

How Employment Histories Shape Mental Health Trajectories in Later Life: The Role of Migration Background

Songyun Shi ¹, Carla Rowold ² and Silvia Loi ^{1,3}

¹Max Planck Institute for Demographic Research, Rostock, Germany

²Hertie School, Berlin, Germany

³Max Planck – University of Helsinki Center for Social Inequalities in Population Health, Rostock, Germany and Helsinki, Finland

Background

The impact of employment on later-life health is well established (Madero-Cabib et al., 2019; Staudinger et al., 2016). However, few studies have captured the full spectrum of employment histories or examined how their effects on mental health trajectories vary by migration background. This study explores how employment histories affect mental health trajectories in later life and how these effects differ by migration background, providing insights into health inequalities in older age.

Methods

We used data from the German Socio-Economic Panel, a nationally representative panel survey in Germany (SOEP v39, 1984–2022; Goebel et al., 2024). First, we applied sequence analysis (SA) to trace employment transitions between ages 30 and 59. Next, we employed a growth mixture model (GMM) to identify patterns of mental health trajectories from ages 60 to 70. We then conducted bivariate analyses to assess whether immigrants and non-immigrants differed in their employment histories and mental health patterns. Finally, multinomial logistic regression analyses were used to examine the effects of employment history patterns on mental health trajectories and to test whether these effects varied by migration background. The final analytical sample include 2,434 respondents, of whom 381 are immigrants.

Results

Sequence analysis identified four employment history patterns: early retirees (25.7%), homemakers (12.3%), full-time workers (50.2%), and part-time workers (11.9%) (see Figure 2). The growth mixture model identified three mental health trajectory patterns: high (42.7%), moderate (41.3%), and low (16.0%) mental health (see Figure 3). Figure 4 shows that immigrants were more likely to follow part-time employment patterns and to belong to the low mental health group, particularly among women. Compared with full-time workers, part-timer workers, homemakers, and early retirees were more likely to report poorer mental health (see Figure 5). These effects varied by migration background, with the negative impact of homemaking on mental health less pronounced among immigrant homemakers.

Conclusion

This study identifies distinct employment history patterns and late-life mental health trajectory patterns in Germany. Immigrants are more likely to have part-time employment histories, and immigrant women are more likely to experience poorer mental health in later life. Employment histories influence later-life mental health, with non–full-time employment associated with poorer mental health. These effects vary by migration background, particularly among homemakers. Combining sequence analysis and growth mixture modeling provides a valuable approach for uncovering heterogeneous life-course patterns and their long-term effects on later-life health.

References

- Jan Goebel, M. M. G., Carsten Schröder, Sabine Zinn, Charlotte Bartels, Mattis Beckmannshagen, Andreas Franken, Martin Gerike, Florian Griese, Christoph Halbmeier, Selin Kara, Peter Krause, Elisabeth Liebau, Jana Nebelin, Marvin Petrenz, Sarah Satilmis, Rainer Siegers, Hans Walter Steinhauer, Felix Süttmann, Knut Wenzig, Jascha Dräger, Miriam Gauer, Yogam Tchokni, Claudia Saalbach. (2024). *Socio-Economic Panel (SOEP), data from 1984-2022, (SOEP-Core, v39, EU Edition)*. <https://doi.org/10.5684/soep.core.v39eu>
- Madero-Cabib, I., Corna, L., & Baumann, I. (2019). Aging in Different Welfare Contexts: A Comparative Perspective on Later-Life Employment and Health. *The Journals of Gerontology: Series B*, 75(7), 1515-1526. <https://doi.org/10.1093/geronb/gbz037>
- Staudinger, U. M., Finkelstein, R., Calvo, E., & Sivaramakrishnan, K. (2016). A global view on the effects of work on health in later life. *The Gerontologist*, 56(Suppl_2), S281-S292.

