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Attachment Style Stability and its Relation to Adjustment in Adolescence

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A Thesis

in

The Department

of

Psychology

Presented in Partial Fulfilment of the Requirements

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Abstract

Attachment Style Stability and its Relation to Adjustment in Adolescence

Clairalice Campini

The significance of fluctuations in attachment for maladaptive behaviours in adolescence is the focus of this longitudinal study. The adolescent years represent a time of great change, both at the interpersonal and intrapersonal leivels. As teens are shaping their conceptions about themselves and the world, many engage in a wide range of maladaptive exploratory behaviours, such as delinquency, substance use, and irresponsible sex. Attachment security has been shown to have implications for adjustment throughout the lifespan. Attachment styles are considered to be relatively stable over time, although fluctuations are not atypical. The principal question we wished to address in the present study is the following: are adolescents who remain insecurely attached over time more likely to be maladjusted than adolescents who fluctuate from secure to insecure or vice versa, and from adolescents who remain securely attached over time? Adolescents (n=131) who had a) stable secure b) stable insecure c) unstable attachment styles completed self-report measures of delinquency, drug use, sexuality, and attachment style to mother twice, once when they were in grade 10 or 11 (Time 1), and again one year later (Time 2). Results indicated that adolescents whose attachment style fluctuated (unstable group) engaged in a significantly wider variety of delinquent activities at Time 1 than the adolescents who remained secure from Time 1 to Time 2. Also, unstables decreased in variety of delinquent acts from Time 1 to Time 2. The findings are discussed in light of the significance of attachment instability, as well as the relation between instability and maladjustment in adolescence.

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Attachment Style Stability and its Relation to Adjustment in Adolescence

The focus of the present study is the stability of adolescents' attachment styles over time, and the relation of this stability to adjustment outcomes, specifically delinquency, drug use, and irresponsible sexual behaviour.

A fundamental tenet of Bowlby's attachment theory (1969, 1973, 1980) is that one's early attachment relationships affect one's functioning throughout the lifespan. In his theory, Bowlby presented a model describing the process by which the attachment bond between mother and infant develops, as well as the adaptive functions this bond serves. Bowlby argued that a coordinated relationship progressively develops between infant and mother, a symbiosis serving a specific function: signals of distress expressed by the child are picked up by the mother, who in turn offers comfort and protection, as well as a sense of security which allows the child to explore the environment.

According to Bowlby, these early attachment experiences are internalized as working models and set the stage for how future relationships will function and be integrated. The bond which becomes established between parent and child influences the development of the child's views vis-à-vis himself as well as others. These early caregiving experiences also provide the growing individual with unwritten rules as to how to express and deal with distressing emotions. In this way, according to attachment theorists, the quality of early mother-infant relationships plays a crucial role in the development of an individual's personality.

Ainsworth and her colleagues (Ainsworth, Blehar, Waters & Wall, 1978) developed a paradigm for identifying and describing individual differences in attachment

among mother-infant dyads. These researchers noted that children differed in the ways they handled the stress of being separated and reunited with their mothers within the context of a "strange situation". The majority of infants, called securely attached, became mildly distressed in their mother's absence, but manifested relief and warmth upon reunion. The remaining infants, however, coped in two strikingly different ways, both of which Ainsworth et al. called insecurely attached. Some infants, termed anxious-ambivalent, expressed considerable distress when mother left, and seemed angry when reunited. Other infants, termed avoidant, seemed undisturbed by their mother's departure, and did not manifest interest when she returned.

Ainsworth along with other attachment theorists concluded that attachment styles develop as a function of the relationship quality existing between children and their early attachment figures. When parents are supportive, warm and responsive, children develop secure attachment styles, that is, they learn to view themselves and others in a positive light. When secure children experience distress, they are able to express their anxiety and thus attract the attention of their caregivers, which permits them to cope with their negative emotions. Relating in a healthy way to their emotional world allows secure children to function well in interpersonal relationships (Cassidy, 1994).

On the other hand, when parents are rejecting and insensitive, children develop insecure attachment styles. In the case where parents are consistently unsupportive, an insecure avoidant attachment style emerges, characterized by a view of others as unavailable and uncaring, and of self as unworthy of eliciting care (Ainsworth, et al., 1978). In order not to further alienate caregivers, a child with an avoidant attachment

style will suppress distress. This suppression results in problems with emotion regulation. An avoidant child's negative emotions may manifest themselves within the context of other relationships, or even unpredictably within the attachment relationship (Bowlby, 1980; Shaw & Bell, 1993).

When parents alternate between being supportive and rejecting, children develop an insecure ambivalent attachment style (Ainsworth et al., 1978). Since the caregivers are inconsistent in the ways they treat their children, when distressed these children experience a conflict between the desire to approach the caregivers to be consoled and the anxiety and fear of being rejected once again (Bowlby, 1973). Children with an ambivalent attachment style are believed to attribute the inconsistency of the caregivers' availability to a fault in their own personality and behaviour, and thus develop positive views of others and negative views of themselves. Like avoidant children, ambivalent children do not learn to cope effectively with their emotions: rather than minimizing their feelings, ambivalent children exaggerate their distress to not lose contact with their attachment figures (Cassidy, 1994).

Insecure children's inability to effectively regulate their emotions has important implications for behavioural and psychological adjustment. Previous research investigating the relation between attachment styles and adjustment has primarily been concerned with pre-school and elementary school samples. These studies provide strong evidence that children with insecure attachment styles experience higher levels of maladjustment as compared to children with secure attachment styles. Compared to secure children, insecure children have been shown to engage in more negative acting-out

behaviour, more aggressive and conflictual interactions with their mothers, and more hostile interactions with their peers (Sroufe, 1988; Erickson, Sroufe, & Egeland, 1985). Further, children who are securely attached to their mothers have been shown to be more socially competent, more empathic towards their peers, more compliant, and more demonstrative of positive affect than insecure children (Lafreniere & Sroufe, 1985).

Although previous research has mainly been concerned with the relation between attachment styles and adjustment across stages of childhood, certain researchers have investigated this topic in adulthood, and more recently in adolescence. In adulthood, insecure attachment has been associated with greater loneliness, shame proneness, anger, anxiety, depression, self-consciousness, and lower self-esteem (Hazan & Shaver, 1987; Collins & Reid, 1990; also see Shaver & Hazan, 1993 for reviews).

With regards to adolescents, those who are insecurely attached have been found to be less adjusted psychologically than those with secure attachment styles. Compared to their securely attached peers, insecure teens were more anxious, more hostile, less efficient in emotion regulation, less socially competent, more psychologically distressed, and less self-confident (Kobak & Sceery, 1988; Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993; Cooper, Shaver & Collins, 1998).

A handful of studies have examined the relation between adolescent attachment styles and engagement in deviant activities with the hypothesis that these problem behaviours (delinquency, substance abuse, and risky sex) represent alternative ways of expressing, and coping with, distress. These studies provide initial support for a relationship between insecure attachment, characterized by poor emotion regulation, and

increased risky behaviours. For example, insecurely attached college students were found in one study to report greater use of alcohol to regulate negative affect (Brennan & Shaver, 1995). Another study, having employed over two thousand adolescents, found that teens with an ambivalent attachment style are the most at risk behaviourally (Cooper, Shaver & Collins, 1998). More specifically, these adolescents reported the highest levels of risky behaviours (delinquency, substance use and sexual behaviour), compared to avoidantly and securely attached adolescents. Adolescents with avoidant attachment styles did not differ from securely attached teens on these risk or problem behaviours avoidants were even less likely than secures to have had sexual intercourse or used drugs and alcohol. The authors suggest that ambivalent adolescents may engage in problematic behaviours as one way to vent their feelings of anger and hostility, and that, for avoidant adolescents, involvement in drugs, delinquency and sex does not represent an emotional vent due to their lack of social skills which are necessary for engagement in these "highly peer-involved behaviours". Avoidant adolescents may thus express their anxiety in less overt ways than ambivalent adolescents. Of particular interest, attachment effects on risky behaviours were largely invariant across gender and across early, mid, and late adolescence.

An important topic which to date has received very little empirical investigation is the stability of attachment styles over time, and its relation to psychological and behavioural adjustment. According to attachment theory, (Bowlby, 1980) the working models of relationships that children form from their earliest attachments tend to become more stable over time, that is, crystallized and self-perpetuating, especially by late-

adolescence, and these working models serve to shape and explain future experiences. The individual is thus postulated to interpret life events via the working models he has developed through attachment relationships, a process similar to assimilation (Piaget, 1952). In this way, stability of attachment style is maintained by an active process of construction: people process information and elicit feedback that confirms their internal models of themselves and others (Bowlby, 1973, 1980; Fiske & Taylor, 1991; Kirkpatrick & Hazan, 1994; Scharfe & Bartholomew, 1994). Evidence presented by these attachment researchers suggests that attachment styles are trait-like characteristics which influence the course and outcome of relationships, as opposed to being merely descriptions of the quality of an individual's current relationships.

Several studies addressing the degree of stability of attachment styles lend support to the claim that attachment styles are stable over time. For example, Waters (1978) reported that 96% of upper-middle-class infants were classified in the same attachment category at 12 and 18 months of age. Further, some evidence suggests that stability of attachment style in infancy is related to the quality and stability of the child's environment. For example, Egeland and Sroufe (1981) reported high stability of attachment categories (from 12 to 18 months) of children in a high-quality care group and 48% stability of children in a maltreated group.

Attachment patterns tend to be quite stable over time in adulthood as well. Scharfe and Bartholomew (1994) found that approximately 60% of adults reported the same attachment style over 8 months. In the longest longitudinal study examining adult attachment stability published to date, Kirkpatrick and Hazan (1994) reported that after

4 years, 70% of their sample endorsed the same attachment style. More recently, Baldwin & Fehr (1995) reviewed the results of their own studies and concluded that approximately 70% of people maintain their attachment styles over various time periods.

These findings reveal that attachment styles tend to be stable over time, but that this stability is not absolute. That is, a substantial proportion of people report changes in their attachment styles over time. To explain these findings, some attachment theorists propose that attachment styles are "dynamic" and "flexible" constructs, in that the working models underlying attachment styles, above and beyond assimilating information yielded by the events an individual experiences throughout the course of his life, can themselves be modified.

What causes attachment styles to change? In the limited literature investigating the issue of attachment stability to date, two main viewpoints exist on the causes of change. Some researchers postulate that attachment style change occurs in response to external factors, such as life events (Scharfe & Bartholomew, 1994). For example, Epstein (1980) suggests that insecure attachment styles can be modified by means of compelling emotional experiences which are inconsistent with existing models, such as experiences arising within the context of significant relationships - with a spouse, for example, or a therapist. Major life transitions, such as leaving for college, getting married, having children, may be times particularly conducive to a re-evaluation and re-organization of previous internal working models in the light of new experiences (Kirkpatrick & Hazan, 1994; Baldwin & Fehr, 1995; Scharfe and Bartholomew, 1994).

For other theorists, attachment style change - insecure to secure, or secure to

insecure - is mainly a result of internal factors. Davila, Burge, and Hammen (1997) postulate that some people are more prone to attachment style changes than others, more specifically that there may be certain intrapersonal traits rather than changing circumstances that render people vulnerable to fluctuations in attachment style. The results of studies conducted by these authors support the conceptualization of attachment style change as an individual difference variable. Participants who had a personal and/or family history of psychopathology, had longterm personality disturbance and came from nonintact families, were more prone to attachment insecurity in the form of stable insecurity or attachment style fluctuations, than participants for whom these factors were absent. The authors suggest that attachment style instability may be a manifestation of incoherent working models. That is, people who exhibit changes in attachment style may hold tentative views of self and others, views that can fluctuate easily. The authors also found that the individuals who experienced fluctuations in attachment style had much more in common with participants who were stably insecure, than with participants who were stably secure. The authors concluded that for certain individuals, attachment insecurity may manifest itself in the form of attachment instability.

The present study

Further investigation of attachment style stability is of fundamental importance, especially with regards to adjustment. To date, research investigating the relation between attachment style stability and psychological and behavioural adjustment is very scarce.

