

Appendices

Appendix One: A Closer Look at the Sample (Adopted from Cheung, Y.W. (2012). *A longitudinal survey of psychoactive drug abusers in Hong Kong*. Report submitted to Beat Drugs Fund, Narcotics Division, Security Bureau, Government of the Hong Kong SAR. pp. 114–122)

In Table 2.1, we have reported the size of the baseline sample at T1 and its changes from T2 to T6. Here, we take a look at the drop-out situation from T2 to T6 and discuss how it might have contributed to the biases of the sample. A “drop-out case” is broadly defined as a subject who was in the sample of a time point but was not in the sample at the next time point. The major reason for a subject to become a drop-out case at a time point is his/her departure from the agency (outreach/counselling or residential T&R) where he/she was a client at the previous time point. The subject might have left the agency prematurely, unwilling to finish the service period although still not drug-free; or he/she might have become drug-free upon completion of the service period.

Before we examine the drop-out situation at various time points, it must be pointed out that measures had been taken by all participating agencies to minimize the number of drop-out cases. Firstly, an effective system of managing interview matters for the longitudinal survey was designed and implemented by participating agencies, so as to gauge the maximum participation of subjects in each round of the interviews. Secondly, the adoption of the “suitable interview period” (“3 weeks before” and “3 weeks after” the designated interview date) also gave flexibility for interviews to be conducted in favour of the subjects’ availability. Thirdly, the agency staff would try to maintain contact with subjects who had left the agency. They always had their ways of tracking down prematurely and maturely departed cases and motivating them to continue to participate in subsequent interviews. Fourthly, for those who had entered a CSD facility, efforts were made to interview them in the facility. Fifthly, at the end of the T3 interview, each subject was given a ball pen as

a small gift and a card reminding them the dates of the next and last three interviews. Lastly, the agencies agreed to recruit as many clients as possible for the baseline T1 sample, in order that, despite attrition, the sample size at the last time point would be big enough for statistical analysis. Without the help and efforts of the agencies, the attrition rates at the time points would have been much higher.

Next, we compare the subjects in the sample (retained subjects) and drop-out cases for each of the time points from T2 to T6.

Drop-Out Group at T2

For T2, we compare the socio-demographic characteristics and psychosocial conditions (only those most significantly related to drug use) at T1 of the retained subjects group (T2 sample) and the drop-out group. Results are reported in Table 1.

At T2, the number of retained subjects was 600, and the number of drop-outs was 154. The percentage of retention was $600/(600 + 154) = 79.6\%$, and the percentage of attrition was $154/754 = 20.4\%$.

The two groups were significantly different in several of the characteristics compared. In the drop-out group, there were higher percentages of male, subjects aged 21 or older, married subjects, and non-students than in the retained subjects group. Interestingly, the drop-out group had a much higher percentage (55.2 %) of being in residential agencies at T1, compared with 16.7 % in the retained subjects group. Moreover, a much higher percentage (63 %) of drop-outs did not use drugs at T1, whereas only 44.2 % of retained subjects were drug-free at T1.

The above findings suggest that many of the drop-outs were likely to be clients of residential T&R agencies who were able to become drug-free at T1 and had left these programmes by T2. These drop-out subjects were more likely than retained subjects to have a lower degree of permissiveness to drug use, although they had a longer history of drug abuse than retained subjects.

Drop-Out Group at T3

We next compare the retained subjects group and the drop-out group at T3, with respect to socio-demographic and psychosocial characteristics at T2 (Table 2).

At T3, the number of retained subjects was 434, and the number of drop-outs was 181. The percentage of retention was $434/(434 + 181) = 70.6\%$, and the percentage of drop-outs was $181/615 = 29.4\%$.

The two groups varied significantly in a number of socio-demographic and drug use characteristics. There were higher percentages of subjects aged 21 or older, with longer history of drug use, and with lower education in the drop-out group than in the retained subjects group. As to type of agency and drug use, the drop-out group had a higher percentage of residential programme clients at T2 than the retained subjects group.

