Employer-Based Interventions for Schizophrenia: A Systematic Literature Review and Psychiatric Nursing Perspective

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ABSTRACT

Employment is crucial for the recovery and social inclusion of individuals with schizophrenia and other severe mental illnesses (SMI), yet significant barriers to competitive employment persist. Although various employer-based vocational interventions have been developed, their efficacy remains variable across settings. Guided by the PRISMA framework, this systematic review evaluates the effectiveness of employer-based interventions in improving employment outcomes for this population. A comprehensive search of Scopus, Web of Science, and PubMed was conducted for studies published between 2020 and 2026. Following rigorous screening, 19 studies from nine countries were selected for qualitative synthesis. The interventions assessed included Individual Placement and Support (IPS), Supported Employment (SE), integrated vocational-psychiatric programs, and return-to-work initiatives. Results indicate that IPS and SE consistently provide the strongest evidence for improving competitive employment rates, job acquisition, and job retention, with one study reporting a 7.5% increase in job availability post-SE implementation. Conversely, interventions relying exclusively on employer-directed communication demonstrated limited efficacy. In conclusion, IPS and Supported Employment are the most effective strategies for enhancing employment outcomes in this population. Integrating vocational support with comprehensive mental health services is critical for fostering sustainable employment and facilitating long-term recovery.

Pekerjaan berperan krusial dalam pemulihan dan inklusi sosial individu dengan skizofrenia dan gangguan jiwa berat (severe mental illness/SMI) lainnya. Namun, hambatan signifikan untuk memperoleh pekerjaan kompetitif masih berlanjut, dan efektivitas intervensi vokasional berbasis tempat kerja bervariasi di berbagai tatanan. Berpedoman pada PRISMA, tinjauan sistematis ini mengevaluasi efektivitas intervensi tersebut dalam meningkatkan luaran ketenagakerjaan pada populasi ini. Pencarian literatur komprehensif dilakukan pada Scopus, Web of Science, dan PubMed (2020–2026). Melalui penapisan ketat, 19 studi dari sembilan negara disintesis secara kualitatif. Intervensi yang dikaji mencakup Individual Placement and Support (IPS), Supported Employment (SE), program vokasional-psikiatri terintegrasi, dan inisiatif return-to-work. Hasil menunjukkan bahwa IPS dan SE secara konsisten memberikan bukti terkuat dalam meningkatkan pekerjaan kompetitif, perolehan, dan retensi pekerjaan; salah satu studi melaporkan peningkatan ketersediaan lapangan kerja sebesar 7,5% pasca-implementasi SE. Sebaliknya, intervensi yang hanya berfokus pada komunikasi pemberi kerja terbukti kurang efektif. Kesimpulannya, IPS dan SE adalah strategi paling efektif untuk meningkatkan luaran ketenagakerjaan pada populasi ini. Integrasi dukungan vokasional dengan layanan kesehatan jiwa yang komprehensif esensial untuk mendorong pekerjaan berkelanjutan dan pemulihan jangka panjang.

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Introduction

Mental disorders, particularly schizophrenia and other severe mental illnesses (SMI), remain leading global contributors to long-term disability and diminished quality of life. Beyond their clinical manifestations, these psychiatric conditions profoundly restrict economic independence, meaningful community engagement, and broad social participation. Securing and maintaining competitive employment is one of the most persistent challenges for this population, frequently resulting in financial dependence and severe social exclusion (Pai et al., 2021). Schizophrenia is recognized as an exceptionally debilitating condition due to its early onset, chronic trajectory, and relatively low remission rates; consequently, unemployment rates for individuals with schizophrenia are estimated to range between 80% and 90% across various settings (Pedersen et al., 2025; Bushra et al., 2026). This chronic exclusion from the labor market is exacerbated by a multifaceted array of barriers, including persistent psychiatric symptoms, pervasive workplace stigma, limited vocational experience, inadequate social support, and the complexities of navigating traditional employment systems.

Crucially, employment extends far beyond mere financial remuneration; it is a fundamental catalyst for holistic recovery and well-being among individuals with SMI. Engaging in competitive, paid work is strongly correlated with enhanced self-esteem, improved quality of life, greater social inclusion, and more positive long-term recovery trajectories (Pai et al., 2021). Meaningful employment fosters a vital sense of purpose, personal achievement, and societal belonging. Furthermore, vocational participation is frequently associated with diminished psychological distress and elevated life satisfaction, underscoring its indispensable role within recovery-oriented mental healthcare.

Despite these well-documented benefits, achieving sustainable vocational reintegration remains a formidable challenge driven by a complex interplay of clinical, social, and environmental factors. Workplace stigma, symptom severity, deficits in vocational skills, insufficient employer support, and fragmented coordination between mental healthcare and employment sectors frequently obstruct successful employment outcomes. Prior research emphasizes that clinical interventions focused strictly on symptom reduction do not automatically translate into improved vocational outcomes, as successful reintegration relies heavily on addressing broader psychosocial and contextual determinants (Kinn et al., 2025; Borowska et al., 2025; Berglund et al., 2024; Hoff et al., 2022).