Most studies assess attachment style at one point in time only, thus failing to capture the

more global perspective which multiple assessments over a timespan can provide.

A principal objective of the present study is to investigate whether insecure attachment styles which remain stable over time are associated with more serious and extreme outcomes than unstable attachment styles, as postulated by Bowlby's attachment theory. A stable insecure attachment style reflects an insecure way of thinking which continuously reinforces this attachment style (via working models which are assimilating novel experiences, and in so doing are perpetuating the insecure attachment style). A stable insecure way of thinking may lead to stable maladjustment. Because insecure styles are associated with maladjustment, a stable insecure attachment style should be a marker for environmental and/or internal conditions that are related to consistent or worsening maladjustment.

In the present study, attachment styles were assessed twice, over the course of a one-year period. An "unstable" attachment style is one which changed from one assessment to the next (either secure to insecure or insecure to secure). The direction of the change may not be as important as the change itself, because a one-year period covers but a small phase of an individual's lifetime; it is thus likely that the fluctuation detected was only one of many such changes occurring from secure to insecure or vice versa in the years preceding the first assessment. Attachment instability is thus conceptualized in the present study, as in Davila et al. (1998), as fluctuations in attachment style, independently of the direction of the fluctuations.

Within the context of post-hoc exploratory analyses the "unstable" individuals were broken down into two groups (one regrouping individuals changing from secure to

insecure attachment styles, and the other regrouping individuals changing from insecure to secure) in order to investigate differences existing between these two unstable groups.

The present study was conducted with an adolescent sample, adolescence being a time of great change both at the inter-personal and intra-personal levels (Peterson, Kennedy, & Sullivan, 1991). The teen years also represent a time of exploration and experimentation: adolescents alter their conceptions about themselves and the world surrounding them and are involved in a range of exploratory behaviours, such as delinquency, drugs, and sex. In fact, a considerable number of North American adolescents engage in such activities (Moffit, 1993; Adlaf, Ivis, Smart, & Walsh, 1995; Fonagy, Target, Steele, Leigh, Levinson, & Kennedy, 1998), which may be "developmentally functional" (Cooper, Shaver & Collins, 1998), but nonetheless carry substantial risk.

An essential question then is: in comparison to attachment styles which are unstable, do insecure attachment styles which are maintained over time lead to worse adjustment problems? Is a stable insecure attachment style more likely than an unstable attachment style to be associated with engagement in delinquency, drug-use, and irresponsible sexual behaviour? Conversely, does a stable secure attachment style act as a buffer against adjustment problems? In comparison to adolescents with unstable attachment styles, are adolescents with stable secure attachment styles less likely to engage in deviant behaviour, drug-use, and unsafe sex?

More specifically, the questions are the following:

- 1) How stable is attachment style? (%)
- 2) Is stable insecurity more likely than instability (those individuals whose attachment style has changed over a one-year period, regardless of the direction) to be associated with deviant behaviour, drug use, and irresponsible sexual behaviour?
- 3) Are those who are stably secure better adjusted than unstables? Are they less likely to engage in delinquent activities, drug use, and unsafe sex?
- 4)Are there any differences between the two groups of unstably attached adolescents, those who change from secure to insecure and those who change from insecure to secure?

Method

Sample

The present sample consists of 131 participants (n=87 girls; n=44 boys) aged 16 to 19 years (M = 16.95 years; SD = .74) attending English-language public schools in Montreal. An additional three participants were dropped due to missing data. At the time of testing, approximately 72% of the participants were in grade 11 and 27% were in first year of CEGEP (Quebec-equivalent of grade 12). Two students were repeating grade 10. Most of the participants lived at home with their mother and father (n = 109).

Almost all participants spoke English at home (n = 129). Approximately 90% reported living in Canada all their lives. Students varied in ethnicity, with 49% reporting English Canadian, 39% reporting European, and 14% reporting French Canadian origins. An additional 9% of students were of Asian origin, 3% of African origin, and 3% of Latin American origin. Several students reported more than one ethnic origin. The majority of students came from middle-class families, based on reported occupation of father, and mother if working, (Blishen, Carroll, and Moore, 1987). Mean socioeconomic status (SES) was 43.18 (SD = 12.17) for mothers (characteristic of interior designers, elementary and secondary school teachers, production clerks, and collectors) and 47.76 (SD = 15.91) for fathers (characteristic of construction electricians, mechanical repairers, and sales occupations) based on the 1981 socioeconomic index for occupations in Canada (Blishen, Carroll, & Moore, 1987). These levels are similar to the average SES in the general Canadian population (Blishen et al., 1987). See Appendix C for the General Information Form.

Procedure

Within the context of a previous study, over 600 participants were recruited from grades 10 and 11 in two Montreal suburban English High Schools. Approximately 300 students were contacted again during the spring of 1999, when they were in grades 11 and first year of CEGEP, and asked to participate in a follow-up study.

Two months before official data collection, students were sent a letter inviting them to participate in the second phase of the study, involving two hours of their time, either at their school or at the university, as well as a consent form to be returned by mail (see Appendices A and B). The consent form was returned by 37 students, 30 of which agreed to participate in the study. Approximately 260 students who did not return the form were contacted again by phone. Of these, approximately 135 agreed to participate in our study. All students who returned their forms had their names entered in a raffle for movie passes. Approximately 35 students who gave their consent on the phone did not show up for testing sessions. Overall participation rate was thus 134/300 = 42%.

Data collection was carried out at two high schools, two CEGEPS, and Concordia University. For one high school, testing was conducted during school hours. In all other cases, testing was conducted outside of class time. For both the initial study and the follow-up studies, students completed questionnaires regarding their relationships, as well as their involvement in various deviant activities (delinquency, drug use, and sexual behaviour). Within the context of the follow-up study, students also completed a computer task, not relevant to the present study, where they were presented a series of hypothetical stressful situations and were asked questions pertaining to these case

scenarios. Because of this technical part of the testing, students participated in groups of four to six.

Measures

The Relationship Questionnaire (RQ). Developed by Bartholomew and Horowitz (1991), the RQ is a self-report measure which provides continuous ratings of one secure and three insecure attachment styles (Dismissing, Preoccupied, Fearful). Subjects are asked to rate the extent to which paragraphs describing each attachment style apply to them. In the present study, each participant completed the RQ four times, once in reference to each of four specific attachment figures (mother, father, best friend, romantic partner) in counterbalanced order. For the present study, attachment to the participant's mother was utilized (see Appendix D).

Extensive data indicate that the RQ is a reliable and valid tool which provides a rapid assessment of attachment quality. The RQ has a good test-retest reliability r =.51; Scharfe & Bartholomew, 1994) and has been shown to correlate moderately with measures of self-concept and measures of interpersonal functioning (Bartholomew & Horowitz, 1991; Griffin & Bartholomew, 1994; Horowitz, Rosenberg, & Bartholomew, 1993).

The Self-Report Delinquency Scale. The Self-Report Delinquency Scale (adapted from Elliott, Huizinga, & Ageton, 1985) contains 39 items which assess both the prevalence and frequency of involvement in general delinquency. For each item,

participants indicate whether they have ever engaged in a particular delinquent behaviour, and if yes, the number of times in the past year. This scale is divided into nine subscales: Felony Assault, Felony Theft, Robbery, Fraud, Minor Assault, Minor Theft, Illegal Services, Damaged Property and Public Disorder. In addition to the original 35 items, in the current investigation, four items pertaining to taxing (group intimidation in order to obtain goods/money from others), involvement with the police (for questioning, or arrest), and being expelled from school, were included (see Appendices E and F).

Indices of delinquency derived from this questionnaire are: Variety of Delinquent Acts, which assesses the variety of delinquent acts carried out by each participant (regardless of the frequency) in the past year, and Frequency of Delinquency which is assessed in relation to the 11 subscales composing the Delinquency Questionnaire.

The Self-Report Delinquency Scale is an internally consistent measure (with regards to the different subscales, test-retest reliabilities range from .58 to .93) which correlates with official delinquency rates, and with teacher and parent reports of delinquent behaviour (Elliott & Ageton, 1980; Elliott, Huizinga, & Ageton, 1985).

The Self-Report Substance and Drug-Use Scale. Also adapted from Elliott, Huizinga, & Ageton (1985), this 14-item scale assesses the prevalence and frequency of use of alcoholic beverages as well as different types of drugs (e.g. hashish, hallucinogens, amphetamines, barbiturates). Also, certain items are used to assess the extent to which alcohol and marijuana have led to risk behaviours at school or at work (e.g. "Have you ever been high on marijuana, at school or at work?"). For each of the 14 items,

participants indicate whether they have ever engaged in the particular behaviour, and if yes, the number of times in the past year (see Appendices G and H).

Indices of substance-use derived from this questionnaire are: Variety of Substances Used and Frequency of Alcohol and Marijuana Use. The first index assesses the variety of substances used by each participant (regardless of the frequency) in the past year. The second index assesses the amount of alcohol and marijuana used by each participant in the past year.

The Self-Report Substance and Drug Use Scale is an internally consistent measure (test-retest reliability = .65) which correlates with official substance use rates, and with teacher and parent reports of substance-taking behaviour (Elliott & Ageton, 1980; Elliott, Huizinga, & Ageton, 1985).

Adolescent Sexuality Scale. Developed by Voss (1997) for the first phase of the present study, the Adolescent Sexuality Scale assesses past and current involvement in sexual intercourse as well as sexual risk-taking behaviours (e.g. lack of contraceptive use). Indices derived from this questionnaire are Number of Sexual Partners (in one's lifetime), Frequency of Casual Sex, Frequency of Sexual Intercourse (in the past 6 months), Birth Control Use, as well as Risky Sexual Attitudes, a variable composed of 6 questions assessing risk-taking attitudes related to sexually transmitted diseases. Some questions require Yes/No answers, some frequency ratings, and others ask respondents to rate how true various statements are for them on a 3-point scale ranging from Never True to Always True (see Appendices I and J).

Results

Preliminary Analyses of the Dependent Variables

<u>Delinquency outcome variables</u>. With regards to the index Variety of Delinquent Acts at Time 2, two outliers were present at the high end of the distribution, and changed to scores within three standard deviations from the mean.

With regards to the Frequency of Delinquent Acts indices, it was not possible to conduct parametric analyses with some subscales due to positive skew because most respondents did not commit certain delinquent acts (percentage of teens never having committed a particular crime, at Time 1 nor at Time 2, are indicated between parentheses): Felony Assault (66%), Robbery (89%), Fraud (71%), Illegal Services (80%). The correlations amongst the remaining subscales, and with Variety of Delinquent Acts, both at Time 1 and at Time 2 are shown in Tables 1 and 2. Since all the subscales were highly correlated amongst each other, and were highly correlated with Variety of Delinquent Acts, we retained Variety of Delinquent Acts as our delinquency index.

Substance-use outcome variables. At both Time 1 and Time 2, four outliers at the high end of the distribution were changed to scores within three standard deviations from the mean.

The Frequency of Substance-Use index is based on participants' use of alcohol and marijuana, since these were the substances participants used most frequently (see Table 3). These two variables were moderately correlated (r = .4 at Time 1 and r = .3 at

<u>Intercorrelations between Delinquency Subscale Indices and Variety of Delinquent Acts.</u>
<u>at Time 1</u>

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------|---|------|------|------|------|------|
| 1. FELONY THEFT | - | .72* | .69* | .48* | .59* | .72* |
| 2. MINOR ASSAULT | | - | .66* | .50* | .57* | .71* |
| 3. MINOR THEFT | | | - | .56* | .59* | .78* |
| 4. PROPERTY DAMAGE | | | | - | -55* | .64* |
| 5. PUBLIC DISORDER | | | | | - | .77* |
| 6. VARIETY C DELINQUE ACTS | | | | | | - |

<u>Note:</u> N = 131; * $\underline{p} < .05$

<u>Intercorrelations between Delinquency Subscale Indices and Variety of Delinquent Acts.</u>
<u>at Time 2</u>

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|----------------------------------|---|------|------|------|------|------|
| 1. FELONY THEFT | - | .53* | .48* | .49* | .37* | .59* |
| 2. MINOR ASSAULT | | - | .52* | .51* | .52* | .68* |
| 3. MINOR THEFT | | | - | .51* | .48* | .68* |
| 4. PROPERTY DAMAGE | - | | | - | .63* | .70* |
| 5. PUBLIC DISORDER | | | | | - | .73* |
| 6. VARIETY C DELINQUE ACTS | | | | | | - |

<u>Note:</u> N = 131; * $\underline{p} < .05$

Time 2) and were therefore combined into one index of substance use for each time period.

