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SHORT REPORT

Excavating LGBTQ+ lives in the birth cohort: an exploration of pen portraits and data storytelling

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Abstract

Birth cohort studies provide invaluable data on topics across the lifecourse, including health, education, socioeconomic conditions, and well-being. As a result, they are an important resource for biosocial researchers to answer numerous complex research questions. However, despite being positioned as representative of their national or regional context, cohort studies often fail to capture the experience of marginalised groups.

One such group is sexual and gender minority (or LGBTQ+) people who, until very recently, have been largely invisible in birth cohorts. This is despite huge social and attitudinal changes in the last fifty years and clear evidence of the social, political, economic, and health and well-being disparities experienced compared to heterosexual cisgender people. However, due to small numbers, opportunities for quantitative analysis are limited and result in the neglect of LGBTQ+ data even when it is captured.

This article presents a brief overview of how queer lives have (and have not) been captured by standard data collection and analysis techniques in the British birth cohort studies. Then, using a cohort born in 1970, the authors explore the possibilities of person-centred mixed-method pen portraits to improve understanding of this group's life trajectories.

Keywords: Pen portraits; LGBT; birth cohorts

Introduction

Birth cohort studies provide invaluable insight into numerous topics across the life course, including health, education, socioeconomic conditions, and well-being. In the UK, they have for decades formed part of the national scientific infrastructure (Pearson, 2016; UKRI, 2022). Birth cohort studies provide a unique and important resource for biosocial researchers as they collect data across multiple biological, social, and environmental domains, allowing for engagement with complex temporally informed biosocial research questions.

National birth cohorts such as the UK studies – the Millennium Cohort study (MCS), the British Cohort Study 1970 (BCS70), the 1958 National Child Development Study, and the 1946 National Survey of Health and Development – seek to be representative of a national context (CLOSER, 2022). These studies undergo many rounds of planning and careful consideration of their target populations, including randomised sampling to improve representativeness and oversampling of underserved groups such as ethnic minority and socioeconomically deprived populations (Connelly and Platt, 2014). However, despite samples that often exceed 10,000 cohort members, these studies may fail to capture the experiences of marginalised groups (Browne, 2016).

One such group is sexual and gender minority or LGBTQ+ people. The below provides a brief overview of the ways queer lives have and have not been captured, focusing on measurement, sample, and the queer lifecourse. Then the paper discusses the potential of person-centred mixed-method analysis techniques for excavating queer lives and biosocial assemblages from the birth cohorts. Finally, using the BCS70, the authors discuss a working example for future research on the health and well-being of LGBTQ+ cohort members.

Queer in the birth cohorts

Until recently, the vast majority of British birth cohort studies did not capture any aspect of sexuality or gender identity, making the study of queer individuals within the cohorts almost impossible (Tabor *et al.,* 2023). While studies have asked questions on identities such as national and class identity and have covered sensitive topics such as familial abuse, illegal substances, and violence, it was not until 2012 that a UK national birth cohort fielded a sexuality question. This is despite huge social and attitudinal changes in the last fifty years and clear evidence of the social, economic, and health and well-being disparities experienced by LGBTQ+ people (Bécares, 2021; MacCarthy *et al.,* 2021; Saunders *et al.,* 2021).

A further issue is the relatively small numbers of LGBTQ+ people within each study. This is partially a function of the ways in which birth cohorts are recruited as it is not possible to oversample LGBTQ+ people from birth as with other marginalised groups. The recent 2021 England and Wales census, the first national data on the size of the LGBTQ+ population, found that at least 3.2% of population, approximately 1.5 million people, identified as gay, lesbian, bisexual, or ‘other sexual orientation’ (ONS, 2023). While this is a large number of people, when applied proportionally to the sample recruited for birth cohort studies, LGBTQ+ numbers remain small – often in the low hundreds or less. As a result, opportunities for robust quantitative analysis are limited and result in the neglect of LGBTQ+ data even when it is captured.

