# Marital Separation and Health Behaviors: Differences by Gender and Initiator Status

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***Introduction, background and research questions***

Since the 1960s, divorce rates have increased in most Western societies (e.g., Eurostat). This demographic development has prompted ample research on the consequences of marital dissolution. Previous research has persistently shown that marital dissolution is a critical turning point in the life course, and leads to changes in economic, social, and health well-being (Kravdal and Wörn 2023; Leopold 2018; Shor et al. 2012; Williams and Umberson 2004). Although marital dissolution can be a welcome transition if it reflects freedom from an unsatisfying or even abusive relationship (Hawkins and Booth 2005; Schoen, et al. 2002), the end of marriage is commonly considered a stressful and emotionally demanding transition (Amato 2000). According to stress theories, a primary stressor requires major adjustments. Depending on whether adjustment demands can be met or exceed personal coping resources (e.g., personality, network, etc.), stress levels associated with the trigger event can vary. Failure to cope can lead to critical adverse consequences (Lazarus and Folkman 1984). As such, the coping and management of stress during the marital dissolution process—similar to other life transitions as suggested by previous literature (Ding, et al. 2021; Henkel 2011)—does not always happen healthfully. Additionally, as people seek mechanisms for coping with the life course change that separation and divorce bring or perhaps as they seek to re-enter the dating market, it is likely that their health behaviors will change.

Health behaviors act as mediators between structural environments and health outcomes (Armstrong 2009; Short and Mollborn, 2015), and are often theorized as clustering together to form ones' "health lifestyle" (Cockerham 2005; Mollborn et al. 2014). By themselves, health behaviors reflect an individual's agency within the confines of their built environment. Social relationships, at the meso-level of social life, are imperative for understanding health behaviors (Short and Mollborn 2015; Umberson et al. 2010; Umberson and Karas Montez 2010). Marital dissolution is thus an important site for understanding how health behaviors might change. This complements existing research on how health outcomes change during marital dissolution (Leopold 2018; Shor et al. 2012; Williams and Umberson 2004). In early research on health behaviors and marital dissolution, Umberson (1992) showed an increase in tobacco and alcohol consumption for men transitioning out of marriage. This research, however, considered both divorces and deaths in marital transition, and thus might not entirely capture the behavioral modifications that occur throughout the marital dissolution process.

Gender differences in health behaviors, might also manifest differently during marital separation and dissolution although previous research finds inconclusive results (Amato 2000; Amato and James 2010; Aseltine and Kessler 1993; Simon and Marcussen 1999; Strohschein et al. 2005; Umberson 1992). Women generally cope with separation better than men because they have more extensive support networks (Dykstra and Fokkema 2011). Additionally, women are more likely to initiate separation than men, and are thus perhaps more prepared for the pending transition while it is more likely to take men by surprise (Brinig and Allen 2000; Hewitt et al. 2006; Kalmijn and Poortman 2006; Thomas 1982). If a separation or divorce is unexpected, and thus a greater shock, there may be more severe unhealthy coping mechanisms.

In this study we examine health behaviors during marital dissolution in Australia and address **two main questions**:

1. How do health behaviors—and specifically smoking and drinking—change over the marital dissolution process, considering years prior to separation and after?
2. Do changes to health behaviors differ by (a) gender, and (b) who initiates the dissolution?

***Data & Methods***

*Dataset and sample:* For our analysis, we use longitudinal data from the Household, Income and Labour Dynamics in Australia (HILDA) survey (release 20, years 2001-2020) (Summerfield et al., 2015). The HILDA survey is a large multipurpose panel survey that is largely representative of the Australian population except for remote areas. Since 2001, it has collected annual information from respondents aged 15 years and older in eligible households via face-to-face interviews and self-completed questionnaires. The data are particularly well suited for our purposes as they ask questions about health behaviors annually since 2002, in addition to detailed information on family dynamics and the initiator status in the case of marital separation.

For the analytical sample, successfully interviewed individuals aged 18 years and older living in private households are selected if they either experienced a marital dissolution or if they stayed continuously married during their panel participation. We focus on separation as the trigger event because it refers to the split of the joint household into two independent households, while divorce refers to the formal ending of a marriage. Note that our sample respondents may proceed to legal divorce in the years after separation. Alternatively, they may also choose to stay separated without legal marriage or legal marriage may not be observed yet within the panel. In total, the final analytical sample comprises 6,653 women with 67,808 individual-year observations and 6,784 men with 67,096 individual-year observations. Analyses are based on an unbalanced panel. The sample includes 533 separation transitions for women and 465 separation transitions for men.