In response to these systemic challenges, there has been a paradigm shift toward recovery-oriented vocational rehabilitation. The Individual Placement and Support (IPS) model—a specialized form of Supported Employment that seamlessly integrates competitive employment services with mental health treatment—has been extensively researched. IPS prioritizes rapid job placement, customized ongoing support, and the embedded collaboration of employment specialists within multidisciplinary mental health teams. Evidence consistently demonstrates that IPS yields superior employment outcomes compared to traditional vocational rehabilitation methodologies (Jäckel et al., 2025; Geerdink et al., 2025; Pulido et al., 2025). Concurrently, a spectrum of other employer-based interventions has emerged to enhance work participation, encompassing employer dialogue initiatives, rehabilitation coordination, and integrated workplace support strategies (Jäckel et al., 2025).

Despite the proliferation of these models, empirical findings regarding their overall efficacy remain inconsistent. While some employer-based interventions yield significant improvements in job acquisition and retention, others demonstrate marginal or no benefits relative to standard care. The effectiveness of these interventions is heavily contingent upon implementation fidelity, program quality, the strength of therapeutic alliances, and the systemic integration of healthcare and employment services (Isaacs & Mitchell, 2024; Malmberg-Heimonen et al., 2025). Although the evidence base for IPS is robust and has been well established in previous systematic reviews (VanderWeele et al., 2019), a significant gap persists in the literature. Existing reviews have primarily focused on the overall effectiveness of vocational rehabilitation, rarely examining the specific mechanisms and contributions of employer-based interventions across diverse community and primary care settings. Furthermore, they frequently overlook how employer engagement, multidisciplinary collaboration, and workplace support directly influence employment outcomes. The considerable heterogeneity in outcome

measures, intervention designs, and study populations further complicates the identification of optimal strategies for long-term vocational recovery.

To address these gaps, it is essential to analyze these interventions through a distinct clinical lens. From a psychiatric nursing paradigm, employer-based vocational rehabilitation transcends basic job placement; it is a vital therapeutic intervention. However, previous reviews have paid limited attention to interpreting these outcomes through nursing theory. By applying Roy's Adaptation Model as an interpretive framework, this review extends existing evidence beyond basic employment outcomes. Grounded in this model, vocational rehabilitation serves as a crucial environmental stimulus that reinforces self-concept, optimizes role functioning, stimulates motivation, and elevates overall quality of life. Psychiatric nurses are therefore instrumental in facilitating the adaptive responses necessary for sustainable community reintegration. This theoretical perspective provides profound clinical insights into how employer-based interventions promote holistic, recovery-oriented psychiatric care.

Building upon this theoretical foundation, the primary objective of this systematic literature review is to evaluate the effectiveness of employer-based occupational rehabilitation interventions compared to standard care in improving employment outcomes such as job acquisition, retention, and work participation among individuals with schizophrenia and other SMI. Additionally, this review aims to synthesize current evidence to identify optimal intervention components and provide a comprehensive psychiatric nursing explanation of how these interventions facilitate adaptive psychosocial recovery.

Methods

Protocol and Registration

The systematic literature review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines. However, the protocol for this systematic review was not prospectively registered in any public database (e.g., PROSPERO) prior to the commencement of the study.

Eligibility Criteria

To ensure a rigorous selection process, studies were included if they met the following strictly defined PICOS criteria:

1. **Population (P):** Individuals diagnosed with severe mental illnesses (SMI) or schizophrenia.
2. **Intervention (I):** Employer-based vocational rehabilitation interventions, including but not limited to Individual Placement and Support (IPS), supported employment, and continuous integrated assistance in the workplace.
3. **Comparator (C):** Usual care, standard rehabilitation, traditional vocational rehabilitation, rehabilitation as usual (SAU/RAU), or control groups.
4. **Outcome (O):** Primary employment-related outcomes, including employment rate, competitive employment acquisition, return-to-work (RTW), job retention, work participation, vocational recovery, work ability, and employment-related psychosocial outcomes.
5. **Study Design (S):** Empirical primary studies, including randomized controlled trials (RCTs), non-randomized controlled trials, cohort studies, longitudinal studies, mixed-methods studies, and qualitative studies.

Studies were explicitly excluded if they involved populations without mental disorders, evaluated interventions unrelated to employment or employer involvement, lacked a comparator (where applicable for quantitative

outcomes), or did not report employment-related outcomes. Furthermore, systematic reviews, literature or scoping reviews, meta-analyses, conference abstracts, editorials, commentaries, protocols, non-English articles, and studies published before 2020 were excluded.

