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Maladaptive social behaviour of students in secondary vocational education

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Chapter 2

Maladaptive Social Behaviour of Adolescents in a School Context: A Review

Abstract

The aim of this review was to summarize relevant findings on students' MSB in a school context. We reviewed 220 studies and examined how researchers defined and operationalized MSB, what instruments were used to assess MSB and with which individual, family, peer, school and other variables a relationship was assessed. We identified 49 articles that assessed MSB in the school context and summarized relevant findings with respect to adolescents' MSB at school. Variables concerning the individual (e.g., gender, ethnicity, self-esteem) were frequently assessed, family related variables were relatively frequently assessed in studies concerning general MSB (outside school). School related variables (e.g., performance, commitment) were relatively frequently assessed in the studies concerning MSB at school, and they were important predictors for school related MSB. It was concluded that in the future, researchers need to be more careful in the interpretation and generalization of their results and that valid situation-specific instruments should be developed to assess the interaction process between features of the environment, personal characteristics and MSB.

Keywords: maladaptive social behaviour, adolescent, review, education

Introduction

In Dutch secondary vocational education a lot of maladaptive social behaviour is reported; about 40 % of the students reported incidentally or frequently to skip school, 28 % of the students reported being a victim of verbal violence, 2 % has been actually threatened, about 8% of the students and staff did not feel safe at school and 5 % reported to carry a weapon (Neuvel, 2004). Implementing security staff, rules about students' identification and even detection gates are consequences of these experiences. It is important to understand why these behaviours occur, in order to be able to decrease and/ or prevent undesired behaviour at schools in the future.

Research on the occurrence of maladaptive social behaviour (MSB) has a long history. From several theoretical points of view this topic has been investigated. For example, Freud explained MSB by the oppression of human drifts, some trait theorists (e.g., Eysenk) argued that MSB was shown by people with an extreme position on a personality trait. Behaviourism explained MSB through stimuli in the environment, and cognitive theories argued that MSB was a logic reaction on inaccurate cognitive representations. Some researchers described individual characteristics that are related to MSB (i.e. intelligence, self-esteem, gender, ethnicity, age), other researchers focused on the effect of home-environment factors (i.e. social economic status, educational level of parents, parenting styles), school factors (i.e. school-climate, teacher expectancy of competencies, teacher and student support), and societal factors (i.e. discrimination, chance for unemployment, compulsory education) on MSB.

Numerous studies have investigated developmental trajectories of MSB (e.g., Compas, Hinden & Gerhardt, 1995; Moffitt, 1993), and both continuity and discontinuity of MSB have been proven. Maughan & Rutter noticed, [...'that most severely antisocial adults have long histories of disruptive behaviour reaching back to childhood'], but [...'most conduct disordered children did not grow up to be severely antisocial adults'] (Maughan & Rutter, 1998, pp1). Moffitt (1993) introduced the terms 'adolescence-limited' and 'life-course persistent' antisocial behaviour. Life-course persistent antisocial behaviour is shown by people during their whole life, often starting in childhood and enduring until adulthood. Adolescence-limited antisocial behaviour is shown in adolescence only. Other pathways are also possible, as Compas et al. (1995) noticed; some children start showing MSB in adolescence and keep doing so in adulthood, some stop showing MSB during adolescence or never show any at all. In order to explain MSB in secondary vocational education the developmental phase of the population should be taken into account. Most students in this type of education are between 16 and 20 years, and thus are in (late) adolescence. Although the above mentioned research has provided insight into the occurrence and development of MSB, it does not reveal why specific adolescents expose specific types of MSB in a specific context, and what can be done to prevent or decrease MSB. It is (among other) difficult to solve this problem as MSB is operationalized differently by researchers. The first aim of the present conceptual review is to gain insight into how different researchers conceptualized an operationalized MSB in adolescent students.

Maladaptive Social Behaviour

A first important question to be answered is 'what is MSB?' In the social sciences many terms are used to indicate norm-deviant behaviour, for example problem behaviour (e.g., Jessor & Jessor, 1977), deviant behaviour (e.g., Akers, 1985), and antisocial behaviour (e.g., Olweus, Block and Radke-Yarrow, 1986). Jessor and Jessor (1977) defined 'problem behaviour' as "Behaviour that is socially defined as a problem, a source of concern, or as undesirable by the norms of conventional society and the institutions of adult authority, and its occurrence usually elicits some kinds of social control response(p.33)". Akers (1985) defined 'deviant behaviour' as "disapproved behaviour considered serious enough to warrant major societal efforts to control them, using strong negative sanctions or treatment-corrective techniques" (p. 9). Olweus, Block and Radke-Yarrow (1986) defined 'antisocial behaviour' as "a violation of a formal or informal rule, including serious criminal acts or flagrant disregard for conventional standards of approved behaviour, as well as more private and momentary oppositional and hurtful acts." (p. 2). The definition of Akers (1985) refers to serious acts. The definitions of Jessor et al., and Olweus et al., are broader and refer to less serious behaviours as well. We adopt the latter approach but choose the term Maladaptive Social Behaviour. The definition of Jessor & Jessor refers in our opinion to both severe problematic behaviour, and to behaviours that are not necessarily experienced as problematic, but are undesired, for example 'not stepping aside to let someone pass', or 'ignoring a customer'. All behaviours are *maladaptive*; inappropriate in a situation. We add 'social' to the definition to emphasize the social dimension of behaviour. Behaviour is only problematic or maladaptive when experienced by other people. These experiences can vary from very direct to very indirect; e.g., a person might be (or perceive to be) the victim of MSB (e.g., being threatened, yelled at), might experience the consequences of maladaptive behaviour later (e.g., his things are being stolen, or his car has been vandalized), behaviour that is directed to someone else (e.g., people fighting with each other), and behaviour that is not directed to anyone at all (e.g., throwing litter on the street, burping). A judgement is made on personal norms. To a large extent these norms are shared in a certain community. Students in late adolescence have almost reached adulthood. In western societies their behaviour is judged on ground of the general societal norms that are in force. Thus, they are expected to behave according to these norms; to be polite, friendly, do not obstruct other people's behaviour and respect other people's opinion. With respect to the school context the same community norms apply and additionally some specific school norms and rules, for example rules on absenteeism, how to handle schoolwork and how to behave in the classroom. Accordingly we define maladaptive social behaviour as "behaviour that is undesirable or inappropriate by the norms of the context the behaviour is exposed in".

The aim of this review is to understand students' MSB in a school context. We will make an inventory of empirical studies that are relevant to school related MSB in adolescence. The review is presented in two main sections: In the first section we explore how researchers have operationalized MSB; what specific behaviours are assessed. Furthermore we study how these behaviours are assessed, what instruments are used, and investigate the relationship with relevant variables. In the second section we focus on research that assessed specific types of MSB at school and summarize relevant findings with respect to adolescents' MSB in a school context.

Method

Selection of Studies

We selected empirical articles on the topic of maladaptive social behaviour of adolescents in an attempt to determine what behaviours are measured, how they are measured, and with what kind of factors they are related. Next, we selected studies that analyzed MSB at school. We searched the literature for relevant articles using Webspirs 5 (including Econlit, Eric, Pais, PsychInfo and Sociological Abstracts; April 2004). A first search was done on 'maladaptive behaviour' or synonyms (e.g. problem behaviour, antisocial behaviour, abnormal behaviour, disruptive behaviour, deviant behaviour, asocial behavior/ behaviour). This search provided over 10.000 hits. A selection was made by searching for the terms 'adolescen*' and 'school*' somewhere in these articles, to increase the possibility that the article was about adolescent behaviour and the factor school was involved. To search for these terms 'anywhere in the article' (e.g., title, abstract) chances were high that relevant articles were included that would have been excluded if these terms were searched in the subject only.

Approximately one thousand hits were found after adding these selection criteria. Further selection took place, by judging the abstracts on relevance. Apart from double references, articles were excluded when they were not empirical, referred to a collection of papers, manuals, were not addressing maladaptive behaviour, addressed clinically labeled adolescents, when it concerned maladaptive behaviour of adolescents younger than 15 years old or adults, non English articles, published before 1970, or not available in peer reviewed journals (i.e. dissertations or books). About 400 articles remained. Some studies used a cross-sectional or a longitudinal design. For these studies information on the operationalization and measurement of MSB is presented for each sub-sample from 15 year or older only. These 400 articles were used in the review. Again some articles were eliminated on the exclusion criteria mentioned and thirty-two articles could not be acquired. Finally 220 articles were analyzed in this study. The results are summarized in Table 1.

Results: General MSB

Operationalizations

As can be seen in Table 1, many different operationalizations of maladaptive social behaviour are used. It appeared complicated to summarize the assessed MSB in the school-related literature, because each study used its own terms and operationalizations.

A specific topic of interest was the investigation of substance (ab)use. In 84 of the 220 articles substance abuse was investigated as a separate category. In 16 articles this was even the only problem behaviour investigated. Most frequently assessed was the use of cigarettes, alcohol and marijuana, but also regularly studied was the use of cocaine, speed, heroin, inhalants, pain-killers or other medicines, PCP, hallucinogens, barbiturates or tranquilizers. Substance use was also commonly investigated as part of the construct 'maladaptive social behaviour'.

In 155 articles general problem behaviour was the object of investigation. Synonyms commonly used were delinquent behaviour, deviant behaviour, high risk behaviour, conduct problems or antisocial behaviour. Operationalizations of these constructs vary and there is considerable overlap between these mentioned constructs. Commonly measured behaviours within this construct were theft, robbery, vandalism (damaging property), violent behaviours (fighting, assault, threatening, hit someone), carrying weapons, social problems (bullying, peer problems), authority conflicts (opposition, rule breaking, lying, running away), hyperactive behaviour (impulsiveness), substance abuse and internalizing behaviour (anxiety, depression, somatisation, withdrawal, inhibition, embarrassment). Several of these types of behaviour were incidentally measured as separate constructs, for example aggressive behaviour (9 studies), violence (12 studies), and as mentioned previously, substance abuse. Less commonly measured were sexual behaviour (6 studies), theft (4 studies), bullying, (4 studies), fighting (2 studies), problem driving (2 studies), weapon carrying (2 studies), truancy (2 studies), vandalism (2 studies), and gambling (1 study). Finally, some studies assessed MSB from a clinical perspective and aimed to identify clinical disorders, namely eating disorders (2 studies) or other behavioural disorders (11 studies), for example antisocial personality disorder, substance abuse disorder, conduct disorders or ADHD. In these cases the definition of the constructs was based on clinical criteria (usually DSM-III or IV).

In 49 articles a substantial amount of problem behaviour at school was measured. In Table 1 these articles are marked with a *. In the next section we will discuss these articles jointly.

Measurement of General MSB

Remarkable is that in 77 studies none of the used instruments were named explicitly, nor could a reference be found to the instruments used. The most frequently used method to assess the different types of problematic behaviour is self-report. Almost every study (91%) used one or more self-report measures. Of the used self-report measures, sixty-four were explicitly named, and/or justified.

For the measurement of general problem behaviours several instruments have been developed. The most frequently used, validated self-report instruments are (adaptations or parts of) the Youth Self Report (YSR; Achenbach, 1991a) (15 articles), the Delinquency scale of the National Youth Survey (NYS), developed by Elliott, Huizinga and Ageton (1985) (13 articles), the Diagnostic Interview Schedule for Children (DISC; Costello, Edelbrock, Dulcan, Kalas & Klaric, 1984) (11 articles), a questionnaire developed by Gold (1970) (8 times), a measure developed by Kaplan, Johnson & Bailey, 1986) (7 studies), the Self Report Early Delinquency Scale (SRED; Moffitt & Silva, 1988) (6 studies), and the Self Report Delinquency Interview (SRDI; Elliott & Huizinga, 1989) (5 studies). Other self-report measures were used less than 5 times. Four of these instruments (NYS, SRDI, measure of Gold, measure of Kaplan) predominantly aim to describe delinquent behaviours. These behaviours are rather serious and frequently forbidden by law. The other three instruments (YSR, DISC, SRED) have a clinical purpose. The YSR measures a wide range of behaviours, from externalising to internalising. Syndromes for boys and girls with clinical norms have been identified to distinguish adolescents who are in trouble. The DISC and SRED are based on clinical criteria. Questions in these instruments are constructed to identify disorders, as described by DSM-III/IV

Of the 84 studies that measured substance abuse as a separate construct, 31 referred to an existing questionnaire or explained where the items were derived from. Thirteen of these instruments were solely used for the assessment of substance use. Most frequently mentioned instruments to assess substance abuse (a part or adaptation of) was the Monitoring the Future Questionnaire (O'Malley & Johnston, 1999) (6 studies). Also relatively frequently mentioned were the Rutgers Alcohol Problem Index (RAPI; White & Labouvie, 1989) (3 studies), and the Composite International Diagnostic Interview (Cottler, Robins, Grant, Blaine, Towle, Wittchen, Sartorius, and the participants in the WHO/ADAMHA Field Trial, 1991) (5 studies).

Parent reports were used in 31 studies, teacher reports in 23 studies, and peer reports in 5 studies. Seven parent report instruments were employed in the reviewed articles, seven teacher report instruments, and only one peer report instrument. The DISC (Costello et al., 1984) is used for gathering information from parents as well (7 studies). Beside the DISC, most commonly used to assess parents' estimation of their children's behaviour is the equivalent questionnaire of the YSR: The Child Behaviour Check List, (CBCL; Achenbach, 1991b) (11 articles). The Revised Behaviour Problem Checklist (RBPC; Quay & Peterson, 1983) was used in 6 studies and the Rutter Home Behaviour Scale for parents (Rutter, Tizard & Whitmore (1970) in 5 studies. All parent report instruments aimed to identify a clinical group. The CBCL comprises the same scales as the YSR. The DISC for parents is an equivalent to the DISC for adolescents. The RBPC and the Rutter-Home Scale use different scales than the YSR but their scales also range from externalising to internalising behaviour.

The most frequently mentioned teacher report instrument is the Teacher Report Form (Achenbach & Edelbrock, 1986) it is an equivalent of the YSR, with slightly different scales. The Rutter School Behaviour Scale for teachers (Rutter et al. 1970) is used in 5 studies. This instrument has the same scales as the parent version, except for the scale Psychosomatic Symptoms. This scale is solely designed for parents. Other parent and teacher report instruments were mentioned only once in the reviewed articles. The only peer report instrument that was mentioned in the reviewed articles was the Multidimensional Peer Rating Scale (Bierman, Morrison & Bitner, 1995 in: Pope, & Bierman, 1999) (1 study). This instrument assesses similar constructs as the YSR, RBPC and Rutter Scales, and comprises items varying from externalising to internalising behaviour as well.

In 12 studies other assessment methods were used to measure problem behaviour or to validate self-report measures, namely official police records, school records, and interview ratings. As mentioned previously, assessment of misbehaviour at school will be discussed in the next section.

Antecedents of General MSB

We divided the variables that were used to measure the relationship with MSB in the reviewed studies into five groups: namely (1) variables that concern characteristics of the individual, (2) variables concerning the relationship with, or characteristics of the family, (3) peers, (4) school or (5) other (for example variables concerning work, neighbourhood or leisure time).

Individual variables

In every study individual factors like age, gender and ethnic origin were measured. Therefore, they are presented in the column 'sample'. A wide range of other individual variables were measured, such as intelligence or temperament (13 studies), *biological factors* (i.e., age of menarche, physical maturation, physical health, birth complications, medical problems, pubertal status) (15 studies), *personality characteristics* (i.e., neuroticism, extraversion, sensation seeking, identity) (18 studies), *disorders* (e.g., psychopathology, substance abuse disorder, narcissism, affective disorder, schizophrenia, mood disorder, depression) (31 studies) and an overlapping category *wellbeing* (depressive symptoms, anxiety, emotional problems, stress, worries, commitment, bonding, optimism, happiness, satisfaction) (59 studies). Several studies assessed variables concerning *cognitions/beliefs* (i.e., expectations, attributions, beliefs, goal attainment, reason for drinking and stealing, consequential thinking, self-control, excuses) (40 studies), *attitudes toward deviance* (e.g., attitude toward aggression, drugs, smoking, alcohol, sex, deviance acceptance, norms, social conformity) (37 studies), *attitudes toward oneself* (e.g., self-esteem, self efficacy, self-reliance, self-image, feelings of inability, self-rejection) (47 studies). Some studies measured *victimization* (i.e., negative life event, being bullied, sexual victim) (21 studies) and *skills* (i.e., social competence, coping, conflict resolution skills) (11 studies). The most frequently assessed category was adolescents' *history* (e.g., childhood problem behaviour, other childhood problems, or other problems (e.g., sexual behaviour/abuse/history, suicidal behaviour, pregnancy, driving habits)) (57 studies). *Prosocial behaviour* (e.g., prosocial tendencies, altruism) was assessed in 13 studies. In a few studies still other variables were assessed, for example convictions and police involvement, financial resources, tattoos, eating and sleeping patterns, language use, endogamy, liking of heavy metal music, injuries, and adolescents' purpose in life.

