

Escaping In-Work Poverty and Mental Health: A Longitudinal Study of Swedish Workers

Background

In-work poverty (IWP) is a form of poverty affecting individuals who are in employment yet have an equivalised disposable household income below the national poverty line (1). Defined by a bi-dimensional construct, IWP requires that individuals meet a “working threshold” (e.g., classed as being employed for a defined proportion of the year) as well as a “poverty threshold” (e.g. living in households with income below 60% of the national median equivalised disposable household income (2). Recent data indicate that the in-work at-risk-of-poverty rate for adults (18 years old and over) across the EU-27 has declined, from 9.3% in 2018 to 8.2% in 2024 (3), suggesting that IWP has not consistently increased in recent years. Nevertheless, IWP remains a prominent issue in high-income countries, with levels in Western Europe largely stable and some evidence of slight increases in certain countries (4). These cross-national differences largely reflect variations in labour market institutions, welfare regimes, and social protection systems (5). As employment rates have risen in Europe, attention in relation to tackling poverty has increasingly focused on the circumstances of the working poor and this requires greater recognition and prioritization in future research and policy discussions (6).

Existing literature has found that IWP is associated with an increased risk of diagnosed mental health disorders (7) and poor self-reported health (8). The link between IWP and mental health may be driven by factors such as reduced self-worth, stress, stigma, and perceived injustice, all of which can intensify psychological distress (9, 10). The findings from the existing studies suggest that the mental health risks associated with IWP persist despite the potential non-monetary benefits of employment, including social inclusion, sense of identity, structure, and routine (11).

However, it is important to note that IWP is not necessarily a static condition. Workers may enter and exit IWP over time for various reasons, such as changes in the employment status of people within a household, low-quality employment (e.g., income, rights and security), or demographic circumstances, including having children (12). While escaping IWP may reduce exposure to risk factors related to mental health, it remains unclear whether the negative effects of prior exposure are lasting, or if improvements in circumstances, such as moving above the poverty line, lower a worker’s risk of mental ill-health compared with those who remain in IWP. Most previous research has focused on the prevalence of IWP or its associated health consequences, and relatively little is known about the effects of escaping IWP, although some studies have examined the health implications of escaping poverty more broadly. For example, McDonough et al. (2005) found that individuals who escaped poverty reported better, though not fully recovered, self-rated health compared with those who were persistently poor, suggesting health benefits of escaping poverty but that the effects of material deprivation may endure, to some extent, even after financial conditions improve (13). Similarly, Chen, Brody, and Miller (2022) propose that while upward mobility often leads to psychological benefits, such as improved self-esteem and reduced distress, it can also carry physiological or psychosocial costs, a phenomenon described as “*skin-deep resilience*.” (14). This notion implies that escaping IWP may alleviate financial stress and improve mental well-being, yet residual strain, stigma, or the effort required to maintain improved circumstances might continue to affect health. Upward transitions may therefore not fully erase the psychological and biological effects of earlier deprivation. Moreover, individuals who have experienced IWP may still face job insecurity or fears of downward mobility, factors that could limit the full mental health benefits of improved income stability.

Understanding these gradients of risk is crucial for informing targeted policy interventions. It remains unknown whether moving slightly above, versus substantially above, the poverty threshold differentially reduces the risk of poor mental health among workers who were previously in IWP. If modest improvements are insufficient to protect mental well-being, more comprehensive structural and psychosocial support may be needed. Investigating these transitions is therefore essential not only for understanding the individual benefits of escaping IWP but also for guiding policies that promote sustainable improvements in health and well-being.

Despite Sweden’s reputation for having a generous welfare system, recent trends indicate widening income disparities. Sweden’s Gini coefficient is at its highest level since 1975 and ranks lowest among the Nordic

countries in addressing economic inequality (15, 16). Additionally, the in-work at-risk-of-poverty rate among those 18 and over has increased from 7% in 2018 to 7.7% in 2023 (3). In Sweden, egalitarian values are deeply embedded in the welfare model, and because of this, being in IWP could carry a particular sense of stigma, reflecting societal expectations that people in employment should not experience financial hardship. In this context, experiences of IWP, and even the process of escaping it, may be particularly psychologically charged. Evidence suggests that individuals with higher perceived social standing exhibit stronger physiological responses to financial stress, including elevated inflammatory markers (17). Therefore, in Sweden, perceptions of relative position, internalised stigma, and fear of returning to hardship may continue to shape mental health outcomes even after upward transitions, sustaining health inequalities despite improved material conditions.

Against this background, this study aims to investigate whether escaping IWP reduces the risk of diagnosed mental health disorders among men and women in Sweden, compared to those who remain in IWP. Specifically, we explore whether moving slightly above the poverty line versus substantially above it differentially affects mental health outcomes. By doing so, the study contributes to a nuanced understanding of how economic trajectories within the labour market influence mental health and informs policy decisions that target both the alleviation of IWP and the promotion of good mental health in the working population.