Information Sources and Search Strategy

A comprehensive literature search was conducted across the following major academic databases: Scopus, Web of Science, and PubMed. The final search was conducted on July 17, 2026. The search strategy combined controlled vocabulary (e.g., MeSH terms) and free-text keywords related to employer-based vocational rehabilitation and severe mental illness. The primary search strategy used for PubMed was: (("schizophrenia"[Title/Abstract] OR "severe mental illness"[Title/Abstract] OR "psychosis"[Title/Abstract]) AND ("vocational rehabilitation"[Title/Abstract] OR "supported employment"[Title/Abstract] OR "Individual Placement and Support"[Title/Abstract] OR "employer-based"[Title/Abstract] OR "return to work"[Title/Abstract]) AND ("employment outcome*"[Title/Abstract] OR "job retention"[Title/Abstract] OR "job acquisition"[Title/Abstract] OR "work participation"[Title/Abstract])).

Study Selection

The selection process was conducted independently by two reviewers. All identified records were exported to a reference management software where duplicates were automatically and manually removed. The reviewers first screened the titles and abstracts of the remaining records to assess initial relevance. Subsequently, the full texts of potentially eligible articles were downloaded and rigorously evaluated against the predefined inclusion and exclusion criteria. Any disagreements between the independent reviewers regarding study eligibility were resolved through discussion and consensus, or by consulting a third independent reviewer.

Data Extraction and Synthesis Process

Data were extracted from the included studies by the reviewers using a standardized data extraction form to ensure consistency. The extracted variables included: author(s), publication year, country of origin, study design, sample size and population characteristics, specific details of the intervention (e.g., IPS, employer dialogue), duration of follow-up, measurement tools utilized, and the main quantitative and qualitative outcomes relevant to employment acquisition, retention, and psychosocial recovery.

To provide a cohesive psychiatric nursing perspective, the extracted quantitative and qualitative findings were subsequently mapped onto the four adaptive modes of Roy's Adaptation Model (RAM) during the data synthesis phase. Specifically, employment acquisition and job retention outcomes were categorized under the **Role Function Mode** as indicators of restored societal roles. Improvements in self-esteem, confidence, and motivation were mapped to the **Self-Concept Mode**. Findings related to therapeutic alliances, collaborative workplace support, and multidisciplinary coordination were synthesized under the **Interdependence Mode**. Finally, data concerning overall health maintenance, treatment adherence, and daily functioning as secondary benefits of employment were interpreted within the **Physiological Mode**. This theoretical mapping facilitated a structured interpretation of how vocational rehabilitation acts as an environmental stimulus to promote holistic adaptation.

Risk of Bias and Quality Assessment

The methodological quality and risk of bias for each included study were independently assessed using the Mixed Methods Appraisal Tool (MMAT) version 2018. The MMAT was specifically chosen as it allows for the concomitant appraisal of the heterogeneous study designs included in this review (qualitative, randomized controlled, non-randomized, quantitative descriptive, and mixed-methods). For quantitative studies, the appraisal focused on sample selection, outcome measurement, risk of bias, completeness of follow-up, and statistical analysis. For qualitative studies, criteria included the appropriateness of the qualitative approach, data

collection process, reflexivity, trustworthiness, credibility, and transferability. Each study was scored accordingly, and discrepancies in quality appraisal were resolved through discussion among the research team.

Results

Study Selection

A total of 57 records were identified through comprehensive database searching. Following the removal of 35 duplicate records, 22 full-text articles were rigorously assessed for eligibility. Three studies were subsequently excluded as they did not meet the predefined inclusion criteria (e.g., irrelevant outcomes or incorrect study design). Consequently, 19 studies were included in the final qualitative synthesis (see Figure 1 for the PRISMA flow diagram).

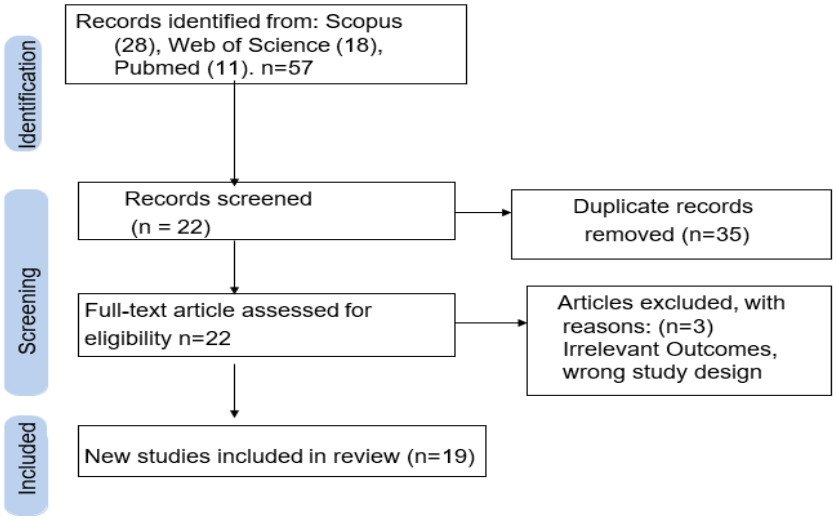

Figure 1. Search Result and Study Selection

Methodological Quality and Risk of Bias

The methodological quality of the included studies was independently assessed using the Mixed Methods Appraisal Tool (MMAT) version 2018, applied according to each specific study design. Among the 19 included studies, 15 achieved the maximum score of 5/5, indicating high methodological quality and a low risk of bias. Four studies obtained a score of 4/5, demonstrating a moderate risk of bias, primarily due to the absence of randomization or control groups in observational and pre–post designs. No studies were excluded based on methodological quality, as all met the minimum quality standards required for inclusion. The detailed quality assessment scores are presented in Table 1.

