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Lifecourse SEP and tobacco and cannabis use

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Background: Social inequalities in substance use have been well-documented; however, the impact of changes in socio-economic position from childhood to adulthood is unclear. We examined the relationship between intergenerational trajectories of social position and tobacco and cannabis use among young adults. **Methods:** Data come from 1103 participants (mean age: 28.9 years) of the Trajectoires Epidémiologiques en Population (TEMPO) study and their parents, participants of the GAZEL study, France. Multinomial regression analyses were used to examine associations between lifecourse socio-economic position (SEP) assessed using the parent's reports of family income (1989 and 2002) and the participant's educational attainment, occupational grade and job stability in 2009, with self-reported tobacco and cannabis use in 2009. **Results:** Compared with participants with stable intermediate/high SEP, those with stable low SEP and those with declining SEP were more likely to use tobacco (age- and sex-adjusted ORs = 2.03 and 2.26). Participants who experienced declining SEP were also disproportionately likely to use and abuse cannabis (adjusted ORs = 2.22 and 2.73). Associations remained significant after adjusting for family (parental smoking, alcohol use, ill health, unemployment, depression and divorce) and individual (early tobacco and cannabis use, academic difficulties, juvenile internalizing and externalizing problems) risk factors. **Conclusions:** Cross-sectional studies indicate social inequalities in substance use. Our longitudinal findings suggest that individuals who experienced declining SEP from childhood to adulthood may be twice as likely to use tobacco and cannabis compared with individuals with a stable/high trajectory. Interventions targeting substance abuse should take into account lifecourse determinants including the interplay between individuals' socio-economic origins and later attainment.

Introduction

Each year, tobacco smoking accounts for approximately 5 million deaths globally,[1] while cannabis is the most commonly used illicit drug across industrialized countries.[2] Psychoactive substance use generally begins in adolescence and while tobacco use largely persists after the transition to adulthood, cannabis use tends to decrease. However, recent evidence suggesting that a growing proportion of individuals maintain high levels of use into their 20 s and 30 s calls for research on factors associated with such substance use in this age group.[3,4] Tobacco and cannabis use are disproportionately frequent in adults who belong to disadvantaged social groups.[5,6] Additionally, childhood socio-economic disadvantage may be independently associated with later substance use,[7,8] and there is suggestion that lifecourse socio-economic characteristics may be more precise than adult socio-economic position (SEP).[9,10] In particular, declines in SEP (i.e. downward socio-economic trajectories) may be associated with elevated rates of tobacco smoking,[11,12] but little is known regarding the association with cannabis use.

Childhood socio-economic disadvantage is associated with specific family and individual risk factors.[13] Children who grow up in socially disadvantaged families may be more likely to display emotional and behavioral problems early on, to experience school difficulties, and have problems with their peers, which may further contribute to risk of substance use.[14] Substance use in adolescence may, in turn, be related to poor educational and occupational outcomes in adulthood.[15,16] The use of lifecourse socio-economic measures offers the possibility of investigating patterns of inequalities from childhood to adulthood.[17]

The present study uses data from 1103 French young adults (TEMPO study) to test the research question 'Does tobacco and cannabis use differ across different lifecourse socio-economic trajectories when adjusting for individual and familial risk factors of substance use?'

Methods

Sample characteristics

The TEMPO study was set up in 2009 among young adults ages 22–35 years,[18] selected among offspring of participants of the GAZEL cohort study, employees of Electricité de France-Gaz de France (EDF-GDF), a large public sector utility company in France.[19] In 1991, participants took part in the GAZEL Youth Study, designed to estimate the prevalence of psychological problems and access to mental health care in children.[20] In 2009, parents of eligible youths received a letter asking them to forward the TEMPO study questionnaire to their son/daughter. Of the 2498 youths whose parents were alive and who could be contacted, 16 had died since 1991 and 4 were too ill or disabled to answer. The overall response rate to the 2009 TEMPO mailed questionnaire was 44.5% ($n = 1{,}103$), which is comparable with response rates of other mental health surveys in France.[21] Leading reasons for non-participation were non-transmission of the questionnaire by the parent (34.4%) or the youth's lack of interest (28.5%). Non-respondents were more likely to be male, and disproportionately came from families that were divorced, had low socio-economic background or in which the parents smoked tobacco or abstained from alcohol. Participants and non-participants did not vary with regard to parental or own overall psychological characteristics. Unemployment rate, as well as tobacco, alcohol and cannabis use rates in TEMPO are comparable with data from young adults in the general population of France.[22,23] The TEMPO study was approved by the French national committee for data protection (CNIL: Commission Nationale Informatique et Liberté).