Family variables

In 140 studies family variables were assessed. Most frequently measured were family *background variables*; the social economic status (SES, income, parental education) and the family structure (household composition, family size, death of parent) (84 studies). Furthermore, *parent-child relationship* variables (support, monitoring, pressure, discipline, control, consistency, punishment, model, involvement, attachment, acceptance, rules) (87 studies) were often assessed. Less frequently assessed were *interfamilial functioning* (i.e., family communication, togetherness, religiosity, cohesion, warmth, harmony, time spent together, home atmosphere) (29 studies), parental and sibling *pathology* (i.e., depressive symptoms, childhood neglect, history of abuse, mental health) (11 studies) and family's *behaviour/ attitudes* toward deviance (i.e., toward substance use, smoking, alcohol, deviance, health risk behaviour) (23 studies).

Peer variables

In 90 of the 220 reviewed articles peer variables were assessed. We divided peer variables into two major categories: *Peer influence*, (peers' attitude toward

deviance and deviant behaviour, drug use, involvement with antisocial peers, association with deviant peers, health behaviour, gang involvement, achievement and attitude toward school) (51 studies), and *peer relationship* (e.g., peer support, pressure, time spent with friends, size of network, warmth, popularity, understanding, closeness, social isolation, attachment, negative evaluation, romantic relationships, leadership, social preference, rejection, sanctions, acceptance, peer status) (55 studies).

School variables

In 107 articles school variables were assessed. The most frequently assessed school related variables was *performance* (e.g., grades, learning problems, self-rated ability, academic skills, reading performance, adult educational level) (67 studies). Perceived *relationship with school* (e.g., bonding, alienation, attitudes toward school, teachers' aspirations and expectations, commitment, engagement, liking of school, felt rejection by school) (43 studies) is another frequently assessed category. *School climate variables* (safety, school sanctions, counselling, fairness of school rules, school support, school size, public/ non-public, urban/ non urban, punishment, perception of social environment, relevance of the curriculum, class environment) (18 studies), and *teacher characteristics* (teacher control, structure, organization, fairness, support, teacher's evaluation, teacher's attitude toward the class and pupil, teacher influence, rejection by teacher, bonding to teacher) were less regularly assessed (11 studies). Finally, some other specific variables concerning school were assessed, for example suspension/ expelled/ drop-out/leave school (10), time spent on homework, (4 studies), school change/repeat class (3 studies), attendance (4 studies), and involvement in school activities (2 studies).

Other variables

In 45 studies other variables were assessed such as variables related to the *media* (e.g., hours spent watching television, preference for violent content, imitation of media characters) (4 studies), the *neighbourhood* (e.g., safety, violence, risk, availability of drugs, social bonds) (12 studies), *society* (e.g., attitude toward the juvenile system) (4 studies), *work* (e.g., employment, job stability, job competence) (11 studies), activities during *leisure time* (e.g., sports, cultural activities, club activities, hobbies and interests) (10 studies). Another specific topic of interest appeared *religiosity* (e.g., church attendance). This was assessed in 12 studies.

Results: MSB at School

Operationalization and Assessment

We selected articles that investigated a substantial amount of maladaptive social behaviour at school. Articles were included when MSB at school was measured and analyzed as a separate construct. We also included studies that assessed general MSB measured by means of teacher or peer-ratings, on condition

that these ratings were analyzed separately from parent or self-reports of general MSB. Because teachers, peers and the adolescent commonly solitary interact at school we assume that teachers and peers automatically report on the adolescent's MSB in the school context. Forty-nine articles were found. Table 2 summarizes the type of MSB that was assessed in relation to school, the aim of the study, and the results with respect to MSB at school. The majority of these studies (28) used self-report questionnaires to measure MSB at school. Teacher reports were used in 17 studies, peer reports in five and school records in three studies. In these studies 20 different instruments were mentioned, of which 12 self reports, 7 teacher reports and 1 peer report.

We categorized the measured behaviours in nine categories. One of the 49 articles (study 219) did not specify what concrete behaviours at school were assessed and could therefore not be placed in one of the clusters. Twelve of the remaining 48 articles investigated general problem behaviours. In these studies teacher ratings (11 studies) or peer ratings (1 study) were gathered with existing validated instruments (e.g. TRF, Achenbach & Edelbrock, 1986; Rutter School Scales, Rutter, et al., 1970). In these questionnaires broad constructs were assessed, for example Externalizing Behaviour, Internalizing Behaviour, Attention Problems, Hyperactivity, and Neurotic Behaviour. Notably, school characteristics were seldom assessed in this cluster of studies. The main focus was on individual and family characteristics in an attempt to explain MSB.

The other 36 studies assessed one or more specific types of MSB at school. We distinguished eight clusters of behaviours: maladaptive behaviour concerning schoolwork (7 studies) (e.g., cheated on a test, completion of assignments, bad grades/ attainment, insubordination), maladaptive behaviour in the classroom (10 studies) (e.g., throwing things, behaving loud and rowdy, torn up library book, attention difficulties, naughtiness), trespassing school regulations (20 studies) (e.g., truancy, skipped classes, tardiness, fake excuse for being absent), sanctions (13 studies) (e.g., sent out of a classroom, suspended, someone from home called to school, summoned to a principal, transferred to other school), unfriendly behaviour (13 studies) (e.g., sworn, quarrel with a teacher, bullying, daring, dishonesty, disrupts others, lies, harassing teachers), delinquent behaviour (12 studies) (e.g., drug use at school, assault, vandalism, starts fights, aggressive behaviour, carrying a weapon, theft, beating up weaker persons), withdrawn behaviour (1 study) (troublesomeness) and impolite behaviour (1 study) (chewing gum). Most frequently assessed was the trespassing of school rules (20 studies). The statement examples in the cluster 'sanctions' are not concrete forms of MSB. Rather, the statements refer to the consequences of students' misbehaviour at school and are used as indicators of the amount of misbehaviour.

Descriptive findings

Descriptive results about differences between subgroups, demographic variables, the relationship between different types of MSB, and the continuity of MSB were presented in several studies. In some studies racial differences in MSB at school were found (studies 3, 9, 12, 15, 76, 107, 120, 175), in two other studies no significant differences between different ethnic groups were found (studies 17, 77). Most studies reported that boys showed more MSB than girls (studies 9, 15, 67, 76, 78, 143, 164, 219), however in two studies no gender differences were found (studies

123, 142). Older students reported more MSB than younger students (studies 12, 76, 123, 142, 164). In study 211 a correlation of $-.35$ between MSB and IQ was found, study 77 showed a negative relation between ability and MSB at school, and in study 178 a negative association was found between EQ and MSB at school. Study 9 found no difference in the frequency of MSB between intellectually gifted and average intellectual students. SES and parental education were related to less MSB at school in studies 17, 55, 58, 78 and 107. In study 77 no significant relationship was found between parental education and truancy and study 143 found that demographic variables were not related to changes in disruptive classroom behaviour.

Several studies showed that substance use (drinking, smoking, marijuana use) co-occurred with MSB at school (studies 41, 55, 66, 71, 72, 73, 76, 123, 164, 175). General delinquency (studies 2, 66, 76, 136, 175), and other maladaptive behaviours (vandalism, fighting, and stealing; study 41, gun ownership; studies 92, 123) were associated with MSB at school. Correlations between maladaptive behaviour at school and these behaviours varied from $.23$ to $.85$. Two studies were unable to find a significant relationship between MSB at school and drinking and marijuana use (study 123), and between MSB at school and the use of painkillers, coffee and tea (study 66).

Continuity in MSB at school was shown in studies 48, 67, 108, 114, 115, 122, 143, and 213. The correlations between MSB at different ages, varied between $.31$ and $.66$. In study 119 continuity was only found for boys. In study 41 continuity was found for disruptive behaviour, but not for school troubles. Study 108 concluded that MSB at school predicted later convictions. Study 67 emphasized, that although correlations between the different ages were significant, only a small percentage of the deviant groups remained deviant at a later age.

These results help us to gain insight into *who* displays *what* types of maladaptive social behaviour. Although these results are very interesting, they do not give us clues as to *when* (under what conditions) students exhibit MSB at school. Several studies investigated variables that helped us to gain insight into this issue.

Individual variables

Apart from the relationship with background variables, MSB at school was assessed in relation to other individual variables (39 studies). Self-esteem and self-image (studies 33, 77, 142) were related to MSB (bullying, truancy), and self-efficacy correlated $-.35$ with MSB at school. MSB at school was associated with several psychosocial and psychiatric problems (studies 37, 72, 175, 213). Extraversion and psychoticism were positively related to MSB in study 182. Delinquent drift appeared to be positively related to MSB at school (study 191), and having an eating disorder was associated with MSB at school in study 72. In study 213 depression was found to correlate with MSB at school ($r = .26$ to $.32$), and anxiety was positively related in study 72, but negatively in study 33.

In some studies feelings, cognitions, beliefs and knowledge of students were assessed in relation with MSB at school. Study 1 reported that victims of bullying, who had aggressive attitudes, reported more MSB at school than victims without aggressive attitudes or nonvictims. In study 55 it was found that MSB at school decreased when boys felt more internal control. For girls, MSB at school increased if they felt more responsible for things that were beyond their control. Study 142 found

that beliefs about risk and fun of school misbehaviour explained 33% of MSB at school. Fun was positively related and risk was negatively related to MSB at school. The effect of promoting performance goals was assessed in study 143; Promotion of performance goals appeared to predict an increase of disruptive behaviour in the classroom ($r = -.35$). Students who were able to regulate their learning adequately showed less MSB at school ($r = -.38$). Study 190 found that students who had a stronger tendency to oversimplify their social cognition (misuse of complexity reduction, nonuse of socio-cognitive competence) showed more MSB at school. Knowledge of appropriate and inappropriate strategies for making friends was found to be negatively related to MSB at school in study 211.

Family variables

Twenty-four studies assessed the relationship between variables concerning the family and MSB in a school context. Especially the relationship between parents' child-rearing practices and MSB was assessed. The conclusion of study 17 was that family variables (maternal and paternal closeness, monitoring and conflict) predicted school misconduct. Nurturing parenting was found to be negatively related to MSB at school (study 191). A negative relationship between parental monitoring and MSB was also found in study 70. In study 78 conflict in the family and enmeshment, external locus of control and permissive or authoritarian parenting styles were assessed and appeared to be related to MSB. Study 175 reported that children from more authoritarian parents reported less MSB than children from indulgent and neglectful parents. However, children from authoritarian parents reported more MSB at school than children from parents with an authoritative parenting style. Studies 2 and 15 also found that parenting (involvement, support) was related to MSB at school. MSB of parents was found to be related to students' MSB (study 70). Contradicting results were found in some other studies; bonding with the family did not significantly predict MSB at school in study 107, whereas school bonding did. Study 136 reported that family variables were less strong in predicting MSB at school than other school predictors.

Peer variables

Twenty-three studies aimed to explain MSB at school by assessing the relationship with peers and characteristics of peers. Frequently assessed was the association with deviant peers. Having deviant peers was positively related with MSB at school (studies 2, 41, 70), but in study 23 a significant effect was not found. Study 77 concluded very specifically that the peer factors 'evenings going out for fun, riding around in a car or motorcycle for fun, getting together with friends, and attending parties' were positively related to truancy. The relationship between variables concerning the social status (i.e., social status, popularity, peer rejection/acceptance) and MSB at school was ambiguous. In studies 33 and 211 peer acceptance was negatively related to the frequency of MSB at school. In study 142 peer acceptance and involvement were positively related to MSB at school, indicating that students who showed an increased level of MSB were better accepted than students who exposed lower levels of MSB. In addition, time spent with friends was associated with more MSB at school in studies 15 and 77, but with less MSB in study

210. Study 15 found that students who have only a few close friends or find it hard to make new friends are more often involved in bullying at school. Also, students who spend more time with their friends appeared to bully more often. The different results are probably due to characteristics of the friends. Friends who participate in delinquent activities affect MSB of the adolescent positively (Ryan, 2000).

Studies 114, 115, 122 showed that rejected-antisocial adolescents exhibited more MSB at school than rejected-non-antisocial adolescents and that MSB at school (especially irritable-inattentive behaviour; complaining, acting like a baby) were risk factors for rejection and victimization. In study 213 the hypothesis that peer rejection mediates the influence of MSB at school on depression was not supported. Study 210 showed that a high level of friendship quality and spending time with low-antisocial peers weakened the relationship between one-sided parental decision making and MSB at school. Having low quality peer relationships and having high antisocial peers increased the significance of this relationship. Promotion of mutual respect in the classroom was significantly related to disruptive behaviour in the classroom (study 143; $r = -.17$), but was not uniquely related to changes in disruptive behaviour. In study 128 it was found that early matured girls played truant more frequently, but that this relationship was mediated by the association with older peer groups.

School variables

In 29 studies the relationship between MSB and school related factors was assessed. Especially variables concerning feelings about school, for example school engagement and commitment to school, were frequently assessed and showed a significant relation to MSB at school (studies 2, 17, 107, 136, 175). Correlations vary between $-.19$ to $-.30$. In study 15 a positive relation between school alienation and MSB at school was found, but in study 41 no such relationship could be reported. Educational aspirations were not significantly related to school opposition for girls but were for boys in study 70. Furthermore, study 17 showed that educational aspirations were related to school misbehaviour for a sample of African-American and Caucasian students, and educational expectation of students were negatively related to school related MSB in study 107. In some studies bad school attainment was considered to be a form of maladaptive behaviour, in several other studies a negative relationship between school attainment and school misbehaviour was found (studies 15, 17, 41, 70, 77, 115). Studies 123 and 143 showed that (prior) achievement was not related to changes in disruptive behaviour in the classroom. The time students spent on their homework was found to decrease students' MSB (studies 17, 70, 136). Study 115 concluded that MSB predicted dropout.

The importance of school variables in the relationship with MSB at school was confirmed in studies 15, 17, 62, 77, 136, 143. Study 15 concluded that perceptions of school variables had stronger predictive power on bullying behaviour than did peer, individual and family factors. In study 17, school variables explained 12% of MSB variance at school in African-American students and 10 % in Caucasian students. These percentages were higher than the percentages that were explained by family factors. Study 136 also concluded that school predictors were better predictors for MSB at school than family predictors. In this study, the school variables that made the biggest contribution to the explanation of MSB variance at school were punishments in class, the teachers' expectations that the pupil would frequently get in

touch with the police or judicial authorities, and weaker commitment to school activities. A significant relationship between school related MSB, and involvement in school activities and attitude toward the school staff, was found in study 62. In this study it was emphasized that student involvement and attitudes toward school could both be a cause and an effect of school misbehaviour. Liking school was found to be important in studies 77 and 136.

Teacher support was a topic of investigation in studies 143 and 196. A positive perception of teacher support predicted a decrease in MSB at school in study 143. Study 196 concluded that teacher support was a necessary but not a sufficient predictor of a decrease in MSB at school. Perceived teacher support alone was not effective; it was only significant in combination with parent and/ or peer support.

Study 15 showed that perceptions of high rates of violence in school predicted students' bullying behaviour. In this study, the students' general perception of their school (liking school, feeling comfortable), fairness (rules are fair, treated too severely), teacher support (encouragement, help), social climate (enjoy being together, other students are helpful) and physical safety (feel safe) did not have unique predictive power on bullying behaviour. School experience (liking of school, school grades and fairness of school rules) was one of the best predictors for truancy in study 77.

Other variables

Eight studies assessed the relationship between MSB at school and variables not discussed so far. In study 70, boys' MSB at school was positively related to high participation in leisure activities, indicating that boys, who join leisure activities more frequently, show more school related MSB. In study 58 it was concluded that neighbourhood risk was associated with more MSB at school. Rapid social change in specific countries (i.e., Germany, Hungary) was not necessarily positively related to MSB at school, but could be considered as a stimulant for improved adjustment (191). Finally, students who worked a few hours less than the average student, showed less MSB than students who worked a lot (study 55).

Discussion

Before discussing the results, an important limitation of this review should be mentioned. The selection of studies, although executed carefully, did not provide an exhaustive selection of all relevant studies that assessed MSB in a school context. Although we cannot guarantee that we located all the interesting studies, we believe that the selection of the studies that were used in this review are representative for research on adolescent students' MSB.

We started this review with some definitions of maladaptive social behaviour. While reviewing the articles, we noticed that in several studies hardly any justification was given for the types of maladaptive social behaviour that were assessed, why these types were assessed, and how. Frequently, no operationalizations were provided and neither was it made clear what (types of) instruments were used. Surprisingly, in some of the studies all the behaviours that had been measured were

used as a general indicator of MSB and conclusions were drawn for all kinds of problem behaviour. We consider this an invalid procedure: In order to draw conclusions it is important that researchers have a clear representation of what MSB means, how it is operationalized, and how it is linked to other types of behaviour.

