Divorce risk in same-sex and opposite-sex couples: A register-based study of the roles of religious affiliation, income, and country of birth

Elina Einiö (1, 3), Maria Ponkilainen (1, 2), Mikko Myrskylä (1, 2, 3)

- 1. Population Research Unit, Faculty of Social Sciences, University of Helsinki, Finland
- 2. Max Planck Institute for Demographic Research, Rostock, Germany
- 3. Max Planck University of Helsinki Center for Social Inequalities in Population Health, Rostock, Germany and Helsinki, Finland

Introduction

Previous studies from the Nordic countries have shown that the risk of divorce is higher for same-sex couples, especially for female couples, as compared to opposite-sex couples (Andersson et al., 2006; Andersson & Noack, 2010; Noack et al., 2005; Wiik et al., 2014). The underlying reasons are, however, poorly understood. The excess risk of divorce appears to persist for female couples, independent of controls for various sociodemographic confounders. We extend the limited knowledge of divorce risks in same-sex couples by assessing how female and male same-sex relationship stability compares with the stability of opposite-sex marriages in Finland and whether couples' religious affiliation, income, or country of birth could play a role in explaining the heightened divorce risk among same-sex couples. To our knowledge, the role of religious affiliation in stabilizing opposite-sex couples' divorce risks, as compared to same-sex couples, has never been assessed before.

It has been argued that many unsatisfactory marriages last for various reasons—not just because of optimal match or marital quality—including moral and religious objections to divorce and economic dependency, for example (Glenn et al., 2010). Religious affiliation may affect the perceived costs and benefits of divorce (Lehrer, 2004), in that the costs of leaving an unsatisfactory marriage are higher and the benefits lower for those with religious affiliation. There is also prior evidence to suggest that international marriages are more likely to dissolve than marriages, in which both spouses are from the same country (Lehrer, 2004). The share of international marriages is indicated to be higher among same-sex couples than opposite-sex couples in the Nordic countries (Andersson et al., 2006), suggesting that there could be larger cultural differences between spouses in same-sex marriages.

Data

The register-based data is based on the total population data of individuals who entered a same-sex registered partnership or opposite-sex marriage in Finland between 2002 and 2016. The follow-up for divorce was based on data from January 1, 2002 to December 31, 2021. A total of 4,180 couples registered a same-sex partnership in Finland between 2002 and 2016. We restricted the data to couples, in which at least one member of the couple 1) lived in Finland at the time of partnership registration, 2) was born in Finland, and 3) registered the first same-sex partnership. In addition, both members of the couple needed to be in the vital follow-up file of Statistics Finland, followed for divorce or death, to be included. Our first analytical data consisted of 7,866 members in 3,933 same-sex partnerships, corresponding to 94.1% of the total. Of these same-sex couples, 38.6% were male couples and 61.4% were female couples, corresponding well to that observed for the total population of same-sex

couples (39.4% vs. 60.6%). Respectively, we formed a comparative dataset of opposite-sex couples, who got married between 2002 and 2016. We restricted the data to marriages, in which at least one member of the couple 1) lived in Finland at the end of the year of entering the marriage, 2) was born in Finland, and 3) entered the first marriage. The dataset for married couples was based on the opposite-sex cohabitation file of Statistics Finland, meaning that the married couple had to have lived together in Finland at the end of any year from 1987 to 2021, to be included. This dataset consisted of 702,862 members in 351,381 opposite-sex marriages. We merged the two datasets to allow comparative analysis of same-sex and opposite-sex couples. Distribution of characteristics by union type is shown in Table 1.

Variables

Union type was defined according to the gender of the two members of a legal couple: female same-sex couple, male same-sex couple, and opposite-sex couple (i.e., male-female couple). Their gender was defined as a binary administrative indicator, measured at the time of partnership registration or marriage. Age was measured at partnership registration or marriage. Religious affiliation was measured annually at the couple level using memberships of the official churches, the Evangelical Lutheran and the Greek Orthodox Church: no church members, one church member, and two church members. This information was derived from the Finnish tax administration, in that those who paid obligatory church tax were identified as church members. Income was measured annually as the sum of taxable income of both spouses, adjusted for yearly inflation. Country of birth was measured at the couple level as a binary indicator: Finland or other. We excluded couples in which both spouses were born in countries other than Finland (see Data). We also used year of partnership registration or marriage (time-invariant) and area of residence (time-varying) as control variables.

Methods

Divorce risks were analyzed using Cox proportional hazards models, with time since the start of a partnership or marriage as the underlying time. Censoring occurred at the time of death of either spouse, on December 31, 2021, or ten years after the start of the follow-up, whichever came first. In the first Cox model, we compared unadjusted hazards of divorce for male and female couples, relative to opposite-sex couples. We then controlled for the year of partnership registration or marriage and area of residence, given that divorce is more likely in urban areas. However, because our main focus was on understanding the relationship between union type and divorce risk, we thirdly controlled for age at the start of the partnership or marriage, religious affiliation, country of birth, and income as they could vary across union types and influence divorce risks.