Measures

Data primarily come from the 2009 TEMPO study questionnaire; additionally, parental characteristics were collected directly from the participant's parents through yearly GAZEL study questionnaires, and the participant's juvenile characteristics were reported by their parents in the 1991 GAZEL Youth study.

Socio-economic trajectories

Participants' socio-economic trajectory was based on their childhood and adult SEP. Childhood SEP was ascertained by family income in 1989 and 2002 (mean: 2408 €/month in 1989 and 3329 €/month in 2002, as compared with 2695 €/month and 3516 €/month in the French population of the same age during the same period).[24] We combined the two assessments available to us to obtain mean family income over this 13-year period, which was then dichotomized at the bottom quartile (low vs. intermediate/high family income). Adult SEP was ascertained in 2009, based on the participant's educational attainment (less than high school degree vs. high school degree or more), occupational grade (low vs. intermediate/high), past 12-months employment stability (no vs. yes) and past 12-months experience of unemployment (no vs. yes), which were summed into an overall indicator of SEP. Correlations between the four components of our SEP indicator ranged from 0.03 to 0.47. To identify individuals with low SEP in 2009, we divided the SEP distribution at the bottom quartile (low vs. intermediate/high SEP). Childhood and adult SEP were combined making it possible to distinguish four trajectories: (i) stable low SEP ($n = 177$, 18.3%, low childhood and adult SEP); (ii) downward ($n = 206$, 21.3%, high/intermediate childhood and low adult SEP); (iii) upward ($n = 212$, 22.0%, low childhood and high/intermediate adult SEP); and (iv) stable intermediate/high SEP ($n = 371$, 38.4% high/intermediate childhood and high/intermediate adult SEP). All analyses were repeated using a composite measure of adult SEP that did not include educational attainment. Results remained essentially unchanged (data not given), suggesting that the inclusion of educational attainment in our composite measure of SEP did not skew our findings.

Tobacco and cannabis use

Past 12-months tobacco use was defined as $\geq$ 1cigarette per day; past 12-months cannabis use as cannabis use on $\geq$1 occasion. Problematic cannabis use was assessed by seven questions adapted from the Cannabis Abuse Screening Test (CAST).[25] The CAST score ranges from 0 to 6 and after the test authors' recommendations, a score of $\geq$2 was considered indicative of problematic use. Additionally, participants were asked about age at first tobacco and cannabis use. Early tobacco ($\leq$13 years) and early cannabis use (<17 years), were defined in consistent with measures used in other studies.[26,27]

Individual characteristics

Participants' demographic characteristics included age in 2009 (<30 vs. $\geq$ 30 years) and sex (female vs. male). Juvenile psychological problems were reported by parents on the Child Behavioral Checklist (CBCL) in 1991.[20,28] Internalizing problems included 31 symptoms of depression, anxiety, somatic complaints and withdrawal (mean score = 9.67, SD = 8.12), and externalizing problems included 32 symptoms of behavioural and conduct difficulties [mean score (SD) 11.97 (9.65).

Academic difficulties were assessed by combining (i) youths' poor academic performance in 1991 (in French, mathematics, sciences, foreign language; prevalence of failing at least one subject = 4.9%), (ii) learning difficulties in 1991 (prevalence = 13.7%) and (iii) grade retention reported in 2009. Since grade retention is common in France, only participants who were retained at least twice were considered to have academic difficulties (prevalence of $\geq$2 grade retentions = 19.1%).

