

Statistics Canada

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- Study: Links between symptoms of depression among young people and relationships with others, 1998/99 to 2000/01
 The more positive the relationship young people have with a parent, the more positive their mental well-being, according to a new study that examines changes in these relationships during adolescence.
- Study: Participation in post-secondary education, 1993 to 2001 Despite mounting financial challenges during the 1990s, young people from moderate- and low-income families were no less likely in 2001 than they were in 1993 to attend university, according to a new study.

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Major releases

Study: Links between symptoms of depression among young people and relationships with others

1998/99 to 2000/01

The more positive the relationship young people have with a parent, the more positive their mental well-being, according to a new study that examines changes in these relationships during adolescence.

Young people who reported higher levels of closeness, affection and understanding from their mothers and fathers had fewer symptoms of depression, the study showed.

Moreover, youth who reported getting along well with their peers also had fewer symptoms of depression. These results occurred for both young men and women regardless of household income, or whether the young people lived in either single- or two-parent families.

The study was based on longitudinal data from the National Longitudinal Survey of Children and Youth (NLSCY). The young people selected for this study had been interviewed every two years since the start of the NLSCY in 1994/95. Two time periods were considered for this study: when the youth were aged 14 and 15 in 1998/99, and two years later in 2000/01 when the same youth were 16 and 17.

The study examined young people's relationships with their mothers, fathers and friends and how these relationships changed over the two-year period. It also examined how the changes were linked to symptoms of depression when the young people were 16 and 17.

It found that the relationships that young people had with their parents and peers were linked to symptoms of depression at both stages in their lives.

In particular, a change in the relationship with their father or with their friends was significantly related to such symptoms.

Young people closer to mother than father

Young people on average perceived more closeness, understanding and affection in their relationship with their mother than with their father,

Note to readers

This release is based on a research paper entitled "Youth depressive symptoms and changes in relationships with parents and peers."

Data used in this study were taken from the National Longitudinal Survey of Children and Youth (NLSCY), a long-term study of children in Canada that collects information on a wide range of factors influencing the social, emotional, and behavioural development of children from birth to early adulthood. The NLSCY began in 1994 and is jointly conducted by Statistics Canada and Social Development Canada.

This report provides insight into the relationships between youth and their mothers, fathers and friends, how these relationships changed over a two-year period, and how these changes related to depressive symptoms experienced at ages 16 and 17.

Its purpose is to add to existing research by combining an analysis of change and an analysis of gender differences into a single report.

Included in this study were 908 members of the first longitudinal cohort of the NLSCY who were 16 and 17 years old during the 2000/01 collection phase of the survey. These young people had also responded two years previously at the ages of 14 and 15.

This sample represented about 359,600 young people who were aged 10 and 11 in 1994/95, when the first data were collected by the NLSCY.

Definitions

Symptoms of depression: The NLSCY derived a depressive symptoms score for 16- and 17-year-olds in 2000/01. This score provided a measure of the frequency of depressive symptoms by focussing on the occurrence and severity of symptoms during the previous week. Youth were asked to respond to statements like: I felt depressed; I felt I could not shake off the blues even with help from my family and friends; and I felt that everything I did was an effort.

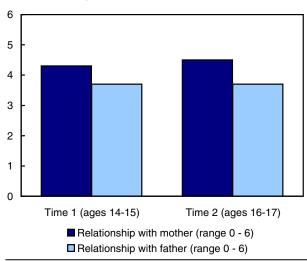
This measure was not a diagnostic for clinical depression; rather, the higher the score, the greater the prevalence of depressive symptoms or depressive affect.

according to NLSCY data. This was true when youth were aged 14 and 15, and again when they were 16 and 17.

This finding is consistent with research that suggests that mother-adolescent relationships may be characterized by attachment and intimacy. It is also consistent with research that suggests that relationships between fathers and adolescents may be characterized by physical and emotional distance.

Youth perceived more closeness, understanding and affection in their relationship with their mother than with their father

Mean relationship score



Furthermore, a higher proportion of young people reported stability in their relationship with their mother (40.8%) over the two-year period, compared with those who reported that it got worse (25.6%). However, there was little difference in the proportion of youth who reported that their relationship with their father had worsened (33.3%) or stayed the same (32.3%).

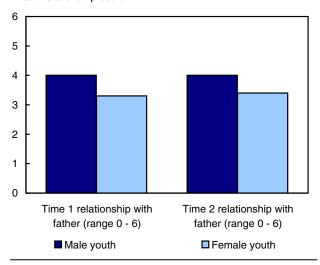
When results for young men and young women were examined separately, young men perceived more closeness, understanding and affection from their father at both points in time than did young women.