Table 1 Comparison of retained subjects and drop-outs at T2

Socio-demographic and selected psychosocial variables at T1	T2		N
	Retained subjects (n = 600)	Drop-outs (n = 154)	
Gender (<i>p</i> <.05)			754
M	63.8	73.4	496
F	36.2	26.6	258
Age (<i>p</i> <.001)			754
12–16	35.8	18.2	243
17–20	41.7	35.7	305
21 or over	22.5	46.1	206
No. of siblings (n.s.)			754
Marital status (<i>p</i> <.001)			752
Never married	91.5	78.4	668
Married	8.5	21.6	84
Education (n.s.)			753
Whether still a student (<i>p</i> <.001)			753
Yes, always attending school	25.5	13.6	174
Yes, but not always attending	8.0	3.2	53
No	66.4	83.1	526
Religion (n.s.)			752
Type of agency (<i>p</i> <.001)			754
Outreach/no agency	83.3	44.8	569
Residential	16.7	55.2	185
Drug use (<i>p</i> <.001)			753
No	44.2	63.0	362
Yes	55.8	37.0	391
No. of years of drug abuse (<i>p</i> <.001)			750
0–2	44.1	23.4	299
3–5	32.7	26.6	236
6 or more	23.3	50.0	215
Permissiveness to drug use (<i>p</i> <.001)			749
Low	37.0	55.2	305
Medium	52.3	41.6	375
High	10.8	3.2	69
Satisfaction with life (n.s.)			754
Self-esteem (n.s.)			753

Significance levels are based on χ^2 tests

n.s. not statistically significant

Table 2 Comparison of retained subjects and drop-outs at T3

Socio-demographic and selected psychosocial variables at T2	T3		N
	Retained subjects (n = 434)	Drop-outs (n = 181)	
Gender (n.s.)			615
Age ($p < .05$)			581
12–16	31.3	25.6	172
17–20	48.4	43.6	273
21 or over	20.3	30.8	136
No. of siblings (n.s.)			600
Marital status (n.s.)			600
Education ($p < .05$)			598
Primary – F3	59.0	68.0	369
F4–F5	36.2	30.9	207
Beyond F5	4.8	1.1	22
Whether still a student (n.s.)			600
Religion (n.s.)			569
Type of agency ($p < .001$)			600
Outreach/no agency	85.4	74.0	492
Residential	14.6	26.0	108
Drug use (n.s.)			599
No. of years of drug abuse ($p < .05$)			595
0–2	33.3	27.2	187
3–5	41.7	36.7	239
6 or more	25.1	36.1	169
Permissiveness to drug use (n.s.)			596
Satisfaction with life (n.s.)			600
Self-esteem (n.s.)			599

Significance levels are based on χ^2 tests
n.s. not statistically significant

Drop-Out Group at T4

Table 3 compares the socio-demographic and psychosocial characteristics of the two groups.

At T4, the number of retained subjects was 376, and the number of drop-outs was 95. The percentage of retention was $376/(376 + 95) = 79.8\%$, and the drop-out rate was $95/471 = 20.2\%$.

In terms of socio-demographic characteristics, the drop-out group at T4 differed from the drop-out groups at T2 and T3 in a few ways. Compared with the retained subjects group, it had a higher percentage of male, a smaller percentage of subjects having one or two siblings, and a higher percentage of subjects having a religion. Like at T2 and T3, the drop-out group at T4 also had a higher percentage of subjects aged 21 or older. It also had a higher percentage of subjects with a longer history of drug abuse. There is reason to believe that some of the dropped-out subjects at T4

Table 3 Comparison of retained subjects and drop-outs at T4

Socio-demographic and selected psychosocial variables at T3	T4		N
	Retained subjects (n = 376)	Drop-outs (n = 95)	
Gender (<i>p</i> < .001)			471
M	60.1	78.9	301
F	39.9	21.1	170
Age (<i>p</i> < .05)			434
12–16	25.4	14.7	100
17–20	51.1	42.1	220
21 or over	21.5	43.2	114
No. of siblings (<i>p</i> < .01)			471
0	9.8	22.1	58
1–2	72.3	57.9	327
3 or more	17.8	20.0	86
Marital status (n.s.)			434
Education (n.s.)			434
Whether still a student (n.s.)			434
Religion (<i>p</i> < .001)			434
No	74.6	53.7	304
Yes	25.4	46.3	130
Type of agency (<i>p</i> < .001)			434
Outreach/no agency	92.6	66.3	377
Residential	7.4	33.7	57
Drug use (n.s.)			434
No. of years of drug abuse (<i>p</i> < .01)			418
0–2	26.1	17.6	102
3–5	48.0	40.0	194
6 or more	25.8	42.4	122
Permissiveness to drug use (<i>p</i> < .05)			433
Low	46.4	60.0	214
Medium	46.4	37.9	193
High	7.1	2.1	26
Satisfaction with life (n.s.)			434
Self-esteem (n.s.)			434