Lastly, we tested for a set of interactions between union type and other variables, including religious affiliation, country of birth, and income. We observed that country of birth and income were differently associated with divorce risk according to union type.

Results

Figure 1 shows the hazards of divorce for male couples (left) and female couples (right) relative to opposite-sex couples obtained from various Cox models, introducing control variables. Model 1 shows that unadjusted hazards of divorce relative to opposite-sex couples were highest for female couples (hazard ratio (HR) = 2.33, 95% confidence interval (CI): 2.15,

2.53), and next highest for male couples (HR = 1.25, 95% CI: 1.10, 1.41). Controlling for the year of partnership registration or marriage and area of residence had an impact on estimates, as they were reduced for both male couples (HR: $1.25 \rightarrow 1.18$) and female couples (HR: $2.33 \rightarrow 2.22$). The reason for this is that same-sex couples had a higher hazard of divorce, partly because they are more likely to live in urban areas where divorce risk is elevated. Controlling for the main effect of age at partnership registration or marriage had an impact on estimates, as they were substantially increased for male couples (HR: $1.18 \rightarrow 1.38$). If male couples had registered their partnership as young as those who married an opposite-sex spouse, their divorce risk had been even higher, as young age was associated with an increased divorce risk. Similarly, estimates for female couples were somewhat increased (HR: $2.22 \rightarrow 2.39$), given that they also were older than those who entered opposite-sex marriages.

Further controls for religious affiliation influenced estimates, as they were reduced for both male couples (HR: $1.38 \rightarrow 1.15$) and female couples ($2.39 \rightarrow 2.07$). The reason for this is that same-sex couples had a higher hazard of divorce, because both members of the couple were less likely than those of opposite-sex couples to be members in the church (18.3% in male couples, 29.4% in female couples, 61.2% in opposite-sex couples), which was associated with a reduced divorce risk. Controls for the country of origin had barely noticeable impact on estimates for male couples (HR: $1.15 \rightarrow 1.13$) and female couples ($2.07 \rightarrow 2.12$). This barely noticeable impact, in opposite direction, however, could reflect the fact that having an international spouse, associated with divorce, was more common in male couples (28.2%) and less common in female couples (7.7%), as compared to opposite-sex couples (9.8%). Controls for income somewhat increased estimates for male couples, however ($1.13 \rightarrow 1.21$). If male couples had not earned more than opposite-sex couples, their divorce risk had not been as modest as observed. Controls for income had modest impact on estimates for female couples, given that their income was lower, which was associated with increased divorce risk.

Our additional results for the interactions (P-value < 0.001) indicate that having married an international spouse increased the risk of divorce for male couples (HR = 1.46) and opposite-sex couples (HR = 1.17) but not for female couples (HR = 0.63). The results also suggest that increases in income are less beneficial for female couples than opposite-sex couples.



Figure 1. Hazard ratios of divorce for male and female same-sex couples (ref. opposite-sex couples: HR=1.00), models 1-6, union cohorts 2002-2016, Finland

Discussion

This is the first study to show that male and female same-sex couples have a higher divorce risk, relative to opposite-sex couples, in part because they are less likely to be religiously affiliated. There are several possible reasons for this observation. First, it has been argued that religious affiliation may affect the perceived costs and benefits of divorce (Lehrer, 2004), in that psychological and social costs of divorce could be higher for people with moral and religious objections to divorce, resulting in enduring marriages that are not necessarily happy. Secondly, it is also possible that religiously affiliated couples receive positive social support from their religious communities, buffering the adverse effects of marital crises.

The present study suggests that male couples earn more and female couples less than opposite-sex couples, and low income helps to explain elevated divorce risks—modestly though—for female couples only. Future studies should, however, investigate whether economic dependency could play a role in explaining various divorce risks, given that income gap between the spouses is likely to be largest for opposite-sex couples.

In line with our expectations, we found that male couples are more international than opposite-sex couples and it modestly explains their divorce risks. Female couples are less international in their preferred partner choices. Our preliminary findings suggest that the couple's internationality is differently associated with divorce risks according to union type. Having married an international spouse appears to destabilize marriages for male couples and opposite-sex couples but not for female couples. According to our additional preliminary findings (results nor shown), the reason for this could be that nonstraight Finnish females tend to marry a spouse from a similar cultural setting, such as Europe or North America for example, if they marry an international spouse.

To conclude, our study confirms findings from other Nordic countries, including Norway, Sweden, and Denmark showing that female same-sex couples in particular have a higher divorce risk than opposite-sex couples (Andersson et al., 2006; Andersson & Noack, 2010; Noack et al., 2005; Wiik et al., 2014), and that this heightened divorce risk is not entirely explained 'away' by observed sociodemographic characteristics

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