This is consistent with research showing that young men perceive more support from their fathers than do young women. However, there was no difference between the sexes in their perception of their relationship with their mother. This supports previous research which suggests that the relationships of sons and daughters with their mothers may be largely similar.

With respect to change in these relationships, young men were no more or less likely to report an improvement or worsening of their relationships with their parents than were young women.

Male youth consistently gave their father a higher average score on the relationship scale than did female youth

Mean relationship score



In terms of relationships with peers, on average, young people reported getting along as well with their peers at 14 and 15, as they did two years later at 16 and 17. In addition, the same proportion of youth reported that their friendship score had increased over time (35.8%) as those who reported that it declined (35.5%).

Changes in relationships with fathers and friends had significant link to adolescent symptoms of depression

The study found that relationships young people had with others were associated with symptoms of adolescent depression in both time periods. However, age, income and living with one or two parents were not linked to such symptoms.

Examining this link over time revealed that changes in relationships with fathers and friends were significantly related to symptoms of depression, after taking into account such variables as gender and stressful events.

Furthermore, the results suggested that the links between changes in perceived relationships and such symptoms were equally important for both young men and young women.

Changes in the perceived relationship with mothers over time were not linked to symptoms of depression at the age of 16 and 17. However, it is worth noting that a young person's perceived relationship with their mother at 14 and 15 was significantly linked to symptoms two years later. Specifically, young people who reported higher scores on the relationship-with-mother scale at the ages of 14 and 15 had lower scores of symptoms of depression by the time they were 16 and 17.

On the other hand, a change in the relationship with father was significantly related to symptoms of depression. Young people who reported that their relationship with their father had increased in closeness, understanding and affection over time were more likely to have lower scores of symptoms of depression at ages 16 and 17, compared with young people who reported their relationship got worse. This occurred regardless of how they rated their relationship with their father when they were 14 and 15.

These different results for mothers and fathers support the idea that young people may interact differently with each parent. This suggests that to better understand relationships between youth and their parents, it is important to examine mothers and fathers separately rather than regarding them as a single parenting unit.

Changes in friendships were also linked to symptoms of depression. Young people who reported getting along better with their peers over time were more likely to have lower scores of symptoms of depression at ages 16 and 17, compared with youth who reported a worsening of these friendships.

Though perceived improvements in relationships with others may have positively influenced young people's mental well-being, it is important to emphasize that the reverse may also have been true. Having a positive outlook may have had a positive effect on how young people perceived their relationships over time.

Young women consistently reported more symptoms of depression than young men

This study also investigated the extent to which young men and women differed in the degree of their symptoms of depression when they were 16 and 17.

It found that there was a significant difference between the sexes in the prevalence of symptoms of depression.

Young women who were 16 and 17 had higher mean scores for such symptoms than did their male counterparts. There was also evidence that young women were significantly more likely to display such symptoms two years beforehand.

At the ages of 14 and 15, girls reported higher levels of anxiety. At this age, girls were also more likely than boys to report having suicidal thoughts (15.5% versus 6.9%). This is consistent with other studies that have found girls more likely to report symptoms of depression during adolescence than boys.

Definitions, data sources and methods: survey number 4450.

The study Youth Depressive Symptoms and Changes in Relationships with Parents and Peers (89-599-MIE2005002, free) is now available online. From the Our products and services page, under Browse our Internet publications, choose Free, then Social conditions.

For more information about the data collected during the first four cycles of the NLSCY or to enquire about the concepts, methods or data quality of this release, contact Client Services (1-800-461-9050; 613-951-3321; ssd@statcan.ca), Special Surveys Division.

Study: Participation in post-secondary education

1993 to 2001

Despite mounting financial challenges during the 1990s, young people from moderate- and low-income families were no less likely in 2001 than they were in 1993 to attend university, according to a new study.

The study probes the relationship between parental education and income and participation in post-secondary education in Canada from 1993 to 2001.

Following a longstanding pattern, youth aged 18 to 24 whose parents were highly educated and had high incomes, that is, over \$100,000 annually, continued to be most likely to attend university.

However, in the face of sharp increases in tuition fees and student debt, the gap in university participation rates between youths from high-income families and those from modest or low-income families did not increase from 1993 to 2001.

Between 1993 and 2001, average undergraduate tuition fees increased 77%, from \$2,023 to \$3,577.

In terms of student debt, university and college graduates owed 76% more in 2000 than in 1990. On average, bachelor graduates with student debt owed \$20,000 in 2000 and college graduates almost \$13,000.

University participation rates generally rise as family incomes increase. However, the study found little change during the 1990s in participation rates among youth from families of modest income (that is, \$25,000 to \$75,000 annually) or low-income families (those with incomes below \$25,000 annually).

When taking into account both parental education and parental income, the study found university participation rates are more strongly associated with parents' level of education than with their income. However, there was not a strong association between participation in college and parental education.