Table 1.

Methodological Quality Assessment Using Mixed Methods Appraisal Tool (2018)

No	Study	Study Design	MMAT Score	Methodological Quality	Risk of Bias
1	Moe et al. (2025)	Qualitative	5/5	High	Low
2	Yamaguchi et al. (2025)	Repeated Cross-sectional	5/5	High	Low
3	Jäckel et al. (2025)	Randomized Controlled Trial	5/5	High	Low
4	Bushra et al. (2026)	Retrospective Cohort	4/5	High	Moderate
5	Fontenay & Tojerow (2025)	Randomized Controlled Trial	5/5	High	Low
6	Kinn et al. (2025)	Qualitative	5/5	High	Low
7	Borowska et al. (2025)	Qualitative	5/5	High	Low
8	Pulido et al. (2025)	Randomized Controlled Trial	5/5	High	Low
9	Nischk et al. (2024)	Controlled Trial	4/5	High	Moderate
10	Mazzetti et al. (2026)	Longitudinal Cohort	5/5	High	Low
11	Ørjasæter & von Heimburg (2025)	Phenomenological Study	5/5	High	Low
12	Schjøtt-Pedersen et al. (2025)	Mixed Methods	5/5	High	Low
13	Chimara et al. (2025)	Qualitative Case Study	5/5	High	Low
14	Pedersen et al. (2025)	Retrospective Cohort	4/5	High	Moderate
15	Liljeholm et al. (2020)	Longitudinal Pre–Post Study	4/5	High	Moderate
16	Berglund et al. (2024)	Randomized Controlled Trial	5/5	High	Low
17	Hoff et al. (2022)	Randomized Controlled Trial	5/5	High	Low
18	Fisker et al. (2022)*	Randomized Controlled Trial	5/5	High	Low
19	Björkelund et al. (2023)	Cluster Randomized Controlled Trial	5/5	High	Low

Characteristics of Included Studies

The 19 studies included in the review were conducted across nine countries: Norway, Sweden, Denmark, Germany, Belgium, Spain, Italy, Japan, and Namibia. The research designs were heterogeneous, encompassing randomized controlled trials (RCTs), controlled trials, longitudinal cohort studies, retrospective cohort studies, mixed-methods studies, and qualitative designs. The study populations primarily consisted of individuals diagnosed with severe mental illness (SMI) or schizophrenia who encountered substantial barriers to labor market participation. The interventions assessed across the studies included Individual Placement and Support (IPS), Supported Employment (SE), general vocational rehabilitation, integrated vocational and mental healthcare programs, return-to-work (RTW) programs, rehabilitation coordination, employer dialogue, and art-based vocational rehabilitation.

Synthesis of Results

Due to the significant heterogeneity in study designs, intervention characteristics, and outcome measures, a quantitative meta-analysis was not feasible. Instead, the extracted data were synthesized narratively. Table 2 summarizes the main findings and employment-related outcomes for each included study.

Table 2

Summary of Included Studies and Main Findings

Study & Year	Country	Method	Sample	Main Findings	Findings Relevant to RQ
Moe et al., (2025)	Norway	Qualitative	Employment specialists n=36	IPS (Individual Placement and Support) provides more comprehensive job support by developing a strong relationship between employment specialists and service users.	Integrated work support in vocational rehabilitation is important.
Yamaguchi et al., (2025)	Japan	Repeated Cross-sectional	IPS services, n=56	High fidelity IPS is linked to better job outcomes.	The success of the work depends on the quality of the IPS implementation.
Jäckel et al., (2025)	Germany	RCT	Early psychosis, n=114	IPS increases Employment, Education, and Training (EET), income and work participation	IPS is effective in early psychosis.
Bushra et al., (2026)	Australia	Observational	Severe mental illness, n=127	Job outcomes increased after IPS.	Supports the effectiveness of IPS.
Fontenay & Tojerow, (2025)	Belgium	RCT	n=600	Supported Employment increases employment by 7.5% and reduces dependence on disability benefits.	Strong evidence of impact of employer supported employment.
Kinn et al., (2025)	Norway	Qualitative	Severe mental illness, n=10	The relationship that the consumer develops with the employment specialist is the most important predictor of job success.	Individual support is important to having a job.
Borowska et al., (2025)	Norway	Qualitative	Severe mental illness, n=10	IPS increases expectations, confidence, and job readiness.	Supports vocational recovery.
Pulido et al., (2025)	Spain	RCT	Severe mental disorder, n=111	IPS leads to more competitive employment than traditional rehabilitation.	IPS is superior to ordinary vocational rehabilitation.
Nischk et al., (2024)	Germany	Controlled Trial	n=40	IPS is superior in work outcomes and cost-effectiveness compared to ordinary rehabilitation.	Strong evidence of the effectiveness of IPS for psychosis/schizophrenia.
Mazzetti et al., (2026)	Italy	Longitudinal Cohort	Severe mental illness, n=232	IPS improves job acquisition and retention.	Effective in severe mental illness.
Ørjasæter & von Heimburg, (2025)	Norway	Qualitative	Young people with mental health issues, n=14	Art-based vocational rehabilitation improves sense of community, confidence and social inclusion.	Supporting job readiness through a non-conventional approach.
Schjøtt-Pedersen et al., (2025)	Norway	Mixed Methods	n=148 Schizophrenia Spectrum	Vocational activities are useful for increasing self-esteem, well-being and positive social interaction.	Work activities contribute to psychosocial recovery.