The correlations between the two Substance-Use indices (Variety of Substances used and Frequency of Alcohol and Marijuana) were high: r = .80 at Time 1 and r = .76 at Time 2. Only one index was retained: Variety of Substances Used for each time period. This index is more global since it taps into adolescents' use of 5 different types of substances.

Sexuality outcome variables. Since the correlations between Number of Sexual Partners and Frequency of Casual Sex were relatively high at Time 1 and at Time 2 (r = .72 at Time 1 and r = .59 at Time 2), a combined index was formed. Since the intercorrelations between Frequency of Sexual Intercourse, Birth Control Use, and Risky Sexual Attitudes, a variable representing the sum of six questions assessing risk-taking attitudes related to sexually transmitted diseases, were generally lower than r = .3, these variables were kept separate. Intecorrelations between the combined variable, Frequency of Sexual Intercourse, Birth Control Use, and Risky Sexual Attitudes were below r = .30 at Time 1 and at Time 2 thus these variables were analysed with separate ANOVAs (see Tables 4 and 5).

Table 3

Frequency of adolescents having used drugs more than 10 times in the past year.

per substance

| Substance | Time 1 | Time 2 |
|---------------|--------|--------|
| Alcohol | 64 | 77 |
| Marijuana | 27 | 22 |
| Hallucinogens | 4 | 5 |
| Amphetamines | 4 | 4 |
| Barbiturates | 3 | 2 |

<u>Note:</u> N = 131

<u>Intercorrelations between Sexuality Indices, Variety of Delinquent Acts. and Variety of Substances Used, at Time 1</u>

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|-------------|---|------|------------|------------|-------------|---------------|
| 1. PARCAS | _ | 01 | 19 | .26 | .64* | .27 |
| 2,2,0,0,0,0 | | (41) | | (47) | | |
| 2. TIMESEX | | - | 19 (37) | 09 (39) | .05 (41) | .01 (41) |
| 3. CONTROL | | | - | | 09 (45) | |
| 4. SEXBEH | | | | - | .27 (48) | .10 (48) |
| 5. DELPTYR | | | | | - | .60* (131) |
| 6. SUBPTYR | | | | | | - |
| | | | | | | |

Note: Positive values correspond to high risk, negative values to low risk

PARCAS = (Variable combining Number of partners in one's lifetime and Frequency of Casual sex in one's lifetime); TIMESEX = Frequency of sexual intercourse in the past 6 months; CONTROL = Birth control use; SEXATT = Variable composed of 6 questions assessing risk-taking attitudes related to sexually-transmitted diseases; DELPTYR = Variety of Delinquent Acts in the past year; SUBPTYR = Variety of Substances Used in the past year.

^{*} p < .05

<u>Intercorrelations between Sexuality Indices. Variety of Delinquent Acts. and Variety of Substances Used. at Time 2</u>

| Variable | 1 | 2 | 3 | 4 | 5 | 6 |
|------------|---------|--------------|------|--------------|------|--------------|
| | <u></u> | - | | • | | |
| | | | | | | |
| 1. PARCAS | - | .07 (63) | | .28* (65) | | .34* (68) |
| | | (00) | - | | | |
| 2. TIMESEX | | - | 11 | 31* | | .06 |
| | | | (62) | (62) | (63) | (63) |
| 3. CONTROL | | | - | 18 | 09 | .07 |
| | | | | (64) | (65) | (65) |
| 4. SEXATT | | | | _ | .27 | .13 |
| 4. SEARTT | | | | | (65) | (65) |
| | | | | | | .47* |
| 5. DELPTYR | | | | | - | (131) |
| | | | | | | () |
| 6. SUBPTYR | | | | | | - |
| | | | | | | |
| | | | | | | |

Note: Positive values correspond to high risk, negative values to low risk

PARCAS = (Variable combining Number of partners in one's lifetime and Frequency of Casual sex in one's lifetime); TIMESEX = Frequency of sexual intercourse in the past 6 months; CONTROL = Birth control use; SEXATT = Variable composed of 6 questions assessing risk-taking attitudes related to sexually-transmitted diseases; DELPTYR = Variety of Delinquent Acts in the past year; SUBPTYR = Variety of Substances Used in the past year.

^{* &}lt;u>p</u> <.05

Intercorrelations between all outcome variables. The correlation between Variety of Delinquent Acts and Variety of Substances used was r = .61 at Time 1 and r = .49 at Time 2. These two indices were entered together in a Multivariate Analysis of Variance. Intercorrelations between all retained dependent measures, at Time 1 and Time 2, are shown in Tables 4 and 5.

Stability of Attachment Style. Subjects could not be assigned to attachment categories based solely on their highest rating because subjects often gave equal ratings to two or more attachment dimensions. Categorization of attachment style with mother was therefore based on Griffin and Bartholomew's (1994) method of calculating working models of self and other. Continuous ratings of the four attachment dimensions (Secure, Dismissing, Preoccupied, and Fearful) were combined to yield negative to positive dimensions of self and other in relation to mother. The self dimension was obtained by summing the attachment ratings relating to positive models of self (secure and dismissing) and subtracting the attachment ratings of the two patterns characteristic of negative self-models (preoccupied and fearful). Model of other was obtained by summing the attachment ratings for positive models of other (secure and preoccupied) and subtracting the attachment ratings for negative models of other (dismissing and fearful). Scores for self and other were used to assign each subject to one of four attachment categories: S, D, P, F at each of Times 1 and 2. Specifically, subjects with positive model of self and positive model of other were categorized as secure, subjects with positive model of self and negative model of other as dismissing, subjects with negative model of

self and positive model of other as preoccupied, and subjects with negative model of self and negative model of other as fearful. Rules for assigning subjects scoring 0 for either dimension were designed so as to equate cell numbers as much as possible.

On the basis of attachment styles at Time 1 and at Time 2, participants fell into one of three attachment stability groups: (1) stable secure (securely attached at Time 1 AND at Time 2, n = 53), (2) stable insecure (insecurely attached at Time 1 AND at Time 2, n = 31), (3) unstable (attachment style shifted from either insecure to secure, n = 27, or secure to insecure, n = 20, (total n = 47). Most subjects were securely attached, followed by dismissing (approximately 40% of participants categorized as "insecure" at Time 1 and at Time 2 were of the dismissing type), and the numbers for the fearful and preoccupied styles were lowest. Approximately 65% of adolescents retained the same attachment category (secure and insecure) from Time 1 to Time 2 (see Table 6).

<u>Table 6</u>

<u>Categorization of adolescents' attachment style. Time 1 by Time 2</u>

| Time 2 | Secure | Dismissing | Preoccupied | Fearful | Total |
|-------------|--------|------------|-------------|---------|-------|
| Secure | 53 | 14 | 5 | 1 | 73 |
| Dismissing | 16 | 12 | 5 | 1 | 34 |
| Preoccupied | 7 | 3 | 2 | 0 | 12 |
| Fearful | 4 | 3 | 1 | 4 | 12 |
| Total | 80 | 32 | 13 | 6 | 131 |

<u>Note:</u> N = 131

Analyses of Delinquency and Substance Use

Because of the moderate correlation between Variety of Delinquent Acts and Variety of Substances Used both at Time 1 and at Time 2 (see Tables 4 and 5), these two dependent variables were analyzed in a Multivariate Analysis of Variance. To test the hypotheses that stable insecures engage in a wider variety of delinquent activities and use a wider variety of substances than unstables and stable secures, a 3 x 2 x 2 mixed model MANOVA was performed with Stability (3) and Sex (2) as between-subject factors and Time (2) as a within-subject factor. Multivariate results revealed a significant Stability by Time interaction, \underline{F} (2,124) = 4.49, p < .05, a significant Sex by Time interaction, \underline{F} (2, 124) = 8.84, p < .05, as well as a significant main effect of Time \underline{F} (2, 124) = 3.57, p < .05. Results from the separate univariate analyses are discussed below.

<u>Delinquency</u>. Examination of the univariate Stability by Time interactions revealed a significant effect for Variety of Delinquent Acts, $\underline{F}(2,125) = 4.87$, p < .05. Post-hoc Tukey tests indicated that adolescents whose attachment style fluctuated over time (unstable) engaged in a wider variety of delinquent acts at Time 1 than those who remained secure from Time 1 to Time 2. Also, participants whose attachment style shifted over time significantly decreased their variety of delinquent acts from Time 1 to Time 2 (see Table 7).

Table 7

Variety of Delinquent Acts in the past year by type and stability of attachment style

| Attachment Stability Group | Mean Time1 SD | Mean Time 2 SD |
|-------------------------------|-------------------------|----------------------|
| 1) stable secure (n=53) | 6.1a 5.65 | 7.2 5.99 |
| 2) unstable (n=47) | 10.5 b 7.14 | 8.4 c 5.99 |
| 3) stable insecure (n=31) | 9.2 7.37 | 9.8 7.42 |

Note: Means with different subscripts (ab, bc) are significantly different, $\underline{p} < .05$.

Univariate results also showed a significant Sex by Time interaction for Variety of Delinquent Acts $\underline{F}(1,125) = 9.01$, p < .05. Follow-up paired t-tests indicated that boys engaged in a wider variety of delinquent acts than girls at Time 2 but not at Time 1. Further, girls, but not boys, engaged in fewer types of delinquent acts over time (see Table 8).

To assess whether the two unstable groups differed from each other (secure insecure n=20, insecure=27), paired t-tests were conducted. Results indicated that both of the unstable sub-groups decreased their variety of delinquent acts from Time 1 to Time 2; however this decrease was only significant for insecures / secures (see Table 9).

Substance Use. Univariate results also revealed a significant Main Effect of Time for Variety of Substances Used, $\underline{F}(1,125) = 5.89$, p < .05. Overall, adolescents experimented with a wider variety of drugs at Time 2 (M = 1.7) than at Time 1 (M = 1.5). Further, the univariate main effect of Sex was significant ($\underline{F}(1,125) = 7.18$, p < .05) revealing that overall girls (M = 1.8) used a wider variety of drugs than boys (M = 1.4).

Sexuality. To assess whether stable insecures engage in more irresponsible sexual behaviour than unstables and stable secures, and whether stable secures engage in less irresponsible behaviours than unstables and stable insecures, four Stability (3) by Time (2) mixed model Analyses of Variance were conducted on the four sexuality indices. Results revealed no significant effects.

Table 8

Mean Variety of Delinquent Acts in the past year, by boys and girls

| Gender | Mean Time1 SD | Mean Time 2 SD |
|-------------------|-------------------|---------------------|
| 1) girls (n = 87) | 8.5a 7.3 | 7.3 b 6.3 |
| 2)boys (n = 44) | 8.2 6.0 | 9.9 c 6.3 |

Note: Means with different subscripts (ab, bc) are significantly different, p < .05.

Table 9

Variety of Delinquent Acts in the past year, by secures/insecures and insecures/secures

| Attachment Instability Group | Mean Time1 SD | Mean Time 2 SD |
|------------------------------|------------------|-------------------|
| 1) secures / insecures | 11.5 | 8.8 |
| (n = 20) | 7.56 | 5.3 |
| 2) insecures / secures | 9.7a | 8.1 ь |
| (n = 27) | 6.85 | 6.54 |

<u>Note</u>: a-b, p < .05

Discussion

In this study we sought to investigate the relation between stability of attachment style and adolescent maladjustment, specifically engagement in delinquent activities, substance-use, and irresponsible sexual behaviour. In this section the representativeness and characteristics of the sample and the results obtained from the analyses conducted, as well as limitations of the study and future directions are discussed.

