



## *Notes and discussions*

*First published online: December 11, 2023*

**Agostino Cristofalo \***

# **HOUSING TENURE TRAJECTORIES AND HEALTH: REFLECTIONS ON A RESEARCH GAP**

### **Abstract**

Previous research has documented better physical and mental health among homeowners than among renters and individuals living in other housing tenures, presumably because homeownership contributes to a better quality of the built environment, reinforces pre-existing socio-economic advantages, and alleviates house-related stress by providing a sense of “ontological security”. To date, most of the research on homeownership and health has been conducted in a cross-sectional manner, while studies adopting longitudinal and life-course perspectives are rare. This research note discusses potential research developments to fill this gap, building on the theoretical framework of life-course epidemiology, with a specific focus on the European context.

**Keywords:** housing tenure, health, life-course dynamics, life-course epidemiology

---

\* Department of Statistical Sciences, Sapienza University of Rome, Italy

## 1 Introduction

It is well established that homeownership is associated with many positive life outcomes, including improved health (Rohe et al., 2002; Shaw, 2004). Scholars have provided evidence of the association between housing tenure and health even when selection by socioeconomic status (SES) is taken into account (Macintyre et al., 1998; Pollack et al., 2004; Clair and Hughes, 2019). Different explanations have been presented to justify such an association. For example, homeownership could promote health by guaranteeing better material conditions of the living environment (Howden-Chapman et al., 2011), by increasing the advantage in terms of disposable income, social inclusion, and prestige (Morris and Verdasco, 2021), or by satisfying the psychological need for "ontological security" (Dupuis and Thorns, 1998).

To date, many studies have examined the relationship between housing tenure and health in a cross-sectional manner, namely comparing health status across tenure groups at a given point in time (e.g., Arber and Ginn, 1993; Gould and Jones, 1996; Macintyre et al., 1998). Although this association is quite robust, such an approach only emphasizes the present conditions of individuals and fails to consider health as the result of past exposure to risks and living conditions. Instead, the life-course epidemiology framework emphasizes that exposure to risk factors throughout the life course plays a key role in determining health outcomes in later life (Ben-Sholmo and Kuh, 2002). In light of this perspective, it is reasonable to ask whether not only current housing tenure, but also the entire housing tenure trajectory over the life course is somehow related to health.

Thus, the aim of this research note is to address the gap in the public health and sociological literature on the relationship between housing circumstances - in particular, housing tenure - and health from a life-course perspective. It is important to clarify that this study does not address the issue of causality between the two phenomena, but rather discusses the implications of the extent to which health inequalities can be attributed to the heterogeneity of housing tenure trajectories over the life course, adopting the theoretical framework of life-course epidemiology (Ben-Sholmo and Kuh, 2002). This research note contributes to a reflection towards a deeper understanding of the association between housing tenure and health, in the light of a different perspective compared to what previous studies have done. The note also emphasizes the importance of studying this association in the European context, which is highly heterogeneous in terms of housing policies and social norms attached to homeownership.

## 2 Housing tenure and health: theory and cross-sectional evidence

Since the 1990s, pioneering studies of the relationship between housing tenure and health have emerged in the UK, shedding light on health inequalities between homeowners and renters (e.g. Arber and Ginn, 1993; Gould and Jones, 1996; Macintyre et al., 1998). Overall, homeowners have been found to be healthier than renters with respect to several health outcomes, including self-rated general health (Arber and Ginn, 1993; Pollack et al., 2004), number of chronic diseases (Gould and Jones, 1996), cancer incidence (Faggiano et al., 1994), mental health and prevalence of depressive symptoms (Howden-Chapman et al., 2011; Szabo et al., 2018), but also longevity (Filakti and Fox, 1995; Huisman et al., 2004) and subjective well-being (Zumbro, 2014; Herbers and

Mulder, 2017). Some studies have taken advantage of improvements in data collection to move beyond comparisons between owners and renters and have begun to consider multiple states of housing tenure, for example, by distinguishing between homeowners and homeowners with mortgages (Cairney and Boyle, 2004), private and social renters (Clair and Hughes, 2019), or by considering less common housing circumstances such as homelessness (Hwang, 2001). For example, Cairney and Boyle (2004) found a mental health advantage for homeowners in Canada compared to homeowners with mortgages and renters, while Clair and Hughes (2019) found that social renters in the UK had the worst health as measured by biomarkers. Not surprisingly, homelessness is associated with a higher risk of mortality and a wide range of health problems (Hwang, 2001).