			Disorder (SSD)		
Chimara et al., (2025)	Namibia	Qualitative	Service providers, n=15	Work participation is proposed to be enhanced by supported employment and self-employment.	Demonstrate the importance of system and policy support.
Pedersen et al., (2025)	Denmark	Retrospective Cohort	n=246 vs n=404	The Morpheus intervention, an integrated multidisciplinary vocational rehabilitation program combining mental healthcare, employment support, and coordinated case management, did not significantly improve employment or educational outcomes compared with standard vocational rehabilitation.	No significant advantage over standard vocational rehabilitation was observed
Liljeholm et al., (2020)	Sweden	Longitudinal	n=42	Integrated interventions led to improved quality of life, alleviation of depression, and increased activity.	The integration of mental and vocational health supports recovery.
Berglund et al., (2024)	Sweden	RCT Follow-up	n=220	Multidisciplinary Treatment (MDT) and Acceptance and Commitment Therapy (ACT) extended the long-term work participation to 7 years.	Positive long-term evidence.
Hoff et al., (2022)	Denmark	RCT	n=631	Integrated intervention increased working participants at 12 months.	Integrated interventions support work sustainability.
Fisker et al., (2022)	Denmark	RCT	n=666	Service As Usual (SAU) is better than integrated intervention for Return To Work (RTW) in stress-related disorders.	The results are inconsistent.
Björkelund et al., (2023)	Sweden	Cluster RCT	n=341	Employer dialogue does not increase RTW or reduce sick leave.	Insufficient employer engagement to improve work outcomes.

Discussions

The primary objective of this systematic review was to evaluate the effectiveness of employer-based occupational rehabilitation interventions for individuals with schizophrenia and other severe mental illnesses (SMI). The findings conclusively demonstrate that integrated vocational approaches, specifically Individual Placement and Support (IPS) and Supported Employment (SE), are vastly superior to standard vocational rehabilitation or standalone employer interventions. Consistent with broader global literature, this review found that IPS and SE models provide the most robust outcomes for job acquisition, competitive employment rates, and overall vocational participation (Fontenay & Tojerow, 2025; Jäckel et al., 2025; Mazzetti et al., 2026; Bushra et al., 2026). The success of these interventions is rooted in their core principles, which radically deviate from traditional "train-then-place" models. By utilizing a "place-and-train" approach characterized by rapid

placement, seamless integration with mental healthcare, and time-unlimited individualized support, IPS effectively addresses the complex psychosocial barriers often overlooked by standard care (Nischk et al., 2024; VanderWeele et al., 2019). Crucially, longitudinal evidence from Berglund et al. (2024) and Hoff et al. (2022) highlights that when multidisciplinary treatments are tightly integrated with vocational support, participants can sustain meaningful work participation for several years, underlining the long-term sustainability of this approach.

However, the efficacy of integrated multidisciplinary programs is highly contingent upon implementation fidelity and baseline clinical severity. While some integrated models show overall promise, structural integration alone is inadequate. For instance, Yamaguchi et al. (2025) explicitly demonstrated that high-fidelity IPS is strictly linked to superior job outcomes. Conversely, the Morpheus multidisciplinary intervention (Pedersen et al., 2025) and integrated return-to-work interventions for stress-related disorders (Fisker et al., 2022) failed to outperform standard care. This discrepancy suggests that without rigorous adherence to evidence-based practice elements, supported by strong interagency collaboration and organizational readiness (Malmberg-Heimonen et al., 2025; Isaacs & Mitchell, 2024), even theoretically sound multidisciplinary models will fail to yield significant vocational benefits.

Furthermore, interventions relying exclusively on employer-directed communication demonstrated severely limited efficacy. A critical argument for this outcome is that dialogue with an employer alone is fundamentally insufficient to mitigate the complexities of SMI (Björkelund et al., 2023). Without continuous clinical support from psychiatric professionals to manage workplace symptoms, foster work readiness, and mediate occupational stressors, patients quickly become overwhelmed. This occupational stress directly derails their vocational adaptation. As highlighted by Chimara et al. (2025), sustainable work participation requires a robust systemic scaffolding that combines direct employer engagement with continuous, policy-supported mental health integration.