Family characteristics

Parental tobacco smoking was defined as regular smoking ($\geq$1 cigarette/day in the preceding 12 months) in any assessment year from 1989 to 2009 (smoker vs. non-smoker). To assess *parental alcohol use* (high alcohol use present vs. absent), we combined data from two sources: parents' own yearly self-reports of high alcohol use in the GAZEL study questionnaire (>21 glasses of alcohol/per week in women, >28 glasses of alcohol/per week in men, prevalence = 24.8%) and TEMPO participants' reports of parental alcohol dependence, ascertained using a questionnaire adapted from the National Institute of Mental Health-The Family Interview for Genetic Studies (NIMH-FIGS) (prevalence = 4.2%).[29] *Parental ill health* (present vs. absent) was assessed based on (i) parents' serious illness, accident or physical disability in 1991 (prevalence = 24.5%) and (ii) the mother or father being hospitalized between 1989 and 2009 ($\geq$3 times over the course of follow-up to limit the assessment to significant health problems, prevalence = 21.6%). *Parental unemployment* was defined as either the mother or father becoming unemployed between 1989 and 2009 (yes vs. no, prevalence 14.9%). *Parental depression* (present vs. absent) was defined as at least two parental reports of depression between 1989 and 2009 (prevalence = 27.4%), or TEMPO participants' reports of parental lifetime depression (prevalence = 21.1%).[29] *Parental separation or divorce* was reported by the parents between 1989 and 2009 (yes vs. no, prevalence = 14.8%).

Associations between each family measure and (i) participants' socio-economic trajectories and (ii) substance use were examined

in univariate regression models. To maximize statistical power for multiple regression analyses, we created a cumulative family risk variable [mean (SD) 1.27 (1.10), range = 0–6] summing parental (i) tobacco smoking, (ii) heavy alcohol use, (iii) ill health, (iv) unemployment, (v) lifetime depression and (vi) separation/divorce.

Statistical analyses

To examine the association between intergenerational SEP and tobacco and cannabis use in young adulthood, we excluded students ($n = 85$) from the sample, as their current SEP was difficult to determine. First, we described socio-economic trajectory groups in relation to the participant's individual and family characteristics in univariate multinomial regression analyses. Secondly, we examined univariate associations between tobacco smoking and cannabis use and problematic use and socio-economic trajectories using the chi square statistic. Thirdly, we conducted multivariate logistic regression analyses controlling for variables associated with socio-economic trajectory and substance use at $P < 0.10$ to ensure that variables that were statistically related to the outcome, but confounded in age- and sex-adjusted analyses, were not automatically excluded from the analyses. Fourthly, we calculated the contribution of individual and family characteristics to the association between socio-economic trajectories and substance use with the following formula: % = [(OR adjusted for gender and age) − (OR adjusted for individual + family characteristics)/(OR adjusted for gender and age − 1)] × 100. Although socio-economic trajectories and substance use patterns varied by sex, we found no statistically significant interactions; therefore, all analyses were conducted across sex groups. We used STATA 10.1.[30]

Results

Table 1 shows the percentage or mean (SD) score for each individual and family risk factor across each socio-economic trajectory group. For example, 13.3% of the individuals in the stable/high SEP group smoked tobacco at ≤13 years of age, compared with 16.6% of the downward trajectory group, 5.7% of the upward trajectory group and 13.2% of the stable low SEP group. However, in age- and sex-adjusted multinomial regression models, it was observed that only the upward trajectory group differed significantly from the stable/high group in their early tobacco use.

Does substance use vary by socio-economic trajectory?