Most studies of this type have been conducted in the UK context or other English-speaking countries such as the US and Australia; although limited, evidence of a health advantage for homeowners has also been found in studies conducted in other European countries (for Sweden: Sundquist and Johansson, 1997; for Germany: Pollack et al., 2004; for Italy: Faggiano et al., 1994).

While health inequalities by housing tenure are well established in several contexts, the explanations for this association are diverse and fragmentary. The most debated hypothesis concerns the mechanism of selection, particularly by SES. According to the selection hypothesis, individuals with higher SES are both more likely to be homeowners and healthier (Hiscock et al., 2003), so that the association between homeownership and health would reflect a more general health advantage derived from higher income, education, or social class. In support of this hypothesis, some studies have found that the association between housing tenure and health outcomes disappears once SES is controlled (e.g., Baker et al., 2013). In contrast to the hypothesis, however, some other studies found that the association with housing tenure persisted after controlling for other measures of SES (e.g., Macintyre et al., 1998; Pollack et al., 2004).

Whenever the association persisted after controlling for SES, scholars speculated on several pathways that might drive the association with housing tenure (Hiscock et al., 2003). The potential mediators recognized in the literature can be divided into environmental, socioeconomic, and psychological factors.

About the first ones, the association between housing tenure and health outcomes can be due to the fact that owner-occupiers are able to keep houses in better material conditions (Macintyre et al., 2003; Pollack et al., 2003; Howden-Chapman et al., 2011), which in turn affects positively physical and mental health. The house is one of the environments where individuals spend a considerable amount of their life, thus housing quality shapes the set of environmental risks to which individuals are exposed daily (Fuller-Thompson et al., 2000). For instance, humidity and mould in the house cause a number of respiratory symptoms and diseases, like rhinitis or asthma (e.g., Billings and Howard, 1998). Inadequate heating, and the resulting exposure to cold, increases the risk of mortality, contributing to the peaks of mortality during winter (Shaw, 2004). Policy interventions aimed at improving internal housing conditions, such as energy efficiency and warmth, were found to have positive effects on health (for a review: Gibson et al., 2011). As homeowners, individuals tend to have more interest and capability to ensure better conditions of the living environment, so they end up benefiting in terms of health.

Other mediators can be socio-economic factors. Not only can individuals from higher SES be selected in more advantaged housing tenures, but in addition to this, differences in housing tenures can reinforce pre-existing socioeconomic disparities by exposing renters to higher housing costs and more financial difficulties compared to

homeowners (Bentley et al., 2016; Howden-Chapman et al., 2011). Economic disparities are known to generate a socioeconomic gradient in health (Marmot, 2003). Homeownership also has a symbolic meaning and can benefit health by enhancing personal prestige and inclusion in society (Macintyre et al., 1998; Morris and Verdasco, 2021). Owner-occupied houses are also more likely to be located in socioeconomically advantaged neighbourhoods, which can further affect health positively (Ross and Mirowsky, 2008).

Psychological factors may also mediate the relationship. In this regard, scholars have discussed the mental health consequences of homeownership, drawing on the concept of "ontological security", which refers to the psychological need to experience continuity in self-identity and constancy in the material environment (Giddens, 1986; Dupuis and Thorns, 1998). In this framework, homeownership provides ontological security by ensuring the continuity of the daily living space, whereas other forms of housing tenure contain intrinsic elements of uncertainty that might induce stress and damage mental health in the long run. The same argument is sometimes presented in the literature as the safe haven hypothesis (Kearns et al., 2000). Homeownership can also bring about perceived control, self-esteem, and satisfaction with the house or the area of residence, all factors associated with better mental health (Macintyre et al., 2000).

While the cross-sectional evidence on the relationship between housing tenure and health outcomes is large and robust, the longitudinal and life-course evidence is more limited. With respect to the latter, some scholars have found no significant effects of housing tenure transitions on mental health (Popham et al., 2014; Baker et al., 2013), while only two studies have found that health inequalities across housing tenures increase over time and with age (Howden-Chapman et al., 2011; Szabo et al., 2018).

### 3 Varieties of homeownership regimes in Europe

The extent to which homeownership is widespread and accessible depends on several factors, including housing policies, taxation, the demographic structure of the population, and cultural factors (Bourassa et al., 2015; Mulder and Billari, 2010). Homeownership rates in Europe vary considerably. Figure 1 shows the annual trend of homeownership rates in a selection of European countries from 2002 to 2022: Southern European countries show higher homeownership rates compared to Nordic and Western European countries. Germany is notable for its significantly low percentage of homeowners.