*Measures:* We focus the present analyses on two health behaviors as our main outcome measures: smoking and drinking. We categorize these into two dummy measures that indicate whether respondents smoke at all (yes vs no) and whether they drink regularly (yes vs no). We define regular drinking as more than two standard drinks per week on average. To explore how those health behaviors develop over the marital dissolution process, we generate a categorical measure that captures (1) more than three years prior to separation but married, (2) three to one year prior to separation and married, (3) the year of separation, (4) one to two years after separation, (5) three to four years after, (6) five to six years after, (7) seven to eight years after, and (8) more than eight years after separation. This measure provides relevant nuance to explore differences during times of anticipation of the separation, the separation itself and immediate as well as more mid- to long-term effects. We additionally explore potentially relevant heterogeneities of the effect across gender and by separation initiator status. To this end, we generate a dummy for respondents' gender and a categorical measure for the initiator status (mostly respondent (Ref), mostly partner, joint decision to separate).

*Methodological approach:* To deal with missing data, we impute missing data with chained equations for all analytical variables and a range of auxiliary variables using Stata's mi procedure (version 17). A total of ten imputed data sets were created. Estimation results from these ten imputed data sets were combined using Rubin's rule (Rubin, 1987).

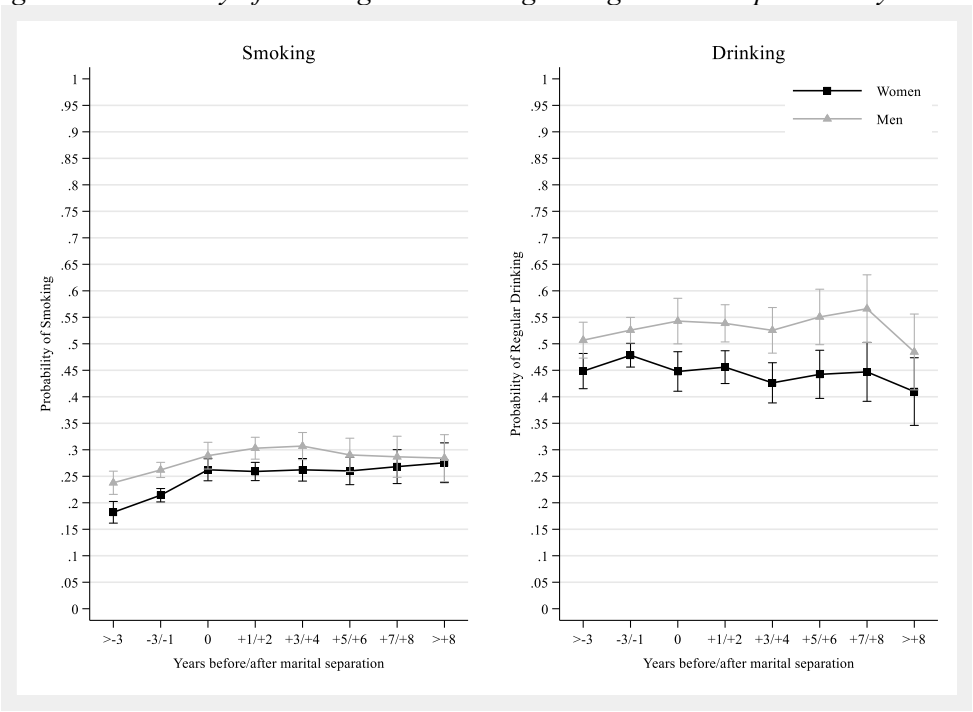
To estimate changes in health behaviors, we use fixed-effects linear probability models with a set of time-variant control variables (respondents' age, labor force participation status, education and individual income). These models solely use within-individual variation while discarding any between-individual variation. As such, only characteristics that vary over time can enter the fixed-effects model while all time-constant variables drop out of the equation. As a result, all time-constant heterogeneity (observed and unobserved) is accounted for in this model. The fixed-effects regression models are therefore ideal to assess how health behaviors change as individuals experience a marital separation. We correct standard errors for clustering of observations within individuals. We further run all analyses separately for men and women to

avoid interdependencies. Additionally, we estimate fully interacted models to examine whether separation-related changes in the outcomes differed significantly between men and women.