As shown in figure 1, levels of tobacco and cannabis use varied according to socio-economic trajectory: use was lowest in participants who experienced an upward socio-economic trajectory between childhood and adulthood and highest in those who experienced a downward trajectory or stable low SEP. Overall, 29.7% of the participants in the stable intermediate–high group were regular tobacco smokers, compared with 48.8% of the participants in the downward trajectory group, 28.6% in the upward trajectory group and 46.2% in the stable low SEP group ($\chi^2 = 32.8$, $P < 0.0001$). Similarly, 18.8% in the stable intermediate–high group used cannabis, as compared with 34.0% in the downward trajectory group, 12.6% in the upward trajectory group and 25.3% in the stable low SEP group ($\chi^2 = 30.8$, $P < 0.0001$). Finally, 4.7% of the participants in the stable intermediate–high SEP group had problematic cannabis use, as compared with 11.8% in the downward trajectory group, 4.3% in the upward trajectory group and 7.7% in the stable low SEP group ($\chi^2 = 13.1$, $P = 0.004$). The downward trajectory group did not differ significantly from the stable low SEP group in their tobacco use (OR = 1.11, $P = 0.62$) or problematic cannabis use (OR = 1.62, $P = 0.18$); however, they were marginally more likely to use cannabis (OR = 1.52, $P = 0.07$). Similarly, the upward trajectory group did not differ significantly from the stable intermediate–high group in tobacco smoking (OR = 0.95, $P = 0.80$) or problematic cannabis use (OR = 0.92, $P = 0.85$) but were marginally less likely to use cannabis (OR = 0.62, $P = 0.06$).

In age- and sex-adjusted analyses (table 2), compared with participants in the intermediate/high SEP group, participants in the downward trajectory and stable low SEP groups were more likely to smoke tobacco (age- and sex-adjusted Ors, respectively: OR 2.26, 95% CI 1.58–3.22 and 2.03, 95% CI 1.39–2.96). However, only participants in the downward trajectory group were more likely to use cannabis (age- and sex-adjusted OR 2.22, 95% CI 1.50–3.30) or have problematic cannabis use (age- and sex-adjusted OR 2.73, 95% CI 1.43–5.23) when compared with

Table 1 Individual and family risk factors of tobacco and cannabis use across lifecourse SEP groups in the TEMPO study in 2009 ($n = 1103$; 22–35 years)

Covariables	Stable intermediate/high SEP, $n = 371$	Downward SEP, $n = 206$		Upward SEP, $n = 212$		Stable low SEP, $n = 177$	
	% or mean (SD)	% or mean (SD)	*P*-value		*P*-value	% or mean (SD)	*P*-value
Individual factors							
Early tobacco smoking (≤13 years vs. >13)	13.32	16.59	0.40	5.74	0.01	13.22	0.92
Early cannabis use (≤17 years vs. >17)	19.83	31.39	0.04	13.53	0.09	21.89	0.87
Juvenile internalizing symptoms (per unit increase)	11.95 (9.56)	11.92 (10.12)	0.29	12.02 (9.81)	0.91	13.03 (10.13)	0.12
Juvenile externalizing symptoms (per unit increase)	8.67 (7.49)	10.89 (8.38)	0.01	8.73 (7.12)	0.86	10.57 (9.19)	0.01
Academic difficulties (yes vs. no)	22.10	40.29	<0.0001	27.83	0.19	34.46	<.0001
Family factors							
Total family risk[a]	1.08 (1.02)	1.28 (1.05)	0.02	1.33 (1.14)	0.01	1.64 (1.21)	<.0001
Parental smoking (smoker vs. non-smoker)	25.63	27.14	0.73	28.64	0.43	25.15	0.91
Parental heavy alcohol use (high alcohol use present vs. absent)	20.27	21.36	0.54	25.47	0.16	34.66	<.0001
Parent ill health (present vs. absent)	18.49	20.1	0.57	22.01	0.35	32.18	<.0001
Parental unemployment (yes vs. no)	10.23	16.41	0.05	19.21	0.01	17.26	0.02
Parental depression (yes vs. no)	26.22	31.55	0.21	25.47	0.88	30.86	0.32
Parental divorce (yes vs. no)	9.6	14.87	0.05	15.35	0.05	27.98	<.0001

P = significance value from age- and sex-adjusted multinomial logistic regression models testing associations between socio-economic trajectory groups and individual and family factors, using stable high SEP as the comparison group.
a: Total family risk is a cumulative index, created by summing risk for parental: (i) tobacco smoking; (ii) heavy alcohol use; (iii) parent ill health; (iv) unemployment; (v) depression; and (vi) separation/divorce.