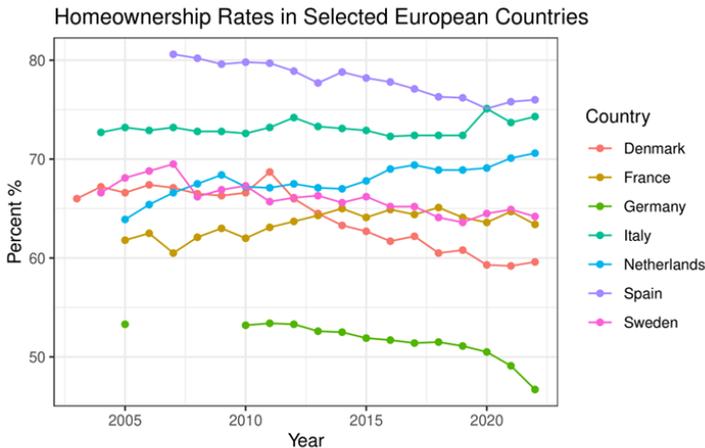
Despite this variability being well known and consistent over time, there has been little effort to classify countries into homeownership regimes, as well as to incorporate the housing dimension in welfare state regime classifications (Kemeny, 2001). An attempt in this direction was pursued in Mulder and Billari (2010): whilst exploring the variability of fertility rates across Europe, the authors distinguished four homeownership regimes based on two criteria: the prevalence of homeownership and the accessibility to owner-occupied housing. The prevalence indicates how widespread homeownership is and it is measured as a percentage of homeowners. The accessibility is indicative of how easy it is to become a homeowner and is summarised by the residential mortgage loan per capita in the country.

According to Mulder and Billari's (2010) classification, Denmark, Sweden, and the Netherlands belong to the "career homeownership regime", the regime in which

homeownership is not universal but is a common step in the housing tenure trajectory over the life course, especially when income stability is reached. Renting is widespread and represents a good alternative to owning, especially in the years following the exit from the parental home. On the other hand, Italy and Spain are part of the "difficult homeownership regime": in this, homeownership is the gold standard and constitutes the main pathway to household formation; furthermore, access to mortgages can be challenging and the transition to homeownership depends on savings, family support, and inheritance. Continental European countries do not fit into a single regime. Germany, for example, fits into the career homeownership regime, although the percentage of renters is much higher than in Nordic countries, whereas France is part of the "elite homeownership regime," where homeownership is not widespread, and mortgages are not easily accessible either. Here, renting is an acceptable alternative to owning, but homeownership is restricted to a smaller group compared to the career homeownership regime. The last regime, called the "easy homeownership regime", is composed of countries such as Iceland, Ireland, and Norway, and combines high homeownership rates and wide availability of mortgages.

Interestingly, Mulder and Billari (2010) identified homeownership regimes using cross-sectional indicators but provided a description of typical housing tenure trajectories that individuals follow over the life course. Nevertheless, life-course explanations around the homeownership regimes are only described narratively.

Figure 1. Yearly homeownership rates in selected European countries: Denmark, Sweden, Netherlands, Germany, France, Italy, Spain (2002-2022)



Source: EU-SILC data, estimates from Eurostat Database

Source: Author's elaboration on EU-SILC data

Table 1. Homeownership regime classification in Mulder and Billari (2010).

	Prevalence	Accessibility
Career homeownership	Low/Moderate	High
Elite homeownership	Low/Moderate	Low
Difficult homeownership	High	Low
Easy homeownership	High	High

Source: Author's elaborations based on Mulder and Billari (2010)

## 4 Housing tenure, health, and the life course

The concept of housing tenure trajectories has already been employed in previous research to define the succession of housing tenures and transitions that individuals experience along their life course, although its application was limited to non-European contexts (Clark et al., 2003; Spallek et al., 2014; Shiffer-Sebba and Park, 2021) or specific sub-populations (Köppe, 2017; Mikolaj and Kulu, 2019). To my knowledge, no study has adopted this concept in relation to health and comparatively in European countries.

Coherently with the life-course epidemiology framework, health can be conceptualised as a result of the interplay between early and later life factors, which act independently, cumulatively, or interactively from before birth throughout individuals' lives (Ben-Shlomo and Kuh, 2002). Formulating specific hypotheses on how exact housing trajectories are associated with health is beyond the scope of this research note. However, I discuss potential outcomes that can be observed based on the most commonly used theoretical models in the literature.