Representativeness and characteristics of the sample

With respect to attachment style, results from this study are comparable to previous research using categorical data (Mickelson, Kessler, & Shaver (1997). Specifically, highest percentages in each category were found for secure attachment, followed by dismissing attachment and ratings for the fearful and preoccupied styles were lowest.

In terms of involvement in antisocial activities, the teenagers in this sample were similar in many ways to youths in other provinces and Canada as a whole. For example, the average number of drugs used by teens in the current study was similar to rates reported by grade 11 high school students in Ontario (Adlaf & Ivis, 1997). Rates for alcohol and tobacco use were higher in our sample than in the published literature, at both Time 1 and Time 2 (alcohol use: 96% vs. 80%; tobacco use: 64.5% vs. 43%). In conformity with existing survey data, no gender differences were found with regards to frequency of alcohol and tobacco use. However, results from our study revealed that, all in all, girls used a wider variety of drugs than boys.

With respect to delinquency, results are comparable to previous research which shows that most teens have committed some form of delinquent act (Moffitt, 1993). In our sample, boys engaged in a wider variety of delinquent acts than girls at Time 2 but not at Time 1. Further, girls, but not boys, engaged in fewer types of delinquent acts over time. Taken together, these findings parallel the reality that in general throughout the adolescent years boys are more delinquent than girls (Bachman, Wadsworth, O'Malley, Johnston, & Schulenberg, 1997). With regards to our results, it could be the case that once the peak age of delinquency is attained between the ages of 15 and 16 (Moffitt, 1993), which corresponds to the age of most of our adolescents at Time 1, girls' involvement in antisocial activities begins to taper off, while that of boys remains elevated.

The number of teens who were sexually active in this sample at Time 2 parallels results found in the National Population Health Survey of a representative sample of adolescents (43.5%, Galambos & Tilton-weaver, 1998).

Stability of attachment style in relation to maladjustment

Approximately 65% of adolescents retained the same attachment category (secure and insecure) from Time 1 to Time 2, a finding which corresponds to stability rates found in the literature on attachment style stability.

Our principal hypothesis that adolescents with stable insecure attachment styles would be more at risk for maladjustment was not entirely supported. In fact, adolescents in our three stability groups (stable insecure, unstable, and stable secure) behaved in

similar ways with regards to many antisocial activities, such as delinquency, substanceuse, and irresponsible sexual behaviour. An exception was delinquent activities, where results offer partial support to Davila et al's (1997) working hypothesis that unstables are at increased risk for maladjustment as compared to stable secures. Adolescents in the unstable group engaged in a wider variety of delinquent activities at Time 1 than those who remained secure over time. Also, unstables decreased in variety of delinquent acts from Time 1 to Time 2. In Davila et al's (1997) pioneering study investigating the link between attachment stability and maladjustment in adolescence, they conceptualized attachment instability as a trait-like characteristic reflecting an individual's tentative as well as insecure views of self and others held by the individual. This rationale is an interesting one, and surely deserves further investigation, especially given the scarcity of research exploring attachment style stability. It could be the case that individuals manifesting fluctuations in attachment style are more easily swayed by environmental influences, such as social pressures. This could be especially true for adolescents, who are learning to construct their identity during the often turbulent adolescent years. In fact, adolescent attachment instability might reflect a healthy search of one's own identity rather than a maladaptive personal characteristic. In our sample, unstables were the ones who engaged in the greatest variety of delinquent activities. However this was only true at Time 1, when most adolescents were between 15 and 16 years of age, an age corresponding to the peak of delinquency. At Time 2, unstables were the ones who decreased significantly in variety of delinquent acts.

The implications of a stable insecure attachment style also merits further exploration. Although our findings do not lend clear support to a relation existing between stable insecurity and maladjustment, much evidence exists in the scientific literature marking this relationship. As many attachment theorists have claimed, there are sound reasons to posit that an insecure style which is maintained over a long period of time is likely to result in maladaptive patterns of behaviour, in part due to the negative and unhealthy working models accompanying an insecure attachment style. It is important that research continues to investigate the practical validity of the standpoints taken by both attachment theorists such as Bowlby and Ainsworth and that of researchers such as Davila and her colleagues. One avenue for resolving these questions may be conducting studies assessing attachment style at multiple time points, a topic discussed further in the next section.

Limitations of the present study and future directions

Assessing attachment style at two time points allowed a more global investigation of the relation existing between attachment and maladjustment, which one-time-only assessments cannot yield. However, assessments at three or more points in time, spanning over a number of years, would have allowed a more conceptually robust categorization of adolescents into the attachment stability groups; for example, the stable secure and stable insecure groups would incorporate individuals who are, respectively, securely attached and insecurely attached, while the unstable group would incorporate individuals whose attachment style has fluctuated once, twice, or three times. With multiple

assessments, the categorization of stable secures, unstables, and stable secures would be more validly defined, and this would facilitate the practical investigation of the standpoints regarding attachment stability and maladjustment existing in the field.

Another important limitation related to the categorization of attachment stability is our sole reliance on self-report measures. Several authors have found that self-reported attachment style and interview-assessed attachment style tend to show low to moderate correspondences (Scharfe & Bartholomew, 1994; Scharfe, 1995). One reason this may be so is that, if as is posited by Davila et al., some people's insecurity is reflected in instability and not in stable insecurity, they may report themselves as secure at a particular time. However, on the basis of interview assessments, such individuals may be classified as insecure because whatever it is that is making their self-reports fluctuate (tentative views of self and other for example) is likely to come through during an interview. Longitudinal studies using multiple methods to assess attachment style would allow for better definition of attachment categories - and thus attachment stability categories - and would provide the framework to better investigate the meaning of attachment instability by opening a window onto the potential causes and processes underlying attachment style change.

Multiple methods of assessment would also aid us in our understanding of adolescent adjustment. Semi-structured interviews, perhaps conducted with a subset of a large sample, would give researchers the opportunity to better understand the meaning and implications of engagement in anti-social activities, substance-abuse, and

irresponsible sexual behaviour from the adolescent's perspective. Such qualitative data would complement the more quantitative data gleaned from self-report measures.

A longitudinal study examining the relation between attachment style stability and adolescent maladjustment which incorporates qualitative and quantitative methods of assessment would aid our conceptual and practical understanding of the topic at hand.

Concluding Comments

The present study sought to investigate the relationship existing between adolescents' attachment style and their involvement in maladaptive exploratory behaviours over time. This research theme is of substantial clinical importance in light of finding a marker for adolescent maladjustment. Is this marker stable attachment insecurity, or is it attachment instability? According to one viewpoint, individuals who remain insecurely attached are at greatest risk for maladjustment; since a stable insecure attachment style becomes more and more "ingrained" over time and presumably self-perpetuating, it may be more difficult to change the attitudes and behaviours associated with stable insecure styles than those accompanying unstable styles. Another viewpoint posits that attachment instability itself reflects insecurity, and thus unstables are the ones who are most at risk. Our study does not present conclusive results lending support to one standpoint versus another. However, this line of research, which is only beginning to emerge, must be pursued.

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Appendix A

Letter to Student

Dear Student:

Thank you for your participation in last year's Relationship and Behaviour Project. As promised, we are enclosing a summary of our findings. Your answers really helped us learn about teens' relationships, coping skills, and sense of well-being.

We are also writing to invite you to participate again, in a study related to last year's. This next study is about how adolescents make judgements, cope with, and feel about a variety of types of stressful situations, including those with parents, friends, and dating partners. It is important to find out more about these views in order to understand what helps teens develop good relationships with others, deal with problems, and feel good about themselves. This study also looks at how relationships and behaviours change over time. We are asking for your help.

Participation at school will involve two sessions, each lasting about an hour. In the first session, you will be asked questions on a computer and to complete a few questionnaires about your relationships and feelings. In the computer task, hypothetical problems with parents, friends, dating partners and with school will be described briefly, and you will be asked what you would think, do, and feel in these situations. During the second session, you will be asked to fill out questionnaires similar to the ones you completed in the last study, about your feelings, the way you cope with stress, your sexual behaviour, and whether or not you have tried drugs, alcohol, or have broken rules.

Of course all information will be completely confidential to the research team and identified only by number. We're interested in knowing from you what sorts of things help teens have good relationships and cope with problems. We really want you to participate to complete this puzzle. In return for your help, we'll give you \$10. And of course, you are free to discontinue at any time. We think you'll enjoy it though.

Please complete the enclosed consent form whether or not you wish to participate and send it back to us as soon as possible in the enclosed prepaid envelope. We want to hear from you whether your answer is "yes" or "no". Everyone returning the form will have a chance to win one of several Cineplex Odeon movie passes. Thank you again for your support in our research.

If you have any questions about the study, please feel free to call Stephanie or Clairalice at 848-7560. We look forward to hearing from you very soon.

Appendix B

Student Consent Form

CENTRE FOR RESEARCH IN HUMAN DEVELOPMENT tel: (514) 848-7560 fax: (514) 848-2815

CONSENT FORM TO PARTICIPATE IN RESEARCH (Lasalle)

| Check whe | re applicable: |
|---|--|
| (F r | agree to participate in the study conducted by Stephanie Margolese, Clairalice Campini, Dr. Dorothy Markiewicz, and Dr. Anna-Beth Doyle of the Centre for Research in Human Development. I have been informed that the study is about elationships, coping, emotions, and behaviour. |
| OR T | am not sure if I want to participate and I want to be called to discuss the project. |
| | My name and phone number is: |
| OR | |
| | do not agree to participate in this study and do not wish to be called. My name is (so we can put your name in the draw): |
| I have bee relationship school, and session, I whow I would complete quarents. During the stress, alcohol and INFORMA number. It any time. I HAVE RICONSENT | In informed that the purpose of the research is to study the links between quality, coping style, emotions, and behaviour. Participation will be at my will involve two sessions of approximately 50-60 minutes. During the first will answer questions on a portable computer about what I would think, do, and defel in hypothetical situations with parents, friends, school or work. I will also uestionnaires about my mood, and my relationships with my friends and my uring the second session, I will complete questionnaires about the ways I cope my feelings about myself, and involvement in rule-breaking behaviour, use of d drugs, and attitudes regarding sexual behaviour. I understand that ALL TION WILL BE CONFIDENTIAL to the research team, and identified only by inderstand that I may withdraw my consent and may discontinue participation at EAD THE ABOVE AND UNDERSTAND THIS AGREEMENT. I FREELY AND AGREE TO PARTICIPATE IN THIS STUDY. |
| - | se print): Date: |
| Address: | |
| | ber: () |
| Cabach | Grade: |

Appendix C

General Information Form (Time 2)



GENERAL INFORMATION FORM

| Please | do not p | naric in ti | his are: | |
|--------|----------|-------------|----------|--|
| | | | 2 | |
| Orc | ier. 🖸 | 11 D | 回 | |

| the information provided in this form will help t | as describe the range of participants in our study. |
|--|--|
| 1. Age: 2. Date of Birth: DAY MONTH YEAR 1. DI | 11. I have sister(s). Specify how many are older than you: 12. I have brother(s). Specify how many are older than you: 13. My mom is (⊠ one box): |
| 3. Sex: | ☐ Single ☐ Married ☐ Divorced ☐ Widowed ☐ Other |
| 4. Grade: 17 | 14. My dad is (⊠ one box): ☐ Single ☐ Married ☐ Divorced ☐ Widowed ☐ Other 15. Who lives (lived) in your house with you? (⊠ all that apply) |
| □ 10 □ Cegep 3+ | |
| 5. School: Usanier Issalle Dawson Ist Thomas John Abbott Other (specify) | ☐ Mom ☐ Aint ☐ Dad ☐ Grandmether ☐ Stepmom ☐ Grandfather ☐ Stepdad ☐ Cousin ☐ Sisters ☐ Friend of parent ☐ Brothers ☐ Other (specify) |
| 6. My grades generally average (1-99) | ☐ Uncle 16. For questions 13, 14 and/or 15, have there been any changes over the course of the past year? ☐ Yes ☐ No 17. My ethnic/cultural background is (☒ all that apply below) |
| 8. I have failed/repeated a grade: | ☐ English Canadian ☐ Asian ☐ French Canadian ☐ American ☐ Aboriginal ☐ Latin American |
| 9. What is your mother tongue (first language)? ☐ English ☐ French ☐ Other (specify) | ☐ African ☐ Australian ☐ European ☐ Other (specify) |
| 0. What languages do you speak at home? □ English □ French □ Other (specify) | 18. I have lived in Canada years. 53458 |

Appendix D

The Relationship Questionnaire (with Mother)



RELATIONSHIP WITH MOTHER (ROM)

| Farti | cipat | ion # | |
|-----------|-------|-------|--|
| | | | |

If you don't have a mom or stepmom, just leave this blank and go to the next questionnaire.