The superiority of highly integrated, continuous models can be profoundly understood through the lens of Roy's Adaptation Model (RAM), which views individuals as holistic adaptive systems responding to environmental stimuli (Alligood, 2021). Within the framework of RAM's **Self-Concept Mode**, the ongoing vocational support provided by IPS specialists acts as a positive focal stimulus. This facilitates patient coping in overcoming internalized stigma, as evidenced by the findings of Borowska et al. (2025) and Schjøtt-Pedersen et al. (2025), where participants reported a recovery of identity, no longer viewing themselves merely as "patients" but as active, capable workers. Interestingly, alternative employer-aligned approaches, such as art-based vocational rehabilitation, also serve as potent stimuli in this mode, significantly enhancing a sense of community, confidence, and social inclusion among vulnerable populations (Ørjasæter & von Heimburg, 2025).

In the **Role Function Mode**, securing competitive employment serves as a contextual stimulus that allows individuals with SMI to reclaim meaningful societal roles, transitioning from dependence to financial and social autonomy (Mazzetti et al., 2026; Pulido et al., 2025). Furthermore, the **Interdependence Mode** elucidates the absolute necessity of collaborative care. The therapeutic alliances formed among the patient, the psychiatric nurse, and the employment specialist create a robust support network. Qualitative evidence emphasizes that this individualized relational support is the most critical predictor of sustained employment, effectively buffering the negative stimuli of workplace discrimination and performance anxiety (Kinn et al., 2025; Moe et al., 2025). Finally, regarding the **Physiological Mode**, gainful employment initiates a positive feedback loop. Meaningful work establishes psychosocial stability, enhances daily routines, and indirectly mitigates psychiatric symptomatology while promoting adherence to clinical treatments (Liljeholm et al., 2020). By addressing all four adaptive modes simultaneously, comprehensive vocational rehabilitation transcends basic economic support, functioning as a holistic, recovery-oriented psychiatric intervention.

These findings hold distinct and actionable implications for psychiatric nursing practice, particularly within primary care and community health settings. Rather than merely offering generalized psychoeducation in a clinical vacuum, psychiatric nurses must assume the role of proactive "case managers" and clinical coordinators. In this capacity, nurses bridge the critical gap among the patient, the attending psychiatrist, and the workplace

Human Resources (HR) department or management. By providing targeted symptom management strategies tailored to the specific workplace environment, mediating occupational stressors, and offering continuous clinical supervision alongside employment specialists, psychiatric nurses ensure that vocational stress does not trigger a clinical relapse, thereby sustaining long-term community reintegration.

Study Limitations

Several limitations must be considered when interpreting the findings of this review. First, the protocol for this systematic review was not prospectively registered in public databases (e.g., PROSPERO), which limits procedural transparency. Second, the methodological heterogeneity across the included studies in terms of intervention design and outcome measurement precluded a quantitative meta-analysis, restricting the findings to a narrative synthesis. More importantly, the vast majority of the included studies were conducted in high-income nations, particularly Nordic countries (e.g., Norway, Sweden, Denmark) with exceptionally robust social welfare systems, highly regulated labor markets, and well-funded public health infrastructure. Consequently, the effectiveness of these IPS and SE models may require massive structural and cultural adjustments if implemented in lower-middle-income countries (LMICs). LMICs are often characterized by highly informal labor markets, disparate healthcare funding, and pervasive workplace stigma, which could significantly alter the feasibility and success rates of employer-based interventions. Finally, the varied follow-up durations across studies limit definitive conclusions regarding the lifelong sustainability of employment outcomes.

Conclusions

IPS and Supported Employment represent the most effective evidence-based strategies for improving employment outcomes among individuals with SMI. Interventions lacking continuous, integrated clinical support such as standalone employer dialogues are fundamentally insufficient for facilitating sustainable return-to-work outcomes, as they fail to address the complex clinical realities of maintaining employment. By interpreting these interventions through Roy's Adaptation Model, it is evident that vocational rehabilitation is intrinsically linked to holistic psychiatric adaptation. Integrating these high-fidelity, evidence-based models into primary and community mental health services, with psychiatric nurses acting as pivotal case managers, is essential for promoting long-term clinical recovery, economic independence, and social inclusion. Future research must prioritize multicenter trials within LMIC settings using standardized employment metrics and extended follow-up periods to validate and adapt these models across diverse global socioeconomic contexts.

Declaration of Generative AI and AI-Assisted Technologies in the Manuscript Preparation Process

During the preparation of this manuscript, the authors used ChatGPT (OpenAI) and NotebookLM (Google) to improve academic writing, enhance language clarity, organize the literature, and support the revision process in response to reviewers' comments. After using these AI-assisted technologies, authors reviewed, verified, and edited all generated content and the authors take full responsibility for the accuracy, integrity, and originality of the final manuscript.

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Conflict of Interest

The authors declare that they have no conflicts of interest in relation to this research.