As a premise, based on what we know from cross-sectional studies, homeownership can be expected to be beneficial for health, while the opposite can be expected for renting (Macintyre et al., 1998). Other tenures – such as social renting and rent-free tenures – are typically highly heterogeneous and context-dependent situations, making it difficult to have a priori expectations regarding their relationship with health.

Several theoretical models can be used within the framework of life-course epidemiology to speculate on the dynamics of health and housing tenure trajectories. One is the "*cumulative disadvantage*" model, which postulates that health inequalities widen as the time of exposure to risk factors increases because the effect of risk factors can accumulate over time (Ben-Sholmo and Kuh, 2002; Willson et al., 2007). Some studies that assessed this hypothesis usually looked at the interaction between socioeconomic circumstances and age, finding a divergence in health outcomes (for education: Ross and Wu, 1996; for housing tenure: Howden-Chapman et al., 2011). This hypothesis puts emphasis on the duration of exposure to risk factors. Based on this model, one might expect that the longer individuals are exposed to disadvantaged housing tenures, for instance rent, the higher their chances will be of being unhealthy, while a long exposure to advantaged housing tenures, like homeownership, brings about a cumulative protective effect on health.

As an alternative to the cumulative disadvantage mechanism, the "age-as-leveller" hypothesis posits that health inequalities narrow over the life course due to the selection in mortality of the most vulnerable individuals (Dupre, 2007; Willson et al., 2007). It thus assumes a reduction in health disadvantage for those exposed for longer to risk factors, as the ones who are exposed for the longest time are the most resilient (Dupre, 2007).

Moving from explanations regarding the duration (how long) to those regarding the timing (when) of the exposure, the "*sensitive period*" model assumes that specific 'time windows' throughout the life course make health especially susceptible to damage. These periods exert a stronger influence from risk factors compared to others (Ben-Sholmo and Kuh, 2002). Much research has depicted childhood as a sensitive period, as childhood conditions significantly impact individuals' morbidity and mortality at older ages (Hayward and Gorman, 2004; Pakpahan et al., 2017). Based on this, it could happen that individuals exposed to disadvantaged housing tenures during childhood are less healthy compared to those who have experienced the same tenures in other periods over the life course.

While discussing differences in homeownership across Europe, scholars have pointed out that in some countries renting is more widespread and considered a desirable alternative to owning (Mulder and Billari, 2010). Therefore, in contexts where renting is more common, one may assume that the health disadvantage associated with this tenure is lower compared to contexts where homeownership is considered the only favoured option.

## 5 Conclusion

This research note presents the state-of-the-art of the literature on the relationship between housing tenure and health and proposes new areas of investigation on how housing tenure trajectories may be linked to health outcomes, with a particular focus on the European context. Uncovering the life-course dynamics that connect housing tenure trajectories and health can have important policy implications: for example, patterns of cumulative disadvantage can inform policymakers about whether housing tenure arrangements are acceptable as long as they are short and transitional, or whether even small spells of disadvantaged tenure arrangements have an impact on future health. Furthermore, greater health disadvantage for individuals that experience ‘rent trap’ can alert policymakers to prioritize policy intervention that ensure secure and affordable housing alternatives. The sensitive period hypothesis is also crucial to test: if such hypothesis held, it would mean that the experience of disadvantaged housing tenures in childhood has scarring effects on future health, even if housing tenure improves in adult life.

Country-level patterns across Europe are also important to uncover. It was highlighted that most literature on this topic is based on English-speaking contexts and does not take into account the heterogeneity of homeownership regimes across European countries. Characteristics of the homeownership regime and national housing policies can moderate the life-course dynamics linking housing tenure and health.

In order to investigate the relationship between housing tenure trajectories and health, proper longitudinal data are needed. Long household panel data are the best option in this case, as they allow to catch changes in housing tenure prospectively. While such data are available in countries like the United Kingdom (Understanding Society), Germany (German Socio-Economic Panel), or Northern European countries (population register-data), some other countries like Southern European countries will require more effort to produce adequate data to investigate life-course dynamics in housing. A second-best option is represented by cross-sectional surveys with retrospective housing history data: this is the case of SHARELIFE (Börsch-Supan, et al., 2013), the retrospective waves of the European Survey on Health, Ageing and Retirement (SHARE). From this type of data, it is possible to reconstruct housing tenure trajectories by asking respondents about their past; such information is less reliable, inasmuch as it relies on respondents' memory and ability to reconstruct the past (Coghlin, 1990). To conclude, there is a need for improvements in data collection to address this gap in research.