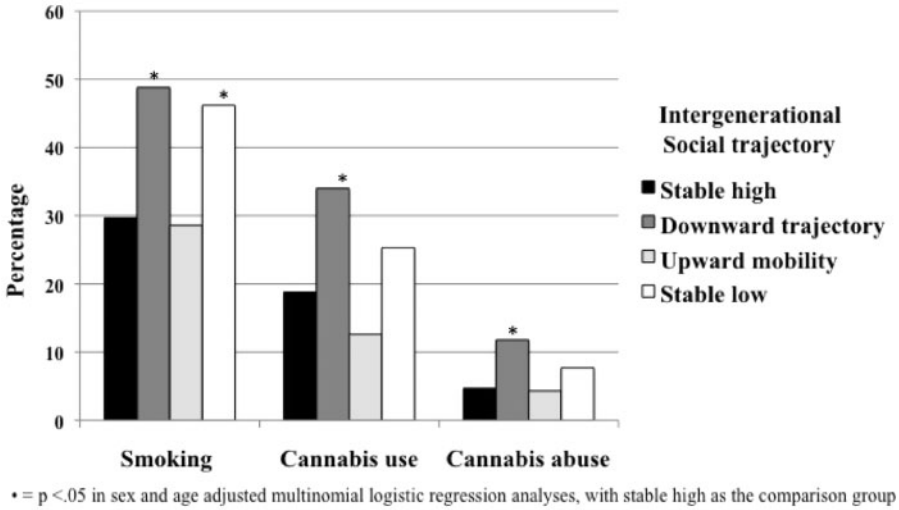

Figure 1 Prevalence of substance use in relation to socio-economic trajectory groups (TEMPO study, France, $n = 1103$, 2009, age range: 22–35 years). Smoking: ≥1 cigarette per day for the last 12 months. Cannabis use: smoking cannabis on ≥ 1 occasion; problematic cannabis use: a score of ≥2 on the CAST (range 0–6)

Table 2 Logistic regression analyses showing associations between lifecourse SEP, individual and family factors, and substance use in young adulthood

Predictors	Regular smoking (≥1 cigarette a day)		Cannabis use (at least once in the last 12 months)		Problematic cannabis use (at least 2 problems)	
	Age- and sex-adjusted [adjusted OR[a] (95% CIs)]	Multivariate adjusted OR[b] (95% CIs)	Age- and sex-adjusted [adjusted OR[a] (95% CIs)]	Multivariate adjusted OR[b] (95% CIs)	Age- and sex-adjusted [adjusted OR[a] (95% CIs)]	Multivariate adjusted OR[b] (95% CIs)
Lifecourse SEP trajectory						
Stable intermediate/high SEP ($n = 371$)	1	1	1	1	1	1
Downward SEP ($n = 206$)	2.26 (1.58–3.22)	1.76 (1.18–2.63)	2.22 (1.50–3.30)	1.73 (1.13–2.65)	2.73 (1.43–5.23)	2.17 (1.11–4.27)
Upward SEP ($n = 212$)	0.95 (0.65–1.39)	1.05 (0.70–1.59)	0.62 (0.38–1.01)	0.69 (0.42–1.16)	0.92 (0.40–2.11)	1.10 (0.47–2.57)
Stable low SEP ($n = 177$)	2.03 (1.39–2.96)	2.14 (1.40–3.28)	1.46 (0.94–2.27)	1.22 (0.75–1.97)	1.69 (0.80–3.56)	1.61 (0.74–3.49)
Covariates						
Juvenile internalizingsymptoms (per unit increase)	1.00 (0.99–1.01)	0.98 (0.96–1.00)	1.00 (0.98–1.02)	–	0.99 (0.96–1.02)	–
Juvenile externalizingsymptoms (per unit increase)	1.03 (1.02–1.05)	1.04 (1.02–1.06)	1.02 (1.00–1.04)	1.01 (0.99–1.03)	1.02 (0.99–1.05)	1.01 (0.98–1.04)
School difficulties	1.40 (1.03–1.90)	1.28 (0.90–1.80)	1.15 (0.80–1.64)	–	1.08 (0.61–1.93)	–
Early tobacco smoking (≤13 years vs. >13)	2.90 (2.00–4.22)	1.67 (1.05–2.65)	2.59 (1.75–3.82)	1.43 (0.89–2.28)	2.38 (1.31–4.35)	1.40 (0.71–2.77)
Early cannabis use (≤17 years vs. >17)	4.62 (3.27–6.54)	3.63 (2.51–5.26)	3.37 (2.36–4.80)	2.89 (1.97–4.22)	3.56 (2.08–6.09)	3.18 (1.79–5.65)
Family risk[a]	1.13 (1.00–1.27)	1.06 (0.92–1.21)	1.21 (1.04–1.39)	1.17 (1.01–1.36)	1.13 (0.89–1.42)	–

