



The Impact Of Employment Status: Self-Employment And Wage-Employment On Mental Health

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How to Cite :

Sari, M., Natih, P. G. L. (2025). The Impact Of Employment Status: Self-Employment And Wage-Employment On Mental Health. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 13(4). DOI: <https://doi.org/10.37676/ekombis.v13i4>

ARTICLE HISTORY

Received [16 April 2025]

Revised [14 September 2025]

Received [27 September 2025]

KEYWORDS

Mental Health, Employment Status, Self-Employment, Wage-Employment, Fixed Effect .

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Abstract

This study analyzes the impact of employment status on mental health by comparing self-employed and wage-employed individuals in Indonesia. Using longitudinal data from the Indonesia Family Life Survey (IFLS) waves 4 and 5, this study applies a fixed effects model to explore this relationship while accounting for various demographic and socioeconomic controls. The findings reveal that self-employed individuals have higher mental health scores, indicating poorer mental health compared to wage-employed individuals. However, this effect becomes insignificant after including control variables in the model. Job transition analysis indicates that individuals transitioning from self-employment to wage-employment tend to have higher mental health scores, while those remaining in wage employment exhibit a lower risk of mental health issues. Heterogeneity analysis reveals that self-employed women are more vulnerable to mental health issues compared to men, while individuals with disabilities demonstrate better mental health in self-employment than in wage employment.

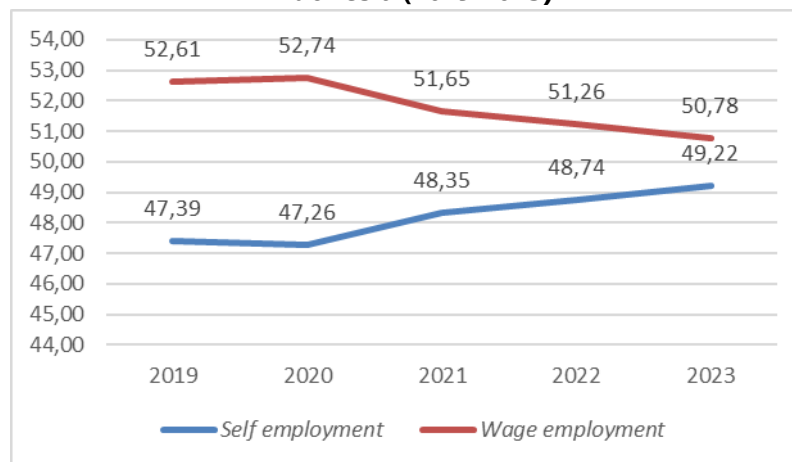
INTRODUCTION

Mental health is a crucial element in determining an individual's quality of life and productivity. Mental health disorders, such as depression and anxiety, significantly impact social and economic functioning (WHO, 2013; Xu et al., 2019). In Indonesia, the prevalence of mental health disorders has reached 6.1% among individuals aged 15 years and above (Kemenkes, 2023), highlighting the urgency of addressing this issue in sustainable development (Patel et al., 2018).

The trend of self-employment has continued to rise, driven by individuals seeking job flexibility and independence. However, this increase does not solely reflect a shift in labor preferences. Limited job opportunities in the wage-employment sector also play a crucial role. The transformation of the digital economy, disruptions in traditional labor markets, and macroeconomic pressures, such as a slowdown in formal job growth, may push more individuals into self-employment as an alternative option (Bögenhold, 2019). The following data illustrate

the changes in the proportion of self-employment and wage-employment in Indonesia from 2019 to 2023.

Figure 1 Changes in the Proportion of Self-Employment and Wage-Employment in Indonesia (2019-2023)



Source: BPS, 2024

Figure 1 shows that the proportion of self-employment increased from 47.39% in 2019 to 49.22% in 2023. Conversely, wage employment declined from 52.61% to 50.78% over the same period. This reflects an increasing number of individuals opting for entrepreneurship or self-employment rather than working as salaried employees. However, this shift may also impact income stability and mental health in Indonesia. Self-employment is often accompanied by income instability and higher mental pressure compared to wage employment, which offers financial stability (Dixon et al., 2016).