Please tell us who you are thinking of when you fill out this questionnaire (☒ one box):

☐ Mom

OR

☐ Stepmom

Think about your relationship with your mother. Now read each paragraph below and indicate to what extent each paragraph describes your relationship with your mother. Put an \boxtimes in the box UNDER the number that is true for you.

1. It is easy for me to become emotionally close to my mother. I am comfortable depending on my mother and having my mother depend on me. I don't worry about being alone or having my mother not accept me.

| Not At All | | | • | • | | Very Much |
|------------|---|---|---|---|-----|-----------|
| 1 | 2 | 3 | 4 | 5 | . 6 | . 7 |
| | | | | | | |

I am comfortable not having a close emotional relationship with my mother. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on my mother or have my mother depend on me.

| Not At All | | | | | 4 | Very Muc | 'n |
|------------|---|---|-----|---|--------|----------|----|
| 1 | 2 | 3 | 4 | 5 | ·- · 6 | 7 | |
| | | | . 🗆 | | | | |

3. I want to be completely emotionally close with my mother, but I often find that my mother is reluctant to get as close as I would like. I am uncomfortable not having a close relationship with my mother, but I sometimes worry that she doesn't value me as much as I value her.

| Not At All | | | | | | Very Much | ì |
|------------|---|---|----------|---|---|-----------|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | | | <u> </u> | | | | |

4. I am uncomfortable getting close to my mother. I want to be emotionally close to my mother, but I find it difficult to trust her completely, or to depend on her. I worry that I will be hurt if I allow myself to become too close to my mother.

| Not At All | | | | | • | Very Much | |
|------------|---|---|---|---|---|-----------|--|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| | | | | | | | |





Appendix E

The Self-Report Delinquency Questionnaire (Time 1)

| Participation# | Participation# | |
|----------------|----------------|--|
|----------------|----------------|--|

This section asks about different behaviours that teenagers are sometimes involved in. Your answers are very important to us: we want to know what really happens for people your age so please answer all questions honestly. Remember, ALL YOUR ANSWERS ARE CONFIDENTIAL.

For each question,

- First indicate whether or not you have ever done what is described (check YES or NO).
- Then, if you answer YES, indicate how many times in the last year you have done each behaviour. (If you have done something more than 10 times, just write 10+. If in the last year you have never done what is described, even though you have done it before, just write 0.)

Have you ever...? (If Yes, please indicate how many times in the last year.)

| I. Purposely damas members? | ged or destroyed property (includes vandalism/g | raffitt) belonging to your parents or other fami |
|--------------------------------|--|--|
| YES | Number of times in the last year | NO |
| 2. Purposely dama | ged or destroyed property (includes vandalism/ | (graffiti) belonging to your school or employer |
| YES | Number of times in the last year | мо |
| | ged or destroyed other property (includes vand thool, or work property? | dalism/graffiti) that did not belong to you, no |
| YES | Number of times in the last year | мо |
| 4. Stolen or tried to | o steal a motor vehicle such as a car or motorcy | cle? |
| YES | Number of times in the last year | NO |
| 5, Stolen or tried to | o steal something worth more than \$50.00? | |
| YES | Number of times in the last year | NO |
| | | |

6. Knowingly bought, sold or held stolen goods or tried to do any of these things?

Number of times in the last year

^{7.} Purposely set fire to a building, car, or other property or tried to do so?

| YES | Number of times in the last year | NO | | | | | | | | | | |
|--|---|-------------------------|--|--|--|--|--|--|--|--|--|--|
| 8. Carried a hidden weap | on other than a plain pocket knife? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 9. Stolen or tried to steal | things worth \$5.00 or less? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 10. Attacked someone with the idea of seriously hurting that person? | | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 11. Been involved in gang fights? | | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 12. Used checks illegally | or used phony money to pay for something (includes in | ntentional overdrafts)? | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 13. Sold manijuana or has | hish (weed, pot, grass, hash)? | . • | | | | | | | | | | |
| YES | Number of times in the last year | мо | | | | | | | | | | |
| 14. Hitchhiked where it w | vas illegal to do so? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 15. Stolen money or other | r things from your parents or other members of your fan | nily? | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| 16. Stolen money, goods, | or property from school or from the place where you w | ork? | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | |
| - | | | | | | | | | | | | |

17. Hit or threatened to hit one of your parents?

| YES | Number of times in the last year | ио | | | | | | | | | | | |
|---------------------|---|-------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| 18. Hit or threaten | ed to hit your teacher, your supervisor or another | employee? | | | | | | | | | | | |
| YES | Number of times in the last year | МО | | | | | | | | | | | |
| 19. Hit or threaten | ed to hit anyone eise (e.g., friends, strangers)? | | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | | |
| 20. Been loud, rov | wdy, or unruly in a public place (disorderly conduc | :t)? | | | | | | | | | | | |
| YES | Number of times in the last year | ио | | | | | | | | | | | |
| 21. Sold hard drug | YES Number of times in the last year NO 21. Sold hard drugs such as cocaine, LSD (acid), heroin (or others)? | | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | | |
| 22. Tried to cheat | someone by selling them something that was wor | thless or not what you said it was? | | | | | | | | | | | |
| YES | - Number of times in the last year | NO | | | | | | | | | | | |
| 23. Taken a vehic | le for a ride or drive without the owner's permissi | on? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | | |
| 24. Bought liquor | as a minor? | | | | | | | | | | | | |
| YES | Number of times in the last year | NO: | | | | | | | | | | | |
| 25. Used force or | "strong arm" methods to get money or things from | n people? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | | |
| 26. Avoided payi | ng for such things as movies, bus or metro rides, a | nď food? | | | | | | | | | | | |
| YES | Number of times in the last year | NO | | | | | | | | | | | |
| | | | | | | | | | | | | | |

27. Been drunk in a public place?

| YES | Number of times in the last year | NO |
|---|---|--|
| 28. Stolen or trie | d to steal things worth between \$5.00 and \$50.00? | |
| YES | Number of times in the last year | NO |
| 29. Broken into or just to look around | tried to break into a building (including an abandoned? | ed building) or vehicle to steal something |
| YES | Number of times in the last year | NO |
| 30. Begged for mo | oney or things from strangers? | |
| YES | Number of times in the last year | NO |
| 31. Failed to retur | n extra change that a cashier gave you by mistake? | |
| YES | Number of times in the last year | NO |
| 32. Used or tried | to use credit cards without the owner's permission? | • |
| YES | Number of times in the last year | NO |
| 33. Made obscene | e telephone calls (such as calling someone and sayin | g dirty things)? |
| YES | Number of times in the last year | NO |
| 34. Snatched som | neone's purse or wallet or picked someone's pocket? | |
| YES | Number of times in the last year | NO |
| 35. Used money o | or funds entrusted to your care for some purpose othe | er than that intended (embezzled money) |
| | | |
| YES | Number of times in the last year | NO |
| | Number of times in the last year th friends, and used force or intimidation to get mone | |

37. Been stopped by the police for questioning?

| YES | Number of times in the last year | NO |
|-----------------------|--|---|
| 38. Been arrested? | | |
| YES | Number of times in the last year | · NO |
| If "Yes", what were | e you charged with? | |
| 39. Been expelled i | rom school? | |
| YES | Number of times in the last year | NO |
| How old were you | : | |
| Purposely damaged | I or destroyed property that did not belong to you | 1? |
| Stole something wo | orth \$5.00 or less? | |
| Stole something wo | orth between \$5.00 and \$50.00? | ····· |
| Stole something wo | orth more than S50.00? | · · · · · · · · · · · · · · · · · · · |
| Purposely set fire to | o a building, car, or other property? | • |
| Attacked someone | with the idea of seriously hurting them? | · |
| Got involved in a g | ang fight? | |
| Broke into a vehici | e or building to steal something? | · · · · · · · · · · · · · · · · · · · |
| Used force or "stro | ng arm" methods to get money or things from str | rangers? |
| Sold drugs such as | marijuana, hashish, heroin, cocaine, LSD? | |

Appendix F

The Self-Report Delinquency Questionnaire (Time 2)



BEHAVIOURS

| Please | do no | t mar | k in th | is are |
|--------|-------|-------|---------|--------|
| | | • | | 2 |

This section asks about different behaviours that teenagers are sometimes involved in. Your answers are very important to us: we want to know what really happens for people your age so please answer all questions honestly. Remember, ALL YOUR ANSWERS ARE CONFIDENTIAL.

For each question.

- First indicate whether or not you have ever done what is described (☒ YES or NO).
- Then, if you answer YES, indicate how many times in the last year you have done each behaviour.
- If you answer NO, skip to the next question.

| H | ave | you e | ver? | ? | | | | | | | | | | |
|------|---|----------|----------|--------------------|------------|---------|------------|------------|------------------------|----------|----------|-------------|-----------|----------------|
| | | | | l or des exents | | | | | ndalisn | √graffi | 면) 단) | Yes 🗆 | No . | |
| I | f "YE | ES", hov | v many | times ir | r tine las | t year? | I£ "NO | ", skip | to tine ne | xt quesi | tion. | | | • |
| ī | ⊐ o | □1 | □2 | □3 | □4 | □5 | □ 6 | □ <i>7</i> | □8 | _ 9 | □ 10 | 🗆 11 | □12 | ☐ 13 or more |
| | | | | | | | | | If 13 or: | more fi | mes. ho | w cften? | | |
| | | | | | | | | | □ 2-3 ti | mes per | month | · 🗀 : | l or more | dines per week |
| | Purposely damaged or destroyed property (includes vandalism/graffiti) belonging to your school or employer? | | | | | | | | | | | | | |
| Ŀ | If "YES", how many times in the last year? If "NO", skip to the next question. | | | | | | | | | | | | | |
| Ξ | □0 | □1 | □2 | □3 | □4 | □ 5 | □6 | □ 7 | □8 | - □9 | □ 10 | 11 | □ 12 | ☐ 13 or more |
| | | | | | | · | | | If 13 or | more fi | mes, hov | w often? | | |
| ٠ | | | | | | | | | □ 2-3 ti r | mes per | month | _ 1 | l er more | imes per week |
| | | | | | | | | | ies vand or wor | | | □Ye | s 🗆 N | · |
| Ι | f "YE | ES", hov | v many | times ir | r the las | t year? | IE "NO | ", skip t | o tine ne | xt quesi | ion. | | - | • |
| I | □0 | □1 | □2 | □ 3 | □4 | □5 | □6 | 0 7 | □8 | □ 9 | □ 10 | 11 | □12 | ☐ 13 or more |
| | | | | | | | | | If 13 or : | more ti | mes, nov | w often? | | |
| | | | | | | | | | 🗆 2-3 tir | mes per | month | | l or more | times per week |
| 4. 5 | itole | n or tri | ed to st | saĭ s mo | otor veř | icle su | :h as a | iar or n | notorcy | cle? | □ Yes | □No | | |
| . I | f "YE | ES", hov | v many | times ir | ı the las | t year? | | | | | | • | | |
| • | ⊐ 0 | □1 | □2 | □3 | □4 | □5 | □6 | □ <i>7</i> | □8 | □9 | □ 10 | □ 11 | □12 | ☐ 13 or more |
| | | | | | | | |] | [f 13 or 1 | more tir | mes, hov | v often? | | |
| | | | | | | | | | □ 2-3. ti z | | | | or more | times per week |
| | | | | | | | | | | • - | | | | ·- · |