Large quantitative exercises can produce and legitimise certain kinds of lives; through such tools, populations are made ‘knowable’ (Browne, 2016). Heteronormative lifecourse events such as marriage and reproduction are at the centre of birth cohort logic but are arguably detached from ‘queer time’ (Halberstam, 2005). ‘Queer temporalities’ create logics of life course timing and stages which are messy and/or stretched (Halberstam, 2005; King and Hall, 2023). For example, parental rejection and families of choice, coming out, and late-life marriage of partners due to legislative change.

Pen portraits

To address the methodological and theoretical challenges outlined above, the authors propose person-centred mixed-method pen portraits (Tinkler *et al.,* 2021).

Elliot (2005, p. 1) has argued that the ‘temporal or chronological dimension’ of longitudinal studies of the life course lends such studies ‘a certain narrative quality’, even when the data are purely quantitative. An early example of using quantitative longitudinal data to construct narrative life histories or pen portraits was Singer *et al.* (1998). Arguing that typical quantitative approaches to longitudinal data obscure the complexity of individuals’ lives, Singer and colleagues used more than 250 variables (on topics including education, family, health, and employment) collected over three decades to construct written ‘life histories’ detailing the mental health trajectories of women in the Wisconsin Longitudinal Study. Sharland *et al.* (2017) used 300+ variables from the British Household Panel Survey to construct written narratives illustrating the pathways of families using social work. These narratives were then analysed to investigate questions about the impacts of social work on families. These two studies are examples of applying ‘narrative practices’ (Sharland *et al.,* 2017, p. 668) to purely quantitative datasets. The British birth cohorts include a wide range of quantitative data that could be used for narratively orientated biosocial research. The cohorts capture genetics, blood biomarkers such as cortisol, environmental and occupational exposures, and measures of physical and mental health and functionality, amongst a wide array of other topics.

The birth cohort studies also include small but potentially valuable amounts of qualitative data in the form of open-text survey responses and semi-structured interview material that can be used to explore cohort members' subjective experiences and perspectives (Carpentieri *et al.,* 2016; Carpentieri and Elliott, 2013; Elliott, 2013, 2008). The presence of qualitative data affords opportunities for the construction of mixed methods pen portraits that are richer than those based solely on quantitative data. For example, Carpentieri *et al.*, (2024) used a combination of closed and open text survey responses to examine trajectories of education, employment, and social mobility in post-war Britain, while Carter (2023) shed valuable light on gendered experiences of education and employment.

Such studies illustrate the potential of narrative pen portraits to illuminate diversity, non-linearity, and complexity instead of smoothing differences (Sharland *et al.,* 2017). By supporting a more holistic, person-centred approach to complex questions and the mapping of important transitions and timings (Singer *et al.,* 1998), person-centred pen portraits can reveal the unique experiences, perspectives, and trajectories underpinning broader trends. Pen portraits also afford the potential to excavate marginalised lives (such as those of LGBTQ+ study members) from the broader birth cohort samples (Tinkler *et al.,* 2021). Furthermore, pen portraits encourage the reuse of data, reducing the burden on participants and highlighting the value of their time and effort (Guyan, 2022).

However, there are a number of limitations that must be considered. First, mixed methods pen portraits may present a limited picture of participant voice, while purely quantitative pen portraits lack participant voice altogether (Carpentieri *et al.,* 2016; Elliott, 2008; Sharland *et al.,* 2017). Individual participant voice is further lost in the construction of generalised cases which combine the experiences of multiple individuals (Elliott, 2008; Sharland *et al.,* 2017). Pen portraits require strict adherence to principles of anonymity and confidentiality, in order to protect cohort members' identities, especially for a stigmatised minority group such as LGBTQ+ people. Finally, while attempts can be made to find queer lives in the cohorts, the datasets and surveys were not developed to make such work easy. Nonetheless, below is an example of how queer lives could be excavated and recomposed from a British birth cohort.