Recent theories have emphasized the importance of taking into account the interaction processes between characteristics of the person and features of the context. We assume that students direct their behaviour in such a way that they can accomplish their salient goals. What goals they pursue, depends on personal characteristics (e.g., their values, psychological needs, interests, skills, and beliefs) as well as on the perceived characteristics of the environment (e.g., course utility, peer support, teaching and parenting styles). For example, an adolescent might pursue wellbeing goals and react with disturbing behaviour in the classroom when he perceives that the teacher is not helpful or the course is not interesting. Maladaptive social behaviour could then take the form of unfriendly behaviour, bullying, or withdrawal. It seems less plausible that students would react with stealing behaviour in such a situation. Theft of material things is more likely to occur outside the classroom, or in between lessons and probably for other reasons. Researchers need to be sensitive to both the link between situational cues and various types of MSB. This review shows that it is highly relevant to distinguish between MSB that occurs in a school context and various forms of MSB that typically occur outside the school context. This is illustrated by the results of the studies used in this review. Several studies found that although MSB at school was significantly related to other types of MSB (outside school), correlations were usually moderate. This implies that students who cause problems outside school do not automatically show MSB in school.

Regretfully, in some of the articles in this review, MSB at school was not treated as a separate construct but rather as part of general problem behaviour. In 49 articles, MSB in the school context was treated as a separate variable. None of the articles assessed the different types of MSB at school as an integrated whole. We did not come across a self-report questionnaire that assessed a wide range of misbehaviour in the school context. We therefore conclude that the study of MSB at school is an underexposed area in problem behaviour research and that the development of a new instrument for the measurement of MSB of adolescent students in (vocational) education is desirable.

When summarizing the relevant findings with respect to MSB within the school context it is important to specify what factors are relevant. Some general relationships were identified, especially with respect to individual and background variables. For example, several studies showed that older students reported more school related MSB than younger students and that - over a period of a few years - MSB at school showed some stability ($r = .31-.66$). Higher levels of MSB were reported more by boys than girls, less intelligent than more intelligent students, and by students with a low SES than students with a high SES. Self esteem and social competence was consistently associated with a lower frequency of MSB (e.g., bullying, truancy). The relationship between disorders, personality characteristics, emotional well-being, biological characteristics and MSB at school was not frequently assessed, although some results indicated that more research on these topics would be interesting. For example a significant relationship was found between depression and disturbing behaviour in class, and a study from 1974 (Allsopp & Feldman) found that extraversion was related to less serious MSB at school and psychotism to more serious maladjusted behaviour at school.

Although studies that focused on general MSB examined the relationship with family factors more frequently than studies that focused on problem behaviour at school, similar results were found: parental nurturing, involvement, monitoring and support were associated with less MSB at school, and authoritarian, neglectful, permissive and indulgent parenting styles with more MSB at school. Regrettably, the relationship with family functioning (i.e., spending time together, warmth, cohesion), family pathology, and family behaviour and attitudes were scarcely assessed in relationship with MSB at school.

The relationship between MSB at school and the relationship with friends appeared to be an ambiguous one. Positive, negative and insignificant relationships were found. Spending more time with friends was positively related to bullying, truancy and school misconduct, but negatively to general problem behaviour. In line with lay-men's expectations, peer rejection was found to be related to more discipline problems at school. However, it was also reported that school misconduct was positively related to peer acceptance and insignificant relations were found between unfriendly behaviour and social preferences. Recent theories found similar results. Rose, Swenson & Walle found that aggressive behaviour was positively related to popularity, and Bru (in press) found that oppositional behaviour in the classroom was positively related to the thought that this would increase peer status. It seems clear, however that MSB at school (as well as general MSB) is associated with having deviant peers. These inconclusive results highlight the importance of situation-specific research. Without accurate knowledge about the students' personal characteristics (e.g., their salient goals) and the context they are in on a daily basis, it is hard to interpret the reported results.

Interestingly, school variables seemed to have a clear and important relationship with MSB at school. Performance, bonding/commitment to school, time spent on homework, and liking school were all negatively related to the occurrence of several types of MSB at school. Furthermore, several studies showed that school variables could explain more of the variance in MSB at school than family factors. This is an important finding and could direct future research and interventions.

We would like to emphasize that in order to obtain insight into 'what works for students under what conditions, it is important to define and operationalize the concepts under investigation – in our case MSB - in a detailed manner. It is also crucial that the school variables that might influence different types of MSB behaviour are identified, properly defined, and measured in a valid way. Future studies on MSB need to be more careful in the interpretation and generalization of their results.

Together, the reviewed studies showed that specific school characteristics influence different types of MSB in different ways. For example, decreasing the frequency of truancy requires different measures than bullying behaviour. Hence, valid situation-specific instruments are required. We developed the Questionnaire for Maladaptive Social Behaviour to measure the MSB of students at school. Through observations, interviews with students, teachers and others staff we gathered examples of MSB. After several pilot-studies, in which the internal structure of the questionnaire was optimized by adding, rephrasing and deleting statements, we found five types of MSB: MSB toward schoolwork and rules (e.g., skipping school, handing in work too late, disturbing the lesson), delinquent behaviour (e.g., threatening a students, using drugs at school), unfriendly behaviour (provoking a teacher, making fun of a student), withdrawn behaviour (isolating oneself, avoiding other students at school), and impolite behaviour (not thanking someone, not greeting someone at school) (for a detailed description see Koerhuis, De Koning &

Boekaerts, submitted; Koerhuis & Boekaerts, submitted). This instrument allowed us to gain detailed insight in what behaviours are prominent in vocational school, and encouraged us to study the relationship of MSB with a wide range of school context and social support variables.

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Table 1: Reviewed articles

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
1)*	Brockenbrough, K.K., Cornell, D.G. & Loper, A.B. (2002)	N=8273 Grade: 7 th , 9 th , 11 th Gender: M+F Origin: USA	<u>High-risk behaviour</u> : SRQ: 7 items; yes/no; part of <i>The Safe School Survey developed by governing schools</i> . Carrying weapon/ knife/ gun for protection, use marijuana or drugs at school, joined a gang, drinking alcohol, fighting at school	<u>Individual</u> : aggressive attitudes, victimization <u>Family</u> : demographic info <u>Peers</u> : support from peers <u>School</u> : grades, supportive adults, perception of safety.
2) *	Haynie, D.L., Nansel, T., Eitel, P., Crump, A.D., Saylor, K., Yu, K. & Simons-Morton, B. (2001)	N=4263 students Grade: 6 th , 7 th , 8 th Gender: M+F Origin=USA	<u>Bullying</u> : SRQ, 1 item <u>Problem Behaviours</u> : SRQ, 7 items (i.e. physical fighting, weapon, theft, damage, cigarette use, alcohol use, illicit drug use). <u>Behavioural misconduct</u> : SRQ, 4 items (i.e. lying to parents, staying out late, cutting school, going someplace dangerous). <i>All questionnaires: frequency during last year; never, 1-2, 3-5, 6 or more.</i>	<u>Individual</u> : self-control, deviance acceptance, social competence, depressive symptoms, victimization. <u>Family</u> : parental involvement, parental support. <u>Peers</u> : deviant peer influences (=behaviour) <u>School</u> : school adjustment, school bonding.
3)	Kasen, S., Cohen, P. & Brook, J. S. (1998)	N=452 Age: 12-18 yrs and 19-25 yrs at follow up. Gender: M+F Origin: USA	<u>Conduct Problems</u> : SR & MR Interview: adaptation of DISC-1. <i>Frequency during past year; 1=never-6=more than 10 times.</i> 12 behaviours: burglary, running away, lying, fire setting, truancy, breaking and entering, destroying, cruelty to animals, use of weapon, fighting, robbery, bullying). <u>Deviance</u> : SR interview: 6 outcomes, yes/no; dropout, pregnancy, crime, conviction, antisocial personality disorder (<i>Personality Diagnostic Questionnaire</i>), alcohol abuse (<i>Disc-1</i>).	<u>Individual</u> : IQ. <u>Family</u> : SES <u>Peers</u> : deviance and achievement of friends. <u>School</u> : achievement, aspirations, teacher organization/ preparation/ commitment/degree of motivation and participation by students, structure/control by teacher.
4)	Eskilsson, A., Wiley, M. G., Muehlbauer, G. & Dodder, L. (1986)	N=320 Grade: 7 th , 8 th , 9 th Gender: M+F Origin: USA	<u>Substance abuse</u> : SRQ: yes/no- frequency, amount. Use of alcoholic beverages, marijuana, amphetamines, cocaine <u>Deviant behaviour</u> : SRQ: yes/no. Contact with the police in the last year. Vandalized property.	<u>Individual</u> : Self-esteem, feeling of inability, own financial resources. <u>Family</u> : family income, parental pressure <u>Peers</u> : pressure of peers <u>Other</u> : length of residence in current home
5)	Newcomb, M.D., Maddahian, E. & Bentler, P.M. (1985)	N=994 Grades: 10-12 Gender: M+F Origin: USA.	<u>Substance use</u> : SRQ, frequency during past 6 months, 7-point scale (0=no use, 6= more than once a day). Cigarettes (1 item), alcohol (3), cannabis (2), hard drugs (14), non-prescription medication (4).	<u>Individual</u> : early alcohol use, low self-esteem, lack of social conformity, sensation seeking, psychopathology, perceived adult drug use <u>Family</u> : Poor relationship with parents <u>Peers</u> : Perceived peer drug use

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
				<u>School</u> : GPA. <u>Other</u> : religiosity
6)	Sampson, R.J., Laub, J.H. (1990).	N=500 delinquent, N=500 non delinquent Age: T1: 10-17, T2: 17-25, T3: 25-32yrs. Gender: M Origin: USA	<u>Antisocial Behaviour</u> : 1) <i>Composite scale of self, parent and teacher reports of delinquency and other misconduct</i> , 2) <i>temper tantrums</i> 3) <i>official records of arrest</i> . Yes/no. Excessive use of alcohol and drugs, general deviance (involvement in gambling, illicit sexual behaviour, use of prostitutes):	<u>Individual</u> : adult crime, commitment <u>Peer</u> : attachment to a spouse. <u>Other</u> : Job stability
7)	Wills, T.A., Resko, J.A., Ainette, M.G. & Mendoza, D. (2004)	N=1364 MA: T1:12.4 – T4: 15.4 yrs Gender: M+F USA	<u>Substance abuse</u> : Cigarette, marijuana and alcohol use. (SRQ; 3 items on frequency of use: 0 = never- 5 = usually use every day). Alcohol (SRQ; 1 item, times in the past month when the participant had three or more drinks; 0 = no; 1 = yes, once; 2 = yes, more than once.	<u>Individual</u> : negative life events, affect, coping dimensions, social competence, deviance-prone attitude, <u>Family</u> : family structure, educational level, parental and siblings' substance use, support. <u>Peer</u> : substance use, <u>School</u> : academic competence
8)	Bingman, C.R., Shope, J.T. (2004)	N=3.439 MA: T1: 15.7 T2: 23.5 years Gender: M+F Origin: USA	<u>Substance abuse</u> : SRQ/ telephonic interview: If ever (yes/no), in past 12 months (yes/no) and how often (1 = a few times a year or less - 5 = every day). Cigarette smoking, marijuana use SRQ/telephonic interview; 10 items 0 = never, 1 = once, 2 = two times, and 3 = three or more times) Alcohol misuse, overindulgence, alcohol resulting in troubles with peers and adults. <u>Problem driving</u> : SRQ/ telephonic interview, 27 items, 0=never- 13=100 or more in the past year: risky driving, drinking-driving, and drug-driving,	<u>Individual</u> : tolerance of deviance. <u>Family</u> : behavioural monitoring, permissiveness, orientedness <u>School</u> : performance
9) *	Richards, J, Encel, J. & Shute. R. (2003).	N=33 intellectually gifted, 25 matched. MA=14.5 yrs Design: Longitudinal (7 th -10 th grade), Gender: M+F Origin: Australia	<u>Problem behaviour</u> : TRQ: BASC; 138 items, PRQ: 126 items (4-point scale; never-almost always). Externalizing (aggression, hyperactivity, conduct problems), Internalizing (anxiety, depression, somatization), School problems (only TR: attention problems, Learning problems), Other problems (withdrawal, atypicality).	<u>Individual</u> : IQ, anxiety, atypicality, locus of control, social stress, somatisation, sensation seeking, self-esteem, self reliance <u>Family</u> : relation with parents <u>Peers</u> : interpersonal relations. <u>School</u> : attitude to teachers, attitude to school
10)		N=T1: 158	<u>Antisocial behaviour</u> : SRI/PRI; frequency of 16 antisocial	<u>Individual</u> : IQ, verbal and nonverbal

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Barkley, R.A., Fischer, M., Samalish, L. & Fletcher, K. (2004).	hyperactive, 81 control group. T2: 123 Hyperactive, 66 control. T3: 147 hyperactive, 73 control. Age: T1: 4-12, T2: 12-20, T3: 19-25yrs Gender: 91% male. Origin: USA	<i>behaviours. 10 items corresponding to CD of DSMIII-R: (i.e. Lies, truant, initiates fights, steal, running away from home) Official arrest records.</i> <u>Substance abuse</u> : <i>SRQ/PRI; 10 items, yes/no.</i> Frequency of alcohol and drug use. <u>ADHD</u> : <i>(telephonic) PRI; 18 items</i> for ADHD based on DSM-III-R/IV.	intelligence, childhood hyperactivity and conduct problems.
11)	Bergen, H.A., Martin, G., Richardson, A.S., Allison, S. & Roeger, L. (2004)	N=2290-2596 Age: 3 waves; 13-15 yrs. Gender: M+F Origin: Australia.	<u>Antisocial behaviour</u> : <i>SRQ. Adaptation of Self-report Delinquency Scale, 22 Yes/ no. (Including, 4 additional items based on DSM-IV for CD.</i> <u>Substance abuse</u> : <i>SRQ, 6 items, frequency during the last year) (5-point scale; never- more than once a week)</i> (i.e. alcohol, tobacco, marijuana, sniffed glue, injected illegal drugs, oral stimulants.	<u>Individual</u> : childhood sexual abuse, depressive symptoms <u>Family</u> : functioning (pathology), socio demographic variables, parenting style, relationship.
12)*	Stevens, G. W. J. M., Pels, T., Bengi-Arslan, L., Verhulst, F.C., Vollebergh, W. A. M. & Crijnen, A. A. M. (2003)	N=819 Moroccan, 2227 Dutch, 833 Turkish children, Age: 4-18 yrs. Gender: M+F Origin: The Netherlands	<u>Behavioural problems</u> : CBCL, TRF, YSR.	<u>Individual</u> : Emotional problems
13)	DiNapoli, P.P. (2003)	N=9829 MA=16.07 yrs. Gender: F Origin: USA	<u>Violence</u> : <i>SRQ, 8 items, part of National Longitudinal Study of Adolescent Health: nr of days carried a weapon to school, hot, pulled a gun, got into a fight, used a weapon, hurt someone.</i>	<u>Individual</u> : witnessing or experienced violence, pubertal status, health risk behaviour. Self-efficacy, conflict resolution skills, life efficacy expectation, depression, attributional bias, social bonding. <u>Family</u> : Socio-demographic variables, communication, togetherness, health risk behaviours, parent-child relationship, religiosity. <u>Peers</u> : use of substance, engagement in delinquency