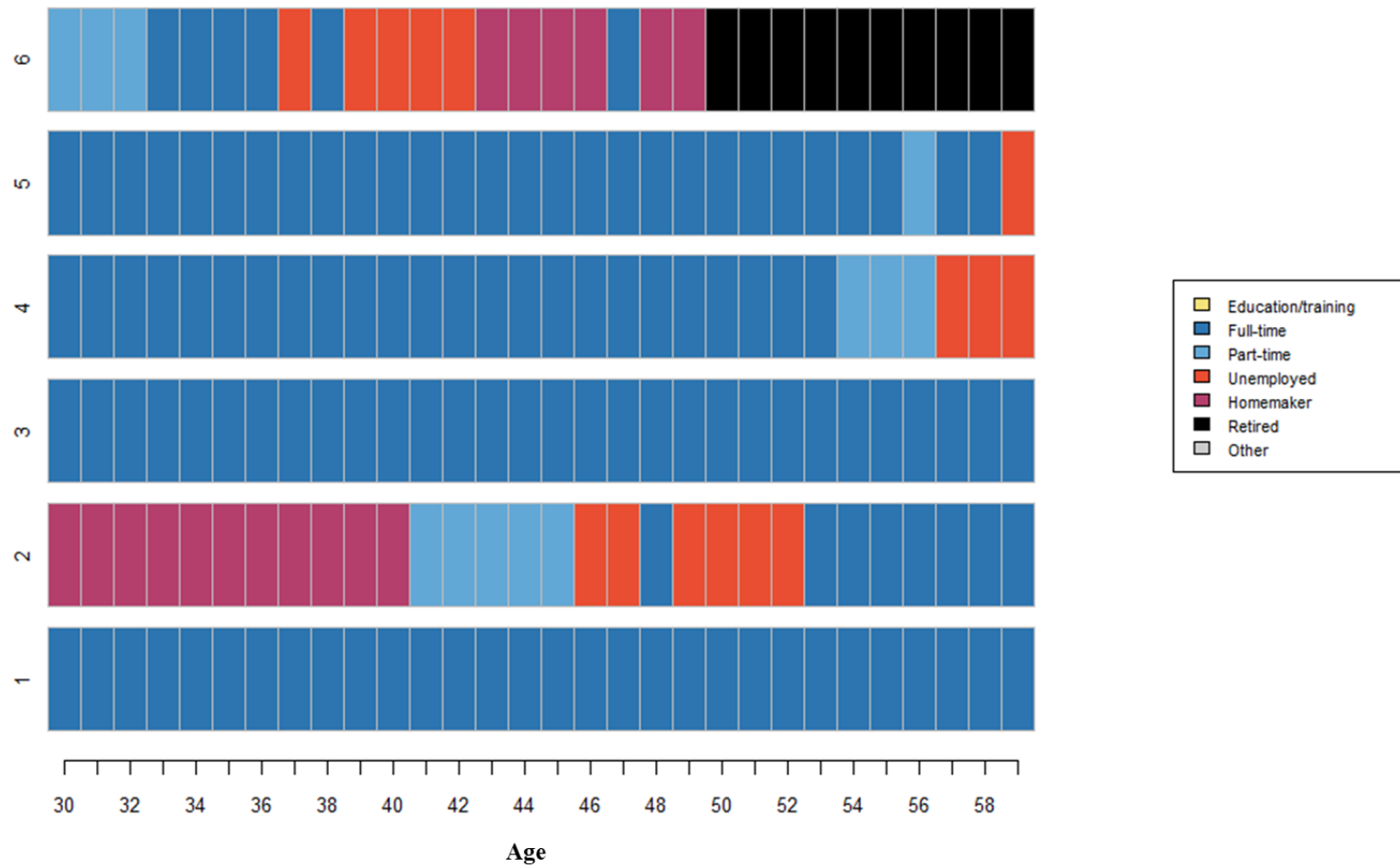


Figure 1. Example employment sequences based on the analytical sample

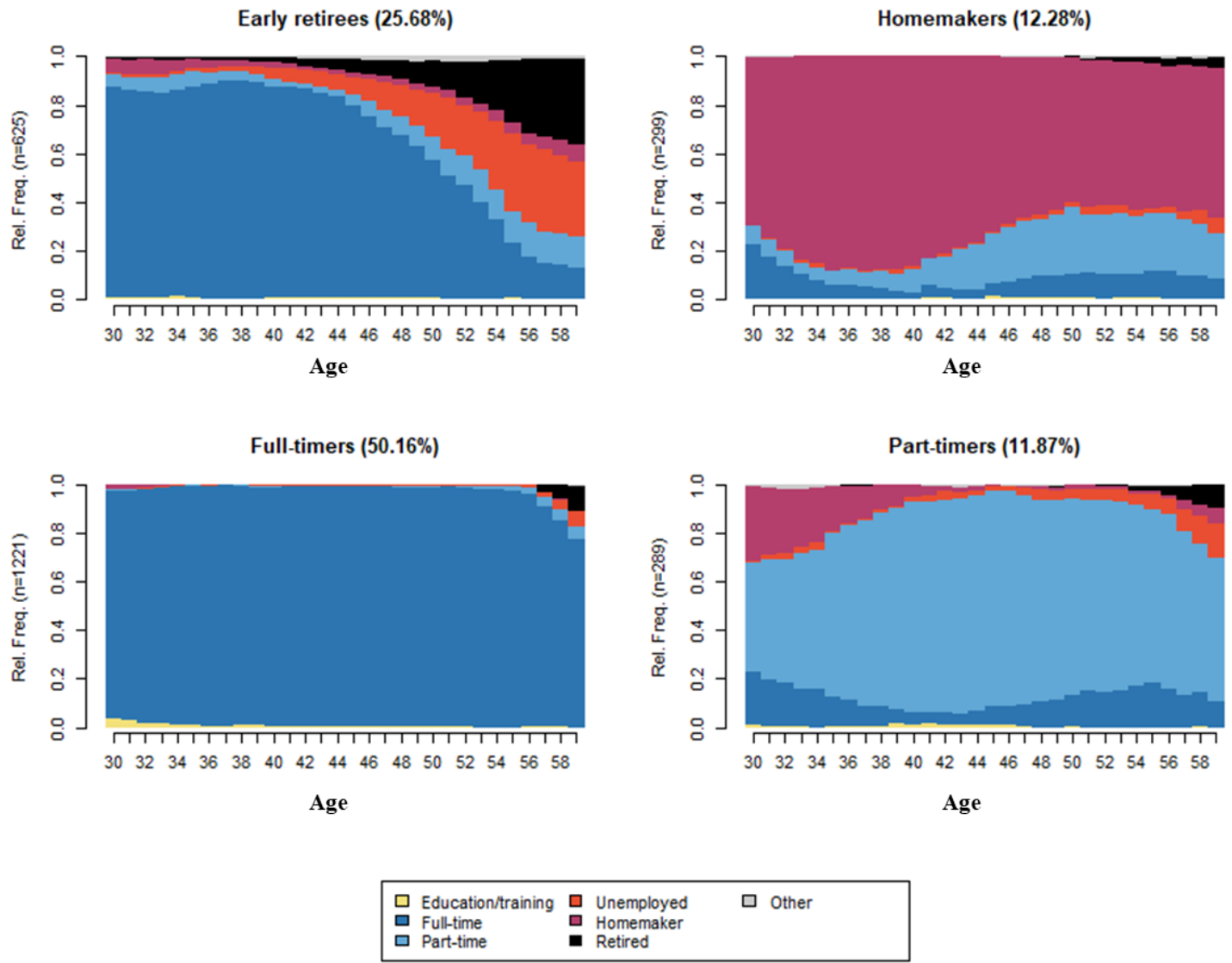