Significance levels are based on χ^2 tests
n.s. not statistically significant

Table 4 Comparison of retained subjects and drop-outs at T5

Socio-demographic and selected psychosocial variables at T4	T5		N
	Retained subjects (n = 345)	Drop-outs (n = 67)	
Gender (n.s.)			412
Age (n.s.)			373
No. of siblings (n.s.)			412
Marital status (n.s.)			376
Education (n.s.)			376
Whether still a student (n.s.)			376
Religion (n.s.)			376
Type of agency (n.s.)			376
Drug use (n.s.)			376
No. of years of drug abuse ($p < .01$)			375
0–2	18.2	7.5	61
3–5	52.9	46.3	194
6 or more	28.9	46.3	120
Permissiveness to drug use (n.s.)			375
Satisfaction with life (n.s.)			376
Self-esteem ($p < .05$)			375
Low	23.0	22.7	86
Medium	23.6	39.4	99
High	53.4	37.9	190

Significance levels are based on χ^2 tests
n.s. not statistically significant

had left because they had finished residential programmes, as one-third of them were in residential T&R agencies at T3, and they had a higher percentage of subjects with a low level of permissiveness to drug use.

Drop-Out Group at T5

The drop-out group and retained subjects group at T5 are compared in Table 4.

At T5, the number of retained subjects was 345, and the number of drop-outs was 67. The percentage of retention was $345/(345 + 67) = 83.7\%$, and the drop-out rate was $67/412 = 16.3\%$.

The two groups were significantly different in only two of the characteristics. Like at all previous time points, the drop-out group at T5 had subjects with the longest history of drug abuse than the retained subjects group. Drop-outs were also more likely to have a lower level of self-esteem than retained subjects at T5.

Table 5 Comparison of retained subjects and drop-outs at T6

Socio-demographic and selected psychosocial variables at T5	T6		N
	Retained subjects (n = 286)	Drop-outs (n = 87)	
Gender ($p < .05$)			373
M	58.0	72.4	229
F	42.0	27.6	144
Age (n.s.)			341
No. of siblings (n.s.)			373
Marital status (n.s.)			344
Education (n.s.)			343
Whether still a student (n.s.)			344
Religion (n.s.)			344
Type of agency (n.s.)			345
Drug use (n.s.)			345
No. of years of drug abuse (n.s.)			343
Permissiveness to drug use (n.s.)			340
Satisfaction with life (n.s.)			345
Self-esteem (n.s.)			345

Significance levels are based on χ^2 tests

n.s. not statistically significant

Drop-Out Group at T6

Lastly, we examine the two groups at T6 (Table 5).

At T6, the number of retained subjects was 286, and the number of drop-outs was 87. The percentage of retention was $286/(286 + 87) = 76.6\%$, and the drop-out percentage was $87/286 = 30.4\%$.

At T6, the drop-out group had a higher percentage of male than the retained subjects group. The two groups did not differ significantly in other socio-demographic and psychosocial characteristics.

Biases Due to Drop-Outs

Having compared the characteristics of the retained subjects and dropped out subjects at T2–T6, what might have been the biases that were caused by sample attrition?

We found that at the earlier time points (T2, T3, and T4), drop-out groups tended to have higher percentages of subjects who were male, older, non-student, having a longer history of drug abuse, and in residential agencies at their respective previous time points. There were several possible scenarios that residential subjects at a time point became excluded from the sample at the next time point. First, these subjects

might have finished their residential programmes and left before the next interview. Before they left, if they were not invited by agency staff to continue their interviews in subsequent time points, or if they did not agree to continue their participation, then these cases would be lost. Second, as explained at the beginning of Chap. 2, in the analysis of data pertaining to drug use and its socio-demographic and psychosocial correlates, subjects in residential programmes were excluded, for the reason that the drug-free status in the treatment setting was artificially achieved. Thus, if a residential subject at a time point continued to be in the programme at the next time point(s), he/she would continue to be counted as a drop-out and be left out in the data analysis.