a: Total family risk is a cumulative risk index, created by summing risk for parental: (i) tobacco smoking; (ii) heavy alcohol use; (iii) parent ill health; (iv) unemployment; (v) depression; and (vi) separation/divorce.

the intermediate/high SEP group. Substance use in adulthood was associated with a number of juvenile characteristics, with differing patterns of risk factors according to the specific substance. Tobacco smokers were more likely to have had externalizing symptoms, to have experienced academic difficulties, to have used tobacco and cannabis at a young age and to have high familial risk than non-smokers. Similarly, cannabis users showed elevated rates of juvenile externalizing symptoms, were more likely to have tried tobacco and cannabis at a young age and to have high familial risk than non-users of cannabis. Problematic cannabis use as an adult was related to juvenile externalizing symptoms, and early tobacco and cannabis use.

In multivariate analyses, associations between the downward trajectory and tobacco smoking decreased, while the association between stable low SEP and tobacco smoking slightly increased. Both associations remained statistically significant (fully adjusted ORs: downward SEP: OR 1.76, 95% CI 1.18–2.63; stable low SEP: OR 2.14, 95% CI 1.40–3.28). The association between the downward socio-economic trajectory and cannabis use and problematic use decreased but also remained statistically significant (Cannabis use: OR 1.73, 95% CI 1.13–2.65; problematic cannabis use: OR 2.17, 95% CI 1.11–4.27). In the downward trajectory group, individual characteristics and family risk statistically explained 39.7% of the excess probability of tobacco smoking, 40.2% of the excess probability of cannabis use and 32.4% of that of problematic cannabis use.

Discussion

Studying a community sample of French young adults, we found that the distribution of smoking, cannabis use and problematic cannabis use varied according to trajectories of SEP between childhood and adulthood. When controlling for the effects of individual and family characteristics, associations between downward socio-economic trajectory and tobacco, cannabis use and problematic cannabis use decreased by 32–40% but remained high and statistically significant. Our findings suggest that among

socially disadvantaged young adults, there may be different subgroups of individuals at particular risk of substance use.

Methodological strengths and limitations

The present study has several strengths: (i) a community sample of young adults; (ii) prospective data on lifecourse SEP as well as individual and family characteristics; and (iii) childhood SEP and parental characteristics collected from parents independently of youths' assessments of substance use. However, we also acknowledge methodological limitations. First, our sample included youths whose parents participate in an ongoing epidemiological study recruited among employees of a large public sector company (the GAZEL cohort). Thus, although participating youths were originally selected to match the socio-demographic and family characteristics of French youths, we could not study individuals experiencing extreme forms of socio-economic disadvantage. Moreover, as in other longitudinal studies, youths from lower socio-economic backgrounds were least likely to participate in the 2009 follow-up. As a result, associations between lifelong socio-economic disadvantage and substance use in the general population may be stronger than we report. Secondly, participants were 22–36 years of age in 2009, and some may thus have not reached their adult SEP; to address this, we excluded students from our analyses. Thirdly, we did not account for factors associated with substance use such as childhood maltreatment,[31] parents' antisocial behaviour[32] and peer characteristics.[33] By controlling for family risk, we probably accounted for most variability in study outcomes associated with these factors, nevertheless they should be included in future studies of lifelong socio-economic trajectories and substance use.