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
				<u>School:</u> attendance, trouble, grade, GPA. <u>Other:</u> hours watched/ listened media, engagement in daily activities.
14)	Marshal, M.P., Molina, B.S.G. & Pelham W.E. Jr. (2003)	N=142 diagnosed ADHD, 100 control. Age: 13-18 years. Gender: 94% male. Origin: USA	<u>Substance abuse:</u> SRQ: <i>adaptation and extension of existing questionnaires: (e.g., National Household Survey of Drug Abuse).</i> Alcohol use (2 items), marijuana (1), other illicit drugs (3) 1 (never) to 9 (more than twice a week). Cigarettes (1) 1 (none) to 7 (about 2 packs or more a day) <u>Conduct disorder:</u> SRI/PRI; DISC	<u>Individual:</u> substance use disorder symptoms, <u>Peers:</u> peer substance use, peer tolerance of adolescent substance use
15)*	Laufer, A. & Harel, Y. (2003).	N=8394 Grade: 6-10. Gender: M+F Origin: Israel.	<u>Violence:</u> SRQ: bullying (1 item; how often during pas year), physical fight (2; how often during past year involved; victim), carrying weapons (1; how often during past 30 days).	<u>Individual:</u> feel lonely <u>Family:</u> emotional and instrumental support <u>Peers:</u> spend time with friends, peer support, close relationships. <u>School:</u> general school perception, fairness, teacher support, alienation from school, negative school climate, academic achievement, physical safety, violence in school.
16)	Barry, C.T., Frick, P.J. & Killian, A.L. (2003).	N=98 children Age: 9-15 yrs. Gender: M+F Origin: USA	<u>Oppositional defiant disorder and conduct disorder:</u> SRI/PRI: DISC-4.	<u>Individual:</u> narcissism, psychopathy, self-esteem <u>Family:</u> Demographic variables.
17)*	Vazsonyi, A.T. & Pickering, L.E. (2003).	N=809, MA = 16.4 yrs. Gender: M+F Origin: Caucasian and African-American (USA)	<u>Deviance:</u> SRQ; <i>Normative Deviance Scale. 55-items 1=never-5=more than 6 times:</i> vandalism, alcohol, drugs, school misconduct, general deviance, theft, and assault.	<u>Family:</u> Demographics, closeness, monitoring, conflict. <u>School:</u> grades, homework time, educational aspiration, commitment
18)	Marmorstein, N. R. & Iacono, W.G. (2003).	N=337 twins (with or without CD and/ or depression) Age: 17 yrs Gender: M+F	<u>Substance Abuse:</u> SRI; <i>Module</i> Nicotine alcohol and illicit drug dependence <u>Conduct Problem:</u> SRI/PRI, SCID	<u>Individual:</u> age of first sexual intercourse, persistence of psychopathology <u>peer:</u> peer relationships (rated by teacher) <u>School:</u> school success (grades), number of times expelled from school.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
19)	Botcheva, L.B., Feldman, S.S. & Leiderman, P.H. (2002)	Origin: USA Longitudinal sample: N=T1: 104, MA: T1: 14.3, T2: 16.3. Cross-sectional sample: N= T1:326, T2: 254. MA: T1:15,2 T2:15,4. Gender: M+F Origin: Bulgaria	<u>Misconduct</u> : SRQ, <i>Adapted from Greenberger and Chen (1996), 20 items, how often during the past 6 months; 1= never to 3= often.</i> Drug use, problems in school, aggression, and risk behaviours.	<u>Individual</u> : Social maturity, optimism, depression, <u>Family</u> : Cohesion, warmth, educational level <u>Peer</u> : Warmth, understanding <u>School</u> : Cohesion
20)	Kirkcaldy, B.D., Shephard, R.J. & Siefen, R.G. (2002)	N=988 Age: 14-18 yrs, Gender: M+F Origin: Germany	<u>Problem Behaviour</u> : SRQ; YSR (social problems, anxiety/depression), <u>Substance abuse</u> : SRQ, 3 items, 1= never- 4= yes regular. Smoking, drinking, cannabis use	<u>Individual</u> : personality addiction, physical ill-health, self-image, <u>Family</u> : demographics, expectations, conflict, acceptance <u>School</u> : Grades, school change, school year repeated. <u>Other</u> : Involvement in sports
21)	Williams, S.S, Mulhall, P.F., Reis, J.S. & DeVile, J.O. (2002)	Cross sectional: N=21981 adolescent Grade: 6 th , 8 th , 10 th . Gender: M+F Origin: USA	<u>Carrying handguns</u> SRQ; 2 items: ever carried and ever took a gun to school. <u>Violence</u> : SRQ; 1 item, 4-point scale: never-6 or more. Attacked someone with intent to hurt seriously during the past year. <u>Delinquency variables</u> : SRQ; 2 items, gang (y/n), arrested (4-point: never-6 or more), <u>Substance use</u> SRQ; 5 items: alcohol, cigarettes, marijuana, smokeless tobacco, inhalants	<u>Individual</u> : handgun variables (beliefs and behavioural norms), violence attitude. <u>Family</u> : Demographic variables, harmony, supportiveness, monitoring. <u>School</u> : meaningfulness of school, school involvement opportunities. <u>Other</u> : neighbourhood stability, comfort and law enforcement
22)	Moran, B.L & DuBois, D.L. (2002)	N=350 Age: 10-15 yrs Gender:: M+F Origin: USA.	<u>Problem behaviour</u> : SRQ: YSR; scales aggressive behaviour and delinquent behaviour.	<u>Individual</u> : self-esteem, <u>Family</u> : Social support, <u>Peer</u> : Social support <u>School</u> : social support
23)	Colsmann, M. & Wulfert, E. (2002)	N=30 non-problem, 31 problem. MA =15.9 yrs	<u>Fighting</u> : SRQ: three items from the HBQ (Jessor, Donovan, & Costa, 1989) <i>Deviance Scale: 0 = never to 4 = five or more times.</i> Start fights, hit someone, in fight with gang member. 1 additional	<u>Individual</u> : , socially deviant attitudes, conflict resolution styles <u>Family</u> : Demographic variables.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
		Gender: M+F Origin: USA	<i>question</i> : Physical fight at school or in bus. <i>Substance use</i> : SRQ, HBQ, cigarettes a day (1 = none to 7 = about 2 packs), drinks per occasion (1 = did not drink to 9 = nine or more drinks), marijuana use (1 = never, to 6 = five or more times).	<i>School</i> : Academic achievement.
24)	Vermeiren, R., Ruchkin, V., Leckman, P.E., Deboutte, D. & Schwab-Stone, M. (2002).	N=1634 Age: 12-18 yrs Gender: M+F Origin: Belgium	<i>Aggressive behaviour</i> : SRQ: Items derived from delinquency questionnaire of Junger-Tas (1994), 1=once- 5=more than 20 time). Vandalism (2 items), carrying a weapon (1 item), theft with direct personal contact (1 item), and assault (2 items);	<i>Individual</i> : witnessing and victimization violence, suicidal behaviour: ideation and deliberate self-harm, depression. <i>Family</i> : SES
25)	Juon, H.S., Ensminger, M. & Sydnor, K.D. (2002)	Longitudinal study. N=T1: 1242, T2: 93, T3: 952. Grade: T1;1 st , T2;10 years later, T3; 32-34 yrs Gender: M+F Origin: USA	<i>Cigarette Smoking</i> : SRI; never/ occasionally, regular.	<i>Individual</i> : antisocial behaviour in childhood, substance use disorder in adulthood, psychological distress. <i>Family</i> : Mother's smoking behaviour family involvement, parental drug-rules. <i>School</i> : Adolescent school bonds. <i>Other</i> : Employment, church attendance. Residential mobility.
26)	Brook, D.W, Brook, J.S., Richter, L., Whiteman, M., Arencibia- Mireles, O. & Maschi, J. R. (2002).	N=83 Age: 13-20 Gender: M+F Origin: USA	<i>Problem behaviour</i> : SRQ, never, once or twice, a few times, once a week, several times a week, daily: unconventionality (20 items), delinquency (12), aggression (2), sexual activity (5). <i>Marijuana use</i> : SRI, never, once or twice, few times, once a week, several times a week, daily.	<i>Individual</i> : victimization, gang involvement <i>Family</i> : demographics, father illegal drug use, social support coping, warmth, laissez-faire discipline, identification with father, conflict, time spent together
27)	Scherzer, T. & Pinderhughes, H.L. (2002).	N= 167 Grade: 10-12 Gender: M+F Origin: USA	<i>Violence</i> : SRQ, part of the Youth Risk Behaviour Survey: use of violence, use of sexual violence, use of violence in a dating relationship.	<i>Individual</i> : direct and indirect experience with violence <i>Family</i> : household composition, parents' occupation <i>School</i> : attachment (considering dropping-out) <i>Other</i> : religious attendance

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
28)*	Livaditis, M., Zaphiriadis, K., Fourkioti, A., Tellidou, C. & Xenitidis, K.I. (2002).	N=860 Grade: 7-12 th Gender: M+F Origin: Greece.	<u>Problem behaviour</u> : SRQ: YSR & TRQ; <i>Questionnaire on Symptoms of Problem Behaviour</i> (Paraskevopoulos & Leoussi, 1970); <i>no problem, slight problem, serious problem</i> : Inhibited-Neurotic, Anti-social behaviour, insufficiency-immaturity.	<u>Family</u> : intact, separation, death of parent, SES
29)	Adalbjarnardottir, S. & Rafnsson, F.D. (2002)	Longitudinal. N=T1: 1293, T2 928 Age: T1; 14, T2; 17yrs Gender: M+F. Origin: Iceland	<u>Problem behaviour</u> : SRQ; YSR. <u>Substance abuse</u> : SRQ, <i>yes/no; none, 1–5, 6–10, 11–20, or more than 20</i> : Cigarette smoking. Alcohol. <i>Yes/no; I do not drink, less than one, one, two, three to four, five to six, and seven or more drinks/glasses</i> . Illicit drug use: amphetamine/ hash	<u>Family</u> : Parental cigarette smoking/ drinking, structure, SES <u>Peers</u> : Peer substance use.
30)	Johnson, J.G., Cohen, P., Smailes, E.M., Kasen, S. & Brook, J. (2002)	Longitudinal: N=701 families MA= T1; 5.8, T2; 13.8, T3; 16.2, T4; 22.1, T5; 30. Gender: M+F Origin: USA	<u>Aggressive behaviour</u> : SRI/PRI, DISC-I. Assault or physical fights resulting in injury, robbery, threats to injure someone or weapon used to commit a crime.	<u>Individual</u> : previous aggressive behaviour, psychiatric disorders, verbal intelligence <u>Family</u> : income, parental education, childhood neglect <u>Peer</u> : aggression <u>School</u> : Violence <u>Other</u> : neighbourhood characteristics, time spent watching television
31)	Piko, B.F. & Fitzpatrick, K.M. (2002)	N=406 MA= 17,6 yrs Gender: M+F Origin: Hungary	<u>Problem behaviour</u> : SRQ, <i>during the last 30 days</i> : Skipping school, physical fights, suspension from school. <u>Substance abuse</u> : SRQ, <i>yes/ no</i> : Smoking, binge drinking, marijuana use	<u>Individual</u> : Self-esteem <u>Family</u> : dinner with parents, talk about problems, curfew, know where adolescent goes. <u>Peers</u> : deviant group membership <u>School</u> : Grades, sport teams, school clubs, talk to teacher about problems
32)	Aalsma, M.C. & Lapsley, D.K. (2001)	N=174 Age: 13-18 yrs. Gender: M+F Origin: USA	<u>Criminal activity</u> : <i>Juvenile court files</i> : theft, robbery, drug offences, assault, murder, possession of weapons, sexual offences, criminal negligence, fraud, kidnapping, arson, obstruction of justice, status offences (runaway, truancy etc), minor alcohol consumption/ driving under influence.	<u>Individual</u> : dating and sexual history, abuse history, suicidal ideas and attempts, <u>Family</u> : SES, family dynamics and structure, <u>School</u> : Course grades, number of times of suspension, number of school shifts,

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
33)*	O'Moore, M. & Kirkham, C. (2001).	N= 13,112 Age: 8-18 yrs Gender: M+F Origin: Ireland	<u>Substance use:</u> <i>SR</i> : tobacco, marijuana use (<i>never, once a year, 1-2 times a month, 1-2 times a week, daily</i>), alcohol (age of initial use, age of initial intoxication, negative effects on various aspects of life (<i>8 items, yes/no. Drug use (11 items, yes/no)</i>)	involvement in special education.
34)	Herrenkohl, T.I., Guo, J., Kosterman, R., Hawkins, J.D., Catalano, R.F. & Smith, B.H. (2001)	N=808 Age: T1; 10, T2; 14, T3; 18 yrs. Gender: M+F Origin: USA	<u>Bullying:</u> <i>SRQ; Olweus Bully/Victim questionnaire</i>	<u>Individual:</u> Self-esteem, intellectual and school status, physical appearance and attributes, anxiety, happiness, satisfaction. <u>Peers:</u> popularity
35)	Ellickson, P.L., Mcuigan, K.A. & Klein, D.J. (2001)	Longitudinal N= 3056 Age: T1: 13, T2; 18, T3: 23 yrs. Gender: M+F Origin: USA	<u>Violence:</u> <i>SRQ, 7 item, yes/no.</i> Hit a teacher, picked a fight, threaten with weapon, hit someone intending to hurt him/her, used force or threats of force to get things from others, beat someone so badly he or she required medical attention, hit parent.	<u>Individual:</u> hyperactivity, childhood antisocial behaviour. <u>Family:</u> parental attitudes toward violence, family income, bonding to parents, family management, family conflict. <u>Peer:</u> involvement with antisocial peers, gang membership. <u>School:</u> performance, commitment, educational aspirations <u>Other:</u> neighbourhood attachment, availability of drugs
36)	Rosenfield, S, Vertefuille, J. & McAlpine, D.D. (2000)	Longitudinal N= 803, Grade: 8 th , 10 th Gender: M+F Origin: USA	<u>Smoking:</u> <i>SR</i> , New/ non-smoker/ quitter/ continuing. <u>Problem behaviour:</u> <i>SR</i> , Deviance, early alcohol use, and early smoking	<u>Individual:</u> Attitudes and beliefs about smoking <u>Family:</u> Family smoking and approval of smoking, sociodemographic variables <u>Peers:</u> Friends' smoking and approval of smoking, perceived prevalence of peer smoking. <u>School:</u> poor grades and low academic intentions
			<u>Antisocial behaviour:</u> <i>SRQ: how often: never, once or twice, from time to time, often</i> , Skipped school, vandalized a building, used a fake ID, shoplifted something, stolen something from a person, snatched a purse from someone, sold illegal drugs, gambled or bet large amount of money, broken into and entered a house or building, stolen a car, destroyed or damaged property on purpose, insulted a	<u>Individual:</u> empathy, symptoms of depression

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
37)*	Kumpulainen, K. & Raesaenen, E. (2000)	Longitudinal T1 N=1268 T2 N=1157 T3 N=1111 Age: T1: 8.5 yrs: T2: 12.5 yrs T3: 12.5 yrs Gender: M+F Origin: Finland	person, taken part in a gang fight, attacked a person with the intention of serious injury <u>Deviant Behaviour:</u> PRQ/TRQ, Rutter Home Behaviour Scale, 31 items, and Rutter School Behaviour Scale, 26 items. How applicable is this behaviour to the child, 3 point scale or 'don't know'.	<u>Individual:</u> Psychiatric symptoms and disturbances, being bullied, prosocial behaviour, eating and sleeping pattern
38)	Kowaleski, J.L. (2000)	N=860 Age: 14-18 yrs. Gender: M+F Origin:USA	<u>Aggressive behaviour:</u> SRQ, 5 dichotomous items, derived from a larger battery of 16 items: got into a fight at school, hit someone, attacked someone with intend of serious hurt, hurt someone such that they needed medical attention, parents been brought to school because of adolescents' wrongdoing.	<u>Individual:</u> adolescent risk taking attitudes, birth weight. <u>Family:</u> structure, income, self esteem mother, deviance mother, educational level mother. <u>Other:</u> neighbourhood poverty line, structure of families, educational level, school quality.
39)	Garnefski, N (2000)	N=11.516 Age: 12-18, Gender: M+F Origin: Dutch.	<u>Antisocial behaviour:</u> SRQ, part of Monitoring the Future Questionnaire, based on DSMIV for CD: yes/no. Often initiates physical fights, has been physically cruel to people, has deliberately destroyed others' property, has stolen items of nontrivial value, and is often truant from school.	<u>Individual:</u> Depressive symptoms <u>Family:</u> disliking being at home, not getting along well with father and/or mother, having serious problems with parents, <u>Peers:</u> not getting along well with peers, having difficulty making friends, and not having any close friends <u>School:</u> disliking school, feeling uncomfortable at school, feeling that school is not worth the effort
40)	Baer, J. (1999)	N=7411 Grade: 7-9 th Gender: M+F Origin: (Mexican, African, European Americans) USA.	<u>Deviant behaviour:</u> SRQ. 16 items, Deviant Behaviour Scale, (Jessor & Jessor, 1977), 5-point Likert scale.	<u>Family:</u> communication, cohesion, detachment between adolescent and parents, monitoring, facilitation of independence.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
41)*	Talbot, E. & Thiede, K. (1999)	Longitudinal: 2 waves N= 763 Age 11-17yrs Gender: F Origin: USA.	<u>Antisocial behaviour</u> : <i>SRI, From NYS (Elliott & Huizinga, 1983), 14 items, scale 1= never- 9=2-3 times a day.</i> Disruptive acts, vandalism, fighting, drinking, stealing, school troubles.	<u>Individual</u> : alienation from non-antisocial life. <u>Family</u> : SES <u>Peer</u> : association with antisocial peers <u>School</u> : grades
42)*	Olds, D., Henderson, C.R. Jr., Cole, R., Eckenrode, J., Kitzman, H., Luckey, D., Pettitt, L., Sidora, K., Morris, P. & Powers, J. (1998)	N=315 Age: 15 yrs. Gender: M+F Origin: USA.	<u>Delinquent Behaviour</u> : <i>SRQ; YSR. PRQ; CBCL. Police records. SRI</i> : if they had been adjudicated, arrested, stopped by the police. <u>Delinquent and aggressive behaviour outside school</u> , experience of sexual intercourse, running away from home. <u>Disruptive Behaviour in the Classroom</u> : <i>TRQ; Teacher Child Rating Scale, Hightower, Spinell & Lotyczewski, 1986.</i> (i.e., disruptive in class, deviant, obstinate, stubborn). <i>School records</i> . School suspension. <i>SRI</i> : disruptive behaviour in school, number of suspensions, <u>Substance use</u> : <i>SRI</i> ; Use of cigarettes, alcohol and illegal drugs during the last 6 months.	<u>Individual</u> : pregnancy, sexual partners, effect of substance use on live. <u>Family</u> : SES, family structure <u>Other</u> : Prenatal and well-child care, visiting nurse,
43)	Herrenkohl, E.C., Herrenkohl, R.C., Egolf, B.P. & Russo, M.J. (1998)	Longitudinal: N=416 Age: T1; 18mths-6yrs, T3; late adolescence Gender: M+F Origin: USA	<u>Problem Behaviour</u> : <i>SRI</i> ; School dropout, assaultive behaviour, substance abuse.	<u>Individual</u> : self-esteem, IQ, teenage parenthood <u>Family</u> : Early childhood abuse, neglect <u>School</u> : School attendance
44)	Gruber, E., Di Clemente, R.J. & Anderson, M.M. (1996)	N=6159 Grade: 9 th , 12 th Gender: M+F Origin: USA.	<u>Antisocial behaviour</u> : <i>SRQ</i> : Vandalism, physical violence, shoplifting, running away. <u>Substance use</u> : <i>SRQ</i> ; binge drinking, risk driving, smoking, marijuana use. <i>SRQ: part of the Minnesota Student Survey, total 149 items drawn from 'Monitoring the Future Substance Use Disorder Diagnostic Schedule, CATOR Adolescent History'</i> .	<u>Individual</u> : age of initiation of sexual activity. <u>Family</u> : Demographic data
45)	Forehand, R., Miller, K., Dutra, R. & Chance, M.W. (1997)	N=907 Age: 14-16 yrs. Gender: M+F Origin: USA	<u>Adolescent deviance</u> : <i>SRI; 9 items</i> (a) Were you suspended from school during the past year?; (b) have you ever been held in jail overnight?; (c) in your lifetime, how many have you had vaginal sex with?; (d) have you had more than five drinks at one time during the past year?; (e) have you ever used pot?; (f) have you ever used	<u>Family</u> : Monitoring, parent-adolescent communication, demographics