What is important about these residential cases is that, after their departure from residential T&R programmes, whether or not they could remain drug-free, and the factors that affected their drug use/drug-free status were valuable information for comparing with non-residential subjects. Missing such data was where the major bias of the sample lied.

Fortunately, this bias diminished in the course of time, as more and more residential subjects had dropped out. As can be seen from Table 2.1, the number of subjects in residential agencies was 185 at T1, but decreased to 108 at T2, and further decreased sharply to 57 at T3, 21 at T4, 20 at T5, and 12 at T6. Thus, the negative effect of this bias was neither serious nor long-lasting.

Another indicator of possible bias in the sample was how much the retained subjects and dropped-out subjects differed in drug use in previous time points. If the two groups were significantly different in drug use, then a high drop-out rate would lead to serious bias. Fortunately, except at T2, where drop-outs were more likely than retained subjects to be drug-free at T1, the two groups did not differ significantly in drug use at all subsequent time points (see Tables 1, 2, 3, 4, and 5).

No longitudinal studies can be immunized from biases caused by sample attrition. Our analysis of the drop-out group of the sample at various time points has shown that the attrition of residential cases from the survey was perhaps the major source of bias. But fortunately, our analysis also showed that the bias was not serious and was quite limited to the sample at T2.

Lastly, a remark should be made on the selection of cases for the analysis of the influence of socio-demographic and psychosocial variables on drug use at each time point. As subjects in residential programmes were excluded (except new clients who had reported drug use in the last 30 days), the number of “retained subjects” in each sample would be smaller than the number of retained subjects indicated in Tables 1, 2, 3, 4, and 5, which included subjects of both residential programmes and outreach agencies. Strictly speaking, these were not drop-out cases. They were just cases that were not selected because they did not meet the selection criteria required for a certain analysis.

Appendix Two: Bivariate Relationships for Selection of Variables into Regression Models Testing Gender Differences

The following tables (Tables 6–17) show the bivariate correlations between drug use in the last 30 days and psychosocial variables and drug use history, and the bivariate correlations among the psychosocial variables, for the two gender groups. Independent variables that yielded significant bivariate correlations with the dependent variable concerned at four or more time points were given in *italics* in each table. These independent variables were chosen to be included in their respective probit regressions.

Table 6 T1–T6 bivariate correlations between drug use in the last 30 days and psychosocial variables and drug use history among males

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	–.314*	–.189*	–.168*	–.019	–.079	.049
<i>Permissiveness to regular drug use</i>	.243*	.292*	.432*	.359*	.363*	.334*
<i>Permissiveness to occasional drug use</i>	.432*	.418*	.351*	.272*	.279*	.245*
Disappointment if aspired education level is not achieved	–.022	–.043	.044	.008	–.087	–.132
Ever been discriminated by other people	–.153*	–.122*	–.007	.043	.032	.238*
Uncertainty about future	.033	.118*	.010	.163*	.049	.110
<i>Think that doing extreme things shows vitality of young people</i>	.096*	.124*	.224*	.235*	.212*	.139
Wish to have own family, job, and normal life in future	–.043	.009	–.066	–.067	–.158*	–.198*
Think that parents don't know how to teach children	.014	.035	–.003	.075	.194*	.178*
Think that school doesn't know how to teach students	.155*	.060	.145*	.005	.149*	.066
<i>Life satisfaction</i>	–.224*	–.284*	–.249*	–.458*	–.458*	–.212*
<i>Self-esteem</i>	–.038	–.076	–.141*	–.330*	–.218*	–.237*
<i>Depression</i>	.078	.105*	.159*	.355*	.396*	.325*
Stricken by stressful events	.065	.039	.101	.156*	.198*	.052
Subjective weathering	–.035	–.011	–.019	.106	–.134	–.044

Independent variables that yielded significant bivariate correlations with drug use in the last 30 days at four or more time points were given in *Italics*

* $p < .05$

Table 7 T1–T6 bivariate correlations between permissiveness to regular drug use and psychosocial variables and drug use history among males

