

EUROPEAN POPULATION CONFERENCE

13-16 June Stockholm, Sweden

Theme: History

Title: Out-of-Wedlock Births and Later Life: the Effect of Adverse Conditions Surrounding Single-Parenthood in Childhood and Subsequent Social and Health Outcomes

Author: Bárbara Revuelta-Eugercios

barbara.revuelta@ekh.lu.se

Centre for Economic Demography

Lund University

Box 7083, 22007 Lund, Sweden

Extended abstract

Introduction

Historical research on the relationship between early life factors on later life social performance and health has found that both external factors (Bengtsson and Broström 2009; Van de Berg, Doblhammer et al. 2009) as well as household and family level characteristics played an important role in determining future outcomes (Campbell and Lee 2009; Smith, Mineau et al. 2009), in parallel to what has been done in contemporary studies (Barker 1994; Galobardes, Lynch et al. 2004; Kuh and Ben-Schlomo 2004; Palloni, Milesi et al. 2009; Shenins, Deary et al. 2009). While parental death, sibship size and social class as some measures of household composition have been studied in historical settings (Campbell and Lee 2009; Smith, Mineau et al. 2009), one factor that has not been sufficiently addressed in literature so far is the effect that being born out-of-wedlock had in later life outcomes (Modin 2003). And this is surprising as contemporary research on health inequalities still finds these disadvantages in some contexts associating births out of wedlock to lower socio-economic position, poor performance in the labor market, worse health and increased likelihood of engaging in single parenthood themselves (particularly for women)(Zeitlin, Saurel-Cubizolles et al. ; Shah, Zao et al. 2011).

Non-marital fertility has been widely addressed both in relation to the circumstances driving its occurrence and its direct effects on child health. The findings on this research point to the existence of the so-called “illegitimacy mortality penalty”: in most settings, infant and early childhood mortality of children born out of wedlock was significantly higher than that of children born inside marriages. Shorter breastfeeding periods as well as deficient nutrition and poor material conditions during fetal and post-natal periods related with a maternal poor socio-economic situation have been pointed as the main factors responsible for mortality. However, the severity of this penalty has been found to be alleviated by kin support.

Relatively less research has been directed towards studying its effect across life course. Modin et al suggested that biological pathways as well as psycho-social stressors were

involved in the effects of out-of-wedlock births and worse future outcomes (Modin 2003; Modin, Koupil et al. 2009). However, they are difficult to tease apart. Addressing out-of-wedlock births in historical time is a difficult task as different pathways that could lead to an out-of-wedlock birth, the different selection processes involved in their registration and the evolution of both. Thus, a careful approach to selection, registration and change over time is required to tackle this task, with a careful specification of the study population and later life indicators. In this paper we will undertake the analysis of later life health and social performance of an out-of-wedlock birth using the Scania Demographic Dataset for the period 1830-1968, which offers a great opportunity to track changes across time in a key period of growing out-of-wedlock births in a rather homogeneous rural setting in Southern Sweden.

Background

In 19th century Sweden illegitimacy grew steadily: by 1811-1820 it was 6,2%, by 1851-60 it had risen to 9%: and by 1900 it was around 11% continuing a steady increase during the 20th century reaching a third of the children already in 1970. However, regional analyses have shown an important variation across the country in illegitimacy rates, excess illegitimate mortality and infant mortality (Brändström, Edvinsson et al. 2002:30). The actual contexts where out-of-wedlock births took place were particularly important. Although it was predominantly an urban phenomenon, it was also spread in rural areas, which offered a very different picture. While factory workers and servants had been the most important historical figures embodying illegitimacy (Schumacher and Oris 2011), when rural contexts and specific cultural responses are taken into account, a very different vision may appear where the differences between illegitimate and legitimate children lessened (Sumnall 2010).

Moving beyond the traditional debate posed by Shorter (Shorter, Knodel et al. 1971) and Tilly (Tilly, Scott et al. 1976), more engaged in the links between industrialization and the increase in illegitimacy, most of the latest research on out-of-wedlock births have been directed to explore the reasons behind that occurrence of an illegitimate birth from an individual-level perspective (Brändström 1996; Brändström 1998; Van Bavel 2001; Swain 2005; Schumacher and Oris 2011) and the direct consequences of the birth (Brändström 1997; Kok, Van Poppel et al. 1997; Gardarsdóttir 2000; Lokke 2005; Reid, Davis et al. 2006; Sumnall 2010). Scholars have posited that in some cases, women were caught up in a cycle of vulnerability that led them towards illegitimacy. Vulnerability of their individual situation in life made some women more likely to engage in sexual intercourse before marriage, bearing illegitimate children and thus engaging in a lifecourse that had detrimental consequences for her and child) (Reid 2005; Reid, Davis et al. 2006). However, other research has described an out-of-wedlock child as only part of women's life cycle as most out-of-wedlock births were followed by marriages. However, some of the negative consequences for their offspring may still be noticeable for those children born before the marriage (Brändström 1996). Adverse health outcomes of out-of-wedlock children can still be seen in many countries nowadays (Zeitlin, Saurel-Cubizolles et al. ; Shah, Zao et al. 2011), so it is no wonder to find consistent higher mortality among illegitimate children almost everywhere in the historical setting (Kok, Van Poppel et al. 1997; Brändström 1998; Gardarsdóttir 2000; Brändström, Edvinsson et al. 2002; Lokke 2005; Reid 2005). (Reid, Davis et al. 2006).