Previous studies in developed countries have shown mixed results regarding the effect of employment type on mental health, focusing on aspects such as job autonomy, income stability, and work stress (Stephan & Roesler, 2010; Zhou et al., 2023). In Indonesia, similar studies remain limited, particularly in the context of economic structural changes and self-employment trends. Based on this background, this study aims to answer two main questions: (1) How does employment status affect workers' mental health in Indonesia? (2) How does job transition between self-employment and wage-employment impact workers' mental health?

This study seeks to fill the gap in the literature by analyzing and comparing the effects of self-employment and wage employment on mental health in Indonesia. The findings are expected to contribute significantly to policy-making by helping policymakers design appropriate interventions to support workers' mental health in both employment types.

This research addresses the gaps in previous studies by employing the Center for Epidemiologic Studies Depression Scale (CES-D) to comprehensively measure mental health. Utilizing panel data and a fixed effects model, the study provides a longitudinal analysis of the dynamic relationship between employment status and mental health.

LITERATURE REVIEW

Mental health is defined as an individual's well-being in realizing their potential, coping with life's pressures, and working productively (WHO, 2004). Employment status, whether self-employment or wage employment, affects mental health through factors such as job autonomy, income stability, and work pressure (Blanchflower, 2004; Stephan & Roesler, 2010).

The Job Demand-Control (JDC) model explains that job demands and job control influence work-related stress. Self-employment provides greater control but is often accompanied by high

job demands, while wage employment offers stability but lower work autonomy (Karasek, 1979). Self-employment refers to individuals who own and manage their own businesses. While it offers greater autonomy and flexibility, self-employment is often associated with high workloads and income uncertainty, increasing the risk of stress and mental health issues (Cardon & Patel, 2015; Gonzalez-Mulé & Cockburn, 2017). Challenges such as financial uncertainty and significant responsibilities are also major stressors (Stephan & Roesler, 2010).

Furthermore, studies indicate that self-employed individuals are more vulnerable to health issues, especially in physically demanding jobs (Park et al., 2020). These conditions are exacerbated by lower education levels and longer working hours compared to wage-employed workers. However, some research highlights the benefits of self-employment, such as increased psychological well-being due to greater decision-making autonomy and flexible work schedules (Bradley & Roberts, 2004; Deci & Ryan, 2000). Self-employment is also associated with lower blood pressure and reduced depressive symptoms, particularly among physically healthy individuals (Zhou et al., 2023).

Conversely, wage employment provides income stability and job security, reducing financial uncertainty despite a lack of flexibility and autonomy. These drawbacks can lead to job dissatisfaction, potentially affecting mental well-being (Binder & Coad, 2013).

Other studies indicate that the relationship between employment status and mental health is often statistically insignificant. Self-employed individuals tend to experience greater fatigue than wage-employed workers, but this effect disappears after controlling for variables such as education, marital status, and location (Andersson, 2008). This suggests that individual characteristics and social conditions play a more significant role than employment status alone. Although self-employment enhances job satisfaction, its impact on overall mental health remains inconclusive (Parslow et al., 2004).

METHODS

This study utilizes longitudinal data from the Indonesia Family Life Survey (IFLS), specifically waves 4 (2007-2008) and 5 (2014-2015). The IFLS provides detailed information on employment status, mental health, and various individual and household characteristics. Wave 4 was selected as the baseline since mental health measurements using the Center for Epidemiologic Studies Depression Scale (CES-D) began during this period. The CES-D short version with 10 questions was used to measure depressive symptoms over the past week. The study population includes individuals aged 15 to 64 who participated in both survey waves. Employment status data were obtained from IFLS Book 3A, while mental health data were sourced from Book 3B.