Relationship persists between parental income and post-secondary participation

Consistent with previous studies, the study showed that young people from high-income families were much more likely to attend university than those from low-income families.

Young people from families with annual incomes of \$100,000 or more had a rate of university attendance about two times greater than that of those from families with income below \$25,000.

In 2001, about 46% of youth 18 to 24 year olds from high-income families had completed or were enrolled in university studies compared with 20% of youths from low-income families.

Note to readers

This study uses data from the Survey of Labour and Income Dynamics (SLID), a longitudinal panel study of individuals.

Two samples are used in this study. The first includes all SLID respondents aged 18 to 24 who were no longer attending either elementary or high school during the reference year.

The second sample includes SLID respondents aged 18 to 24 who were no longer in elementary or high school and who were living with at least one parent (birth, step, adopted or foster) during the reference year.

While university participation rates generally rise as family incomes increase, the differences among low-income families and families with low to modest incomes were small. In 2001, about 24% of youths from families with annual incomes from \$25,000 to \$50,000 attended university. When family income falls between \$50,000 and \$75,000, 25% of youths attend university.

The participation gap in university attendance between high- and low-income families persisted between 1993 and 2001. However, it did not change in any meaningful way over this period.

Where participation in college was concerned, the gap in participation according to family income was much smaller than for university attendance. However, when one considers only the youths aged 18 to 24 who did not attend university, the gap widened.

Of 18 to 24 year-olds who did not attend university, 40% from low-income families participated in college. In comparison, 60% of youths not attending university and who were from high-income families participated in college. This gap remained constant over the 1990s.

Higher parental education increases chance of university participation

While university participation was strongly related to parents' education, this was not the case for college participation.

The chances of participating in university were higher for children of university-educated parents than for children of parents with other levels of education.

In 2001, only 17% of youths whose parents had a high school education or less attended university. For youths whose parents had a college education, the participation rate increased to 28%. One-half of youths whose parents had a university education attended university themselves.

The gap in participation rates between youths with highly-educated parents versus low-educated parents remained constant between 1993 and 2001, the years covered in this part of the study.

Furthermore, when both parental education and parental income were taken into account, participation

in university was more strongly associated with parental education than parental income.

On the other hand, children of parents with a high school education or less were just as likely to participate in college as children of parents with a university degree. This pattern also remained constant from 1996 to 2001.

Gender gap at university favours women

Between 1993 and 2001, about three in five Canadians aged 18 to 24 who were no longer in elementary or secondary school participated in some form of postsecondary education.

Of these youths, roughly one in three attended college. A smaller proportion (one in four) attended university. Slightly more (almost two in five) had at some point during their academic careers enrolled in university.

Women had higher participation rates in postsecondary studies than men, mainly because

of their higher university attendance. However, the gender gap in university participation did not grow during the 1990s.

Definitions, data sources and methods: survey number 3889.

The study Participation in Post-secondary Education in Canada: Has the Role of Parental Income and Education Changed over the 1990s? no. 243 (11F0019MIE2005243, free) is now available online. From our home page select Studies, then under Browse periodical and series choose Free and for sale. Under Series select Analytical Studies Branch.

For further information or to enquire about the concepts, methods or data quality of this release, contact Marc Frenette (613-951-4228) or René Morissette (613-951-3608), Business and Labour Market Analysis Division.

Other releases

Study: Sport utility vehicles

1999 to 2004

More and more sport utility vehicles (SUVs) are on the road these days, and more of them are being produced in Canada, according to a new study.

Since 1999, SUV production in Canada has increased dramatically, even though overall automotive manufacturing has stalled.

The study found that SUV production surpassed the output of both minivans and pickup trucks in Canada in 2004. It examines production and sales trends in light-duty motor vehicle manufacturing in Canada and the United States from 1999 to 2004.

Between January and September last year, SUVs accounted for 18% of total light-duty vehicle manufacturing, which consists of the assembly of passenger cars, vans, minivans, pickup trucks and SUVs. This was nine times the proportion of just five years earlier.

Automotive manufacturers in Canada churned out 350,000 SUVs from January to September 2004. This surpassed the total of 331,634 SUVs that they produced in the entire year of 2003.

What it means is that the Canadian automotive industry is benefiting from one of the largest and fastest growing market segments in North America.

The nation is also reaping economic benefits, as the motor vehicle industry accounted for nearly 13% of the total manufacturing sales in 2002. Ontario motor vehicle makers alone employed more than 42,000 workers in 2002, or 4.7% of the province's employment in manufacturing.

Despite recent record high prices for crude oil, North American consumers have had a big appetite for SUVs, which tend to be less fuel efficient than passenger cars. Sales of SUVs reached all-time highs in both Canada and the United States in 2003.