	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	–.111*	–.037	–.074	–.165*	–.091	.019
<i>Permissiveness to occasional drug use</i>	.469*	.581*	.558*	.543*	.669*	.636*
Disappointment if aspired education level is not achieved	–.098*	–.196*	.051	.000	–.176*	–.135
Ever been discriminated by other people	–.096*	–.096	–.032	–.031	–.075	–.057
Sense of uncertainty about future	.029	.158*	–.021	.045	–.007	–.091
<i>Think that doing extreme things shows the vitality of young people</i>	.229*	.303*	.375*	.338*	.426*	.075
<i>Wish to have own family, job, and normal life in future</i>	–.182*	–.129*	–.209*	–.225*	–.324*	–.414*
Think that parents don't know how to teach children	.037	.031	.048	.153*	–.002	.143
Think that school doesn't know how to teach students	.119*	.077	.124*	.124	.128	–.012
<i>Life satisfaction</i>	–.112*	–.230*	–.063	–.141*	–.188*	.047
Self-esteem	.007	–.093	–.032	–.156*	–.085	–.053
Depression	–.001	.088	–.027	.057	.073	–.003
Stricken by stressful events	.000	–.060	.080	.009	.044	–.127
Subjective weathering	–.013	.023	–.097	.169*	–.005	–.029

Independent variables that yielded significant bivariate correlations with permissiveness to regular drug use at four or more time points were given in *Italics*

* $p < .05$

Table 8 T1–T6 bivariate correlations between permissiveness to occasional drug use and psychosocial variables and drug use history among males

	r					
	T1	T2	T3	T4	T5	T6
<i>No. of years of drug use</i>	–.255*	–.159*	–.156*	–.186*	–.152*	–.059
<i>Permissiveness to regular drug use</i>	.469*	.581*	.558*	.543*	.669*	.636*
Disappointment if aspired education level is not achieved	–.123*	–.187*	–.056	–.020	–.099	–.134
Ever been discriminated by other people	–.104*	.005	–.010	–.013	.010	.053
Sense of uncertainty about future	.038	.205*	.114	.053	.030	.085
<i>Think that doing extreme things shows the vitality of young people</i>	.330*	.364*	.409*	.389*	.374*	.169*
<i>Wish to have own family, job, and normal life in future</i>	–.126*	–.054	–.112	–.133*	–.255*	–.335*
<i>Think that parents don't know how to teach children</i>	.075	.117*	.189*	.180*	.138*	.149
<i>Think that school doesn't know how to teach students</i>	.210*	.237*	.166*	.103	.167*	.093
<i>Life satisfaction</i>	–.150*	–.248*	–.225*	–.248*	–.287*	–.027
Self-esteem	.051	–.097	–.021	–.133*	–.162*	–.186*
<i>Depression</i>	.087	.145*	.137*	.103	.194*	.189*
Stricken by stressful events	.073	.053	.163*	.064	.096	.047
Subjective weathering	–.084	.028	–.105	.004	–.047	.075

Independent variables that yielded significant bivariate correlations with permissiveness to occasional drug use at four or more time points were given in *Italics*

* $p < .05$

Table 9 T1–T6 bivariate correlations between life satisfaction and psychosocial variables and drug use history among males

	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	.171*	.062	.077	.043	.089	–.081
<i>Permissiveness to regular drug use</i>	–.112*	–.230*	–.063*	–.141*	–.188*	.047
<i>Permissiveness to occasional drug use</i>	–.150*	–.248*	–.225	–.248*	–.287*	–.027
Disappointment if aspired education level is not achieved	–.086	.042	–.065	–.129	–.069	–.017
Ever been discriminated by other people	–.071	–.077	–.166*	–.158*	–.097	–.296*
<i>Sense of uncertainty about future</i>	–.194*	–.237*	–.289*	–.323*	–.157*	–.216*
Think that doing extreme things shows the vitality of young people	.042	–.131*	–.134*	–.116	–.104	–.172*
Wish to have normal life in future	.024	.078	.046	.208*	.109	.031
<i>Think that parents don't know how to teach children</i>	–.169*	–.190*	–.271*	–.185*	–.271*	–.304*
<i>Think that school doesn't know how to teach students</i>	–.127*	–.145*	–.1579*	–.009	–.231*	–.190*
<i>Self-esteem</i>	.289*	.387*	.364*	.531*	.395*	.431*
<i>Depression</i>	–.296*	–.408*	–.377*	–.531*	–.433*	–.502*
Stricken by stressful events	–.141*	–.115*	–.076	–.102	–.170*	–.131
Subjective weathering	.042	–.037	–.028	–.097	.001	–.185*