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
			drugs other than pot?; (g) have you been in a physical fight in the past 12 months?; (h) have you been in a physical fight in the past 12 months in which you or the other person was injured and had to be treated by a doctor or nurse?; and (i) in the past 12 months, have you carried a weapon such as a gun, knife, or club?	
46)	Lee, J.W., Rice, G.T. & Gillespie, V.B. (1997)	N=7658 Grade: 6-12 th . Gender: M+F Origin: USA and Canada	<u>Antisocial behaviour</u> : SRQ: <u>Alcohol/drug use</u> . SRQ	<u>Individual</u> : active faith, acceptance of adventism, emotional health, dating and sex, materialism, exercise <u>Family</u> : Family worship behaviour, SES, family structure
47)	Cheung, Y.W. (1997)	N=1139. Age: 12-20 yrs Gender: M+F Origin: Hong Kong.	<u>Deviant behaviour</u> : SRQ; 8 items (taking things that did not belong to you, banging up or destroying things of some value on purpose, fighting with someone with a weapon, smoking cigarette, getting drunk, speaking foul language, having sexual contact with someone of the opposite sex, reading pornography).	<u>Family</u> : Attachment to parents, parent's negative evaluation, parent's deviant behaviour: <u>Peer</u> : peer's deviant behaviour, peers' negative evaluation, peers' disapproval of deviant behaviour. <u>School</u> : Attachment to school, teacher's negative evaluation, academic performance <u>Other</u> : frequency of exposure, preference for violent/obscene content, imitation of media characters.
48)	Barber, B.K., Buehler, C. (1996).	N=471 Grade: 5 th , 8 th and 10 th Gender: M+F Origin: USA	<u>Problem Behaviour</u> : SRQ; YSR	<u>Family</u> : Family enmeshment, family cohesion, structure.
49)	Reiss, D., Howe, G. W., Simmens. S. J., Bussel, D.A., Hetherington, E, M., Henderson, S. H., O' Conner,	N=708 families with two children (mono and dizygotic twins, ordinary and full siblings in step families, half siblings and genetically unrelated siblings in	<u>Antisocial behaviour</u> : Questionnaire filled in by interviewers, 6 items from Behaviour Problems Index (adaptation of CBCL) and 9 items from the Behaviour Events Inventory. (Stole, lied or cheated, skipped school).	<u>Individual</u> : Genetic influence, depressive symptoms. <u>Family</u> : Parenting styles, structure

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	T. J., Law, T., Plomin, R. & Anderson, E. R. (1996)	step families) MA= 13.8 yrs Gender: M+F Origin: USA		
50)	Garnefski, N. & Diekstra, R.F.W. (1995)	N=954 Age: 12-19 yrs Gender: M+F Origin: Dutch.	<u>Substance abuse</u> : smoking (2), alcohol (2), drunkenness (2), marijuana use (2), <u>Aggressive/ criminal behaviour</u> : felony assault (3), vandalism (3), theft (5), involvement with police (2). <i>ALL</i> ; <i>SRQ</i> : <i>Questions part of Monitoring the Future (Bachman et al, 1987) Yes/no; never, once, more than once.</i>	<u>Individual</u> : loneliness, self-esteem, anxiety, depressed mood, suicide attempt <u>School</u> : concentration problems, learning problems.
51)	Neemann, J., Hubbard, J. & Masten, A.S. (1995)	Longitudinal: N= T1: 205, T2: 176, T3: 202 Age: T1; 8-12, T2; 14-19, T3; 17-23 yrs Gender: M+F Origin:	<u>Rule/law breaking behaviour</u> : <i>SRQ/PRQ</i> ; 1 item: seriousness of subject's trouble with the law. <i>SRI</i> , 5 items; gets in trouble with teachers and other authority figures. <i>PRI</i> , 3 items; global quality of disruptive-aggressive behaviour.	<u>Individual</u> : IQ, childhood problem behaviour <u>Peers</u> : Romantic relationships, <u>Social competence</u> : social acceptance, close friendships, negative and positive nominations. <u>School</u> : Academic competence: achievement, GPA <u>Other</u> : Job competence.
52)	Bankston, C.L. (1995)	N=402 Grade: 9 th -12 th grade Gender: M+F Origin: Vietnamese community in New Orleans, USA	<u>Substance abuse</u> : <i>SRQ</i> : alcohol: how many times been drunk; drug use: how many times used drugs	<u>Individual</u> : Language use, self-identification, endogamy (want to marry someone of same ethnicity), <u>Family</u> : Family structure, involvement of parents in education, <u>Peers</u> : Substance abuse of friends <u>Other</u> : participation in religious institutions
53)	Pakiz, B., Reinherz, H.Z. & Frost, A.K. (1992)	N=404 Age= 13-16 yrs, Gender: M+F Origin: USA	<u>Problem Behaviour</u> : <i>SRQ</i> : <i>YRS</i> (delinquent, aggressive, social problems). <i>PRQ</i> : <i>Child and Adolescent Adjustment Profile (CAAP; Ellsworth, 1977)</i> ; peer problems, dependency, hostility, productivity, withdrawal.	<u>Individual</u> : depressive symptoms, global self-perception, negative life-events. <u>Family</u> : family cohesion, social support
54)	Hawkins, W.E., Hawkins, M.J. & Seeley, J. (1992)	N=1056 Age: sophomores - seniors Gender: M+F	<u>Problem behaviour</u> : <i>SRQ</i> , 9 items, from <i>Health Behaviour Index (Jessor, Donovan & Costa, 1991)</i> : drive and drink, ride with drinking driver, sexual intercourse, physical fighting, carrying weapon, drinking alcohol, smoking, use marijuana/hashish, use hard drugs.	<u>Individual</u> : Subjective quality of life, health behaviour. <u>Family</u> : Socio demographic characteristics

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
		Origin: USA		
55)*	Mortimer, J.T., Finch, M., Shanahan, M. & Ryo, S. (1992).	N= 1001 Grade: 9 th Gender: M+ F Origin: USA	<u>Substance abuse</u> : SRQ, 2 items: how often drank alcohol, smoked cigarettes during past 30 days. <u>School Problem behaviour</u> : SRQ, 2 items, how often gotten into trouble for misbehaviour or breaking school rules, been sent to principal's office.	<u>Individual</u> : depression, self-derogation, external control, internal control, well-being, self-esteem, self-direction, role strain, <u>School</u> : school connections <u>Other</u> : work stress, predictability, innovative thinking, responsibility, job skill, job security
56)	Arnett, J. (1991)	N=245 MA= boys; 17.2 yrs, girls; 6.5 yrs. Origin: USA.	<u>Reckless behaviour</u> : SRQ, 11 items; frequency; 5, 6 or 7-point scale not at all- more than 10 times/ more than 20 times/ more than 50 times.: risk driving (4), sexual behaviour (2), drug use (3), shoplifting (1), vandalism (1).	<u>Individual</u> : Heavy metal music, self esteem, sensation seeking, sexual attitude. <u>Family</u> : relationship <u>Peer</u> : social relationships
57)	Rapoport, T. (1991)	N=220 Grade: 8 th -10 th Gender: M+F Origin: Israel	<u>Deviation</u> : SRQ, developed by Rapoport: 4 items; 1= a very large extent-6=very little extent. Breaking rules at home, lie to get things done, do things family is opposed to, do thing at home considered not all right	<u>Family</u> : Openness, control.
58)*	Cochran, M. & Bo, I. (1989).	N=92 Age: 16 yrs Gender: M Origin: Norway	<u>Criminal behaviour</u> : SRQ: part of the Background, attitudes and Behaviour Questionnaire, 13 ratings derived from Stangeland & Hauge, 1974: joy riding, theft, destruction of property <u>Alcohol use</u> : SRQ; part of BAB <u>School truancy</u> : TRQ; The School Rating Scale (no reference); 2 teachers. <u>Social behaviour</u> : TRQ SRS: discipline, general conduct, class conduct, social risk, disruptive behaviour.	<u>Individual</u> : attitude toward drugs, norm dilemmas, independence, social behaviour <u>Family</u> : SES, time with parents <u>Peers</u> : size of network, time spent with peers, <u>School</u> : achievement, motivation <u>Other</u> : risk level
59)	Gidycz, C.A. & Koss, M.P. (1989)	M=67 MA = 15.9 yrs Gender: F Origin: USA	<u>Behavioural deviancy</u> : SRQ, Asocial Index of the Jesness Inventory (Jesness, 1983) 155 items, true/false.	<u>Individual</u> : Depression, anxiety, sexual victimization, religion
60)	Osgood, D.W., Johnston, L.D., O'Malley, P.M. & Bachman, J.G.	Longitudinal design, three times. N=975 Age: 18-22 yrs. Gender: M+F	<u>Deviance</u> : SRQ: Heavy alcohol use (past two weeks, 0-5; 10 or more), marihuana use (0-9; 40 times or more during the last 12 months), use of other illicit drugs (same as marijuana), dangerous driving (sum of reports of traffic tickets and accidents, 0-4; 4 or more), and criminal behaviour (14 items, adaptation of Gold, 1970,	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(1988)		Origin: USA	0-4 = five times or more: interpersonal aggression, theft and vandalism.	
61) LeCroy, C.W. (1988)	N=85 Age: 15-19 yrs Gender: M+F Origin: USA	<u>Problem behaviour</u> : SRQ: based on Gold (1970):, frequency of involvement (i.e. hit parents, skip school, use drugs)	<u>Individual</u> : Self-esteem <u>Family</u> : Intimacy with parents	
62)* Kulka, R.A., Kahle, L.R. & Klingel, D.M. (1982)	N= 250 Grade: 8-12 Gender: M Origin: USA Longitudinal	<u>School misbehaviour</u> : SRQ: aggression against students (2 items), aggression against teachers (6), breaks school rules (1), school deviance (engagement in aggressive or rebellious behaviour in school (1)	<u>Individual</u> : self-esteem, role self-concept, change physical self, social exploration, change self as student, locus of control, dissatisfaction with self. <u>School</u> : attitudes toward school, involvement in school activities.	
63) Szatmari, P., Reitsma, S.M. & Offord, D.R. (1986)	N=71 pairs of sibling, with or without complications in pregnancy and birth. Age: ? Gender: M+F Origin: Canada	<u>Antisocial behaviour</u> : ?? Composite score of severity.	<u>Individual</u> : Birth complication, number of medical problems and hospitalization, psychiatric diagnosis of drug, alcohol abuse or depression, temperament, <u>School</u> : Performance, achievement.	
64) Rodgers, J.L., Billy, J.O. & Udry, J.R. (1984)	Longitudinal. N= T1: 504, T2: 408. Grade: 8 th -10 th . Gender: M+F Origin: USA	<u>Deviant behaviour</u> : SRQ: yes/no, 5 items; Sex, drinking, smoking, driving, cheating	<u>Peers</u> : Choice of friendship <u>School</u> : Grade	
65* Barbrack, C.R. & Mahler, C.A. (1984)	N=72 Grade: 9-12 Gender: M+F. Origin: USA	<u>Conduct problems</u> : SRQ/TRQ; By counsellor and pupil answered the degree of attainment of these goals: 1-5 (much less then expected- much more than expected). School attendance, completion of assignment, appropriate school behaviour.	<u>Individual</u> : pupil perception of goal attainment <u>School</u> : satisfaction with counselling	
66)* Hundleby, J.D., Carpenter, R.A., Ross, R.A. &	N=100 Grade: 9 th Gender: M+F Origin: Canada	<u>Substance abuse</u> : alcohol, tobacco, pain-killers, marihuana and other drugs <u>Sexual behaviour</u> , (5): heavy petting, dating, sexual intercourse, long talks on telephone with opposite sex, stayed out late without	<u>Individual</u> : social behaviour <u>Family</u> : Domestic behaviour, communication and contemplation, family excursions <u>Peer</u> : Social leadership,	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Mercer, G.W. (1982)		permission. <u>General delinquency</u> (5). ran away from home, took something, involved with police, frequency of times seeing the same movie, gotten into a fist fight. <u>School misbehaviour</u> (6) (tardiness in getting to school, seen principal for causing trouble, stayed out late without permission, sneaked into a movie without paying, given fake excuse for being absent, deliberately torn or marked up a library book. <i>All SRQ based on Activity Checklist (Hundleby), General Deviant Behaviour Scale (Jessor 1969), scale by Witt (1971); frequency of occurrence during pas year/average a week</i>	<u>School</u>: Academic achievement, studying/reading <u>Other</u>: outdoor team sports, musical/cultural behaviour, outdoor individual behaviour, part-time employment, religious behaviour, club activities
67)*	Ghodsian, M., Fogelman, K., Lambert, L. & Tibbenham, A. (1980)	Longitudinal design N=7144/ 9862 Age: T1; 7, T2; 11, T3; 16. Gender: M+F Origin: Great Britain	<u>Antisocial behaviour</u>: PRQ; Rutter Home Behaviour Scale (Rutter et al 1970). TRQ: Rutter School Behaviour Scale (Rutter, 1967).	<u>Individual</u>: antisocial behaviour at age 7 and 11. <u>Family</u>: social class, sex, family size, birth order,
68)	Norris, T.D. & Dodder, R.A. (1979)	N= 53 male delinquent, 298 students (M+F) Age: high school Origin: USA	<u>Delinquency</u>: SRQ: 14 items, Modified version of the Self reported delinquency scale devised by J. Short & I. Nye (1958).	<u>Individual</u>: Normative orientation on 13 antisocial behaviours: from disobeying parents to killing someone.
69)	Rathus, S.A., Fichner-Rathus, L. & Siegel, L.J. (1977)	N= 296 Age: senior high school Gender: M Origin: USA	<u>Antisocial behaviours</u>: SRQ: 29 items Frequencies 0-9, based on Gold (1970). I.e., stealing, damaging, alcohol use, fighting, knife, weapon, gambling, drugs, cheating, talking back to a teacher, cutting class	<u>Individual</u>: Attitudes toward themselves and parents, heroin abuser/non abuser
70)*	Storvoll, E.E. & Wichstrom, L. (2002)	N=12287 students Gender: M+F Grades: 7-12. Origin: Norwegian	<u>Conduct problems</u> SRQ: selected from Olweus' scale of antisocial behaviour (1989) and National Youth Longitudinal Study (Windle, 1990) frequency during the past 12 months, 1= never-6=more than 50 times.: theft and vandalism (6 items), school opposition (4; sworn, quarrel with teacher, sent out of class, summoned principal), covert behaviour (3; truant, staying away at night, travelled without paying)	<u>Individual</u>: Pubertal timing, <u>Family</u>: Attachment, substance use, activities with family <u>Peer</u>: Influence, activities with friends <u>School</u>: Grades, time spent on homework. <u>Other</u>: leisure activities.
71)*	Ellickson, P.L.,	Longitudinal: N=4327	<u>Problem behaviour</u>: Stealing, drug selling, predatory violence, relational violence, felonies, early parenthood, early pregnancy.	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Tucker, J.A. & Klein, D.J. (2001)	Gender: M+F Grade: T1: 7 th , T2: 12 th Origin: USA	<u>Academic problems</u> : skipped school or been sent out of class for causing trouble more than once in the last year, missed more than 5 days during current academic year, earned grades of c or worse, ever repeated a grade. Suspended or dropped out of school. <u>Substance abuse</u> : Smoking, substance use, weekly marijuana use, weekly alcohol use, weekly marijuana and alcohol use, binge drinking, hard drug use (ever). Polydrug use, experiencing problems because of one's drug or alcohol use, alcohol abuse. <i>ALL: SRQ</i>	
72)*	Kaltiala-Heino, R., Rimplela, M., Rantanen, P. & Rimpela, A. (2000)	N T1: 17.643, T2: 8787. Gender: M+F Grade: 8 th , 9 th Origin: Finnish	<u>Bullying</u> : <i>SRQ; derived from a WHO youth health study (King, 1996) 1=not at all- 4=many times a week. 'Bullies others'.</i> <u>Substance abuse</u> . <i>SRQ; Excessive drinking, (never/once/2-3/4-10/more than 10 times) and other substance use (never/once/2-4-/5 or more).</i> <u>Eating disorder</u> : <i>SR; questionnaire according to criteria DSM-III-R.</i>	<u>Individual</u> : Depressive symptoms, anxiety, psychosomatic symptoms, multiple mental health problems, being bullied
73)*	Kumpulainen, K. (2000)	N= T1: 1128, T2: 1111 Gender: M+F Age T1=12, T2=15 Origin: Finnish	<u>Problem Behaviour</u> : <i>PRQ; Rutter A2, TRQ; Rutter B2.</i> Hyperactivity (3), externalizing (7), internalizing (5), relationship (5) and psychosomatic (4). <u>Substance abuse</u> : <i>SRQ: Shortened version used in the European School Survey Project on Alcohol and Other Drugs: (Ahlstrom et. al., 1997; Hibell et al., 1997) Alcohol and drugs.</i>	<u>Individual</u> : depression <u>Family</u> : SES, family structure.
74)	Wagner, B.M., Cole, R.E. & Schwartzman, P. (1996)	N=1050 Grade: 7 th -12 th Gender: M+F Origin: USA.	<u>Alcohol and drug abuse</u> : <i>SRQ; statements from Ontario County Youth Counselling Student Survey (Ontario County Youth Services, 1980). Frequency of alcohol and drug use: Yes/no;</i> <u>Conduct problems</u> : <i>items from Self-Report Delinquency measure of Elliott & Ageton (1980). 8 items; yes/no of lifetime occurrence.</i>	<u>Individual</u> : Depressive symptoms, suicide attempt, worries about alcohol abuse <u>Family</u> : problems in relationship due to alcohol <u>Peer</u> : problems in relationship due to alcohol <u>School</u> : problems at school due to alcohol
75)	Moncher, F.J. & Miller, G.E. (1999)	N=167, Age: 10-15 yrs Gender: M+F Origin: USA	<u>Stealing Behaviour</u> : <i>SRQ: 8 items, 5-point Likert scale (never to ten times or more) (i.e., taken things without permission.).</i>	<u>Individual</u> : reasons for stealing, attitude toward parents <u>School</u> : Attitudes toward school
76)*	Gruber, E. & Machamer, A.M.	N=6224 Gender: M+F Grade: 9 th , 12 th	<u>School Behaviour</u> : skipping school, using alcohol or marijuana during or before school hours, purchasing alcohol or drugs on campus. Missing school due to substance use.	<u>School</u> : Grade level, average grades