Figure 2. Relative frequency sequence plots for employment trajectories

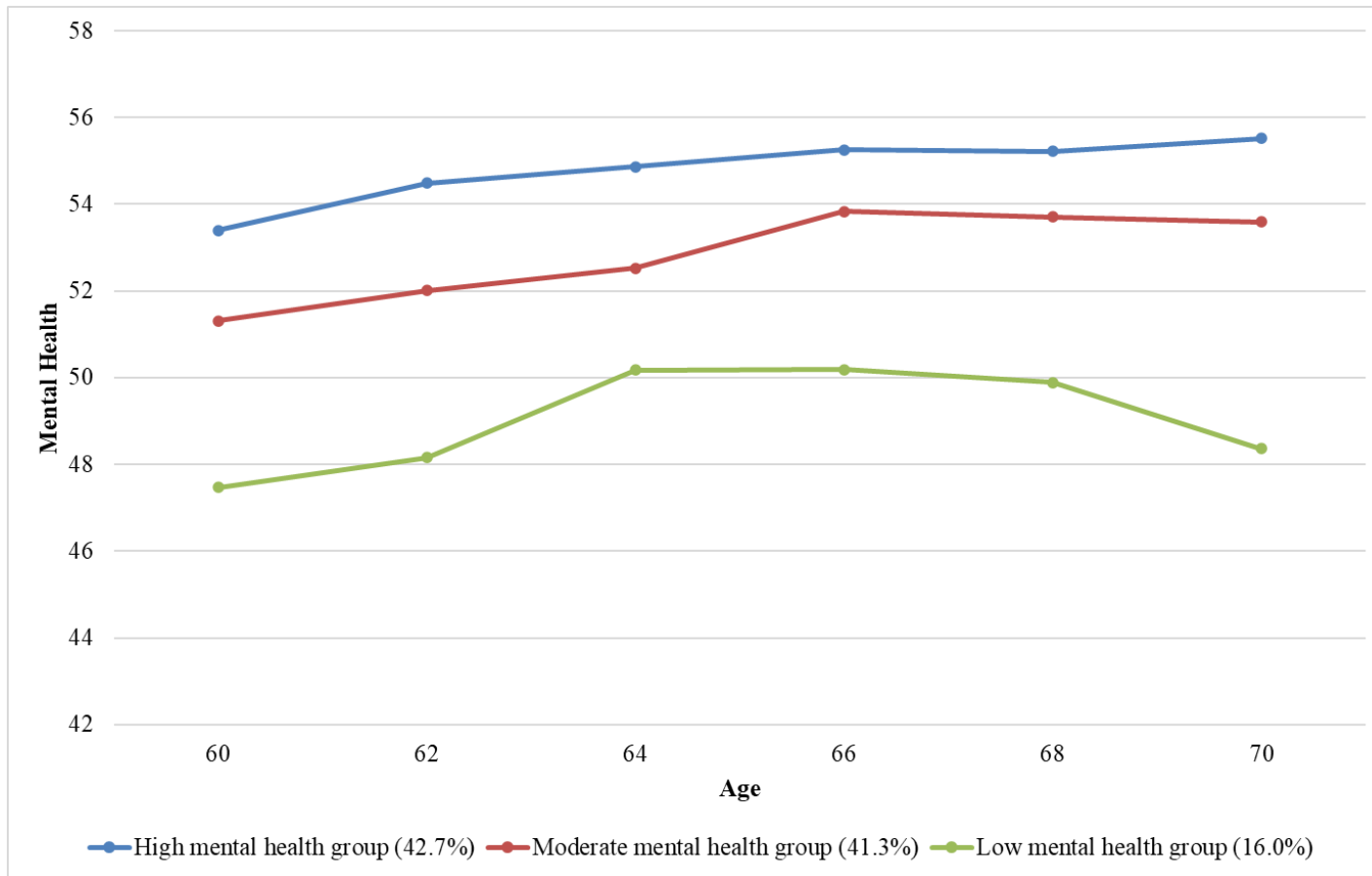


Figure 3. Mean changes in mental health trajectory patterns identified