## References

- Arber S., and Ginn J. (1993), Gender and inequalities in health in later life. *Social science and medicine*, 36(1), 33-46.
- Baker E., Bentley R. and Mason K. (2013), The mental health effects of housing tenure: causal or compositional?. *Urban Studies*, 50(2), 426-442.
- Ben-Shlomo Y. and Kuh D. (2002), A life course approach to chronic disease epidemiology: conceptual models, empirical challenges and interdisciplinary perspectives. *International journal of epidemiology*, 31(2), 285-293.
- Bentley R.J., Pevalin D., Baker E., Mason K., Reeves A. and Beer A. (2016), Housing affordability, tenure and mental health in Australia and the United Kingdom: A comparative panel analysis, *Housing Studies*, 31, 208-222.
- Billings C. G. and Howard P. (1998), Damp housing and asthma. *Monaldi Archives for Chest Disease Archivio Monaldi per le Malattie del Torace*, 53(1), 43-49.
- Börsch-Supan A., Brandt M., Hunkler C., Kneip T., Korbmacher J., Malter F., Schaun B., Stuck S. and Zuber S. (2013), Data Resource Profile: The Survey of Health, Ageing and Retirement in Europe (SHARE). *International Journal of Epidemiology*. 992-1001.
- Bourassa S. C., Haurin D. R., Hendershott P. H. and Hoesli M. (2015), Determinants of the homeownership rate: An international perspective. *Journal of Housing Research*, 24(2), 193-210.
- Cairney J. and Boyle M. H. (2004), Home ownership, mortgages and psychological distress. *Housing studies*, 19(2), 161-174.
- Clair A. and Hughes A. (2019), Housing and health: new evidence using biomarker data. *J Epidemiol Community Health*, 73(3), 256-262.
- Clark W. A., Deurloo M. C. and Dieleman F. M. (2003), Housing careers in the United States, 1968-93: Modelling the sequencing of housing states. *Urban Studies*, 40(1), 143-160.
- Coughlin S. S. (1990), Recall bias in epidemiologic studies. *Journal of clinical epidemiology*, 43(1), 87-91.
- Dupre M. E. (2007), Educational differences in age-related patterns of disease: reconsidering the cumulative disadvantage and age-as-leveler hypotheses. *Journal of health and social behavior*, 48(1), 1-15.
- Dupuis A. and Thorns, D. C. (1998), Home, home ownership and the search for ontological security. *The sociological review*, 46(1), 24-47.
- Faggiano F., Zanetti R. and Costa G. (1994), Cancer risk and social inequalities in Italy. *Journal of Epidemiology & Community Health*, 48(5), 447-452.
- Filakti H. and Fox J. (1995), Differences in mortality by housing tenure and by car access from the OPCS Longitudinal Study. *Population Trends*, (81), 27-30.
- Fuller-Thomson E., Hulchanski J. D. and Hwang S. (2000), The housing/health relationship: what do we know?. *Reviews on environmental health*, 15(1-2), 109-134.
- Gibson M., Petticrew M., Bamba C., Sowden A. J., Wright K. E. and Whitehead M. (2011), Housing and health inequalities: a synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. *Health & place*, 17(1), 175-184.
- Giddens A. (1986), *The Constitution of Society*. Oxford, England: Polity Press.
- Gould M. I. and Jones K. (1996), Analyzing perceived limiting long-term illness using UK census microdata. *Social science & medicine*, 42(6), 857-869.
- Hayward M. D. and Gorman B. K. (2004), The long arm of childhood: The influence of early-life social conditions on men's mortality. *Demography*, 41(1), 87-107.
- Herbers D. J. and Mulder C. H. (2017), Housing and subjective well-being of older adults in Europe. *Journal of Housing and the Built Environment*, 32, 533-558.