However, addressing the effects of non-marital fertility in the newborns health is quite challenging for several reasons. Firstly, as we already mentioned, there could be different pathways leading women to delivering a baby outside of marriage. It could be the result of pre-marital sexual intercourse and be sought for as a “fertility test” that soon afterwards would be followed by marriage; it could be the result of a failed attempt to attract a husband; it could be inside a common law marriage; it could be part of a series of out-of-wedlock births from a woman with the same or different men, etc. In this sense, it is likely that there could a clustering effect on births out-of-wedlock that should be taken into account: while some women would only produce one births, other could contribute with several births across their reproductive trajectories.

Secondly, data availability is necessarily sketchy for the cases that would fit better the definition of adversity brought about by an out-of-wedlock birth. If we think about the more vulnerable situation for a woman where the child may be undesired and the mother, changes of address could mask the existence of the illegitimate birth. If the mother traveled to her birth place to deliver and leave the child with her family, the probabilities of the historical record of tracking that relationship are scant. Additionally, not all marriage status is known for individuals immigrating if the event occurred outside, which difficult the identification of children born out-of-wedlock further.

And, thirdly, the selection effects on the women responsible for out-of-wedlock births has also to be taken into account. Literature has tended to downplay the penalty associated to illegitimate births by the fact that they tended to be younger and the children tend to be first-borns, which are related to increased infant mortality. However, current research is pointing towards the absence of lower importance of biological differences according to maternal age, suggesting that the part of the familiar U-shape is produced by different processes: socio-economic factors related to childbearing ages.

Previous work by Modin et al (Modin 2003; Modin, Koupil et al. 2009) has already explored the long-term differentials for the case of northern Sweden, finding negative effects of illegitimacy for individuals and their descendants. While most of the research has been restricted to health outcomes, they extended the analysis to other indicators of social performance, as likelihood marriage, that could help us understand better how the disadvantages worked across the life course. This line of research offers a connection with present day public health concerns as in many countries important health differences still arise from maternal marital status. By understanding how they are produced and how disadvantages extend over the life course, we can pinpoint better measures to help prevent them. However, there are still different aspects that can be covered and the precise mechanisms involved are far from being clear.

Aims

In this paper our aim will be to test whether the adverse health outcomes as well as social performance disadvantages that are generally associated to an out-of-wedlock births can found seen for Southern Sweden in the period from mid-19th century to mid-20th century. In order to do that, our approach will be to select a population where we can avoid all the

identification problems described above, to make sure that our results are not affected by those processes: those children still living without an identifiable father after 2 years of age. Our analysis will test for two outcomes: mortality probabilities and different measures of social performance. This will allow us to establish to what extent and in which dimensions of life the penalty of having been born outside of a marriage was at work but, additionally, if the early life disadvantage worked also through poor social performance in adult life to affect health.

Data and methods

In order to analyse this process we will make use of the Scania Economic and Demographic Database, which combines data from different sources on births, deaths, marriages and migration taking place in a sample of five parishes of the Scania region (Halmstad, Sireköpinge, Hog, Kävlinge and Kågerod) in Southern Sweden for the period between 1813 and 1968.

The aim is to study later life effects of having been born out of wedlock but, in order to avoid the identification and selection problems described above, the sample of children selected involved only those that can be identified later on as such by the absence of the father in the household they reside. This criterion will condition the analysis on survival until the second year of life, so the selection process will have to take into account this fact and imply some limitations. However, this strategy will help us determine properly the sample of out-of-wedlock children that interest us.

In order to study later life outcomes, we will analyze health and social performance measures separately. For health outcomes, we will model survival probabilities until adulthood, old age and we will analyze separately groups of causes of death (cardiovascular disease, infectious, old age, etc.) to test for different pathways. For social outcomes, we will make use of different indicators: probability of experiencing intergenerational downward mobility (from maternal socio-economic status, life course downward mobility), the probability of marrying; probability of having children. And, lastly, we will test for indirect effects of health on social factors.

Survival analysis and cox regression will be used. Bivariate models as well as full models will be fit to take into account different early life factors that have been previously associated with later life effects. Infectious load in the first year of life measured by IMR in the year of birth has been found to be associated with later life health effects; economic indicators will be used to test for particular effect in this deprived sub-population, as well as period and contextual variables). Particular attention will be given to maternal SES as a measure to help us understand the appearance of health and social disparities.

References

Barker, D. (1994). Mother, babies and diseases later in life. London, British Medical Journal Publishing Group.