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(2000)		Origin: USA	<u>Health risks behaviours</u> : delinquency (vandalism, assault), sexual activity (sexual intercourse, drinking before sex), other substance use (tobacco, inhalants, speed sedatives, cocaine, crack). Suicidality (suicidal thought, attempt), drinking & driving. <i>All: SRQ; derived from Minnesota Student Survey (freq.: none, 1-2, 3 or more)</i>	
77)* Lotz, R. & Lee, L. (1999)	N= 2772 Gender: M+F Age: 18/ 19 yrs Origin: USA	<u>Delinquency</u> : property crime, violent crime, vandalism, <u>Substance use</u> : smoking, marijuana, drinking <u>Truancy</u> : number of schooldays skipped, number of classes skipped during the past month <i>All: SRQ; part of Michigan Survey Research Center's Monitoring the Future for 1993</i>	<u>Individual</u> : self-image <u>Family</u> : social class of parents, <u>Peers</u> : Evenings going out for fun, riding around in a car or motorcycle for fun, getting together with friends, attending parties <u>School</u> : Self rated ability, school grades, liking of school, fairness of school rules, school experience	
78)* Carson, D.K., Chowdhury, A., Perry, C.K. & Pati, C. (1999)	N= 107 Gender: M Age: 12-16 yrs Origin: India	<u>Antisocial behaviour TRQ</u> ; <i>The SSBS (33 items) (Merrell, 1993) 5 point Likert scale, designed for school setting</i> : Hostile-Irritable, Antisocial Aggressive, Disruptive-Demanding. (I.e. Blames other students for problems. (b) Defies teacher or other school personnel, (c) Gets into fights, (d) Argues and quarrels with peers, (e) Whines and complains, (f) Disrupts ongoing activities).	<u>Individual</u> : social competence, interpersonal skills, self-management <u>Family</u> : SES, parent-adolescent communication, family relation, family adaptability and cohesion, family functioning, demographics <u>School</u> : academic skills.	
79) Younnis, J., McLellan, J.A., Su, Y. & Yates, M. (1999)	N=16.800 Age: High school Seniors Gender: M+F Origin: USA	<u>Marijuana use</u> : <i>SRQ; 1 item, zero, 1-2, 3-19, 20 or more, derived from Monitoring the Future.</i> : number of occasions used marijuana of hash in previous 12 months	<u>Family</u> : parents' education. <u>School</u> : activities <u>Other</u> : activities (sport, solitary, arts fun), community service, political behaviour membership religious denomination, part time work	
80) Nurco, D.N., Blatchley, R.J., Hanlon, T.E. & O'Grady, K.E. (1999)	N=285 of narcotic parents Age: 12-17 yrs Gender: M+F Origin: USA	<u>Substance abuse</u> : <i>SRI; yes/no, frequency, age of onset</i> : inhalants, marijuana, PCP, hallucinogens, stimulants, cocaine, barbiturates, sedatives, narcotics. <u>Alcohol use</u> : <i>SR; yes/no, frequency during the last 12 months, intoxication</i>	<u>Individual</u> : Early deviance (to 11 yrs), psychological status <u>Family</u> : Structure, home atmosphere <u>Peer</u> : deviance	
81)	Longitudinal:	<u>Antisocial behaviour</u> : (4 items) "Do you get a real kick out of doing	<u>Individual</u> : Dieting, injuries, self-esteem,	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Stinchfield, R., Cassuto, N., Winters, K. & Latimer, W. (1997)	N= T1: 122.700, T2: 75.900 Grade: 6,9,12 th Gender: M+F Origin USA	things that are a little dangerous?"Damaged or destroyed property, beat up another person, taken something from a store without paying for it?" <u>Suicidal behaviour, gambling behaviour (6 items)</u> <u>Substance abuse</u> : alcohol/drug use behaviours <i>All: SRQ, frequency, part of: The Minnesota Student Survey (MSS)</i>	dating violence pregnancy, emotional distress, sources of worries, sources of happiness, sexual behaviour, <u>Family</u> : Demographics, family relationships, family alcohol/drug problems, physical/sexual abuse, communication with parents <u>School</u> : school problems
82)	Pakiz, B., Reinherz, H.Z. & Giaconia, R.M. (1997)	Longitudinal design: N= 375 Age: T1: 5, T2: 6, T3: 9, T4: 15, T5: 18, T6: 21 yrs Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : <i>SRI: DIS-III-R: diagnostic interview</i> : illegal occupations (handling stolen goods, dealing drugs), financial irresponsibility, overt aggression). <i>SRQ; YSR.</i>	<u>Individual</u> : Childhood hyperactivity-hostility, self-esteem, need for social support and assistance <u>Family</u> : Socio-economic deprivation, parental abuse or incarceration, parental divorce, history of family sexual abuse <u>School</u> : School suspension
83)	Trommsdorff, G. & Kornadt, H.J. (1995)	N=140 Age: 16 yrs Gender: M+F Origin: Germany	<u>Aggression</u> : <i>SR; Semiprojective test (A-TAT) (Kornadt, 1982). 8 picture stories, SRQ SAS (Kornadts, 1982), 52 items; aggression (27), aggression inhibition (12), neutral items (13)</i>	<u>Individual</u> : Prosocial tendencies, level of socialization, altruism and aggression
84)	Kosson, D.S., Steuerwald, B.L., Newman, J.P. & Widom, C.S. (1994)	N= 306 Age: 15-58 Gender: M+F Origin: USA	<u>Antisocial activity</u> : <i>SRQ: 5 items, none, 1 time, 2-5 times, more than 5 times: stealing, physical fights, vandalism, arrests, Substance use SRQ; 9 items, never, occasionally, frequently. Have you ever used marijuana, heroin barbiturates, cocaine, stimulants, hallucinogens, alcohol</i>	<u>Family</u> : Family conflict, <u>Other</u> : Geographical regions.
85)	Sosin, D.M., Koepsell, T.D., Rivara, F.P. & Mercy, J.A. (1995)	N=11.631 Grade: 9-12 th Gender: M+F Origin: USA	<u>Problem Behaviour</u> : <i>SRQ, 5 point Likert scale, frequency, later dichotomized, part of the National Youth Risk Behaviour Questionnaire, 1990. Use cocaine, sexual partners, unprotected sex, fight with injury, suicide attempt, drunk driving, carrying fire arm.</i>	<u>Individual</u> : health related knowledge, attitudes.
86)	Barnea, Z., Teichman, M. &	1) 97 juvenile delinquents 2) 184 detached	<u>Substance use</u> : <i>SRQ: Based on Kandel et al. (1981) and Shoham et. Al. (1980), freq. during the last year, month, week; several examples of drugs, e.g. cigarettes, alcohol, medication, hashish,</i>	<u>Individual</u> : sensation seeking, anxiety, depressive mood, learned resourcefulness. <u>Family</u> : perceived closeness to parents

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Rahav, G. (1993)	respondents 3) 8151 students. Age: 12-18 Gender: M+F Israel	cocaine	<u>Peers</u> : perceived closeness to peers.
87)	Tanner, J. & Krahn, H. (1991)	Longitudinal, 5- waves, N=2229 Age: one month before- 4 yrs after graduation. Gender: M+F Origin: Canada.	<u>Deviant activity</u> : SRQ: 1 item: freq. never, seldom, sometimes, often, very often. Involvement illegal activities. <u>Substance abuse</u> : SRQ: adapted from Hindelang et al. (1982: 223). Never, less than once a month, one or twice a month, once a week, more than once a week, daily Frequency of alcohol and drug use.	<u>Individual</u> : formal deterrence <u>Family</u> : parental control, financial situation. <u>Peers</u> : involvement in deviant activity. <u>School</u> : commitment, educational expectations <u>Other</u> : Work activity, church attendance.
88)	Rotheram-Borus, M.J. (1989)	N=330 Grade: 9-10 th Gender: M+F Origin: USA	<u>Behaviour problems</u> : SRQ: YSR	<u>Individual</u> : Identity status, ethnic status, self esteem <u>Family</u> : SES
89)	Dukes, R.L. & Lorch, B.D. (1989)	N=6428 Grade: 7-12 th Gender: M+F Origin: USA	<u>Substance abuse</u> : Alcohol use (3 items), drug use (5 items). <u>Eating disorder</u> (3 items), <u>Delinquency</u> (6 items). All SRQ, frequency during the last 12 months.	<u>Individual</u> : Suicide ideation, self esteem, self confidence, purpose in life <u>Family</u> : Emotional and ideological disparity with parents. <u>School</u> : Disparity between importance placed on achievement and satisfaction with achievement
90)	Richman, C.L., Brown, K.P. & Clar, M.L. (1984)	N = 195 Grade: 11 th , 12 th Gender: M+F Origin: USA	<u>Maladaptive behaviour</u> : SR; Depression Adjective Checklist (Lubin, 1967): 32 adjectives. & part of the Psychological Screening Inventory (Lanyon, 1973) <u>Social nonconformity</u> : SRQ, Social Nonconformity, Lanyon, 1973: disregard for the law, discipline problems, impulsivity, acting out, psychopathic behaviour	<u>Individual</u> : Self-esteem, dissatisfaction, depression, discomfort <u>Family</u> : Social class
91)	Foney, D.M. & Cunningham, M.	N=88 Age: 14-18 yrs, Gender: M+F	<u>Fighting</u> : SRQ: 3 items: never-more than 5 times. Group fighting, hurting someone badly, using a weapon to get something done.	<u>Individual</u> : Hassles. <u>Family</u> : home atmosphere, hassles. <u>School</u> : school support.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(2002)		Origin: African American. USA.		<u>Other</u> : neighbourhood danger.
92)*	Cunningham, P.B., Henggeler, S.W., Limber, S.P., Melton, G.B. & Nation, M.A. (2000)	N= 6263 Gender: M+F Age: 9-16 yrs Origin: USA	<u>Bullying</u> : SRQ: <i>Questionnaire for Students</i> (D. Olweus, 1995): <i>Part A</i>): bullying others (4), bullying teachers (2). <i>Part B</i>): <u>school misbehaviour</u> (8), <u>substance abuse</u> (5), <u>theft</u> (8), <u>vandalism</u> (3), <u>violence</u> (4)	<u>Individual</u> : Being bullied, opposing bullying, stop bullying <u>Peers</u> : associations with deviant peers, social isolation <u>School</u> : Prevalence of bullying, school sanctions
93)	Dishion, T.J. (2000)	N=224 Age: T1;11, T2; 14 Gender: M+F Origin: USA	<u>Problem Behaviour</u> : PRQ/TRQ: CBCL: Internalising, externalising. <i>Parental interview, arrest records.</i> <u>Substance use</u> : SRQ: use of marijuana, alcohol, tobacco during previous year <u>Sexual promiscuity</u> SRQ	<u>Peers</u> : Engagement in deviant peer group, peer adjustment
94)	Dishion, T.J., Capaldi, D., Spracklen, K.M. & Li, F. (1995)	N= 206 Grade: T1; 4, T2; 12, Gender: M Origin: USA	<u>Substance abuse</u> : SRI, 3 items i.e., how often in the last year have you used marijuana. SRtelephonicl, 4 items, i.e., in the last three days have you used tobacco? PRQ/TRQ: 1 item of the CBCL (uses drugs). PRI, 4 items, i.e., in the last three days has your son used tobacco?	<u>Individual</u> : antisocial behaviour at earlier age (9-14), <u>Family</u> : Monitoring and discipline. <u>Peer</u> : Peer relations, deviant peers
95)	Capaldi, D.M. & Patterson, G.R. (1996)	N=206 Grade: Longitudinal, grade 7 – grade11. Gender: M Origin: USA	<u>Delinquency</u> : SRI, Elliott, Ageton, Huizinga, Knowles, & Canter, 1983, 0 =0 times- 10=250 times or more.: index violent crimes (6 items; attacked someone with the idea of seriously hurting the person), index non-violent crimes (5, stole or tried to steal a motor vehicle), nonindex violent crimes (5, hit or threatened to hit a teacher or other school staff), nonindex non-violent crimes (28, bought or provided liquor for a minor).	<u>Individual</u> : Childhood antisocial behaviour, self esteem, child depression <u>Family</u> : Monitoring and discipline. <u>Peers</u> : Peer relations, deviant peer association <u>School</u> : Academic achievement
96)	DeBaryshe, B.D., Patterson, G.R. & Capaldi, D.M. (1993)	N=206 Grade: Longitudinal study: 1 st - 8 th Gender: M Origin: USA	<u>Antisocial behaviour</u> : PR: 59 items from CBCL, Overt-covert activities questionnaire (OCAQ: Oregon social learning centre), daily telephone survey (i.e. how often son loses temper, steal, lies). TR: 19 items from TRF, OCAQ, 1 item from a peer risk survey designed for this study. (i.e. how often boy is defiant, disobedient, bullied peers). SR: Child reported in interview (33 items), daily interview (8items) (i.e. how often do you fight, cheat, sneak into building),	<u>Family</u> : Parent academic achievement, ineffective discipline, <u>School</u> : Academic engagement.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
			<i>rating by the interviewer on the likelihood of the boy getting into trouble with the police. Home observations.</i>	
97)	Li, F., Duncan, T.E. & Hops, H. (2001)	N=179 Grade: longitudinal; 6 th - 12 th Gender: M+F Origin: USA.	<u>Alcohol use</u> : SRQ. Frequency 5 point scale: never- current use of 30 or more times a month. (Duncan & Duncan, 1994). <u>Deviant behaviour</u> : SRQ. Sum of 10 items; taken from Jessor & Jessor, 1977. 1=never, 6=10 times or more. (i.e. lying to parents, violence, theft) <u>Substance use</u> : SRQ, frequency during the past 6 months, from 0 =never-41 more than 40 times. Cigarettes and marijuana,	<u>Family</u> : Parent marital status, parent disapproval of alcohol use. <u>Peers</u> : peer encouragement of alcohol use.
98)	Barrera, M. jr., Briglan, A., Ary, D. & Li, F. (2001)	N=1450 Grade: 7 th Gender: M+F Origin: USA (Caucasian, Hispanic, American Indian).	<u>Antisocial behaviour</u> : SRQ: 6 items (stealing, damaging property, truancy; 2 items each). <u>Substance use</u> : SRQ: 3 items freq. during the past months. Alcohol, cigarettes, marijuana	<u>Family</u> : family conflict, family relations, parental monitoring <u>Peers</u> : association with deviant peers <u>School</u> : performance
99)	Thornberry, T.P., Freeman-Gallan, A., Lizotte, A.J., Krohn, M.D. & Smith, C.A. (2003)	N=1000 Age: Longitudinal 13,5 -22 yrs. Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : SRQ, 24 items, <i>If and how often they had done each behaviour during the past 6 months</i> . Minor offenses like status offenses, vandalism, and petty theft, to serious crimes like burglary, aggravated assault, and robbery.	<u>Individual</u> : Early antisocial behaviour, financial stress <u>Family</u> : Poverty, affective ties to parents, consistency of discipline.
100)	Lewin, L.M., Davis, B. & Hops, H. (1999)	N=T1; 400, T2; 314 Grade: T1; 2 nd -5 th , T2: 9-10 th Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : SRI: <i>Elliot Delinquency Scale (EDS; Elliott, Ageton, Huizinga, Knowles, & Canter, 1983). 23 items, 6 point frequency scale (0=never to 5= +10 times). Data obtained from juvenile authorities. MRQ: CBCL</i>	<u>Individual</u> : Affective disorders, schizophrenia, prosocial behaviour, childhood antisocial behaviour. <u>Peers</u> : Social preference, popularity, peer interaction at school. <u>School</u> : Reading performance
101)	Simons, R.L., Johnson, C., Conger, R.D. &	N=179 MA= Longitudinal: T1; 12.5 yrs, T3; 14,5.	<u>Oppositional/defiant behaviour</u> : PRQ: 21 items from <i>Revised Behaviour Problem Checklist (Quay & Peterson, 1983). (0=no problem- 3 = severe problem)</i> (i.e. temper tantrums, non-compliance, selfishness, bullying, showing off, talking back,	<u>Family</u> : Quality of parenting, <u>Peers</u> : Affiliation with deviant peers <u>School</u> : Commitment