Independent variables that yielded significant bivariate correlations with life satisfaction at four or more time points were given in *Italics*

* $p < .05$

Table 10 T1–T6 bivariate correlations between self-esteem and psychosocial variables and drug use history among males

	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	-.176*	-.125*	-.128*	.013	.060	-.114
Permissiveness to regular drug use	.007	-.093	-.032	-.156*	-.085*	-.053
Permissiveness to occasional drug use	.051	-.097	-.021	-.133*	-.162	-.186*
Disappointment if aspired education level is not achieved	-.170*	-.045	-.122	-.191*	-.136	-.072
<i>Ever been discriminated by other people</i>	-.197*	-.149*	-.127*	-.172*	-.115	-.350*
<i>Sense of uncertainty about future</i>	-.314*	-.172*	-.378*	-.452*	-.268*	-.245*
Think that doing extreme things shows the vitality of young people	.024	-.033	-.099	-.130	-.231*	-.227*
<i>Wish to have own family, job, and normal life in future</i>	.093*	.118*	.098	.210*	.227*	.195*
<i>Think that parents don't know how to teach children</i>	-.098*	-.216*	-.140*	-.155*	-.211*	-.353*
Think that school doesn't know how to teach students	.122*	-.047	.019	-.041	-.061	-.133
<i>Life satisfaction</i>	.289*	.387*	.364*	.531*	.395*	.431*
<i>Depression</i>	-.497*	-.502*	-.560*	-.609*	-.501*	-.661*
Stricken by stressful events	-.101*	-.055	-.047	-.098	-.070	-.182*
<i>Subjective weathering</i>	-.188*	-.100	-.169*	-.286*	-.214*	-.262*

Independent variables that yielded significant bivariate correlations with self-esteem at four or more time points were given in *Italics*

* $p < .05$

Table 11 T1–T6 bivariate correlations between depression and psychosocial variables and drug use history among males

	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	.111*	.132*	.084	.126	-.004	.082
<i>Permissiveness to occasional drug use</i>	.087	.145*	.137*	.103	.194*	.189*
Permissiveness to regular drug use	-.001	.088	-.027	.057	.073	-.003
Disappointment if aspired education level is not achieved	.186*	-.024	.156*	.153*	.044	.109
<i>Ever been discriminated by other people</i>	.309*	.251*	.311*	.360*	.230*	.361*
<i>Sense of uncertainty about future</i>	.275*	.260*	.446*	.442*	.330*	.332*
Think that doing extreme things shows the vitality of young people	.057	.141*	.166*	.079	.093	.196*
Wish to have normal life in future	.011	-.037	.122*	-.099	-.116	-.031
<i>Think that parents don't know how to teach children</i>	.171*	.270*	.291*	.216*	.315*	.320*
<i>Think that school doesn't know how to teach students</i>	.058	.115*	.173*	.010	.242*	.223*
<i>Life satisfaction</i>	-.296*	-.408*	-.377*	-.531*	-.433*	-.502*
<i>Self-esteem</i>	-.497*	-.502*	-.560*	-.609*	-.501*	-.661*
<i>Stricken by stressful events</i>	.218*	.179*	.227*	.230*	.297*	.321*
Subjective weathering	.130*	.070	.074	.118	.087	.211*

Independent variables that yielded significant bivariate correlations with depression at four or more time points were given in *Italics*

* $p < .05$

Table 12 T1–T6 bivariate correlations between drug use in the last 30 days and psychosocial variables and drug use history among females

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	–.183*	–.126	.087	–.031	.042	.020
<i>Permissiveness to regular drug use</i>	.427*	.259*	.442*	.263*	.276*	.227*
<i>Permissiveness to occasional drug use</i>	.343*	.389*	.275*	.174*	.262*	.094
Disappointment if aspired education level is not achieved	–.037	–.009	.053	.071	.132	.178
Ever been discriminated by other people	–.063	–.074	–.012	.014	.011	.043
Sense of uncertainty about future	–.005	.088	.195*	.256*	.128	.171
<i>Think that doing extreme things shows the vitality of young people</i>	.167*	.122	.193*	.244*	.280*	.112
Wish to have own family, job, and normal life in future	–.120	–.161*	–.008	.116	–.021	.078
Think that parents don't know how to teach children	–.109	–.116	–.256*	.120	–.043	–.010
Think that school doesn't know how to teach students	.124*	.044	–.090	.062	.180*	.039
<i>Life satisfaction</i>	–.299*	–.296*	–.381*	–.260*	–.280*	–.335*
<i>Self-esteem</i>	–.151*	–.134*	–.210*	–.237*	–.331*	–.249*
<i>Depression</i>	.226*	.198*	.253*	.390*	.278*	.405*
Stricken by stressful events	.091	.095	.086	.191*	.218*	.300*
Subjective weathering	–.048	–.040	–.019	–.135	–.051	–.025