by the growth mixture model

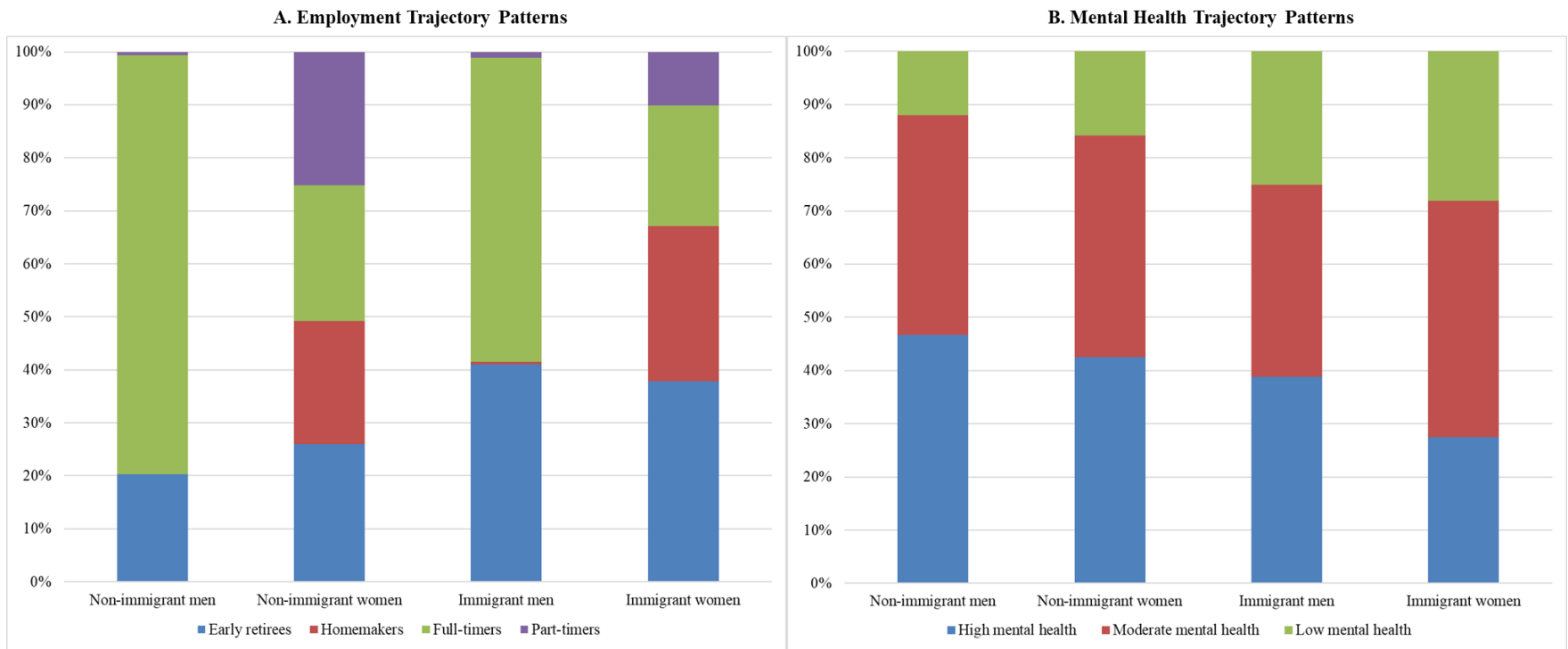


Figure 4. Employment and mental health trajectory patterns by gender and migration background