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Elder, G.H.jr. (1998)	Gender: M USA Origin: USA	bragging, fighting, cruelty). <i>Videotapes</i> : (1 =no sign- 5= frequently of behaviours, coders rating; the extent to which the adolescent actively resists, defies, or is inconsiderate of others by being noncompliant, insensitive, or obnoxious <u>Conduct Problems</u> : <i>SRI</i> ; (Elliott et al 1985, adapted from NYS). 23 delinquent activities (0=never- 4= 6 or more times). <u>Substance use</u> SR: Elliott et al 1985, 16 items, (0= never- 4 3 times or more per week	
102)	Krohn, M.D., Skinner, W.F., Zielinski, M. & Naughton, M. (1989)	Longitudinal N=131 - 471 Grade: 7-12 th Gender: M+F Origin: USA	<u>Cigarette smoking SRQ</u> , 1=never-6= every day)	<u>Individual</u> : Normative beliefs <u>Family</u> : Attachment to parents <u>Peers</u> : association with deviant friends <u>School</u> : Commitment to school
103)	Smith, C.A., Krohn, M.D., Lizotte, A.J., Perez Cluskey, C., Stouthamer- Loeber, M & Weiher, A. (2000)	Longitudinal, 5 waves, N=1533 Age: 13,2 – 17,5 yrs. Gender: M Origin: USA	<u>Delinquency & substance use</u> : <i>SRI</i> , 31 items, yes/no. (I.e. status, property, violent, public order offences/ alcohol, marijuana, crack, cocaine, hallucinogens, tranquilizers, amphetamines, barbiturates).	<u>Individual</u> : (causing) pregnancy, <u>Family</u> : leaving parental home, family structure, SES, attachment to parents <u>School</u> : drop-out, school commitment.
104)	Lanctot, N. & Smith, C. (2001)	N=196 Age: T1; 14, T2; 17.3 yrs Gender: F Origin: African- American , USA	<u>Substance use</u> : <i>SRI</i> , yes/no, Drinking beer or wine, drinking hard liquor, and using marijuana <u>Status offences</u> : <i>SRI</i> , 3 items: running away from home, skipping classes, and lying about age.	<u>Individual</u> : Early sexual activity, adolescent pregnancy, early deviance, internalizing problems, self-esteem, delinquency beliefs, depression <u>Family</u> : Structural position, family stress, social bonds, deviant influences. <u>Other</u> : Area poverty, arrest rate
105)	Jang, S.J. & Smith, C.A. (1997)	N= 838 Grade: T1; 8, T3; 10 Gender: M+F Origin: USA	<u>Delinquency</u> : <i>SRI</i> : 25 items in interview, total frequency per type: violence (6), property offences (14), public disorder offences (5).	<u>Family</u> : Affective ties to parent, parental supervision, social class, family structure

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
106)	Zhang, Q., Loeber, R. & Stouthamer- Loeber, M. (1997)	Longitudinal; 4 yrs N= 1517; 3 cohorts Age: 7-16 yrs Gender: M Origin: USA	<u>Delinquency</u> : SRI; 36 items from National Youth Survey (Elliott et al. 1985). <i>Whether/ how many times during the last 6 months.</i> i.e., running away from home, skipping school, vandalism, theft. SRA, 32 items (Loeber et al 1989): <i>How often during the last 6 months, once, twice, more.</i> Similar questions as NYS, but tailored to youngest sample.	<u>Individual</u> : Attitude toward delinquency
107)*	Jang, S.J (2002)	N= 18.132 Gender: M+F Grade: 10 th Origin: Asian/ non-Asian, USA.	<u>Deviant Behaviour</u> : SRQ, 10 items: parents received a warning about my attendance, parents received a warning about my behaviour, I got into a physical fight at school. (<i>never, once or twice; more than twice</i>) I was late for school, I cut/skipped classes, I got in trouble for not following school rules, I was put on in-school suspension, I was suspended or put on probation from school, I was transferred to another school for disciplinary reasons, I was arrested (<i>never, 1-2, 3-6, 7-9, over 10 times</i>), ran away from home for a week or more at any time during the last 2 years, (<i>yes/no</i>)	<u>Individual</u> : Attitude toward deviant behaviour. <u>Family</u> : number of children, marital harmony, parental trust, affective ties, close communication, monitoring. <u>Peer</u> : Attitudes of friends toward school. <u>School</u> : School size, (non)public/ (non)urban, attachment to school, grades, educational expectation, time spent on homework.
108)*	Farrington, D.P. (1990)	N= 411 Gender: M Age: longitudinal from 8 to 32. Origin: Great Brittan	<u>School misbehaviour</u> : TRQ: troublesome and aggressive school behaviour, attention difficulties, school attainments, truancy. <u>Peer RQ</u> : daring, dishonesty, troublesomeness, popularity. <u>Antisocial tendencies</u> : SRI (West & Farrington, 1977), 11 variables: job record, sexual activity, gambling, smoking, drinking and driving, hanging about on the street, involvement in gangs/ group violence/vandalism, high violence, anti-establishment attitudes, tattooed.	<u>Individual</u> : Intelligence, personality, psychomotor impulsivity, convictions. <u>Family</u> : Income, family size, child-rearing practice living circumstances, <u>Peers</u> : Relationships with females, leisure activities. <u>School</u> : attainment <u>Other</u> : employment history
109)	Fergusson, D.M., Swain-Campbell, N.R. & Horwood, L.J. (2002)	Longitudinal; annual N= 1063 Age: 14-21. Gender: M+F Origin: New Zealand	<u>Violent and property crime</u> : SRI: <i>Self Report of Early Delinquency Scale (SRED: Moffitt & Silva, 1988). Self-Report Delinquency Inventory (SRDI: Elliott & Huizinga, 1989). Frequency measure.</i> i.e. assault, fighting, theft. <u>Substance use</u> : SRI: <i>Rutgers Alcohol Problem Index (RAPI: White & Labouvie, 1989, Alcohol use and dependence. Composite International Diagnostic Inter-view (CIDI: World Health Organization, 1993.) Cannabis abuse, nicotine dependence</i>	<u>Individual</u> : Adverse life events <u>Family</u> : Leaving home <u>Peers</u> : Peer affiliation <u>School</u> : Age of leaving school <u>Other</u> : Unemployment
110)	Woodward, L.J., Fergusson, D.M.	Longitudinal; annual N=983 Age: 18-21.	<u>Violent and Property Offending</u> : SRI: SRDI ;(Elliott & Huizinga, 1989). 43 items, number of engagements in behaviours during past 12 months. e.g. fighting, force to rob, involvement in gang fight,	<u>Family</u> : Parental history of criminality, illicit drug use, changes in family, physical punishment, sexual abuse.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	& Horwood, L.J. (2002)	Gender: M+F Origin: New Zealand	vandalism, fire setting <u>Substance abuse</u> : <i>SRI: based on CIDI</i> ; alcohol, cannabis, other drug abuse/dependence.	<u>Peers</u> : Having a (deviant/non deviant, no) partner, involvement with deviant peers.
111)	Fergusson, D.M. & Lynskey, M.T. (1995)	Longitudinal: annual N=954 Age: 14-16 yrs Gender: M+F Origin: New Zealand	<u>Conduct/oppositional defiant disorder</u> : <i>PRQ: RBPC (Quay & Peterson, 1987). SRI: (SRED; Moffitt & Silva, 1988).</i>	<u>Individual</u> : Early onset of antisocial behaviour, sexual activity, police contact, unintentional and intentional injury, comorbid psychiatric disorder <u>Family</u> : Parental offending, substance use, interaction, child-rearing practices, family stability, conflict.
112)	Fergusson, D.M., Horwood, L.J. & Lynskey, M.T. (1994)	Longitudinal: annual N=739 Age: 0-15 yrs Gender: M+F Origin: New Zealand	<u>Conduct/oppositional disorder</u> : <i>PRQ; based on RBPC (Quay & Peterson, 1987 & SRED; Moffitt & Silva, 1988, SRI: based on DISC & SRED.</i> <u>Substance abuse</u> : <i>SRI, RAPI; during the preceding 12 months, PRQ.</i> Alcohol abuse. <i>SRI/PRQ</i> ; alcohol and cannabis use and abuse <u>Early sexual activity</u> : <i>SRI; preceding 12 months</i> ; engaged in sexual intercourse	
113)	Biron, L. & LeBlanc, M. (1977)	N=326 Age: 12-16 yrs Gender: M+F Origin: Canada	<u>Home based delinquency</u> <i>SRQ, 5 items, dichotomized items</i> : refusing to obey parents, running away from home, loaf or roam around at night, take money at home, spend the night outside home.	<u>Family</u> : Mother's employment, number of children, family cohesion, supervision, communication and identification.
114)*	French, D.C., Conrad, J. & Turner, T. M. (1995)	T1 N= 501, T2 N= 1082 (386 overlap) Gender: M+F Grade: T1: 8 th , T2: 10 th Origin: USA	<u>Problem behaviour</u> : <i>Peer R, 11 items, 4-point scale.</i> e.g. disrupts others, lies, often cheat in games or school work, <u>Substance abuse</u> : <i>SR</i> : tobacco use (4 items), alcohol use and level of intoxication (6 items) <u>School Behaviour</u> : <i>discipline records</i> : tardiness, gum chewing, insubordination, swearing, assault, vandalism, attendance	<u>Individual</u> : depression, physical attractiveness, <u>Peers</u> : Social status, Involvement with deviant peers, <u>School</u> : Achievement scores, athletic involvement
115)*	French, D.C., Conrad, J. (2001).	Two cohorts, 2 times: Ntotal= 516 8 th graders, 1157 10 th graders. Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : <i>peer R. 10 items 4-point scale.</i> E.g, starts fights, disrupts others, always in trouble, threatens others/bullies, annoys others, lies, blames others for mistakes, cheats, makes fun of others, tries to get others into trouble.	<u>Peers</u> : social preferences, <u>School</u> : School dropout, achievement

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
116)	Loeber, R., Wung, P., Keenan, K., Giroux, B. et-al. (1993)	N=T1; 508, T2; 506 MA=T1; 10,2; T2;13.4 Gender: M Origin: USA	<u>Delinquency</u> : <i>SRI; SRD (Elliott, Huizinga & Ageton, 1985) & SRA (Loeber, Stouthamer-Loeber, Van Kamen & Farrington, 1989), SRQ; YSR, SRI; DISC</i> E.g., authority conflict (stubborn, defiance, authority avoidance, lying). <i>PRQ; CBCL. Records of juvenile court</i>	<u>Individual</u> : Age of onset of disruptive behaviour.
117)	Fergusson, D.M., Lynskey, M.T. & Horwood, L.J. (1996)	Longitudinal. N=901 Age: 7- 16.yrs Gender: M+F Origin: New Zealand	<u>Conduct/oppositional disorder</u> <i>PRQ based on RBPC (Quay & Peterson, 1987) & SRED (Moffitt & Silva, 1988), SRI; SRED & DISC.</i>	<u>Individual</u> : Early Conduct problems, attention deficit, intelligence, self-esteem, police contact <u>Family</u> : Social position, family functioning. <u>Peers</u> : Peer affiliations <u>School</u> : Reading comprehension, word recognition
118)	Stouthamer- Loeber, M. & Loeber, R. (2002)	Longitudinal, 8 waves N= 506 Age: 13-18.5 yrs. Gender: M Origin: USA	<u>Delinquency</u> : <i>SRI: SRD (Elliott et al., 1985).</i> <u>Antisocial behaviour</u> : <i>SRQ; YSR, PRQ; CBCL, PRI; DISC, Juvenile court records</i>	<u>Individual</u> : received help for mental health problems. <u>School</u> : Received special education.
119)*	Broidy, L.M., Nagin, D.S., Tremblay, R.E., Bates, J.E., Brame, B., Dodge, K.A., Fergusson, D., Horwood, J.L., Loeber, R., Laird, R, Lynam, D.R., Moffitt, T.E., Pettit, G.S., Vitaro, F. (2003)	6 samples: I: N=2000 Gender: M+F Age: 6-12y Origin: Canada II: N=1037 Gender: M Age: 6-15 Origin: Canada III: N=1265 Gender: M +F Age: 0-13y, Origin: New Zealand IV: N=1037 Gender: M+F Age: 3-13y,	<u>Comorbid behaviour</u> : <i>SRQ; Social Behaviour Questionnaire, Tremblay et al., 1991; PRQ; Rutter child scales, CBCL. TRQ; TRF</i> <u>Disruptive Behaviour</u> : <i>TRQ; Physical aggression, opposition, hyperactivity, conduct problems, violent and non-violent delinquent outcomes.</i>	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
		Origin: New Zealand V: 1517 Gender: M Grade: 1, 4 or 7 th +12 yrs Origin: USA VI: N= 585 Gender: M+F Grades: 6-12 Origin: USA		
120)*	Graham, S. & Juvonen, J. (2002)	N=418 Gender: M+F Grades: 6 th and 7 th Origin: USA.	<u>Aggressiveness</u> : Peer R; 2 items, i.e. 'name 3 students you're your class that ...starts fights, pushes other kids around.	<u>Individual</u> : loneliness, social anxiety, self-esteem, being harassed <u>Peers</u> : popularity, acceptance, rejection.
121)	Laird, R.D., Pettit, G.S., Dodge, K.A. & Bates, J.E. (2003)	N=425 Grade: longitudinal 8 th -12 th Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : SRQ; YSR. PRQ; CBCL. Only delinquency scales	<u>Family</u> : Monitoring knowledge, enjoyment of Parent-child relationship, parental involvement, parental lack of follow through, adolescent's beliefs about parental knowledge.
122)*	Pope, A.W. & Bierman, K.L. (1999)	N=145 Grade: T1: 3-6 th ; T2: 7-10 th Gender: M Origin: USA	<u>Problem Behaviour</u> : <i>PeerR: Multidimensional Peer Rating Scale (Bierman, Morrison & Bitner, 1995). How much a statement characterizes a classmate: 3 point scale. Exhibits the behaviour rarely or not at all –a lot more than most kids his age. I.e., Aggressive, (starts fights) disruptive-hyperactive fidgets, overactive), withdrawn-internalizing (unhappy, shy), irritable-inattentive behaviour (complains, acts like a baby): Adolescent antisocial activities: peerR, 3 point scale: involvement in; stealing, vandalism, association with deviant peers, truancy, alcohol abuse.</i>	<u>Individual</u> : childhood problem behaviour <u>Peer</u> : peer relations (positive, prosocial, negative, ostracism).
123)*	Estell, D.B., Farmer, T.W., Cairns, B.D. & Clemmer, J.T.	N=345 Gender: M+F Grade: T1:6 th , T2: 7 th , T3: 8 th Origin: USA: African-	<u>Carrying weapons</u> : SRQ: ever carried a weapon to school? <u>Substance use</u> : SRQ; <i>Center for Substance Abuse Prevention questionnaire: Number of days in the last month and number of cigarettes, alcohol, marijuana, other</i> <u>Aggressiveness</u> : TRQ: <i>part of Interpersonal Competence Scale</i>	<u>Peers</u> : Peer group membership, social network popularity <u>School</u> : academic competence.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(2003)		American	(Cairns, Leung, Gest & Cairns, 1995) 7 point Likert scale. I.e., always argues, gets in trouble, always fights.	
124) Brownfield, D. (1987)		N>4000 Age: high school Gender: M Origin: USA	<u>Violent behaviour</u> : SRQ: 1 item, Yes/no: assault: not counting fights with your brother and sister have you ever hurt anyone or beaten up anyone on purpose?	<u>Family</u> : Family structure, father's employment status, identification with the father, punishment decision, father's ties with the family, sharing future plans/ thoughts and feelings with father
125) Ried, L.D. (1989)		N=860 Grade: 5 th -8 th Gender: M+F Origin: USA	<u>Substance use</u> : SRQ; 3 items, never (1)- every day (5) during current school year: cigarettes, gotten drunk, marijuana use, during current school year	<u>Individual</u> : drug attitude <u>Family</u> : parental attachment, normative expectation, non use reinforcement. <u>Peer</u> : peer attachment, normative expectations, drug use, non use reinforcement. <u>School</u> : attachment
126) Benda, B.B. (1997)		N=1093 Grade: 9-12. Gender: M+F Origin: USA.	<u>Substance use</u> SRQ; 7 items, 1=none- 5=12 days or more): alcohol use and abuse, marijuana, amphetamines, barbiturates, cocaine, opiates <u>Criminal behaviour</u> SRQ; 8 items, taken from Nye & Short, 1957. 1=never-4=very often. Theft (5), used force to get money, violence (2)	<u>Individual</u> : Excuses <u>Family</u> : Attachment, commitment, involvement, beliefs. <u>Peer</u> : peer association, <u>Other</u> : religiosity.
127) Goff, B.G. & Goddard, H.W. (1999)		N=685 MA = 16 yrs. Gender: M+F Origin: USA	<u>Delinquency</u> : SRQ; 17 items from Alabama Teen Assessment Program (never to four times or more) I.e., trouble at school (parents called, expulsion, truancy) <u>Substance use</u> : SRQ; 11 items, 1= never used-6= use every day. I.e. alcohol, tobacco.	<u>Individual</u> : Terminal core values, sexual behaviour
128)* Magnusson, D., Stattin, H. & Allen, V.L. (1985)		N= 466 Gender: F Grade: 8 th Origin: Sweden.	<u>Norm breaking behaviour</u> : SRQ: Magnusson, 1981; Frequency, 5 point Likert scale; never; once; 2-3; 4-10; more than 10. Norms at home (2 items) (ignore parent prohibitions), at school (2) (cheat, truancy), during leisure time (4) (smoking hash, drunk, loiter in town, pilfer from shop). <u>Alcohol use</u> : SRQ: 2 items; E.g., nr times been drunk,	<u>Individual</u> : age of menarche, adult alcohol use. <u>Peers</u> : expected peer sanctions, peer evaluation of deviant behaviour <u>School</u> : adult educational level.
129)		N=703	<u>Antisocial behaviour</u> : SRQ: 8 items, 5-point scale, never, 1, 2-3, 4-	<u>Family</u> : parental monitoring, parental trust,

