



ALL OUR FAMILIES STUDY

12-14 YEAR YOUTH DESCRIPTIVE REPORT

EXECUTIVE SUMMARY

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TECHNICAL SUMMARY

HISTORY OF THE ALL OUR FAMILIES STUDY

The All Our Families (AOF) study began as the All Our Babies (AOB) study in 2008. It is a prospective cohort study of approximately 3,200 mothers and their children in Calgary, Alberta. AOF was initially designed to examine maternal and infant outcomes during the perinatal period and to identify current barriers and facilitators to accessing health care services. Those who agreed to participate were asked to complete three surveys: the first during the second trimester (<25 weeks gestation), the second during the third trimester (34-36 weeks gestation), and the third at four months postpartum. Participants were also asked to provide consent to the research team to access their obstetrical and birth records (McDonald et al., 2013; Tough et al., 2017).

Compared with parents with young children in Calgary, Alberta and the broader Canadian context during a similar timeframe, the sociodemographic attributes of AOF participants at enrollment resembled the population of urban families who had children at the time in terms of age and education (Tough et al., 2017). However, a higher percentage of participants within the AOF cohort reported annual household earnings exceeding \$60,000 (82%), in contrast to their counterparts in Calgary (65%), Alberta (61%), and the nationwide figure (56%) at the start of the study. Additionally, the proportion of AOF participants who were married (83%) was elevated when compared with parenting females in Calgary (73%), Alberta (70%), and across Canada (60%).

Subsequent follow-up surveys were developed and administered to consenting and eligible participants to examine child development and parenting outcomes at 1, 2, 3, 5, and 8 years postnatally. Development of the next study follow-up survey began in August 2018 but was delayed due to the COVID-19 pandemic. Data collection for three maternal and youth COVID-19 Impact Surveys occurred between May 2020 and January 2022. Survey design for the 12–14-year follow-up resumed in early 2023 and was completed by Spring of 2023. Data collection occurred at the beginning of 2023, concluding in July of 2023 with a 65% response rate to the maternal survey. Mothers were also asked to consent having their youth participate in a youth survey, and among those who consented, 93% of youth completed the questionnaire. Additional information and previous reports can be found at the AOF website: <https://ucalgary.ca/allourfamilies>.

This report presents a summary of the data collected independently from the youth in the study when they were 12-14 years of age. Descriptive statistics are provided for youth demographics, community and peer connections, household dynamics, lifestyle, well-being, and development. Bivariate analyses were conducted to assess the relationships between youth outcomes and various demographics and social stressors.

OBJECTIVES

The objectives of this report were as follows:

- 1) To describe the AOF youth cohort with respect to demographics, relationships, mental and physical health, health service usage, and behaviour and development at 12-14 years of age.
- 2) To examine bivariate associations between sample sociodemographic variables and maternal health or youth outcomes.

METHODS

DATA COLLECTION

Between May 2008 and May 2011, a cohort of 3,387 pregnant individuals, ranging in age from 19 to 47, were recruited from a pool of eligible participants (n=4,003) in Calgary, Canada. To qualify for the study, participants needed to be under 25 weeks pregnant at the time they joined, at least 18 years of age, receiving prenatal care within Calgary, Canada, and were capable of filling out questionnaires in English (McDonald et al., 2013; Tough et al., 2017). Current AOF participants were eligible for this follow-up study if they (1) agreed to additional research, (2) were currently active in the study, and (3) had an email address on file. All AOF surveys have been circulated to content experts, subspecialists, and clinical experts and pilot tested prior to distribution. Starting January 16th, 2023, the study also invited the participant's youth to participate in the 12–14-year follow-up through a personalized online link to University of Alberta's REDCap survey platform. Mothers were sent email reminders and received phone calls from study research assistants to complete the questionnaire and were regularly reminded to provide consent for their child to participate in the youth survey. Youth participants received between \$15-25 gift cards for completing the survey, as well as an opportunity to win an Apple iPad if they completed early. After 24.5 weeks of active data collection, the 12–14-year surveys closed on July 7th, 2023.

Of the 1423 youth who were consented by their caregiver to participate in the study, 1317 provided responses (response = 93%).

Data were exported from REDCap on July 7th, 2023, into IBM SPSS, where data cleaning, management, and coding began shortly afterwards by the research team.

ANALYSIS

Data management and statistical analyses were performed using IBM SPSS. Descriptive statistics were calculated for all quantitative variables collected. Categorical variables are presented as proportions, and continuous variables are presented as sample means with standard deviation, minimum, and maximum values. Bivariate associations between categorical variables were conducted using Chi-square crosstabulations. Associations between categorical and continuous variables were conducted using t-tests. Continuous variable associations were conducted as correlations with Pearson's correlation coefficient. Statistical significance for all relevant analyses was set at $p < 0.05$.

ETHICS APPROVAL

This original study was approved by the Child Health Research Office and the Conjoint Health Research Ethics Board of the Cumming School of Medicine, University of Calgary (Ethics ID 20821 and 22821). Participants provided consent at the time of recruitment to participate in the initial study and to be contacted for additional future research (REB13-0868).