| 5. | Stoler | ı or trie | d to st | eal som | ething | worth 1 | nore fi | ıan 550. | .00? | □ Yes | □ No | | | • |
|----------------|----------|----------------|--------------|-----------|------------|------------|---------|---------------|-----------|-------------|-------------|-------------|-------------|----------------|
| | IF YE | S', hov | v. many | tines ir | 1 the las | t year? | | | | | | | | |
| | □0 | □1 | □ 2 | . □3 | □4 | ⊕5 | □ 6 | □ <i>7</i> | □ 8 | □ 9 | □10 | □ 11 | .□12 | ☐ 13 or more |
| | | | | | - | | | • | If 13 or | more ti | mes, hov | v ofien? | | |
| | | | | - | • | | | | □ 2-3 t | imes per | - कार्कासूम | | l or more | times per week |
| 6 . | Know | ingly b | ought, | sold or | held st | olen go | ods or | tried to | o do an | y of tires | se things | ;? <u> </u> | Yes □ | No |
| | • | | | times in | | - | | | | • | | | | |
| | □0 | | 2 | □3 | | □5 | □ 6 | ロブ | □8 | □ 9 | □ 10 | 11 | □12 | □13 or more |
| | | | | | | | | | | more fi | mes, hov | r often? | | |
| | | | • | | | | | | | | monin | | l or more | times per week |
| | | | | | | | | | | | | | | <u>-</u> |
| · 7. | 5 mr 50 | sely se | t fire to | o s paile | iing, ca | z, oz oti | ser bro | berth o | r tried 1 | to do so | ? . 🗆¥ | es 🗆 N | <u>,</u> | |
| | . If "YE | S°, hov | r mariy | times ir | the las | year? | | | | • | | | | |
| | □0 | 91 | `□2 | ⊡ 3 | □4. | □ 5 | □6 | □ 7 | □ 8 | □ 9 | □10 | □ 11 | □ 12 | ☐ 13 or more |
| • | | • | | | | | | | | | mes, hov | v often? | | V |
| | | | | | | | | | □ 2-3 5 | mes per | month | | l or more | times per week |
| 8. | Camie | d a hid | iden w | eapon o | ther th | m a pla | in poe | ket kni | fe? | □ Yes | □ No | | | • |
| | | | | imes in | | • | - | | | | | | | • |
| | □0. | | □2 | | □ 4 | • | □ 6 | ¹ □ 7. | □ 8 | □ 9 | □10 | 11 | 12 | □ 13 or more |
| | | | | | | | | 3 | £13 or | more tir | mes, how | roften? | | |
| | | | | | | | | | □ 2-3 ti | nes per | month. | - | or more | times per week |
| _ | | - | • | · | | | | | | | | | | |
| 9. | • | • | | eal thin | _ | | or less | 7 | Yes | JNo. | | | | |
| | E YE | S*, hov | r meny | times ir | the izs | t year? | | | | | | • | | |
| | □ 0 | □1 | □2 | □3 | □ 4 | □5 | □ 6 | □ <i>7</i> | 3 □ | □ 9 | □ 10 | | □ 12 | ☐ 13 or more |
| : | | | . • | | | | - | | | | | often? | | • |
| | | | | | | | | | □ 2-3 ti | wes ber | montin | . 🗆 | l or more | times per week |
| 10. | Attacl | eć sor | neone i | with the | idea o | seriou | siv hu: | ting th | at perso | m? | ☐ Yes | □ No | | |
| | | | | times ir | | | | | | • | | | | |
| | | .3 ,116v □1 | v many □2 | | | - | □ 6 | □ 7 | □ 8 | □ 9 | □10 | . □ 11 | □12 | □ 13 or more |
| | ں ب | | <u></u> | പാ | * | <u>ب</u> ي | ں ب | | | | nes, how | | <u></u> 1- | |
| | | | | • | | | | | | | montii | | ar more | times per week |
| | • | | | • | | • | | , | | p-4 | | . | | |
| | | | | | | | | | | | | | | |

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| | _ | _ | _ | | _ |
|---|--------|-----|--------|------|------|
| 며 | ďn | nnt | in | thie | 3765 |

| | | 1967 | | | | | | | | | | | | |
|-----|-----------|----------------|--------------------|-------------|-----------|----------|------------|------------|----------------------|----------|---------------------------------------|-----------|------------|----------------|
| 11. | Been | involve | ed in ga | ıng figh | its? | □ Yes | □No | | | | | | | |
| • | If "YI | ES", hov | v many | times i | n the las | t year? | | | | • | | | • | |
| | □0 | □1 | □ 2 | □3 | □4 | □5 | □6 | □ <i>7</i> | □8 | . □9 | □ 10 | 11 | □ 12 | ☐ 13 or more |
| | | | | | | | | - | If 13 o . | more ti | mes, hov | v often? | | |
| | | | | | | | | | □ 2-3 £ | imes per | month | | l or more | times per week |
| 12. | | | illegal entiona | | | ny mon | ey to p | ay for s | omethi | ing [|]Yes [| ⊒ No | | |
| | IF"YE | S", hov | v many | times ir | the las | t year? | | | | | | | | |
| | □0 | - 🗆 1 | □2 | □3 | □4 | □ 5 | □6 | □ 7 | □ 8 | □ 9 | □ 10 | □ 11 | □ 12 | ☐ 13 or more |
| | | | | | | | | : | If 13 or | more ti | mes, hov | v often? | | |
| | | | | | | | | | | mes per | | | l or more | times per week |
| - | | | | | | | | | | · | · · · · · · · · · · · · · · · · · · · | | <u></u> | |
| 13. | Sold 1 | narijua | na or h | ashish | (weed, | pot, gra | ss, has | h)? | ☐ Yes | □ No | | | | |
| | If "YE | S", hov | v many | times ir | n the las | t year? | | | | | • | | | |
| | □0 | | □2 | □3 | □4 | □5 | □6 | □ <i>7</i> | □8 | □ 9 | □10 | □ 11 | □ 12 | ☐ 13 or more |
| | | | • | | | • | | : | lf 13 or | more ti | mes, hov | v often? | | |
| | | | | | | | - | | □ 2-3 ti | mes per | month | | or more | times per week |
| 74 | Hitch | hikad w | vhere it | - TATAC 571 | legal to | do so? | | | No | | | | | |
| | | | | | • | | <u>.</u> . | res : | 140 | | | | • | - |
| | | | v many | | | • | | | | | | | | = |
| : | □0 | | □ 2 | □3 | □4 | □ 5 | □ 6 | □ <i>7</i> | □8 | □9 | □ 10 | □ 11 | □ 12 | ☐ 13 or more |
| | | | | | | | | | | | mes, nov | | | |
| | | • | | | | | | | □ 2-3 ti | mes per | month | | L or more | times per week |
| 15. | Stoler | mone | v or oth | er thin | gs from | your p | arents (| or othe | r memb | ers of y | our fam | ily? | □ Yes | □ No |
| | | | v many | | | | | - | | - | | | | |
| 1 | □ 0 | .5 ,110× □1 | ∨ пану □ 2 | □3 | | | □6 | □ 7 | □8 | □ 9 | □10 | 11 | □12 | □ 13 or more |
| | <u></u> 0 | <u></u> | LJ 2 | | m = | د بـ | <u></u> 0 | | | • | mes, how | | | _ 10 or 1101c |
| | | | | | | | | | | | | | | times per week |
| | | | | | | | | | | mes per | пони | | - Of HIOTE | |
| 16. | Stoler | n mone | y, good | s, or pr | operty i | from sci | hool or | from ti | he place | e where | you wo | :k? [| Yes [|] No |
| | | _ | v many | | | | | | | | | | | |
| | □.0 | | 2 | | □ 4 | • | □6 | □ <i>7</i> | □8 | □ 9 | □ 10 | □ 11 | □ 12 | ☐ 13 or more |
| | _ , | | 4 بــا | <u>.</u> | _ = | | | | | | nes, how | | | |
| | | | | | | | | | | mes per | - | | or more | times per week |
| | | | | | | | | • | | r ~ | | | | 8987 |







| 17 | L Hit o | r threat | ened to | nit on | e of you | n base | nts? | ☐ Yes | □N | ס | | | | • | |
|-------------|-------------|------------|-------------|-------------|------------|----------|-------------|--------------|----------------------|---------------|-------------------|------------|-----------|----------------|-------------|
| | If "Y | ES", ho | w many | times i | in the las | st year? | • | | | | | | | | |
| | | | □2 | _ □3 | D 4 | □ 5 | □ 6 | . 🗆 7 | □8 | □ 9 | □ 10 | | 12 | □ 13 o | I more |
| | • | | | | | | | | If 13 a | more f | imes, ho | w often? | • | • | • |
| | | | | | | | | | □ 2-3 t | imes pe | montin | | 1 or more | e times pe | r week |
| 18. | . Hit or | threat | ened to | nit vo | · teach | er. vou | STIDE | wiser o | - moth | er empl | 077002 | ☐ Yes | | | |
| | | | | | n tine les | | | | - 11011 | : ====D1 | Dyes. | □ 1es | □ No | | • |
| | _ | | | | | ⊒5 | □ 6 | □ <i>7</i> · | □8 | □ 9 | | | · | | • |
| | | | | 0 | | | | | | | □ 10 mes, hov | | 012 | □ 13 or | more |
| • | • | | | • | • | | | | | | mes, nov month | | | | _ |
| · | | | | | | | | | | - | | | | tinies per | week |
| 19. | . Hit or | threate | med to | hit any | rome els | e (e.g., | friends | , strang | gers)? . | ☐ Ye | s □No | 1 | | | |
| | If "YE | יסיו ,"2 | v many | times ii | n the las | t year? | | | . : | ÷ | | | • | | • |
| | □ 0 | | □2 | □3 | ⊡ 4 | - □5 | □6 | □7 | .□8 | □ 9 | □ 10 | | □ 12 | ☐ 13 or | more |
| | | | | | | • | | • | lf 13 or | more ti | mes, nov | v often? | | | |
| | | | • | | | | | | □ 2-3 ± | mes per | month | | l or more | imes per | week |
| 20. | Been I | oud, ro | wāy, o | r anral | y in a p | ם שולם | iace (di | sorder | v condi | uct)? | ☐ Yes | □No | | | |
| • | | | | | i the last | | • | | , | ,. | | □ 140 | | • | - |
| | □ 0 | D 1 | □2 | | . □ 4 | • | □6 | □7 | □8 | □ 9 | □ 10 | 011 | □ 12 | □ 72 ~~ | |
| | | | | | | | | _ : | - | | nes, how | | <u> </u> | □ 13 œ | miose |
| | | | | • | | | ٠ | | | nes per | | | Or more. | times per | · vermole |
| | C-121 | ·• • | | | | | | | | | | | | | |
| <u>-1.</u> | _ | | | | zine, Li | | i), hero | rin (or d | rthers)? | □) | (es □] | Ν̈́O | | | |
| • | | | - | | the last | - | | | | | | | | | |
| • | □ 0 | | □2 | □3 | □4 | □ 5 | ⊡ 6 | □7. | □8 | □ 9 | □ 10 | | □12 | 🗆 13 cr | more |
| | | • | | | | | | | | | nes, now | often? | | • | • |
| | | | | | | | | i | □ 2-3 ti: | nes per | month | □,1 | or more | times per | week |
| <u> 77</u> | Tried : | to chea | t some | ne by: | elling (| inem so | methir | ng that | was wo | rthless | | | | | |
| | or not | what y | oc said | ii was | ? | | • | · . | | | ☐ Ye: | s □ No | • | | |
| | | | - | | the last | year? | | | | - | | | | | |
| | | 0 1 | □ 2 | □3 | □4 | □ 5 | □ 6 | □7 | □в | □9 | □10 | □11 | □12 | 13 or | more |
| • | | | | | | | | Ŀ | 13 or 1 | aore tir | es, how | often? | | | |
| | | | | - | | | • | Ξ |] 2-3 tim | res per z | nonth | □1 | or more t | imes per | week |
| | | | | | | | ÷ | | | | | | _ | 8957 | |
| | | | | | | | | 4 of 7 | | | | | | E-100 E | |