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CRediT Authorship Contribution Statement

Siti Khadijah: Conceptualization, Methodology, Writing – original draft; **Endang Caturini Sulityowati:** Data curation, Formal analysis, Writing – review and editing; **Dwi Ariani Sulityowati:** Data curation, Formal analysis, Writing – review and editing; **Abdul Ghofur:** Supervision, Project administration, Funding acquisition; **Sarka Ade Susana:** Supervision, Project administration, Funding acquisition. All authors have read and agreed to the published version of the manuscript.

References

Alligood, M. R. (2021). *Nursing Theorists and Their Work* (10th ed.). Elsevier Health Sciences.

Berglund, E., Anderzén, I., Helgesson, M., Lytsy, P., & Andersén, Å. (2024). Work participation after receiving multidisciplinary treatment or acceptance and commitment therapy intervention for return to work: long-term follow-up of a randomized controlled trial among sick-listed individuals with mental disorders and/or chronic pain. *BMC Public Health*, *24*(1), 3558. https://doi.org/10.1186/s12889-024-21116-1

Björkelund, C., Saxvik, A., Svenningsson, I., Petersson, E.-L., Wiegner, L., Larsson, M., Törnbom, K., Wikberg, C., Ariai, N., Nejati, S., Hensing, G., & Hange, D. (2023). Rehabilitation cooperation and person-centered dialogue meeting for patients sick-listed for common mental disorders: 12 months follow-up of sick leave days, symptoms of depression, anxiety, stress, and work ability - a pragmatic cluster randomized control. *BMJ Open*, *13*(6), e074137. https://doi.org/10.1136/bmjopen-2023-074137

Borowska, M. A., Ørjasæter, K. B., Borg, M., Stenvall, B., Silbermann, A., Rinaldi, M., Killackey, E., Mykletun, A., & Moe, C. (2025). *" Without IPS I Think I Would Really Fall Apart " : Individual Placement and Support as Experienced by People With Mental Illness — Phenomenological Peer Research Study*. https://doi.org/10.1177/10497323241275046

Bushra, A., Dragovic, M., Chalmers, M., Ayres, H., & John, A. P. (2026). Employment outcomes and their predictors among people with severe mental illness participating in an individual placement and support program. *Australasian Psychiatry*, *34*(1), 40–46. https://doi.org/10.1177/10398562251370880

Chimara, M., van Biljon, H., Adams, F., & van Niekerk, L. (2025). Perspectives of service providers on vocational rehabilitation for mental health service users in Namibia: a qualitative study. *Disability and Rehabilitation*, *47*(4), 992–1000. https://doi.org/10.1080/09638288.2024.2362944

Fisker, J., Poulsen, R. M., Rosenberg, N. K., Nordentoft, M., Bojesen, A. B., & Eplov, L. F. (2022). *Scandinavian Journal of Work, Environment Health. 48*(5), 361–371. https://doi.org/10.5271/sjweh.4021

Fontenay, S., & Tojerow, I. (2025). Is supported employment effective for Disability Insurance recipients with mental health conditions? Evidence from a randomized experiment in Belgium. *Journal of Health Economics*, *100*. https://doi.org/10.1016/j.jhealeco.2024.102958

Geerdink, E. O., Kempen, M. A. H. H. Van, & Motazedi, J. V. W. E. (2025). Individual Placement and Support and Participatory Workplace Intervention on the Work Participation of People with Disabilities : A Randomized Controlled Trial. *Journal of Occupational Rehabilitation*, *35*(3), 520–532. https://doi.org/10.1007/s10926-024-10219-6

Grethe, L., Larry, K., Ketil, D., Oedegaard, J., & Langeland, E. (2025). Struggling with Fitting in : Clients' Mixed Experiences of Receiving Job Support and Getting a Job When Participating in Individual Placement and Support in Norway. *Journal of Occupational Rehabilitation*, *35*(2), 356–365. https://doi.org/10.1007/s10926-024-10206-x

Hoff, A., Poulsen, R. M., Fisker, J., Hjorthøj, C., Rosenberg, N., Nordentoft, M., Bojesen, A. B., & Eplov, L. F. (2022). *Integrating vocational rehabilitation and mental healthcare to improve the return- ? work process for people on sick leave with depression or anxiety : results from a three- ? arm , parallel randomized trial*. *Cmd*, 134–142. https://doi.org/10.1136/oemed-2021-107894

Id, D. E. F., & Vanderweele, T. J. (2019). *Supported employment : Meta-analysis and review of randomized controlled trials of individual placement and support*. Plos ONE, 14(2): e0212208. 1–26. https://doi.org/10.1371/journal. pone.0212208

Isaacs, A. N., & Mitchell, E. K. L. (2024). Mental health integrated care models in primary care and factors that contribute to their effective implementation : a scoping review. *International Journal of Mental Health Systems*, 1–16. https://doi.org/10.1186/s13033-024-00625-x