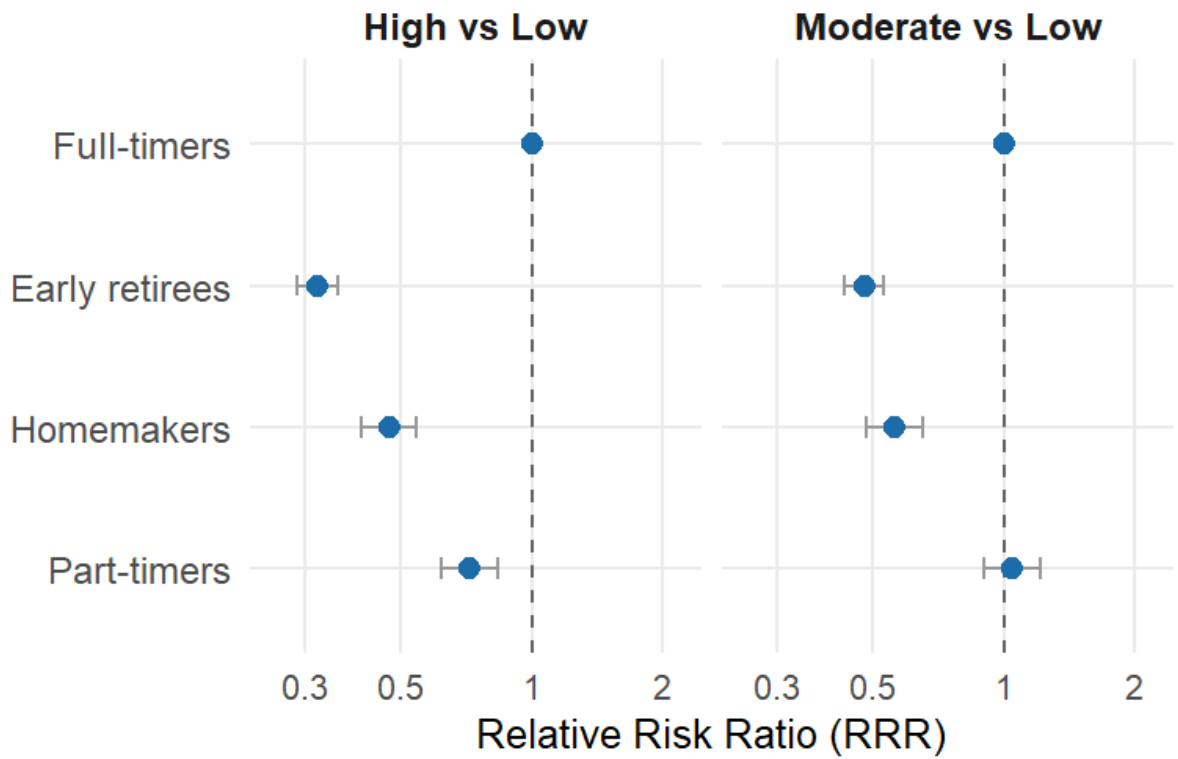


Figure 5. Multinomial logistic regression results of employment history patterns and mental health trajectory patterns in later life

Note. High vs. Low: High mental health group compared with the low mental health group; Moderate vs. Low: Moderate mental health group compared with the low mental health group.

Table 1. Multinomial logistic regression results for the interaction between employment history patterns and migration background on mental health trajectories in later life

	High vs low		Moderate vs low	
	RRR	s.e.	RRR	s.e.
Employment history patterns (<i>Ref.</i> Full timers)				
Early retirees × immigrant	1.139	0.148	1.254	0.160
Homemakers × immigrant	0.593**	0.115	1.567*	0.273
Part-timers × immigrant	1.509	0.358	1.227	0.289

Note. RRR: relative risk ratio; s.e.: standard error; *Ref.*: reference; High vs. Low: High mental health group compared with the low mental health group; Moderate vs. Low: Moderate mental health group compared with the low mental health group.