Mental health in this study is measured using the short version of the CES-D scale, adapted to the available IFLS data. CES-D is widely used in epidemiological, social, and mental health research to measure depressive symptoms (Murray, 2018; Zhou et al., 2023). Mental health is treated as a continuous variable calculated from the total CES-D score, where higher scores indicate greater severity of depressive symptoms.

The primary independent variable is employment status, classified into two categories: self-employment and wage-employment. Self-employment includes individuals who work independently, with or without permanent employees, including freelance workers in both agricultural and non-agricultural sectors. Wage-employment refers to individuals working as employees in government or private sectors. This variable is defined as a dummy variable, with 1 for self-employment and 0 for wage-employment.

Several control variables are included in the analysis to estimate the impact of employment status on mental health. Individual characteristics include marital status, gender, education level, age, disability status, and household head status. Household characteristics include logged income, household size, homeownership status, health insurance ownership, and

place of residence. Additionally, employment sector (agriculture, manufacturing, services) and weekly working hours (continuous variable) are controlled to account for social environment, economic stability, and access to healthcare.

The analysis employs two main models. First, the fixed effects (FE) model is used to identify the impact of employment status on mental health while controlling for unobserved individual-specific factors that remain constant over time. The FE model captures the influence of individual characteristics that may affect mental health but do not change over the study period (Wooldridge, 2003). The FE model equation is specified as follows:

$$MH_{it} = \alpha + \beta_1 Employment\ Status_{it} + X'_{it}\theta + \mu_i + \epsilon_{it}$$

where MH_{it} represents Total Mental Health Score at time t , $Employment\ Status_{it}$ is the employment status dummy, X'_{it} represents control variables, μ_i is individual fixed effects, and ϵ_{it} is the error term.

Second, the Ordinary Least Squares (OLS) method is applied to evaluate the impact of job transitions on mental health using cross-sectional data from IFLS waves 4 and 5. The OLS model equation is given as:

$$MH_{i2014} = \alpha + \beta_1 Job\ Transition_{i2007-2014} + X'_{i2014}\theta + \epsilon_i$$

Job transitions are categorized into four groups: wage-to-wage, self-to-self, wage-to-self, and self-to-wage. The total CES-D score from 2014 is used as the dependent variable in this model.

RESULTS

The following table presents descriptive statistics illustrating the differences in characteristics between self-employed individuals and those in wage employment.

Table 1 Descriptive Statistics

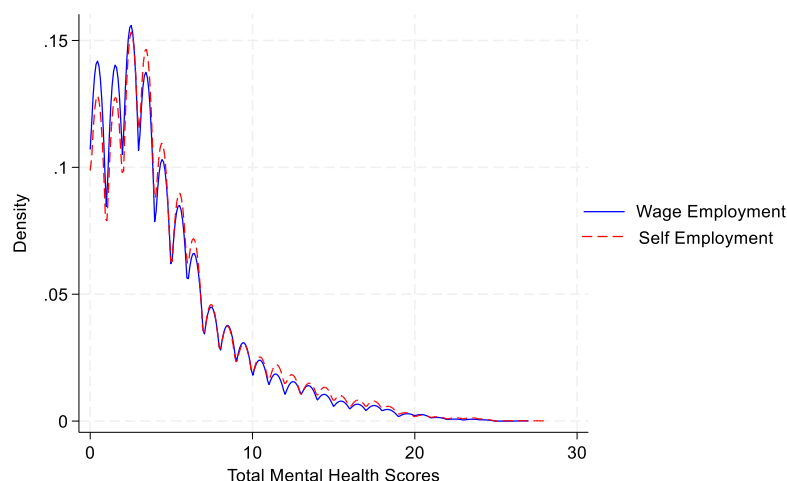
	Employment Status = 0 (Wage-Employment)					Employment Status = 1 (Self-Employment)				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
Mental Health Score	8,502	4.426	4.123	0	27	9,100	4.806	4.365	0	28
Age	8,502	36.050	9.835	15	64	9,100	42.089	10.296	15	64
Age ²	8,502	1396	748	225	4096	9,100	1877	880	225	4096
Marital Status	8,502	0.805	0.397	0	1	9,100	0.874	0.331	0	1
Education Level:										
No Education	8,502	0.011	0.103	0	1	9,100	0.050	0.218	0	1
Primary School	8,502	0.205	0.404	0	1	9,100	0.452	0.498	0	1
Junior High School	8,502	0.149	0.356	0	1	9,100	0.191	0.393	0	1
Senior High School	8,502	0.360	0.480	0	1	9,100	0.246	0.430	0	1
Higher Education	8,502	0.275	0.446	0	1	9,100	0.061	0.240	0	1
Working Hours	8,502	41.24	18.163	0	126	9,100	38.95	25.196	0	126