Jäckel, D., Bechdolf, A., Burkhardt, E., Kallenbach, M., Gamig, M.-L., Mößnang, A., & Leopold, K. (2025). Efficacy of Individual Placement and Support (IPS) on Employment, Education, and Training in Young Adults With Early Psychosis—A Randomized Controlled Trial. *Brain and Behavior*, *15*(5). https://doi.org/10.1002/brb3.70469

Kinn, L. G., Davidson, L., Oedegaard, K. J., & Langeland, E. (2025). Struggling with Fitting in: Clients' Mixed Experiences of Receiving Job Support and Getting a Job When Participating in Individual Placement and Support in Norway. *Journal of Occupational Rehabilitation*, *35*(2), 356–365. https://doi.org/10.1007/s10926-024-10206-x

Li, M., Chen, Y., Hu, X., & Wang, S. (2023). The preferences for the telemedicine and standard health care services from the perspective of the patients with schizophrenia. *BMC Psychiatry*, *23*(1), 1–11.

Liljeholm, U., Argentzell, E., & Bejerholm, U. (2020). An integrated mental health and vocational intervention: A longitudinal study on mental health changes among young adults. *NURSING OPEN*, *7*(6), 1755–1765. https://doi.org/10.1002/nop2.560

Malmberg-Heimonen, I., Tøge, A. G., Bråthen, M., Frøyland, K., Spjelkavik, Ø., Bond, G. R., Tøge, A. G., Bråthen, M., & Frøyland, K. (2025). Assessing Program Fidelity Patterns within the IPS for Young Adults in Norway Assessing Program Fidelity Patterns within the IPS for Young Adults in Norway ABSTRACT. *Journal of Evidence-Based Social Work*, *22*(6), 893–908. https://doi.org/10.1080/26408066.2025.2528910

Mazzetti, G., Paganin, G., Mastrocola, A., Trono, V., Guglielmi, D., & Fioritti, A. (2026). *Longitudinal Outcomes of Individual Placement and Support for Patients With Severe Mental Illness in Italy*. *International Journal Public Health, 71*(February), 1–9. https://doi.org/10.3389/ijph.2026.1608701

Moe, C., Brinchmann, B., Kolstad, U., Steen, K., McDaid, D., & Killackey, E. (2025). A qualitative study of the IPS employment specialist role in the context of Nav employment in Norway. *BMC Psychiatry*, 1–10. https://doi.org/10.1186/s12888-025-06991-1

Nischk, D., Herwig, U., Senner, S., & Rockstroh, B. (2024). Effectiveness and Cost-Effectiveness of Individual Placement and Support (IPS) in Germany - A Controlled Trial with Individuals with Psychosis. *PSYCHIATRISCHE PRAXIS*, *51*(02), 84–91. https://doi.org/10.1055/a-2165-8728

Ørjasæter, K. B., & von Heimburg, D. (2025). Becoming a valued member of society: the meaning of Art-Based vocational rehabilitation in the Norwegian labor and welfare service. *BMC Psychology*, *13*(1). https://doi.org/10.1186/s40359-025-02597-0

Pai, N., Dark, F., & Castle, D. (2021). The Importance of Employment for Recovery in People with Severe Mental Illness. *Journal of Psychosocial Rehabilitation and Mental Health*, *8*(3), 217–219. https://doi.org/10.1007/s40737-021-00245-5

Pedersen, P., Olsen, B. B., Vernal, D. L., Rydborg, M. P., Gasse, C., & Mors, O. (2025). Vocational Rehabilitation in Young Adults With Incident Schizophrenia—A Danish Retrospective Cohort Study. *Early Intervention in Psychiatry*, *19*(6). https://doi.org/10.1111/eip.70062

Pulido, F. R., Pérez, D. O., Hernández, G. H., & Bond, G. (2025). *A Randomized Controlled Trial of IPS in Severe mental illness : Mental Health , Functional , and Vocational Outcomes in a High-Unemployment Setting*. *International Journal Public Health 70*(December), 1–9. https://doi.org/10.3389/ijph.2025.1608796

Schjøtt-Pedersen, O., Bull, H. C., Falkum, E., Ueland, T., Gjerdalen, O. S., Haaland, V. Ø., Evensen, S., & Lystad, J. U. (2025). Exploring the Benefits of Vocational Activity for People with Schizophrenia Spectrum Disorder in Norway. *Journal of Psychosocial Rehabilitation and Mental Health*, *12*(2), 219–235. https://doi.org/10.1007/s40737-024-00389-0

Yamaguchi, S., Koike, J., Igarashi, M., Kawaguchi, T., Shiozawa, T., Usui, K., Iwanaga, M., Matsunaga, A., Yoshida, K., Sato, S., & Fujii, C. (2025). Comparative Analysis of Independent Reviewer-Rated and Self-Rated Fidelity Scores in Individual Placement and Support Programs: Repeated Cross-Sectional Surveys. *Administration and Policy in Mental Health and Mental Health Services Research*, *52*(2), 379–389. https://doi.org/10.1007/s10488-024-01413-y