| If "YES", how many times in the last year? |
|--|
| If 13 or more times, how often? 2-3 times per month |
| 24. Bought liquor as a minor? |
| 24. Bought liquor as a minor? |
| If "YES", how many times in the last year? \[\begin{align*} |
| If "YES", how many times in the last year? \[\begin{align*} |
| ☐ 0 ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10 ☐ 11 ☐ 12 ☐ 13 or more times, how often? ☐ 2-3 times per month ☐ 1 or more times per wee 25. Used force or "strong arm" methods to get money or things from people? ☐ Yes ☐ No |
| If 13 or more times, how often? 2-3 times per month |
| 25. Used force or "strong arm" methods to get money or things from people? |
| 25. Used force or "strong arm" methods to get money or things from people? ☐ Yes ☐ No |
| |
| |
| If "YES", how many times in the last year? |
| □0 □1 □2 □3 □4 □5 □6 □7 □8 □9 □10 □11 □12 □13 or mor |
| If 13 or more times, how often? |
| ☐ 2-3 times per month ☐ 1 or more times per wes |
| i |
| 26. Avoided paying for such things as movies, bus or metro rides, and food? [Yes [No |
| If "YES", how many times in the last year? |
| □0 □1 □2 □3 □4 □5 □6 □7 □8 □9 □10 □11 □12 □13 or mor |
| If 13 or more times, how often? |
| ☐ 2-3 times per month ☐ 1 or more times per wee |
| 27. Been drunk in a public place? ☐ Yes ☐ No |
| |
| If "YES", how many times in the last year? |
| 00 01 02 03 04 05 06 07 08 09 010 011 012 015 or mor |
| If 13 or more times, how often? |
| ☐ 2-3 times per month ☐ 1 or more times per wes |
| 28. Stolen or tried to steal things worth between 55.00 and 550.00? ☐ Yes ☐ No |
| If "YES", how many times in the lest year? |
| □0 □1 □2 □3 □4 □5 □6 □7 □8 □9 □10 □11 □12 □13 or mor |
| If 13 or more times, how often? |
| ☐ 2-3 times per month ☐ 1 or more times per wee |
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| . 2 | 9. Brol buil | ken int ding) (| o or trie or vehic | ed to bi le to st | eak into | o a buil ething (| ding (i: or just (| ncludir to Iook | ig an ai around | bandone i? | ed 🗆 : | Yes 🔲 l | No. | · |
|-----|-----------------|--------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|--------------------|---|---------------|----------------|-------------|---------------|------------------|
| | | | | | in the la | | | | | | | | | |
| | □0 | 1 | | | | - | | □ 2 | 8 | 3 🗆 9 | □ 10 | 511 | □ 12 | □-13 or more |
| | | | | | | | | | If 13 o | r more | | w often? | | - 10 of more |
| | | | | | | | | | | | r month | | 1 or mor | e times per week |
| 30 |). Begg | ed for | monar | or thin | gs from | | | | | | | | | |
| | | | | | gs from in the la: | _ | ers: | ⊔ Yes | □No | 0 | • | | | |
| • | □ 0. | | | □3 | | □5 | □6 | □ 7 | □8 | □ 9 | □ 10 | | □ 12 | ☐ 13 or more |
| | • | | | | | | | | If 13 o | | imes, ho | | | - 15 of more |
| | | | | | | | | | | | r month | | 1 or more | e times per week |
| - | | _ | | | · | | | | | | | | | per week |
| 31 | . Faile | d to ret | um ext | ra chan | ge that | a cashie | r gave | you by | mistal | ce? | □ Yes | □ No | | |
| | If "YI | ES", ho | w many | times i | in the las | st year? | | | | | | | | |
| | | | □ 2 | □з | □4 | □5 | □ 6 | □7 | □8 | □9 | □ 10 | □ 11 | □ 12 | ☐ 13 or more |
| | | | - | | | | | | If 13 or | more f | ines, hov | w often? | | |
| | | | | | • | | | | □ 2-3 t | imes per | month | | 1 cr more | times per week |
| 32. | Used | or frie | đ to 1156 | medit | cards w | rith and | th a | | | | | | | |
| | | | | | | | TIE OW | uers be | *************************************** | one | □ Yes | □ No | • | |
| | | | | | n the las | | | | | | | | | |
| | □0 | 1 | □2 | □3 | □ 4 | □ 5 | □ 6 | □7 | □8 | □ 9 | □10 | | □ 12 | ☐ 13 or more |
| | • | | | | | | | | | | mes, how | often? | | |
| _ | | | | | | | | | □ 2-3 ti | imes per | month | | or more | times per week |
| 33. | Made | obsce | ne telep | hone c | alis (suc | h as ca | lling so | meone | and sa | ving di | ty thing | s)? [|] Yes [| No No |
| | | | | | n tine last | | | | | | · , | | | 110 |
| | □ 0 | | □2 | □3 | □4 | | □6 | □7 | □ 8 | <u>□</u> 9. | □10 | :77 | | T-2 |
| | | | | | | | _ ` | | | _ | | □ 11 42 | □ 12 | ☐ 13 or more |
| | | | | | | | | | | | nes, how | | | |
| _ | | | | | | | | | | mes per | monin | | or more | timės per week |
| 34. | Snatci | hed son | neone's | purse | or walle | et or pic | ked so | meone | s pock | et? į | JYes [| ⊒ No | | |
| | If "YE | S", how | many i | times in | the last | year? | | | | | | | | |
| | □ 0 | 1 | □2 | □3 | □4 | □ 5 | □ 6 | □7 | □8 | □ 9 | □ 10 | □11 | □12 | ☐ 13 or more |
| | | | | | | | | I | f 13 or 1 | | nes, how | | ; | <u> </u> |
| | | | | | | | | | | nes per i | | | er more i | times per week |
| | | | | | | | | | | | _ - | | | |
| | | | | | | | | | | | | | | 8987 |



| 35. | Used that i | mone ntende | y or fur ed (emb | nds entr ezzled | usted t money | o your | care fo | r some ; | purpose | e other t | han · | □ Yes | □ No | |
|-------|----------------|----------------|---------------------|---------------------|------------------|----------|----------|-------------|-----------------------|-------------|-------------|-------------------|-----------|---------------------------------------|
| | If "YI | ĒŠ", ho | w manj | y times i | n the la | st year? | | | | | | | | |
| | □ 0 | Πı | □ 2 | □3 | □4 | □ 5 | □ 6 | □7 | □8 | □ 9 | □10 | □ 11 [°] | □ 12 | ☐ 13 or more |
| | | | | | | | | | If 13 or | more fi | imes, ho | v often? | | |
| | | | - | | | | | | □ 2-3 t | imes per | r montin | □ | l or more | times per week |
| 36. | Gang things | ed up | with fri people | iends, a (taxing | nd used | I force | or intir | nidatio | n to get | money | от П | Yes □ | No. | |
| | If "YE | S", ho | w many | times i | n the las | t year? | | | | • | | | | |
| | □ 0 | | □2 | □3. | | □ 5 | □6 | □ 7 | □8 | □ 9 | □ 10 | □11 | □12 | ☐ 13 or more |
| | | | | | | | | | If 13 or | more ti | mes, hov | v often? | | |
| | | ٠ | | | | | | | □ 2-3 ti | imes per | month | □: | i or more | times per week |
| 37. | Been | stoppe | d by th | e police | for qu | estioni | ng? | ☐ Yes | □No |) | | | | |
| | If "YE | S", hov | w many | times ir | ı the las | t vear? | | | | | | | | |
| | □ 0 | □1 | □2 | □3 | □4 | □ 5 | □6 | □ 7 | □ 8 | □ 9 | 10 | □ 11 | □12 | . 13 or more |
| | | | | | | | | | If 13 or | more ti | mes, how | often? | | |
| | | • . | | | | | | | 🗆 2-3 ± | mes per | month | | or more | times per week |
| 38. | Been a | ırreste | d? |] Yes | □ No | | | | | | | | | |
| | If "YE: | S", hov | v many | times in | the las | t vear? | • | | | | | | • | |
| • | □0 | □1 | _□2 | □3 | □4 | _ 5 | □6 | □ <i>7</i> | □8 | □ 9 | □ 10 | □11 · | 12 | □ 13 or more |
| | | _ | | | | | |] | f 13 or : | more tir | nes, how | often? | | |
| | |] . | | | • | | | | □ 2-3 ti i | mes per | month | □1 | or more | imes per week |
| | If "Ye | s", ឃាំ | at were | you cha | rged w | ith? _ | | · · | | • | | | | |
| 39. 1 | Been e | xpelle | d from | school? | ο. | Yes 🗆 | i No | | | | | | | · · · · · · · · · · · · · · · · · · · |
| | | | | times in | | | | | | | | | | |
| | □ 0 | | | | THE DASS | | Π. | | | ÷. | | | | |
| | | <u> </u> | ے سا | دی | 77.4 | □ 5 | □ 6 | □7 | □ 8 | □ 9 | □ 10 | | □ 12 | ☐ 13 or more |
| | | | | | | | | _ | | | nes, how | | , | |
| | | | | | | | | | _! 2-3 tir | nes per i | month | | or more | times per week |

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Appendix G

The Self-Report Substance-Use Questionnaire (Time 1)

The next questions ask about your use of alcohol and drugs. As you did before, first indicate whether or not you have ever done what is asked. Next, indicate how many times you have done the behaviour in the last year.

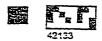
Have you ever...? (If Yes, please indicate how many times in the last year.)

| 1. Used alcoholic beverag | ges (beer, wine, li | quor)? | | |
|---|---------------------------------------|-------------------------|----------------|-------------------------|
| YES | Number of times in | the last year | _ | мо |
| 2. Used marijuana, or has | hish (mari, weed, | grass, pot, hash)? | · | · |
| YES | Number of times in | the last year | | ио |
| 3. Used hallucinogens (L | SD, acid, mescali | ne, peyote, magic mu | shrooms)? | |
| YES | Number of times in | the last year | | мо |
| 4. Used amphetamines (up by a doctor? | ppers, speed, pep j | pills, bennies, dexies, | diet pills) ti | nat were not prescribed |
| YES | Number of times in | the last year | | ио |
| 5. Used barbiturates (downot prescribed by a doctor | · · · · · · · · · · · · · · · · · · · | vs, blues, rainbows, g | oof balls, sl | eeping pills) that were |
| YES: | Number of times in | the last year | - . | МО |
| 6. During the past year, h | nave you used tob | acco? | | |
| Yes | No | ٠ | | |
| 7. When using tobacco, h | ow much do you | usually use? | - | |
| ciga | arettes a day | OR | | igarettes per month |

| Name of d | irug | Number of times in the last year |
|---|-------------|---|
| | | |
| · | | |
| | | |
| | | |
| .ge) | | i have never tried these substances, mov |
| age) Alcohol? | | i nave never tried these substances, mov |
| page) | | i have hever tried these substances, mov |
| page) Alcohol? | | i have never tried these substances, mov |
| age) Alcohol? Marijuana? Other drugs | s? | |
| Alconol? Alconol? Marijuana? Other drugs you drink alcohol, h | s? | ou typically have at one given time? OR 1 ounce of liquor) |

Appendix H

The Self-Report Substance-Use Questionnaire (Time 2)



Alcohol and Drug Use

| Plane | da na | t mark i | n th | is araz |
|-------|-------|----------|------|---------|
| | | ŀ | | 2 |