	Employment Status = 0 (Wage-Employment)					Employment Status = 1 (Self-Employment)				
	Obs	Mean	SD	Min	Max	Obs	Mean	SD	Min	Max
	0					3				
Employment Sector:										
Agriculture	8,502	0.084	0.278	0	1	9,100	0.376	0.484	0	1
Manufacturing	8,502	0.228	0.419	0	1	9,100	0.070	0.254	0	1
Services	8,502	0.688	0.463	0	1	9,100	0.554	0.497	0	1
Disability	8,502	0.103	0.304	0	1	9,100	0.078	0.268	0	1
Health Insurance	8,502	0.552	0.497	0	1	9,100	0.308	0.462	0	1
Household Head	8,502	0.567	0.496	0	1	9,100	0.682	0.466	1	16
Home Ownership	8,502	0.696	0.460	0	1	9,100	0.820	0.384	0	1
Ln Total Income	8,502	16.52 2	2.928	0	21.82 6	9,100	15.70 2	3.891	0	21.419
Household Size	8,502	4.225	1.830	1	22	9,100	4.255	1.746	1	16
Location	8,502	0.700	0.458	0	1	9,100	0.467	0.499	0	1

Source: Authors' calculations based on processed IFLS data.

The descriptive statistics reveal that self-employed individuals have a higher average CES-D score (4.806) compared to wage-employed individuals (4.426), indicating worse mental health outcomes among self-employed workers. This suggests that self-employment may be associated with higher psychological distress due to income uncertainty, lack of social protection, and workload pressure.

Figure 2 Distribution of Total Mental Health Scores by Employment Status



Source: Authors' calculations based on processed IFLS data.

Figure 2 presents the density distribution of total mental health scores based on employment status, categorized into wage employment and self-employment. Both groups display a relatively similar distribution, with most individuals having low mental health scores. However, the density distribution for self-employment shows a slightly higher rightward tail, indicating a larger proportion of individuals experiencing worse mental health outcomes.

The impact of employment status on mental health is estimated using pooled OLS and fixed effects models. The results are presented in Table 2.

Table 2 Comparison of Pooled OLS and Fixed Effects Models on the Effect of Employment Status on Mental Health Scores

Dependent Variable: Total Mental Health Score	(1) <i>Pooled OLS</i>	(2) <i>Pooled OLS</i>	(3) <i>Fixed Effect</i>	(4) <i>Fixed Effect</i>
Employment Status	0.381*** (0.064)	0.393*** (0.077)	1.102*** (0.137)	0.085 (0.126)
Age		0.052** (0.023)		0.560*** (0.036)
Age ²		-0.001* (0.000)		-0.002*** (0.000)
Gender		-0.019 (0.101)		
Marital Status		-0.688*** (0.103)		-0.637*** (0.160)
Education Level:				
No Education (ref.)		0.000 (.)		0.000 (.)
Primary School		0.179 (0.192)		0.166 (0.403)
Junior High School		0.089 (0.203)		0.117 (0.473)
Senior High School		-0.100 (0.200)		0.104 (0.532)
Higher Education		-0.747*** (0.210)		0.492 (0.598)
Working Hours		-0.007*** (0.002)		-0.002 (0.002)
Employment Sector:				
Agriculture (ref.)		0.000 (.)		0.000 (.)
Manufacturing		-0.197* (0.117)		-0.006 (0.191)
Services		0.019 (0.093)		-0.009 (0.156)
Disability		0.734*** (0.118)		0.036 (0.153)