- Bengtsson, T. and G. Broström (2009). "Do conditions in early life affect old-age mortality directly and indirectly? Evidence from 19th century rural Sweden." *Social Science & Medicine* **68**(9): 1583-1590.
- Brändström, A. (1996). "Life histories of single parents and illegitimate infants in Nineteenth-Century Sweden." *The History of the Family* **1**(2): 205-226.
- Brändström, A. (1997). Kinship and Mortality: Illegitimate Children in Sundsvall, Sweden, 1808-1900. *Social Science History Association Annual Conference*. Washington DC.
- Brändström, A. (1998). "Illegitimacy and Lone-Parenthood in XIXth Century Sweden." *Annales de Démographie Historique* **2**: 93-113.
- Brändström, A., S. Edvinsson, et al. (2002). "Illegitimacy, Infant Feeding Practices and Infant Survival in Sweden 1750–1950. A Regional Analysis." *Hygiea Internationalis* **3**(1): 13-52.
- Campbell, C. and J. Z. Lee (2009). "Long-term mortality consequences of childhood family context in Liaoning, China, 1749-1909." *Social Science & Medicine* **68**(9): 1641-1648.
- Galobardes, B., J. Lynch, et al. (2004). "Childhood socioeconomic circumstances and cause-specific mortality in adulthood: systematic review and interpretation." *Epidemiologic Reviews* **26**: 7-21.
- Gardarsdóttir, Ó. (2000). "The implications of illegitimacy in late nineteenth-century Iceland: the relationship between infant mortality and the household position of mothers giving birth to illegitimate children." *Continuity and Change* **15**(3): 435-461.
- Kok, J., F. Van Poppel, et al. (1997). Mortality among Illegitimate Children in Mid-Nineteenth-Century The Hague. *The Decline of Infant and Child Mortality. The European Experience: 1750–1990*. C. Corsini and P. P. Viazzo. The Hague, Martinus Nijhoff: 193-211.
- Kuh, D. and Y. Ben-Schlomo, Eds. (2004). *A life course approach to chronic disease epidemiology*. Oxford, Oxford University Press.
- Lokke, A. (2005). Could Denmark afford to let the illegitimate children among the poor people live? *Gendered and developmental perspectives on infant mortality decline*. University of Tromsø.
- Modin, B. (2003). "Born out of wedlock and never married-it breaks a man's heart." *Social Science & Medicine* **57**: 487-501.
- Modin, B., I. Koupil, et al. (2009). "The impact of early twentieth century illegitimacy across three generations. Longevity and intergenerational health correlates." *Social Science & Medicine* **68**: 1633-1640.
- Palloni, A., C. Milesi, et al. (2009). "Early childhood health, reproduction of economic inequalities and the persistence fo health and mortality differentials." *Social Science & Medicine* **68**: 1574-1582.
- Reid, A. (2005). The influences on the health and mortality of illegitimate children in Derbyshire, 1917-1922. *Illegitimacy in Britain, 1700-1920*. A. Levene, T. Nutt and S. Williams. London, Anthony Rowe Ltd, Chipenham and Eastbourne: 181-205.
- Reid, A., R. Davis, et al. (2006). "Vulnerability among illegitimate children in nineteenth century Scotland." *Annales de Demographie Historique* **111**(1): 89-113.
- Schumacher, R. and M. Oris (2011). "Long-term changes in social mortality differentials, Geneva 1625-2004." *Explorations in Economic History* **48**: 357-365.
- Shah, P. S., J. Zao, et al. (2011). "Maternal Marital Status and Birth Outcomes: A Systematic Review and Meta-Analyses." *Matern Child Health J* **15**: 1097-1109.
- Shenins, S. D., I. J. Deary, et al. (2009). "Birth parameters and Cognitive Ability in Older Age: a Follow-Up Study of People Born 1921-1926." *Gerontology* **55**(1): 92-98.

- Shorter, E., J. Knodel, et al. (1971). "The Decline of Non-Marital Fertility in Europe, 1880-1940." Population Studies **25**(3): 375-393.
- Smith, K. R., G. P. Mineau, et al. (2009). "Effects of childhood and middle-adulthood family conditions on later-life mortality: Evidence from the Utah Population Database, 1850-2002." Social Science & Medicine **68**(9): 1649-1658.
- Sumnall, C. (2010). The hills are alive with the sound of bastards! Social reception of illegitimacy in the Gurk valley, Austria, 1870-1975. European Social Science History Conference. Gante.
- Swain, S. (2005). "Maids and mothers: Domestic servants and illegitimacy in 19th-century Australia." The History of the Family **10**: 461-471.
- Tilly, L. A., J. Scott, et al. (1976). "Women's work and European fertility patterns." Journal of Interdisciplinary History **6**(3): 449-479.
- Van Bavel, J. (2001). "Family control, bridal pregnancy and Illegitimacy." Social Science History **25**(3): 449-479.
- Van de Berg, G. J., G. Doblhammer, et al. (2009). "Exogenous determinants of early-life conditions, and mortality later in life." Social Science & Medicine **68**(9): 1591-1598.
- Zeitlin, J. A., M.-J. Saurel-Cubizolles, et al. "Marital status, cohabitation, and the risk of preterm birth in Europe: where births outside marriage are common and uncommon." Paediatric and Perinatal Epidemiology **2002**(16): 124-130.