The next questions ask about your use of alcohol and drugs. As you did before, first indicate whether or not you have ever done what is asked. Next, indicate how many times you have done

| | tne b | ehaviot | er in the | e last ye | ear. | | | | | | | | | | |
|----|--------|----------|------------|---------------|-------------|----------------------|------------------|------------|----------|----------|-----------|-------------|-------------|---------------|-----|
| | Have | you e | ver? | ? | | | | | | | · | | | | |
| 1. | Used | alcono | lic beve | rages (| beer, w | ine, liq | uor)? | □ Y: | es □ ? | Nο | | | | | |
| | If "Y | ES", hov | v many | times it | n the las | t year? | If "NO | ", skip t | o the ne | ext ques | tion. | | | | |
| | □0 | | □2 | □3 | □4 | □5 | □ 6 | <u></u> | □8 | □ 9 | □ 10 | 011 | □ 12 | □ 15 or m | ore |
| | | | • | H 13 c | or moie | times, | how of | en? | | • | | • | | | |
| | | | | □ 2-3 | times p | er mon | ț i n | □10 | r more | times p | er week | | l 1 or mor | e times per o | iay |
| 2. | Hasy | your use | e of alco | cholic l | everage | es incre | zseď/ď | ecrease | d/rema | ined th | e same ir | n the last | year? | | |
| | | Πir | ıcreased | . • | □de | resseā | | □ ren | nained : | the sam | e . | | | • | |
| 3. | Been | drunk | or high | on alco | oholic b | everag | es (bee | , wine, | liquor |)? [| iYes □ | i No | | | |
| | If "Y | ES", hov | ý many | times ir | n tine last | tyear? | If "NO | ", skip t | o the ne | ext ques | tion. | | - | | |
| | □0 | | □ 2 | □s | □ 4 | □5 | □6 | 7 | | □ 9 | □ 10 | □11 | □ <u>12</u> | □ 13 or m | ore |
| | | | | If 13 c | n more | imes, l | now oft | en? | | | | | | | |
| | | | | □ 2-3 | times p | er mont | ħ | □1 o | r more | times pe | er week | | 1 or mor | e times per o | iay |
| 4 | Been | drunk i | or high | or alco | holic b | everage | es <u>at sci</u> | iool or | at work | (beer, | wine, liq | nor)? | □ Yes | □ No | |
| | If "YE | ES", how | v many | times in | ı the last | year? | LE "NO | , skip ta | o the ne | xt quesi | ion. | | | | |
| | □ 0 | □1 | □2 | □з | □4 | <u></u> 5 | □ 6 | | □ 8 | □ 9 | □10 | □ 11 | □ 12 | 🗆 i3 or m | ore |
| | | | | .If 13 o | or more | tim es, l | now oft | en? · . | | | | | | | |
| | | | | □ 2-3 | times p | er mant | h | □1c | r more | දායන විද | er week | | 1 or mor | e times per o | iay |
| 5. | Used | . mariju | ana, or | hashist | ı (mari, | wesi, | ārsis, b | ot, hasi | h)? | □ Yes | □ No | | | | |
| • | If "Y | ES", hov | v many | times ir | 1 the last | year? | | | | | | | | | |
| | □0 | □1 | □ 2 | □3 | □4. | □5 | □ 6 | □ 7 | □s | . 🗖 6 | □10 | 11 , | D12. | □ 13 or m | ore |
| | | | • | If 13 o | ir more i | imes, l | iow ofti | en? | • | | | | | | |
| | • | | • | □ 2-3 | times pe | er mont | 'n. | □1 o | r more i | imes pe | r week | | 1 or more | e times per d | lay |
| 6. | Has y | our use | of mar | ijuana : | or hashi | ish inc | eased/o | iecreas | ed/rem | zined ti | he same : | in the las | it year? | | |
| | | | ⊏eased | - | | reased | | | | he same | | | | • | |
| | | | | | | | | • | | | | | _ | 42133 | • |
| | | | | | | | | • | | | | | | | |









| 7. | Been I | nigh on | mariju | iana, oi | ridssni | h (mari | , weed | , grass, | pot, has | en)? | □ Yes | □No | | |
|-----|------------------|--------------------|-----------------------|----------------------|-----------------------|-------------------|---------------------|------------------|----------|------------|-------------------|-------------|-------------|------------------|
| | If "YE | S", how | many · | times in | the last | year? | | | | | | | | ٠ |
| | □0 | | □2 | □3 _. | □4 | □5 | □á | □ 7 | □ 8 | □ 9 | □ 10 | 11 . | □ 12 | ☐ 13 or more |
| | ٠. | • | | If 13 o | morie | times, l | row afte | en? | | • | | • | | |
| | | | | □ 2-3 | times p | er mont | h. | □1o | r more t | imes pe | i week | | 1 or mor | e times per day |
| 8. | Been l | niêjy ou | mariju | tana, or | hashis | h <u>at sch</u> | ool or | at work | (mari, | weed, g | zass, poi | ;, hash)? | _ □7 | es □No |
| | IE "YE | S", now | many i | iines in | the last | year? | | - | | | • | • | | |
| | □0 | □1 | □2 | □3 | □4 | □5 | . □ 6 | □ 7 | □ S | □ 9 | □ 10 | □ 11 · | □ 12 | □ 13 or more |
| | | | | I£ 13 o | more: | times, i | ow of | en? | | | • | | | |
| • | - | | | □ 2-3 | times p | er mont | h | □10 | r more : | imes pe | r week | | 1 or mor | e times per day |
| 9. | Used l | alluci | nogens | (LSD, | cid, m | escaline | e, peyai | e, mag | ic mush | rooms) | ? 📭 | Yes 🗆 🗆 | No | |
| | If "YE | S", how | many : | li mes in | the last | year? | | | | • | | • | ٠. | |
| | □0 | D 1 | □2 | □3 | □4 | □5 | □6 | □ 7 | , 🗆 § | □ 9 | □ 10 | □ 11 | □ 12 | ☐ 13 or more |
| | | | | If 13 o | more : | times, l | row off | en? | | | | | | • |
| | | | • | □ 2-3 | ines pe | r mont | h | □ 1σ | r more t | imes pe | r week | | 1 or mor | e times per day |
| 10. | | | | not pre: | | | | ennies, | dexies, | . oy | es 🗆 N | īo . | | |
| | If "YE | S", how | many i | times in | the last | yezr? | | | | | | | | |
| | □0 | □1 ['] | □2 | □3 | □4 | □5 | □ ś | □7 | □ 8 | □9 | .□ 10 | □11 | □12 | ☐ 13 or more |
| | | | | I£ 13 c | r more | times, i | now ofti | en? | | | • | | | • |
| | | | • | □ 2-3 | times p | er mont | in | | r more t | imes pe | r week | | 1 or mo | re times per day |
| 11. | Used : sleepi | berbitu ng pill | rates (d s) that v | iowners were no | s, recis, t presca | yellow: ibed b | s, pines y a doc | s, rainb tor? | ows, go | of balls | ¥ .□Y | es 🗆 Ñ | īó | • |
| | IE "YE | S", how | many . | times in | the last | year? | | • . | | | | • | • | • · |
| | ΠÖ | · 🗆 1 | □2 | □3. | □4 | □5 | □6 | 口ァ | 8_ | □9 | □10 | 11 | <u>□ 12</u> | ☐ 15 or more |
| | | • | | If 13 o | more : | times, i | row oft | en? | | | | • | | ·. |
| | • | | | ☐ 2-3 f | li mes pe | r mont | h | | r more t | iwes be | r week | . 0 | 1 or mor | re times per day |

| 12. | During | the past year, have | you used tobacco? | ☐ Yes | s □ No | |
|----------|--------------|----------------------|---------------------|------------|------------------------------|---|
| £3. | When u | sing tobacce, how | much do you usually | y use? Ple | ease indicate <i>sithe</i> : | |
| | | cigarettes per day | OR | 1234567890 | cigareites per month | |
| <u> </u> | - | r use of tobacco inc | ☐ decreased | | he same in the last year? | - |

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Appendix I

The Self-Report Sexuality Questionnaire (Time 1)

ADOLESCENT SEXUALITY SCALE

The following questions ask about your sexual behaviour and attitudes. Remember ALL YOUR ANSWERS ARE CONFIDENTIAL.

| 1. Are you currently in a steady roman | ntic relationship? |
|--|--|
| YES | NO |
| 2. If so, how long have you been in the | uis relationship? |
| 3. Have you ever (in your lifetime) ha | nd sexual intercourse? |
| YES | NO |
| If YES, please answer the following | g questions. If NO, continue with number 13 on page 16 |
| 4. How old were you when you first b | nad sexual intercourse? |
| years old | • |
| 5. Are you currently sexually active? | |
| YES | NO |
| 6. How many times in the last 6 mont | hs have you had sexual intercourse? |
| Number of times: | - |
| 7. How many sexual partners have yo | u had in your lifetime? |
| Number of partners: | |
| 8. Have you ever had sexual intercourthem? | se with someone you just met, without really getting to know |
| YES | NO |
| 9. Do you use birth control? | |
| YES | NO |
| If yes, what do you use? | |

10. When you think about having sex with a new partner, how often do you ask about:

- a) previous sexual parmers?
- b) intravenous drug use?
- c) homosexual or bisexual experiences?

| Never | Sometimes | Always |
|-------|-----------|--------|
| 1 | 2 | 3 |
| 1 | 2 . | 3 |
| 1 | 2 | 3 |

11. When you are planning to have sex with a new partner, how often do you discuss:

- a) condom use?
- b) whether he/she has been tested for AIDS?
- c) previous history of sexually transmitted diseases?

| Never | Sometimes | Always |
|-------|-----------|--------|
| 1 | 2 | . 3 |
| 1 | .2 | 3 |
| 1 | 2 | 3 |

- 12a). When you have sexual intercourse with a new or casual partner, how often do you use a condom?
- 12b). When you have sexual intercourse with a regular partner, how often do you use a condom?

| Never | Sometimes | Always |
|-------|-----------|--------|
| 1 | 2 | 3 |
| 1 | . 2 | - 3 |

Appendix J

The Self-Report Sexuality Questionnaire (Time 2)



| Please do not mark in this area | | | | | |
|---------------------------------|--|--|---|--|--|
| | | | 2 | | |

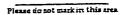
The following questions ask about your sexual behaviour and attitudes.

Remember ALL YOUR ANSWERS ARE CONFIDENTIAL.

| 1. Have you ever (in your lifetime) had sexual intercourse? ☐ Yes ☐ No If YES, please answer the following questions. If NO, go to the next questionnaire. | | | | | | | |
|---|---|--|---|--|--|--|--|
| 2. | How old were you when you first had sexual intercourse? years old years old 1 111 2 111 3 111 5 111 6 111 7 111 8 111 9 111 0 111 | 3. Are you currently sexually active? . □ Yes □ No - | | | | | |
| 4 | How many times in the last 6 months have you had sexual intercourse? times 1 00 2 00 3 00 4 00 5 00 7 00 8 00 9 00 0 00 | 5. How many sexual partners have you had in your lifetime? | 6. How many sexual partners have you had in the past year? partners 1 00 2 00 3 00 4 00 6 00 6 00 7 00 8 00 9 00 0 00 | | | | |
| | Have you ever had sexual intercourse without really getting to know them? Do you use birth control (e.g., the pill, lf yes, what do you use? (⊠ all that | ☐ Yes ☐ No condoms, diaphragm, foam, etc.)? ☐ ` | Yes □ No | | | | |

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| 9. When you think about having sex with a new partner, how often do you ask about: | | | | | | |
|---|---|-----------|-------------|----------|--|--|
| - | a) previous sexual partners? | □ Never . | | □ Always | | |
| | b) intravenous drug use? | □ Never | | ☐ Always | | |
| | c) homosexual or bisexual experiences? | □Never | ☐ Sometimes | ☐ Always | | |
| 10. When you are planning to have sex with a new partner, how often do you discuss: | | | | | | |
| | a) condorn use? | ☐ Never | □ Sometimes | ☐ Always | | |
| | b) whether he/she has been tested for AIDS? | □ Never | ☐ Sometimes | □ Always | | |
| | c) previous history of sexually transmitted diseases? | ☐ Never | ☐ Sometimes | ☐ Always | | |
| Ila) | When you have sexual intercourse with a new or casual partner, how often do you use a condom? | □ Never | □ Sometimes | ☐ Always | | |
| 11b) | When you have sexual intercourse with a regular partner, how often do you use a condom? | □ Never | ☐ Sometimes | ☐ AIways | | |