Independent variables that yielded significant bivariate correlations with drug use in the last 30 days at four or more time points were given in *Italics*

* $p < .05$

Table 13 T1–T6 bivariate correlations between permissiveness to regular drug use and psychosocial variables and drug use history among females

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	-.154*	-.051	.099	-.014	-.004	.092
<i>Permissiveness to occasional drug use</i>	.544*	.500*	.478*	.533*	.589*	.622*
Disappointment if aspired education level is not achieved	-.154*	-.093	-.066	-.373*	-.090	-.001
Ever been discriminated by other people	-.086	-.076	-.104	-.095	-.108	.005
Sense of uncertainty about future	-.029	.076	.085	.068	.016	-.003
<i>Think that doing extreme things shows the vitality of young people</i>	.310*	.341*	.315*	.368*	.277*	.269*
Wish to have normal life in future	-.059	-.133	-.182*	-.103	-.237*	-.139
Think that parents don't know how to teach children	-.023	.100	-.055	.148	-.008	.149
Think that school doesn't know how to teach students	.118	.049	-.055	.055	.254*	.150
Life satisfaction	-.159*	-.182*	-.181*	-.094	-.157	-.119
<i>Self-esteem</i>	-.064	-.142*	-.185*	-.160*	-.214*	-.241*
<i>Depression</i>	.184*	.064	.190*	.171*	.114	.204*
Stricken by stressful events	.032	-.031	.024	.045	.124	.110
Subjective weathering	-.096	-.201*	-.018	-.169*	-.004	-.044

Independent variables that yielded significant bivariate correlations with permissiveness to regular drug use at four or more time points were given in *Italics*

* $p < .05$

Table 14 T1–T6 bivariate correlations between permissiveness to occasional drug use and psychosocial variables and history of drug use among females

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	–.222*	–.210*	–.147	–.084	–.049	.077
<i>Permissiveness to regular drug use</i>	.544*	.500*	.478*	.533*	.589*	.622*
Disappointment if aspired education level is not achieved	–.230*	–.130	–.066	–.233*	–.102	.014
Ever been discriminated by other people	–.177*	–.069	–.062	–.247*	–.075	–.072
Sense of uncertainty about future	.031	.068	.395*	.242*	.100	.056
<i>Think that doing extreme things shows the vitality of young people</i>	.385*	.379*	.388*	.358*	.387*	.236*
Wish to have own family, job, and normal life in future	–.114	–.107	–.047	.014	–.164	–.080
Think that parents don't know how to teach children	–.057	–.084	–.074	–.090	–.041	–.019
Think that school doesn't know how to teach children	.176*	.171*	.066	–.113	.217*	.040
Life satisfaction	–.086	–.234*	–.329*	–.184*	–.066	–.047
Self-esteem	.035	–.072	–.304*	–.140	–.206*	–.228*
Depression	.045	.105	.272*	.175*	.063	.130
Stricken by stressful events	–.001	.079	.092	.001	.088	.054
Subjective weathering	–.051	–.153*	–.043	–.048	.003	–.053

Independent variables that yielded significant bivariate correlations with permissiveness to occasional drug use at four or more time points were given in *Italics*

* $p < .05$

Table 15 T1–T6 bivariate correlations between life satisfaction and psychosocial variables and drug use history among females