In 2003, US consumers bought 4.5 million SUVs, the equivalent of one SUV for every four vehicles sold. This market has increased at an annual average rate of 8.9% since 1999, when SUVs held 19% of the light-duty vehicle market.

The Canadian market for SUVs has also grown, but sales remain relatively lower than in the United

States. In 2003, dealers sold 272,000 SUVs here, which comprised 17% of all light-duty vehicle sales in Canada that year, up from 12% in 1999. Sales were up 10.7% a year on average during this period.

This occurred despite warnings from environmental groups, which claim that sport utility vehicles guzzle more gas and pollute more than cars.

Sales of light trucks in the United States (about half of which are SUVs) remained strong during the first nine months of 2004 in spite of continued increases in gasoline prices. But in Canada, during the same period, SUV sales have declined while overall light-duty vehicle sales slumped.

Definitions, data sources and methods: survey number 2101.

The analytical article *Sport Utility Vehicles: Driving Change* (11-621-MIE2005020, free) is now available online in the *Analysis in Brief* series. From the *Our products and services* page, under *Browse our Internet publications*, choose *Free*, then *Business enterprises*.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Erik Magnusson (613-951-0218), Manufacturing, Construction and Energy Division.

Industrial Chemicals and Synthetic Resins December 2004

Data on industrial chemicals and synthetic resins are now available for December.

Available on CANSIM: table 303-0014.

Definitions, data sources and methods: survey number 2183.

The December 2004 issue of *Industrial Chemicals* and *Synthetic Resins*, Vol. 47, no. 12 (46-002-XIE, \$6/\$51) is now available. See *How to order products*.

For more information, or to enquire about the concepts, methods or data quality of this release, contact the dissemination officer (1-866-873-8789; 613-951-9497; *manufact@statcan.ca*), Manufacturing, Construction and Energy Division.

Wool disposition and farm value 2003

The quantity, price and farm value of purchased wool and wool for home use are now available for 2003 by province and for Canada.

Following increases in the previous five years, the total farm value of wool purchased in 2003 increased 14.7% from a year earlier to nearly \$1.6 million, which was comparable to 1997 levels. This upward trend was due to a combination of stronger prices and an increase in the quantity purchased.

Alberta continues to be the major player with 35.3% of the value with Ontario second at 22.3%.

Available on CANSIM: table 003-0016.

Definitions, data sources and methods: survey number 3460.

The publication *Sheep Statistics*, Vol. 4, no. 1 (23-011-XIE, free) will soon be available.

For general information or to order data, call 1-800-465-1991. To enquire about the concepts, methods or data quality of this release, contact Bernadette Alain (902-893-7251; bernadette.alain@statcan.ca), Agriculture Division.

Crushing statistics

January 2005

According to the monthly survey of crushing plants, Canadian oilseed processors crushed 246,560 metric tonnes of canola in January. Oil production last month totalled 104,143 tonnes while meal production amounted to 154,091 tonnes.

Available on CANSIM: table 001-0005.

Definitions, data sources and methods: survey number 3404.

The January 2005 issue of *Cereals and Oilseeds Review* (22-007-XIB, \$12/\$120) will be available in March.

For general information, contact Client Services (1-800-465-1991; agriculture@statcan.ca). To enquire about the concepts, methods and data quality of this release, contact Les Macartney (613-951-8714; les.macartney@statcan.ca), Agriculture Division.

Aircraft movement statistics: Small airports

September 2004

The September 2004 monthly report, Vol. 2 (TP141, free) is available on Transport Canada's Web site (http://www.tc.gc.ca/pol/en/Report/tp141e/tp141.htm).

Note: The TP 141 monthly report is issued in two volumes. Volume 1 presents statistics for the major Canadian airports (i.e., those with NAV CANADA air traffic control towers or flight service stations). Volume 2 presents statistics for the smaller airports (i.e., those without air traffic control towers). Both volumes are available free upon release at Transport Canada's Web site.

For more information about this Web site, contact Michel Villeneuve (613-990-3825; *villenm@tc.gc.ca*), Transport Canada.

Definitions, data sources and methods: survey number 2715.

For more information, or to enquire about the concepts, methods or data quality of this release, contact Kathie Davidson (613-951-0141; fax: 613-951-0010; (aviationstatistics@statcan.ca), Transportation Division.

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Children and Youth Research Paper Series: Youth Depressive Symptoms and Changes in Relationships with Parents and Peers, 1994 to 2000, no. 2

Catalogue number 89-599-MIE2005002 (free).

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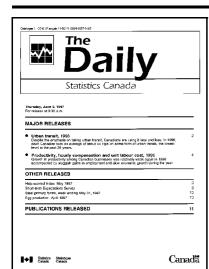
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