In our study, participants who experienced a downward socio-economic trajectory were more likely to smoke and use cannabis when compared with the intermediate/high SEP group, while participants with persistently low SEP were only more likely to smoke cigarettes. Nevertheless, we found no statistically significant difference between the downward trajectory and the stable low SEP group, supporting previous findings that substance use is more strongly associated with adult than with childhood SEP.[12,34] Taken together, our findings highlight the need for a lifecourse approach when investigating social inequalities in adult substance use that takes into account individual and family risk factors at different developmental stages.

Lifecourse SEP and substance use in young adults

The association between downward socio-economic trajectory and substance use in young adulthood was partially explained by juvenile externalizing problems and early cannabis use. Experience of early behavioural difficulties and early substance use initiation may influence socio-economic attainment[15,35] and later substance use.[17] We also observed that early tobacco use statistically explained part of the association between the downward socio-economic trajectory and tobacco smoking in young adulthood. Although early tobacco smoking has been shown to increase risk for later persistent smoking,[26] it is unlikely to have a causal effect on socio-economic trajectories in the same way as early cannabis use may. Instead, early tobacco use may be a marker for other risky behaviours and peer characteristics that are in turn associated with lower socio-economic attainment.[13] Exposure to family risk partially explained the association between the downward socio-economic trajectory and cannabis use. In *post hoc* analyses, we observed that this effect was mainly driven by parental depression and divorce. However, exposure to family risk did not explain associations between socio-economic trajectory and tobacco use or problematic cannabis use. The association between stable low SEP and tobacco smoking in adulthood could not be accounted for by any of the individual or family factors assessed in the present study. Since associations between both the downward socio-economic trajectory and stable low SEP and substance use remained elevated and statistically significant even after controlling for individual and family characteristics, social selection phenomena, as captured by the covariates measured in this study, do not entirely explain our findings. This implies that social causation mechanisms, whereby individuals' socio-economic circumstances directly impact their substance use, may also play a role. Individuals with low SEP may be especially likely to engage in substance use because social norms and expectations around tobacco and cannabis use are less stringent in less privileged groups.[36] Additionally, substance use among individuals who experience declines in SEP may be a form of stress relief.[37]

Cannabis use vs. problematic cannabis use

Our study is one of few to examine the relationship between lifecourse SEP and problematic cannabis use. Such investigation is important, as different trajectories of cannabis use are likely to have different aetiological pathways, which will impact on prevention and later health outcomes.[38] Our findings support this assertion, with family risk factors (and particularly parental depression and separation/divorce) being associated with cannabis use but not problematic use.

Conclusion

Risk mechanisms for substance use may operate at different developmental stages, which suggests the implementation of interventions across the lifecourse.[39] Consistent with other studies, we found that one of the most robust correlates of both the downward socio-economic trajectory and substance use in adulthood was early experimentation of tobacco and cannabis.[40] Identifying why some children experiment with tobacco and cannabis at an early age should be a key research priority to help delay age of first substance use.

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Conflicts of interest: None declared.

Key points

- Substance use is disproportionately prevalent among socially disadvantaged groups.
- Tobacco smoking and, in particular, cannabis use and abuse were especially prevalent among individuals who experienced a downward socio-economic trajectory from childhood to adulthood.
- Individual and family factors only partially explained the associations between the downward socio-economic trajectory and substance use in adulthood.
- Our findings highlight the importance of taking into account lifecourse trajectories of SEP when monitoring and investigating social inequalities in substance use.

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