Data, variables, Methods

This cohort study uses data from the Swedish Work, Illness, and Labor-market Participation (SWIP) cohort, which includes all individuals aged 16–64 who were registered as residents of Sweden in 2005, totalling approximately 5.8 million index persons. The study sample included men and women alive on 1 January 2014 and born between 1953 and 1989, corresponding to ages 24–60 at the year before the follow-up, 2013. Individuals were excluded if, in 2013, they: i) were students (receiving student allowance), ii) received disability pension, iii) had long-term sickness absence (>180 days), iv) had no established connection to the labour market, v) were self-employed or combined self-employment with paid work, or vi) had missing data on variables included in the study. The main exposure, IWP was defined as individuals who were working 12 months of the year and with household income below 60% of the Swedish median in 2012. Escaping IWP was measured as a change from being in IWP in 2012 to either being “slightly above the poverty line (up to 100% of the median income)” or “substantially above the poverty line (more than 100% of the median income)” in 2013. To capture mental health, we measured the outcome based on two sources: 1) the first main diagnosis of mental health conditions during the follow-up, and 2) the first prescription of selective serotonin reuptake inhibitors (SSRIs) during the follow-up. We adjusted for age, country of birth, education level, marital status, family type, and job control level. We estimated crude and adjusted hazard ratios (HRs) using Cox proportional hazard regression model. Person-time was calculated from 1 January 2014 until either emigration, death, outcome of interest or the end of follow-up on 31 December 2019.

Results

First, we examine the association between working poverty exit and diagnosed mental health disorders. The unadjusted results indicated that both men and women who moved to slightly above the poverty line did not have a reduced risk of first diagnosed mental health disorders compared to workers in IWP in 2013 (Table 1 in the Appendix). However, men and women who moved to substantially above the poverty line had a reduced risk of first diagnosed mental health disorders compared to workers in IWP in 2013. For men, this association remained statistically significant at the 5% level after adjusting for the included covariates. For women, the association was not statistically significant after adjusting for the covariates (Table 1 in the Appendix).

Next, we examine how working poverty exits relate to SSRI prescriptions and find that the results are very similar to those relating to diagnosed conditions (Table 2 in the Appendix). The unadjusted results indicated that both men and women who moved to slightly above the poverty line did not have a reduced risk of first SSRI prescription compared to workers in IWP in 2013. However, men and women who moved to substantially above the poverty line had a reduced risk of first SSRI prescription mental health disorders compared to workers in IWP in 2013. Like the results above, this association remained statistically significant at the 5% level after adjusting for the included covariates for men, while the association was not statistically significant after adjusting for the covariates for women. Evidence from the sensitivity analysis replicating the

main analysis but using different operationalizations of moving to slightly above the poverty line and substantially above the poverty line support the robustness of the main results to alternative cutoff definitions.

Conclusion

The results suggest that escaping IWP may have a more meaningful impact on factors associated with psychological health for men than women. Furthermore, to achieve meaningful mental health benefits, workers in IWP need substantial improvements in their equivalised disposable household income. Modest increases appear insufficient to offset the adverse effects of prior deprivation, underscoring that policies aimed at promoting sustainable improvements in mental health should not only address reducing IWP but also the adequacy and stability of opportunities for workers when entering upward mobility.

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Appendix

Table 1. The risk of diagnosed mental health disorders among men and women across IWP trajectories*

Diagnosed Mental

Health Disorders						
IWP trajectories	Cases	People at risk	Person-years at risk	Incidence rate per 1,000 person-years	Crude HR (95% CI)	Adjusted HR (95% CI)
Men n= 33002						
Reman in IWP	729	18094	106169	6.9	1	1
Slightly above the poverty line	494	12238	71838	6.9	0.96 (0.85,1.07)	0.95 (0.85,1.07)
Substantially above the poverty line	75	2670	15781	4.8	0.65 (0.51,0.83)	0.65 (0.51,0.83)
Women n=50432						
Reman in IWP	1680	27353	158479	10.6	1	1
Slightly above the poverty line	1167	19737	114497	10.2	0.94 (0.87,1.01)	1.00 (0.93,1.08)
Substantially above the poverty line	167	3342	19467	8.6	0.78 (0.67,0.92)	0.97 (0.82,1.14)

Crude: age

Adjusted: age, country of birth, education, civil status, family type, job control

*Final sample for this analysis excludes those with SSRI prescription before the follow-up

Table 2. The risk of SSRI prescription among men and women across IWP trajectories*

SSRI Prescription						
IWP trajectories	Cases	People at risk	Person-years at risk	Incidence rate per 1,000 person-years	Crude HR (95% CI)	Adjusted HR (95% CI)
Men n=28749						
Reman in IWP	2054	15765	88105	23.3	1	1
Slightly above the poverty line	1421	10624	59148	24.0	1.00 (0.93,1.07)	1.01 (0.95,1.09)
Substantially above the poverty line	248	2360	13372	18.5	0.76 (0.67,0.87)	0.85 (0.74,0.97)
Women n=37778						
Reman in IWP	4528	20282	106740	42.4	1	1
Slightly above the poverty line	3226	14831	78379	41.2	0.96 (0.92,1.00)	1.02 (0.97,1.07)
Substantially above the poverty line	511	2665	14292	35.8	0.84 (0.76,0.92)	1.01 (0.92,1.11)

Crude: age

Adjusted: age, country of birth, education, civil status, family type, job control

*Final sample for this analysis excludes those with SSRI prescription before the follow-up