Dependent Variable: Total Mental Health Score	(1)	(2)	(3)	(4)
	<i>Pooled OLS</i>	<i>Pooled OLS</i>	<i>Fixed Effect</i>	<i>Fixed Effect</i>
Health Insurance		0.643*** (0.071)		0.150 (0.096)
Household Head		-0.090 (0.105)		-0.040 (0.162)
Home Ownership		-0.423*** (0.084)		-0.313** (0.125)
Ln Total Income		-0.007 (0.010)		0.001 (0.012)
Household Size		0.021 (0.020)		-0.015 (0.031)
Location		0.214*** (0.072)		-0.104 (0.159)
<i>Constant</i>	4.426*** (0.045)	4.152*** (0.484)	4.053*** (0.077)	-12.904*** (0.825)
N	17602	17602	17602	17602
R ²	0.002	0.019	0.007	0.218

*Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source: Authors' calculations based on processed IFLS data

The study employs a Pooled OLS model as an initial step to analyze the relationship between employment status and mental health. This model provides a preliminary overview of the relationship between the independent and dependent variables. The results from the Pooled OLS model indicate that self-employment status has a significant and positive relationship with mental health scores in the initial model (Column 1), with a coefficient of 0.381, significant at the 1% level. After including control variables in the full model (Column 2), the coefficient increases to 0.393, which remains significant at the 1% level. However, the primary limitation of the Pooled OLS model is its inability to control for unobserved individual heterogeneity, which may introduce bias in coefficient estimation.

Therefore, a Fixed Effects (FE) model is employed to provide a more accurate estimate by controlling for time-invariant unobserved factors. The regression results in the FE model (Columns 3 and 4) show that the effect of employment status increases and remains significant before control variables are added, with a coefficient of 1.102, significant at the 1% level. However, after incorporating control variables such as age, education level, marital status, location, and household characteristics in the full model (Column 4), the effect of employment status on mental health becomes insignificant. This finding suggests that the impact of employment status on mental health can be explained by other factors, such as individual characteristics and socio-economic conditions.

Table 3 Job Transition and Total Mental Health Score: Model without and with Control Variables

	(1)	(2)
	Total Mental Health Score	Total Mental Health Score
Wage to Wage (ref.)	0.000	0.000
	(.)	(.)
Self to Self	0.293***	0.362***
	(0.112)	(0.133)
Wage to Self	0.590***	0.350**
	(0.161)	(0.163)
Self to Wage	0.668***	0.597***
	(0.223)	(0.222)
<i>Control</i>	<i>No</i>	<i>Yes</i>
<i>Constant</i>	5.717***	12.315***
	(0.079)	(1.007)
N	8.801	8.801
R ²	0.002	0.028

*Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source: Authors' calculations based on processed IFLS data

The analysis in Table 3 indicates that job transitions significantly affect the total mental health score in both models: the uncontrolled model (Column 1) and the controlled model (Column 2). In general, the reference category "Wage to Wage" (individuals who remain in wage employment) has the lowest total mental health score, suggesting that these individuals have the lowest risk of depression compared to other types of job transitions. Conversely, individuals who remain in self-employment ("Self to Self") exhibit a higher total mental health score by 0.293 points in the uncontrolled model, increasing to 0.362 points in the controlled model, both significant at the 1% level. This finding suggests that self-employment imposes additional stress compared to wage employment, aligning with prior research that finds self-employed individuals to be more prone to depression (Buttner, 1992; Park et al., 2020).

