**Supplementary Table 1: Measurement of risk factors of interest in All Our Families cohort study**

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| **Role and relationship strain variables** | **Measured at 3-years after childbirth** | **Measured at 5-years after childbirth** | **Measured at 8-years after childbirth** |
| Time crunch 1 |  | Time Crunch scale was used to assess time stress, time use, and perception of time on 10 items with yes=1 and no=0, total score ranges from 0 to 10. 1  Concept: time stress and experience of time scarcity  Time crunch scale containing 10 items related to time management: such as  -Do you plan to slow down in the coming year?  -When you need more time, do you tend to cut back on your sleep?  Time crunch scale score categorized at 1 standard deviation above mean:   * Higher level of time crunch (score ≥7) * Lower level (score <7) |  |
| Financial crunch |  | - On a scale from 1 to 7, please indicate how much you worry about having enough money to do what is important for your family: 1 rarely/never and 7 always | - On a scale from 1 to 7, please indicate how much you worry about having enough money to do what is important for  your family: |
| Juggling family, work, or other responsibilities | How would you describe your ability to fulfill family, work, or other responsibilities (e.g., volunteer work, household duties, other children) three years after giving birth?   * It is very difficulty * It is sometimes difficulty * It is sometimes difficult * It is difficult most of the time * It is always difficult |  | How would you describe your ability to fulfill family, work, or other responsibilities (e.g., volunteer work, household duties, other children) three years after giving birth?   * It is very difficulty * It is sometimes difficulty * It is sometimes difficult * It is difficult most of the time * It is always difficult |
| Experience with intimate relationship in general 2,3 |  | Feeling in a romantic relationship and adult attachment style were assessed on a 7-point Likert scale ranging from strongly disagree (1) to strongly agree (7). The scale has 12 items, total score ranges from 1 to 84 2  Concept: relationship.  Intimate relationship scale score categorized at 1 standard deviation above mean :   * Higher level of insecure adult attachment (score≥ 39) * Lower level (score <39) |  |
| Partner relationship and support | How satisfied are you with the social and/or emotional support you receive from your partner?  - Very satisfied  - Satisfied  - Unsatisfied  - Very unsatisfied  Does your partner provide you with practical support? (e.g., caring for your child(ren), preparing meals, helping with household chores, etc.)  - None of the time  - A little of the time  - Some of the time  - All of the time  The degrees of happiness in your relationship  - Extremely unhappy  - Quite unhappy  - A little unhappy  - Happy  - Very happy  - Extremely happy  - Perfectly happy  In general, how would you describe your relationship with your partner?  - A lot of tension  - Some tension  - No tension | In general, how would you describe your relationship with your partner?  -A lot of tension  -Some tension  -No tension | How satisfied are you with the social and/or emotional support you receive from your spouse/partner?  - Very satisfied  - Satisfied  - Unsatisfied  - Very unsatisfied  Does your spouse/partner provide you with practical support? (e.g., caring for your child(ren), preparing meals, helping with household chores, etc.)  - None of the time  - A little of the time  - Some of the time  - All of the time  The degrees of happiness in your relationship  - Extremely unhappy  - Quite unhappy  - A little unhappy  - Happy  - Very happy  - Extremely happy  - Perfectly happy |
| Social support during pregnancy 4 | The Medical Outcome survey (MOS) Social Support Scaleis a 19 item self-report scale that measures functional social support. Functional social support refers to “the degree to which interpersonal relationships serve particular functions”. The MOS Social Support scale measure emotional/informational (the expression of positive affect, empathy and encouragement of expression of feelings and the offering of advice), tangible (the provision of material aid or behavioral assistance), affectionate (expressions of love and affection), and positive social interaction (the availability of other persons to do fun things with you). For each item, respondents are asked to indicate how often each kind of support was available to them if they need it. Response choices are none of the time, a little of the time, some of the time, most of the time and all of the time scored from 1 to 5 respectively, with higher scores indicating more functional social support. | | |
| A history of adverse childhood experiences 5,6 | The adverse childhood experiences (ACEs) measured in this survey was developed by CDC. It includes 3 types of childhood abuse (emotional abuse, physical abuse, or contact sexual abuse) and 5 exposures to household dysfunction during childhood (exposure to alcohol or other substance abuse, mental illness, witnessing adult physical violence, criminal behaviour in the household, and parental separation or divorce). It assesses the abuse that happened during the childhood, that is before 18 years of age. The number of ACEs (range: 0–8) was summed to create the ACE scores. | | |

**References:**

1. Zukewich N. Work, parenthood and the experience of time scarcity. Housing, Family and Social Statistics Division Statistics Canada, 1998.
2. Brennan K, Clark C, Shaver P. Self-report measures of adult romantic attachment. In J. Simpson and W. Rholes, Attachment Theory and Close Relationships. New York: Guilford Press, 1998.
3. Wei M, Russell DW, Mallinckrodt B, & Vogel DL. The experiences in Close Relationship Scale (ECR)-Short Form: Reliability, validity, and factor structure. Journal of Personality Assessment, 2007;88:187-204.
4. Sherbourne CD, & Stewart AL. The MOS Social Support Survey. Social Science and Medicine, 1991;32(6):705-714.
5. Anda RF, Felitti VJ, Bremner D, Walker JD, Whitfield C, Perry BD, Dube SR, & Giles WH. The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology. European Archives of Psychiatry and Clinical Neuroscience. 2006;256(3):174-186.
6. Anda RF, Butchart A, Felitti V, Brown DW. Building a framework for global surveillance of the public health implications of adverse childhood experiences. American Journal of Preventive Medicine. 2010;39(1):93–8.