1970 British cohort study – a working example

The 1970 British Cohort Study (BCS70) is an ongoing longitudinal study of 17,000 individuals born in England, Scotland, and Wales in 1970 (Elliott and Shepherd, 2006), collecting data on a wide range of topics including family, health, education, socioeconomic conditions, and social networks (Elliott and Shepherd, 2006). The most recent survey wave captured data from 8,581 respondents aged 46 years (Brown and Peters, 2019). At the time the BCS70 was being established, the legal and attitudinal landscape for LGBTQ+ people was changing. In 1967, homosexual acts between men over 21 had been partially decriminalised in England and Wales, 1969 saw the Stonewall riots in the USA, and the first Pride was to be held in London in 1972 (Stonewall, 2016). As a result, this cohort came of age during the 1980s and 1990s movement for LGBTQ+ rights and equality, as well as the HIV/AIDs epidemic. However, it was not until 2012, when the participants were aged 42 years, that BCS70 cohort members were asked if they identified as gay, lesbian, or bisexual.

Of 9,764 BCS70 respondents asked, 286 (2.9%) identified as gay, lesbian, bisexual, or other. This group is made up of a roughly equal proportions of men and women across a range of employment and income brackets. Around 30% of the group also identified as an ethnic minority.

While potentially a rich source of information about queer adults and their lives over the last fifty years, such numbers are difficult to use statistically and using traditional quantitative methods force a lumping together which obscures differences. However, pen portraits would allow for a detailed exploration of LGBTQ+ respondents in BCS70.

Recent UK evidence using large cross-sectional population studies has identified that lesbian, gay, and bisexual women may be at a higher risk for heart attacks and stroke; however, this was not consistent across the studies (Jacob *et al.*, 2021; Saunders *et al.*, 2021). This is part of a wider pattern of evidence which suggests that whereas LGBTQ+ people may be more likely to be overweight, smoke, and consume more alcohol, and this does not necessarily translate into a higher risk of chronic conditions such as cardiovascular disease and diabetes (Booker *et al.*, 2017; Eliason, 2014). Some have argued that this mismatch is due to "resilience," for example, through community resources and networks (Foley *et al.*, 2022; Follins *et al.*, 2014; Fredriksen-Goldsen *et al.*, 2017). The construction of pen portraits would allow for the examination of pathways into and out of good health while highlighting BCS70 participants' historical and social context.

A pen portrait project could compare the pathways and experiences of LGBTQ+ study members with and without chronic health outcomes. While the method is exploratory and therefore all variables and data could be considered relevant to the analysis, there are a number of particularly relevant topics captured by the cohort study. For example, a battery of biological markers such as anthropometry and blood biomarkers were collected by a nurse and can indicate underlying functionality and physiological stress. This information can be placed temporally and conceptually alongside participant's social and environmental context, for example, their communities, socioeconomic conditions, partners and family, and neighbourhood. These variables would provide the basis to consider how biology, environment, and the social interact and combine over the life course to produce ill-health within stigmatised bodies. Likewise, they allow the researcher to consider a more contextual and even destabilised understanding of "health," "lifecourse," and "resiliency" where an individual's agency and coping are foregrounded. Open-text survey responses over the life course could also contribute to such pen portraits. Additional analysis could combine these data-rich individual narratives into aggregated accounts of biosocial pathways into better and poorer health for comparison and interpretation.

Conclusion

Overall, the authors believe pen portraits can be a powerful research tool with particular value to queer and biosocial approaches. Using a working example, the authors hope they have illustrated the strengths of the approach and have provided an example of the types of questions and theories which can be engaged with using this method. Whether they are purely quantitative or mixed methods, pen portraits can help researchers to realise the "narrative potential" (Elliott, 2005, pp. 60-75) inherent in the cohort studies. Researchers can use pen portraits to reveal the people and narratives within the aggregate data and to provide insights into the lives of cohort members who may otherwise be obscured from sight.

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