	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	.062	-.006	.044	-.098	.005	.124
Permissiveness to occasional drug use	-.086	-.234*	-.329*	-.184*	-.066	-.047
Permissiveness to regular drug use	-.159*	-.182*	-.181*	-.094	-.157	-.119
Disappointment if aspired education level is not achieved	-.049	-.176*	-.105	.001	-.238*	-.187*
Ever been discriminated by other people	-.129*	-.241*	-.179*	.002	.013	-.148
<i>Sense of uncertainty about future</i>	-.226*	-.328*	-.315*	-.299*	-.303*	-.301*
Think that doing extreme things shows the vitality of young people	-.044	-.138*	-.168*	-.122	-.050	-.076
Wish to have own family, job, and normal life in future	.016	-.043	.086	-.069	.048	.151
Think that parents don't know how to teach children	-.169*	-.173*	.005	-.288*	-.091	.072
Think that school doesn't know how to teach students	-.205*	-.287*	-.032	-.029	-.141	-.034
<i>Self-esteem</i>	.401*	.549*	.532*	.478*	.487*	.658*
<i>Depression</i>	-.461*	-.587*	-.484*	-.496*	-.576*	-.558*
<i>Stricken by stressful events</i>	-.077	-.262*	-.145	-.207*	-.280*	-.205*
Subjective weathering	.012	-.014	.124	-.005	-.088	-.171

Independent variables that yielded significant bivariate correlations with drug use in the last 30 days at four or more time points were given in *Italics*

* $p < .05$

Table 16 T1–T6 bivariate correlations between self-esteem and psychosocial variables and drug use history among females

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	.042	.014	.041	.059	.107	.112
Permissiveness to occasional drug use	.035	-.072	-.304*	-.140	-.206*	-.228*
<i>Permissiveness to regular drug use</i>	-.064	-.142*	-.185*	-.160*	-.214*	-.241*
<i>Disappointment if aspired education level is not achieved</i>	-.149*	-.136	-.180*	-.155	-.265*	-.226*
Ever been discriminated by other people	-.211*	-.132	-.143	-.096	-.028	-.192*
<i>Sense of uncertainty about future</i>	-.249*	-.402*	-.429*	-.360*	-.420*	-.406*
<i>Think that doing extreme things shows the vitality of young people</i>	-.057	-.149*	-.186*	-.195*	-.246*	-.158
Wish to have own family, job, and normal life in future	.010	-.067	.127	.036	.085	.192*
Think that parents don't know how to teach children	-.128*	-.173*	-.125	-.172*	-.118	-.074
Think that school doesn't know how to teach students	-.060	-.177*	-.163*	-.022	-.168	-.132
<i>Life satisfaction</i>	.401*	.549*	.532*	.478*	.487*	.658*
<i>Depression</i>	-.662*	-.655*	-.625*	-.663*	-.731*	-.623*
Stricken by stressful events	-.148*	-.207*	-.161*	-.082	-.139	-.136
Subjective weathering	-.080	-.109	-.026	-.001	.010	-.094

Independent variables that yielded significant bivariate correlations with self-esteem at four or more time points were given in *Italics*

* $p < .05$

Table 17 T1–T6 bivariate correlations between depression and psychosocial variables and drug use history among females

Independent variables	r					
	T1	T2	T3	T4	T5	T6
No. of years of drug use	–.119	–.030	–.053	–.042	.005	–.015
Permissiveness to occasional drug use	.045	.105	.272*	.175*	.063	.130
<i>Permissiveness to regular drug use</i>	.184*	.064	.190*	.171*	.114	.204*
<i>Disappointment if aspired education level is not achieved</i>	.188*	.141*	.275*	.106	.245*	.183
<i>Ever been discriminated by other people</i>	.226*	.253*	.181*	.190*	.131	.227*
<i>Sense of uncertainty about future</i>	.278*	.392*	.438*	.395*	.394*	.383*
Think that doing extreme things shows the vitality of young people	.205*	.142*	.159*	.303*	.146	.110
Wish to have own family, job, and normal life in future	.021	.084	–.024	.082	.042	.086
<i>Think that parents don't know how to teach children</i>	.265*	.252*	.230*	.312*	.193*	.120
<i>Think that school doesn't know how to teach students</i>	.228*	.296*	.190*	.095	.291*	.286*
<i>Life satisfaction</i>	–.461*	–.587*	–.484*	–.496*	–.576*	–.558*
<i>Self-esteem</i>	–.662*	–.655*	–.625*	–.663*	–.731*	–.623*
<i>Stricken by stressful events</i>	.279*	.312*	.318*	.303*	.248*	.317*
Subjective weathering	–.025	.047	–.108	–.115	–.032	.010

Independent variables that yielded significant bivariate correlations with depression at four or more time points were given in *Italics*

* $p < .05$

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