative methods (e.g. mediation) would provide clarity on how exactly PIEs are effective. This review also identifies a consistent blind spot in the PIE evidence base: the absence of systematic attention to gender, sexuality and ethnicity. While PIE principles of safety, relationships and reflective practice are likely to benefit all service users, the current evidence base does not allow strong conclusions about how they work across diverse groups. Only MST4Life provided robust subgroup analysis. Given well-documented inequities in homelessness, such as the links between women's homelessness and domestic abuse, the overrepresentation of LGBTQ + youth and the higher rates of homelessness among Black households, future PIE evaluations must embed equity-sensitive measures for both staff and clients. Without this, the evidence risks reinforcing majority experiences and overlooking the most marginalised. Embedding intersectional analysis will not only improve the external validity of PIE research but also support more responsive, person-centred practice in frontline services.

Alongside the need for more systematic equity reporting, our review highlights the importance of embedding PPI within future PIE evaluations. Given PIE's emphasis on relational and participatory practice, involving people with lived experience in setting priorities, shaping interventions and interpreting findings will be essential to ensure evaluations remain aligned with PIE principles and generate outcomes that are meaningful for both staff and service users.

Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Ethics Statement

Institutional ethical clearance was not required for this study given its use of previously published data.

Conflicts of Interest

The authors declare no conflicts of interest.

Author Contributions

Rebecca J. Ward: conceptualisation (equal), data curation (lead), formal analysis (lead), investigation (equal),

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methodology (equal), project administration (lead), validation (supporting), visualisation (lead), writing–original draft preparation (equal) and writing–review and editing (lead). **Dima Ivanova:** data curation (equal), formal analysis (equal), investigation (equal), software (lead), visualisation (equal) and writing–original draft presentation (supporting). **Patricia Amores:** data curation (equal), formal analysis (equal), investigation (equal), visualisation (supporting) and writing–original draft presentation (supporting). **Nick Maguire:** conceptualisation (lead), funding acquisition (lead), supervision (lead), validation (lead) and writing–original draft preparation (supporting).

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Supporting Information

Additional supporting information can be found online in the Supporting Information section. *(Supporting Information)*

PRISMA 2020 checklist.

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