***Preliminary Findings***

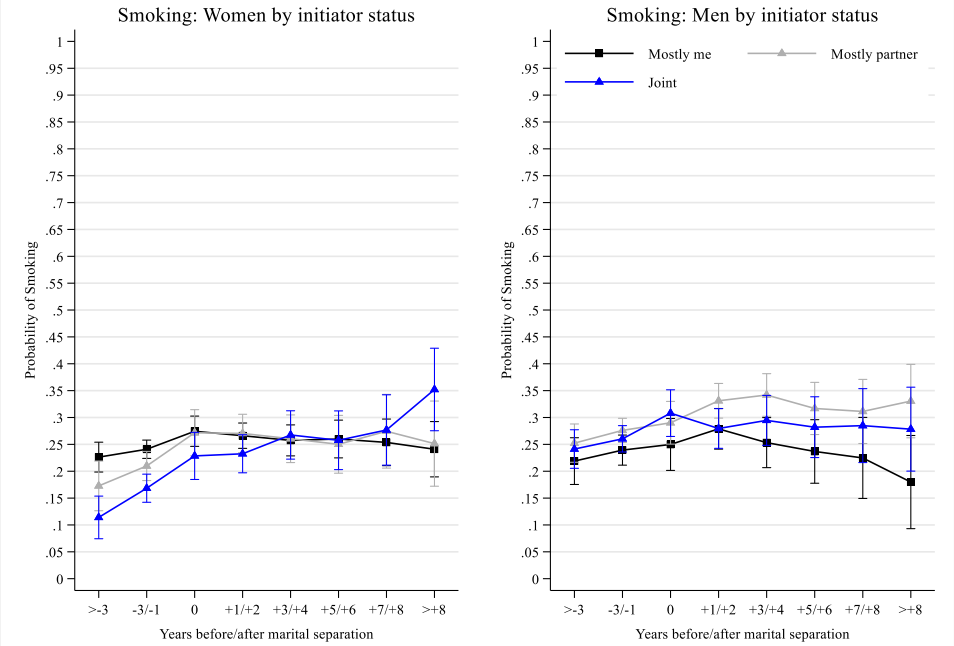
Figure 1 shows the probability of smoking and regular drinking throughout the marital dissolution process for both men and women. While men have a slightly higher probability of smoking, we find that for both genders the probability of smoking increases until the year of separation, with no substantial increases or decreases in the smoking probability in the years after separation (left-hand panel). Regular drinking is overall a more common health behavior than smoking in Australia (right-hand panel). Results suggest that marital separation is not associated with substantial increases in regular drinking for women. For men, we find marginal increases in the probability to drink in the years prior to separation and in the year of separation compared to at least four years prior to separation.

*Figure 1. Probability of Smoking and Drinking during Marital Separation by Gender*




We then anticipated that the link between marital separation and health behaviors would be moderated by the initiator status of the separation (Figure 2). Preliminary results suggest that women who initiate the separation do not substantially change their probability to smoke. However, if their partner initiates the separation or if the separation was a joint decision the probability to smoke for women increases. In the case of a joint decision, women's smoking probability continues to increase in the years after separation. For men, our results highlight that the probability of smoking particularly increases if their partner initiates the separation. In the case of a joint decision, smoking probabilities only increase marginally until separation, after which rates stay stable. For men who initiate the separation themselves, the probability of smoking decreases beginning three to four years after separation. Overall, our results highlight that the likelihood to smoke is impacted by who initiates the separation. For both women and men, we find that if they initiate the separation themselves, marital separation is less likely to be associated with the likelihood to smoke, indicating the importance of the initiator status in coping with a separation.

*Figure 2. Probability of Smoking during Marital Separation by Gender and Initiator Status*




With this study, we provide valuable insights into the changes in health behaviors that occur following marital dissolution. By examining the influence of both gender and the initiator of the dissolution, we enhance our understanding of potential variations in these associations. The results of this study address a current knowledge gap and have implications for public health interventions and policies aimed at supporting individuals through the challenging period of marital separation.

***Next Steps***

Prior to the European Population Conference, we will make several methodological refinements and advancements. First, we will replicate Figure 2 to show the probability of drinking by gender and initiator status. Second, we will explore alternative operationalizations of drinking and smoking, exploring, for instance, the possibility to operationalize smoking and drinking as continuous measures reflecting the number of weekly or monthly cigarettes and drinks. Third, we will explore more and less nuanced operationalization of our marital separation variable, testing, for instance, the association of interest using a simple separation dummy and further distinguishing our current measure to also include divorce as a step within the dissolution process. Finally, we will write a complete manuscript for discussant review.