Transitioning from "Wage to Self" has a significant effect on the total mental health score, increasing by 0.590 points in the uncontrolled model, which decreases to 0.350 points after adding control variables, significant at the 1% and 5% levels, respectively. These results indicate that transitioning to self-employment tends to increase the risk of depression, possibly due to income instability or increased pressures of running a business independently.

Individuals transitioning from "Self to Wage" also exhibit an increased risk of depression, with a higher total mental health score of 0.668 points in the uncontrolled model, decreasing to 0.597 points with controls, both significant at the 1% level. This finding may reflect adaptation difficulties when shifting from self-employment to wage employment, such as adjusting to a structured work environment, higher job demands, or the loss of flexibility previously enjoyed. Furthermore, external factors such as financial necessity or business failure could contribute to negative psychological impacts.

Heterogeneity analysis examines how the effect of employment status on mental health varies across sub-samples. The results indicate differences in the impact of employment status on mental health among these groups.

Tabel 4. Heterogeneity Analysis of the Effect of Employment Status on Mental Health by Gender and Location.

	(1)	(2)	(3)	(4)	(5)	(6)
	Female	Male	Rural	Urban	Non-Disability	Disability
Employment Status	0.540**	-0.0902	0.0535	-0.205	0.127	-1.763*
	(0.245)	(0.148)	(0.172)	(0.224)	(0.136)	(0.936)
<i>control</i>	Yes	Yes	Yes	Yes	Yes	Yes
<i>_cons</i>	-13.49***	-12.63***	-13.03***	-13.81***	-13.13***	-7.372
	(1.437)	(1.021)	(1.221)	(1.360)	(0.879)	(6.142)
N	5838	11764	10204	7398	16020	1582
R ²	0.233	0.216	0.223	0.229	0.222	0.282

*Significance levels: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Source: Authors' calculations based on processed IFLS data

The findings suggest that self-employment is significantly associated with a higher mental health score among women (0.540), indicating poorer mental health compared to women in wage employment. In contrast, for men, the relationship is insignificant, suggesting that employment status does not directly affect their mental health. Women engaged in self-employment often face dual burdens—work and domestic responsibilities—leading to greater psychological stress than those in wage employment, who tend to have more structured and stable job conditions ((Krantz & Ostergren, 2001; Stephan & Roesler, 2010).

By residence, employment status has a positive coefficient for rural individuals and a negative coefficient for urban individuals; however, both are statistically insignificant. This suggests that the effect of employment status on mental health is not significantly influenced by residential location.

Regarding disability status, employment status does not significantly affect mental health among individuals without disabilities. However, for individuals with disabilities, the relationship is significantly negative, meaning that self-employment is associated with a lower mental health score (better mental health) than wage employment. This finding suggests that self-employment provides greater flexibility for individuals with disabilities, allowing them to manage work schedules and daily activities according to their physical condition, thereby reducing psychological stress.

DISCUSSION

The findings of this study reveal important insights into the relationship between employment status and mental health. Initially, self-employment was found to be associated with poorer mental health compared to wage employment. However, after controlling for individual characteristics and socio-economic factors using the Fixed Effects model, this relationship became insignificant, suggesting that other variables such as age, marital status, and household income, may have a greater influence on mental health outcomes than employment status itself.

The findings align with previous literature, which shows that the effect of employment status on mental health becomes insignificant after accounting for control variables. Previous studies have found that although self-employed individuals are more likely to experience fatigue compared to wage-employed individuals, this effect becomes insignificant after controlling for factors such as education, marital status, and location (Andersson, 2008). This suggests that

other factors, such as individual characteristics and social conditions, play a more significant role in influencing mental health than employment status itself. Another study supports this finding, stating that there is no significant difference in mental health between self-employed and wage-employed individuals, regardless of gender. While self-employment is often associated with greater job autonomy, this advantage is not strong enough to produce a significant impact on mental health (Parslow et al., 2004).