- Hiscock R., Kearns A., MacIntyre S. and Ellaway A. (2001), Ontological security and psycho-social benefits from the home: Qualitative evidence on issues of tenure. *Housing, theory and society*, 18(1-2), 50-66.
- Howden-Chapman P. L., Chandola T., Stafford M. and Marmot M. (2011). The effect of housing on the mental health of older people: the impact of lifetime housing history in Whitehall II. *BMC public health*, 11, 1-8.
- Huisman M., Kunst A. E., Andersen O., Bopp M., Borgan J. K., Borrell, C., Costa G., Deboosere P., Desplanques G., Donkin A., Gadeyne S., Minder C., Regidor E., Spadea T., Valkonen T. and Mackenbach, J. P. (2004), Socioeconomic inequalities in mortality among elderly people in 11 European populations. *Journal of Epidemiology & Community Health*, 58(6), 468-475.
- Hwang S. W. (2001), Homelessness and health. *Cmaj*, 164(2), 229-233.
- Kearns A., Hiscock R., Ellaway A. and Macintyre S. (2000), 'Beyond four walls'. The psycho-social benefits of home: evidence from West Central Scotland. *Housing studies*, 15(3), 387-410.
- Kemeny J. (2001), Comparative housing and welfare: Theorising the relationship. *Journal of housing and the built environment*, 16, 53-70.
- Köppe S. (2017), Britain's new housing precariat: housing wealth pathways out of homeownership. *International Journal of Housing Policy*, 17(2), 177-200.
- Macintyre S., Ellaway A., Der G., Ford G. and Hunt K. (1998), Do housing tenure and car access predict health because they are simply markers of income or self-esteem? A Scottish study. *Journal of Epidemiology and Community Health*, 52(10), 657-664.
- Macintyre S., Ellaway A., Hiscock R., Kearns A., Der G. and McKay L. (2003), What features of the home and the area might help to explain observed relationships between housing tenure and health? Evidence from the west of Scotland. *Health & place*, 9(3), 207-218.
- Marmot M. G. (2003), Understanding social inequalities in health. *Perspectives in biology and medicine*, 46(3), S9-S23.
- Mikolaj J. and Kulu H. (2019), Union dissolution and housing trajectories in Britain. *Demographic Research*, 41, 161-196.
- Morris A. and Verdasco A. (2021), Loneliness and housing tenure: Older private renters and social housing tenants in Australia. *Journal of Sociology*, 57(4), 763-779.
- Mulder C. H. and Billari F. C. (2010), Homeownership regimes and low fertility. *Housing studies*, 25(4), 527-541.
- Pakpahan E., Hoffmann R. and Kröger H. (2017), The long arm of childhood circumstances on health in old age: Evidence from SHARELIFE. *Advances in Life Course Research*, 31, 1-10.
- Pollack C. E., von dem Knesebeck O. and Siegrist J. (2004), Housing and health in Germany. *Journal of Epidemiology & Community Health*, 58(3), 216-222.
- Popham F., Williamson L. and Whitley E. (2015), Is changing status through housing tenure associated with changes in mental health? Results from the British Household Panel Survey. *J Epidemiol Community Health*, 69(1), 6-11.
- Rohe W. M., Van Zandt S. and McCarthy G. (2002), Home ownership and access to opportunity. *Housing Studies*, 17(1), 51-61.
- Ross C. E. and Mirowsky J. (2008), Neighborhood socioeconomic status and health: context or composition?. *City and Community*, 7(2), 163-179.
- Ross C. E. and Wu C. L. (1996), Education, age, and the cumulative advantage in health. *Journal of health and social behavior*, 104-120.
- Shaw M. (2004), Housing and public health. *Annu. Rev. Public Health*, 25, 397-418.
- Shiffer-Sebba D. and Park H. (2021), US baby boomers' homeownership trajectories across the life course. *Demographic Research*, 44, 1057-1072.
- Spallek M., Haynes M. and Jones A. (2014), Holistic housing pathways for Australian families through the childbearing years. *Longitudinal and Life Course Studies*, 5(2), 205-226.

- Sundquist J. and Johansson S. E. (1997), Self-reported poor health and low educational level predictors for mortality: a population based follow up study of 39,156 people in Sweden. *Journal of Epidemiology & Community Health*, 51(1), 35-40.
- Szabo A., Allen J., Alpass F. and Stephens C. (2018), Longitudinal trajectories of quality of life and depression by housing tenure status. *The Journals of Gerontology: Series B*, 73(8), e165-e174.
- Willson A. E., Shuey K. M. and Elder Jr. G. H. (2007), Cumulative advantage processes as mechanisms of inequality in life course health. *American Journal of Sociology*, 112(6), 1886-1924.
- Zumbro T. (2014), The relationship between homeownership and life satisfaction in Germany. *Housing Studies*, 29(3), 319-338.