HIGHLIGHTED RESULTS

- 1317 youth participated in the 12 – 14-year follow-up survey (response of 93%).

Demographics

- The average age was 12.8 (SE 0.02) years. At the time of the survey, most were attending grade 6 (26.0%), grade 7 (38.6%), or grade 8 (30.0%).
- The most common youth self-reported ethnicity was White/Caucasian (76.6%) and most identified as heterosexual (62.9%). Furthermore, 52.3% of youth reported to be assigned male at birth while 47.7% were assigned female at birth.
- When considering the number of people in the household, most youth lived with two adults in the home (79.0%). Many households contained two youth aged 10-17 (58.2%), indicating that over half of AOF youth lived with another youth such as a sibling.

School

- Most youth reported that they were performing either at, slightly above, or significantly above grade level in Language Arts (89.2%), Mathematics (89.5%), Science (94.5%), and Social Studies (93.5%).
- School climate is based on perceptions of the school environment, including teacher and peer interactions. 37.8% of youth reported poor school social climate while 34.5% reported high school climate. In addition, 33.4% reported being bullied within the past year, and 42.0% reported a low sense of belonging in school.
- Nearly 20% of youths had a Special Education code as identified by Alberta Education. Mothers reported that these youth required support for a wide range of abilities. Among those who had a

Special Education code, learning disabilities were most frequently reported (49.5%) followed by emotional/behaviour disability (26.9%), gifted/talented (23.6%), or those who had a physical or medical disability (9.1%).

- Approximately 44.7% of youth felt a low connectedness with adults at school and 48.5% of youth felt a low sense of peer belonging.

Lifestyle

- Over three-quarters (77.9%) of youth owned smartphones and reported spending up to 2 hours (38.8%) or 4 hours (36.0%) per weekday using electronic devices for entertainment. Youth reported more recreational screen time on the weekends with 2-4 hours (35.9%) and 4-6 hours (27.5%) being the most-reported durations. Increased frequency of social media use was associated with at-risk or clinical levels of anxiety symptoms; however, there was no association between social media use and youth depression
- About 1 in 5 youth (18.6% and 21.2%) scored at-risk (10 or more on the Social Media Addiction Questionnaire and Video Game Addiction Questionnaire) for social media addiction and video game addiction, respectively (Bagot et al., 2022).
- 73.7% of youth reported following the current Canadian 24-Hour Movement Guidelines (2021) for sleeping 8 or more hours per night for children aged 14-17 years old. Despite the widespread use of digital devices, 89.5% of youth reported never being disturbed by them during sleep.
- Most youth (83.1%) reported meeting the Canadian 24-Hour Movement Guidelines (2021) for physical activity by engaging in moderate-to-vigorous activity for 60 minutes at least 3 days a week. When considering overall health, most youth self-rated their health as excellent (30.3%), very good (46.4%), or good (8.7%)

Mental Health and Well-being

- Using Ryff's Psychological Well-Being Scale, flourishing scores for youth were captured and ranged from 0 to 10 with average flourishing scores of 7.50 (SD 1.70; Ryff, C.D., 1989). Most youth (70.1%) scored 7 or above, meaning they had medium to high levels of flourishing.
- Between 40% and 50% of youth reported not feeling connected to adults in their home, school or community. Almost 50% of youth reported low levels of intimacy with peers, and low sense of peer belonging.
- Verbal or relational bullying was the most common form experienced by the 33.4% of youth who experienced bullying in the past year.
- One in five (20.6%) youth participants reported that they experienced discrimination over the previous year.
- Overall, 28.8% of youth had experienced a mental health concern. The majority (91.0%) received support for these issues through either professional (e.g., family doctor, psychologist, psychiatrist) or non-professional (e.g., family members, friends, teacher) supports.
- 12.3% of mothers identified their youth as at-risk for symptoms of depression. However, a quarter of youth (25.1%) self-reported depression symptoms. A similar pattern was reported for anxiety with 12.6% reported by mothers while 29.4% of youth self-reported anxiety symptoms. This

indicated that youth self-reported a higher prevalence of mental health issues than as reported by their mothers; thus, their parent may be unaware of their anxiety or depression symptoms.

- Self-reported symptoms of depression (35%) and anxiety (38%) were higher among those assigned female at birth compared to male (16.1% and 23.5%, respectively).
- Eco-anxiety, also known as climate anxiety, is an emotional response to climate change and environmental issues. Among the youth in our sample, 1 in 10 (10.2%) reported being either extremely or very worried about climate change while 22.5% reported being moderately worried.
- Household income was not related to youth mental health, including anxiety and depression symptoms, or flourishing scores.

CONCLUSION

Through the 12–14-year follow-up questionnaires, youth reported data on their relationships, physical and mental well-being, screen time use, and school experiences. Potential relationships between sex assigned at birth, social media use, and mental health were identified. Reports from youth in the AOF cohort suggest that resources are needed for mental health, flourishing, and connectedness. The next wave of questionnaires will aim to examine youth at age 15-17 years. At this time, mental health, social media, benevolent life experiences, and post-secondary decisions will be further investigated.

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