The heterogeneity analysis indicates that the impact of employment status on mental health is not uniform across all groups. Among women, self-employment is significantly linked to poorer mental health, possibly due to the dual burden of managing both work and domestic responsibilities. This finding supports the idea that female entrepreneurs may experience greater stress, particularly in settings where traditional gender roles place additional expectations on them. For men, however, the relationship between employment status and mental health was insignificant, suggesting that male self-employed individuals may not face the same level of stress or challenges. For individuals with disabilities, the results were quite different. Self-employment was associated with better mental health compared to wage employment, likely due to the flexibility it offers in managing work schedules and accommodating physical limitations. This finding suggests that self-employment may provide a more supportive work environment for people with disabilities, allowing them to navigate their work-life balance in a way that minimizes psychological strain.

CONCLUSION

The findings indicate that self-employment is positively and significantly associated with higher mental health scores in the Pooled OLS model, suggesting that self-employment tends to increase the risk of mental health disorders compared to wage employment. However, after controlling for individual characteristics in the Fixed Effects model, employment status loses its significance, indicating that other factors such as socio-economic conditions play a larger role in determining mental health outcomes than employment status alone.

Heterogeneity analysis reveals variations based on gender and disability status. Among women, self-employment significantly affects mental health, suggesting that female self-employed workers experience greater mental health risks compared to their wage-employed counterparts. For individuals with disabilities, self-employment is associated with better mental health, likely due to the flexibility it provides.

Furthermore, job transitions significantly impact mental health, with wage-employed individuals experiencing the lowest depression risk. In contrast, individuals remaining in self-employment or transitioning to/from self-employment show a significant increase in depression risk. This highlights the need for targeted support for individuals undergoing job transitions.

Based on these findings, it is recommended that policymakers implement capacity-building programs for female entrepreneurs and disabled individuals to address mental health challenges in self-employment. These programs should include both technical entrepreneurship training and modules on stress management and work-life balance. To mitigate the mental health risks associated with job transitions, government job training programs (e.g., Kartu Prakerja and vocational training centers) should integrate stress management modules, including coping strategies, emotional regulation techniques, and psychological counseling services. This approach can help workers mentally prepare for job transitions, reducing the risk of mental health issues during employment shifts.

LIMITATION

This study has several limitations, particularly related to the data used. The IFLS data only includes two waves that contain mental health information. This may limit the ability to capture

long-term variations and dynamics in mental health changes related to employment status transitions. With the availability of more longitudinal data covering additional time points, a deeper analysis of individual condition changes and the long-term effects of employment status on mental health could be conducted.

REFERENCES

- Andersson, P. (2008). Happiness and health: Well-being among the self-employed. *Journal of Socio-Economics*, 37(1), 213–236. <https://doi.org/10.1016/j.socec.2007.03.003>
- Binder, M., & Coad, A. (2013). Life satisfaction and self-employment: A matching approach. *Small Business Economics*, 40(4), 1009–1033. <https://doi.org/10.1007/s11187-011-9413-9>
- Blanchflower, D. (2004). Self-Employment: More may not be better. *Climate Change 2013 - The Physical Science Basis, February*, 1–30. <http://www.nber.org/papers/w10286.pdf>
- Bögenhold, D. (2019). From Hybrid Entrepreneurs to Entrepreneurial Billionaires: Observations on the Socioeconomic Heterogeneity of Self-employment. *American Behavioral Scientist*, 63(2), 129–146. <https://doi.org/10.1177/0002764218794231>
- Bradley, D. E., & Roberts, J. A. (2004). Self-employment and job satisfaction: investigating the role of self-efficacy, depression, and seniority. *Journal of Small Business Management*, 42(1), 37–58. <http://dx.doi.org/10.1016/j.jaci.2012.05.050>
- Buttner, E. H. (1992). Entrepreneurial Stress: Is It Hazardous To Your Health? *Journal of Managerial Issues*, 4(2), 223–240. <http://www.jstor.org/stable/40603932>
- Cardon, M. S., & Patel, P. C. (2015). Is stress worth it? Stress-related health and wealth trade-offs for entrepreneurs. *Applied Psychology*, 64(2), 379–420. <https://doi.org/10.1111/apps.12021>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Dixon, L. B., Holoshitz, Y., & Nossel, I. (2016). Treatment engagement of individuals experiencing mental illness: Review and update. *World Psychiatry*, 15(1), 13–20. <https://doi.org/10.1002/wps.20306>
- Gonzalez-Mulé, E., & Cockburn, B. (2017). Worked to Death: The Relationships of Job Demands and Job Control with Mortality. *Personnel Psychology*, 70(1), 73–112. <https://doi.org/10.1111/peps.12206>
- Karasek, R. A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly*, 24(2), 285–308. <http://www.jstor.com/stable/2392498>
- Kemenkes. (2023). *Menjaga Kesehatan Mental Para Penerus Bangsa*. <https://www.kemkes.go.id/id/rilis-kesehatan/menjaga-kesehatan-mental-para-penerus-bangsa>
- Krantz, G., & Ostergren, P.-O. (2001). The combined impact of domestic responsibilities and job strain on common symptoms in employed Swedish women. *European Journal of Public Health*, 11(4).
- Murray, L. (2018). The effect of infants' behaviour on maternal mental health. *Parent-Infant Psychodynamics: Wild Things, Mirrors and Ghosts*, June, 262–267. <https://doi.org/10.4324/9780429478154-24>
- Park, J., Han, B., & Kim, Y. (2020). Comparison of occupational health problems of employees and self-employed individuals who work in different fields. *Archives of Environmental and Occupational Health*, 75(2), 98–111. <https://doi.org/10.1080/19338244.2019.1577209>
- Parslow, R. A., Jorm, A. F., Christensen, H., Rodgers, B., Strazdins, L., & D'Souza, R. M. (2004). The associations between work stress and mental health: A comparison of organizationally employed and self-employed workers. *Work and Stress*, 18(3), 231–244. <https://doi.org/10.1080/14749730412331318649>

- Patel, V., Saxena, S., Lund, C., Thornicroft, G., Baingana, F., Bolton, P., Chisholm, D., Collins, P. Y., Cooper, J. L., Eaton, J., Herrman, H., Herzallah, M. M., Huang, Y., Jordans, M. J. D., Kleinman, A., Medina-Mora, M. E., Morgan, E., Niaz, U., Omigbodun, O., ... Unützer, J. (2018). The Lancet Commission on global mental health and sustainable development. *The Lancet*, 392(10157), 1553–1598. [https://doi.org/10.1016/S0140-6736\(18\)31612-X](https://doi.org/10.1016/S0140-6736(18)31612-X)
- Stephan, U., & Roesler, U. (2010). Health of entrepreneurs versus employees in a national representative sample. *Journal of Occupational and Organizational Psychology*, 83(3), 717–738. <https://doi.org/10.1348/096317909X472067>
- WHO. (2004). Promoting Mental Health. *Promoting Men's Mental Health*, 1–263. <https://doi.org/10.4324/9781315376578>
- WHO. (2013). Investing in mental health. In *World Health Organization*,. <https://doi.org/10.26719/2015.21.7.531>
- Xu, L., Xu, T., Tan, W., Yan, B., Wang, D., Li, H., Lin, Y., Li, K., Wen, H., Qin, X., Sun, X., Guan, L., Bass, J. K., Ma, H., & Yu, X. (2019). Household economic burden and outcomes of patients with schizophrenia after being unlocked and treated in rural China. *Epidemiology and Psychiatric Sciences*, 29. <https://doi.org/10.1017/S2045796019000775>
- Zhou, D., Zhan, Q., & Li, L. (2023). The impact of self-employment on mental health of the younger elderly in China. *BMC Geriatrics*, 23(1), 1–15. <https://doi.org/10.1186/s12877-023-03948-5>