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Mahoney, J.L. & Stattin, H. (2000)	Grade: 8 th Gender: M+F Origin: Sweden	10, 10 or more). Theft (2), alcohol, caught by police, vandalism, fight (2), skipped school	parental activity support, parental education. <u>Peer</u> : characteristics <u>Other</u> : activity leader support, activity involvement
130)	Mahoney, J.L. (2000)	Longitudinal; 2 cohorts N=695 Grade: T1; 4 th , 7 th -T2; 20/ 24 yrs. Gender: M+F Origin: USA	<u>Aggression</u> : SRQ/TRQ: Subscale from Interpersonal Competence Scale (Carins et al., 1995) (7 point scale representing polar opposite, 3 items: I.e., gets into trouble, gets into fights, argues. <u>Criminal offending</u> : arrest records, yes/no. I.e., homicide, rape, robbery, assault, burglary, theft, arson, fraud, vandalism, trespassing, sex offences, drug abuse violation, gambling, drunkenness, runaways.	<u>Individual</u> : Physical maturation, <u>Family</u> : SES, demographic information. <u>Peer</u> : social networks, popularity. <u>School</u> : Early school dropout, extracurricular activity participation, academic competence.
131)	Sokol-Katz, J., Dunham, R. & Zimmerman, R. (1997)	N=1195 Grade: 6th, 7th Gender: M+F Origin: USA	<u>Delinquent Behaviour</u> : SRQ: based on Kaplan et al. (1986); minor delinquency (4 items; e.g. gotten angry and broken things), major delinquency (5, e.g. broken into and entered a home, store or building) <u>Substance use</u> : SRQ; drugs (e.g. marijuana, cocaine) (yes/no), alcohol use, cigarettes (never, regular, one or more packs a day).	<u>Individual</u> : beliefs on deviance <u>Family</u> : structure, attachment
132)	Vega, W.S., Apospori, E., Gil, A.G., Zimmerman, R.S. & Warheit, G. J. (1996)	Longitudinal, 3-waves, two cohorts, N=4555 Age: middle school Gender: M Origin: USA	<u>Substance use</u> : SRQ; 4 items, dichotomous. I.e., crack, PSP, upper/downers, tranquilizer use	<u>Individual</u> : Self-rejection, attitude to deviance, problems caused by drugs. <u>Peers</u> : peer drug use, peer attitude to deviance
133)	Vega, W.A., Alderete, E., Kolody, B. & Aguilar-Gaxiola, S. (2000)	N=3012 Age: 18-59 yrs. Gender: M+F Origin: Mexican-American, USA	<u>Substance use disorder</u> : SRI; Computer Assisted Personal Interview; adjusted from CIDI (Robins et al, 1988), lifetime, 12-month, 6-month, 1-month prevalence estimates <u>Antisocial personality disorder</u> : SRI; CAPI <u>Problem behaviours</u> : SRQ; I.e., fighting, carrying weapon, being arrested	<u>Individual</u> : mood disorder, anxiety disorder, nonaffective psychosis, somatisation, <u>Family</u> : demographics, <u>Other</u> : migration history, employment
134)	Khoury, E.L., Warheit, G.J.,	N= 4978 Grade: T1: 6 th , 7 th , T2: year later. T3: year	<u>Minor Deviant behaviour</u> : SRQ: (Kaplan, Johnson & Bailey, 1986). 7 items, previous month, yes/no. I.e. got angry and broke things, started a fist fight, took things from someone else's desk or locker	<u>Individual</u> : native/foreign born, hurricane problem index (stress), stress symptoms <u>Family</u> : Number of parents in the family, SES

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Hargrove, M.C., Zimmerman, R.S., Vega, W.A. & Gil, A.G. (1997)	later. Gender: M+F Origin: USA	when you weren't supposed to.	<u>School</u> : reading level, year in school.
135)	Taylor, D.L., Biafora, F.A.jr., Warheit, G. & Gil, A. (1997)	N=T1: 626, T2: 549 Age: middle school Gender: F Origin: USA	<u>Major Delinquency</u> : SRQ: 7 items. I.e., theft, assault, and aggressive behaviours against others. <u>Theft/vandalism</u> : SRQ; 5 items <i>All: derived from Kaplan (1984, 1986), how often in the past month.</i>	<u>Family</u> : Family loyalty and pride, communication, parent derogation, divorce, parent substance abuse and sibling drug use. <u>School</u> : Reading achievement, absences, referrals to drop out prevention programs.
136)*	Vettenburg, N. (1998)	Corss-sectional: I: N=1689; II: N=338 pupils Gender: M+F Age: 12-16 Origin: Belgium	<u>Problem behaviour</u> : SRQ: disturbing behaviour in class, truancy, fighting, destructive behaviour, theft, running away from home	<u>Individual</u> : Contact with police and judicial involvement, convictions. <u>Family</u> : occupational level, employment situation, educational model, interest in school <u>School</u> : result, repeating, changing, punishments, rewards, teacher's attitudes towards the class and individual pupil, vocational practice, technical subject, generalability subject.
137)	Beam. M.R., Gil-Rivas, V., Greenberger, E. & Chen, C. (2002)	N=243 Grade: 11 th Gender: M+F Origin: USA	<u>Problem behaviour</u> : SRQ: <i>never, once or twice, three or four times, more often, during the past 6 months. Based on previous studies (i.e. Arnett and Balle-Jensen, 1993; Chen et al., 1998; Feldman et al., 1991; Fletcher et al., 1995; Greenberger and Steinberg, 1986; Steinberg et al., 1991), with additional items generated by the researchers.</i> I.e., risk taking behaviour, school related deviance (i.e. cheated on a test), status offences, substance use, physical aggression, vandalism, theft, and other problem behaviour (lied, forged a signature).	<u>Individual</u> : Depressive symptoms, number of negative peer events, childhood aggression toward peers <u>Family</u> : Parental education, family structure, negative family-life events, parent-adolescent conflict, perceived parental and sibling behaviour, parental and sibling depressive symptoms, support, warmth, sanctions. <u>Peers</u> : peer acceptance, friends behaviour, depressive symptoms, sanctions, support.
138)	Ewing, D.B. (1971)	N=363 Age: Junior High school Gender: M Origin: USA	<u>Asociality</u> : SRQ; <i>The Jesness Inventory</i> . I.e. when you're in trouble, it's best to keep quiet about it, I get into a lot of fights. <i>School records, teacher and dean evaluations and assessment by researchers.</i> Dean referrals, absenteeism, teacher evaluations of deportment	<u>Individual</u> : Anomie, dogmatism. <u>Family</u> : SES <u>School</u> : school attitude, underachievement <u>Other</u> : social participation, hobbies and interests

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
139)	Edwards, W.J. (1996)	N= Delinquent: 532, Non-delinquent: 354 Grade: most in 9 th , 10 th Gender: M+F Origin: USA	<u>Delinquent activity (four levels):</u> SRQ: minor offences (i.e., vandalism, stealing items valued less than two dollars), Delinquency in school and family area (i.e., runaway behaviour, truancy), Drug use and medium criminal acts (i.e., marijuana, stealing worth between 10 –50 dollars), Serious criminal acts (i.e., assault).	<u>Individual:</u> Anomie, social bonding, labelling, self-esteem. <u>Peers:</u> delinquent peer association
140)	Uehara, E.S., Chalmeers, D., Jenkins, E. J. & Shakoor, B. H. (1996)	N=1035 Age: 10-19 yrs Gender: M+F Origin: African American, USA	<u>Violence :</u> SRQ: <i>Community Mental Health Council Violence Screening Form, 12 items</i> I.e., types of encounters with violence, relationship to victims of violence, use of weapon	<u>Individual:</u> Witnessing and victimization of violence. <u>Family:</u> Social demographic variables
141)	Maggs, J.L., Frome, P.M., Eccles, J.S. & Barber, B.L. (1997)	N=693 MA: Longitudinal, T1 17,8; T2: two yrs later. Gender: M+F Origin: USA	<u>Risk behaviour:</u> SRQ: <i>frequency during the previous 6 months. 10 behaviours, 1=never-7-more than 20 times:</i> alcohol (2) and illegal drug use (2), antisocial behaviour (6), e.g. damage public or private property, take something from a store without paying.	<u>Individual:</u> Wellbeing, physical health <u>Family:</u> SES, mother's education, parental support. <u>Peers:</u> Romantic relationship satisfaction, negative romantic relationships, friend support <u>School:</u> GPA
142)*	Maggs, J.L., Almeida, D.M. & Galambos, N.L. (1995)	Longitudinal, 4 waves. N=96 Gender: M+F Mean age: 11yrs, 7mth- 15.1 yrs. Origin: Canada	<u>Problem behaviour:</u> SRQ; <i>18 items based on Brown et al (1986) and Kaplan (1978) 5-point scale; never- almost every day.</i> Disobeying parents (3), school misconduct (3), substance abuse (4), antisocial behaviour (8).	<u>Individual:</u> Self-image, beliefs about the fun and risk of problem behaviour <u>Peers:</u> peer involvement, acceptance
143)*	Ryan, A.M. & Patrick, H. (2001)	N=233 Grade: 7 th /8 th Gender: M+F Origin: USA	<u>Disruptive behaviour:</u> SRQ: <i>5 items, Kaplan & Maehr, 1999, 5-point scale: not at all true- very true.</i> Disruptive behaviour and negative conduct in math class. I.e. I disturb the lesson math class, I behave in a way that annoys my math teacher, I do not follow my math teacher's directions.	<u>Individual:</u> motivation, social efficacy with the teacher and peers <u>School:</u> Perceptions of classroom social environment, engagement, prior achievement
144)	Henry, B., Caspi,	Longitudinal N= 1037	<u>Delinquent behaviour:</u> SRI, <i>29 illegal acts (at age 15), 48 offenses (at age 21) during the last 12 months. Self-Report Delinquency</i>	<u>Individual:</u> IQ, Lack of control <u>Family:</u> , SES, familial disruption

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	A., Moffitt, T.E., Harrington, H. & Silva, P.A. (1999)	Age: 3,4,7,9,11, 13, 15, 18, 21 Gender: M+F Origin: New Zealand	<i>Interview (Elliott & Huizinga, 1989). E.g., acts of theft, assault, vandalism, drug trafficking, and fraud.) Criminal records.</i>	<u>School</u> : months of education.
145)	Moffitt, T.E., Caspi, A., Dickson, N., Silva, P. & Stanton, W. (1996)	Longitudinal, 8 waves. N= 536 Age 3-15. Gender: M Origin: New Zealand.	<u>Antisocial Behaviour</u> : <i>PRQ/TRQ, Rutter Child Scales (Rutter, Tizard & Whitmore, 1970)</i> <u>Delinquency</u> : <i>SRI, Self-Reported Delinquency structured interview (SRDI, Elliott & Huizinga, 1989).</i>	<u>Individual</u> : Personality profiles, temperament, age of onset of official delinquency, police contacts, court convictions, delinquent self-evaluation, driving habits, sexual behaviour, perceived risk of detection for crime, tobacco, alcohol and marijuana dependence. <u>Family</u> : bond to family, <u>Peers</u> : delinquent friends <u>School</u> : leaving school. <u>Other</u> : unemployment
146)	Feehan, M, McGee, R., Stanton, W.R. & Silva, P.A. (1991)	N=962 Age: 15 yrs, Gender: M+F Origin: New Zealand	<u>Mental health disorder</u> : <i>SRI, DISC-C: Externalising disorder (attention deficit disorder, aggressive and non-aggressive conduct disorder, oppositional disorder), internalising disorders (anxiety and depressive). interview DISC-C; Costello, Edelbrock, Kalas, et al, 1982)</i>	<u>Individual</u> : Childhood problem behaviour, <u>Family</u> : Maternal mental health, consistency and strictness in discipline, family background
147)	Feehan, M., McGee, R. & Stanton, W.R. (1993)	Longitudinal N=1037 Age: 3-15 yrs Gender: M+F Origin: New Zealand	<u>Behaviour Problems</u> : <i>SRI; Modified DISC; PRQ, RBPC (Quay, Peterson, 1987).</i>	<u>Individual</u> : Childhood mental health, problem behaviour. <u>Family</u> : help seeking for child
148)	Williams, S. & McGee, R. (1994)	N=T1; 954, T2: 955, T3: 976 Age: t1; 7, T2; 9, T3; 15 Gender: M+F Origin: New Zealand	<u>Antisocial behaviour</u> , <i>SRQ: 30 items, Moffitt & Silva, 1988, No, 1-2, 3 or more, vandalism, petty theft- carrying weapon, physical assault. PRQ, revised Behaviour Problem Checklist (RBPC; Quay & Peterson, 1987), 77 items</i>	<u>Individual</u> : childhood problem behaviour <u>Family</u> : low SES, solo parent, parental separations, maternal depression, large family size, low family social support. <u>School</u> : Reading performance
149)	Schlegel, R.P., d'Avernas, J.R.,	N=494 Age: 18-22 yrs Gender: M	<u>Substance abuse</u> : <i>SRQ: Marijuana, tobacco, alcohol, amphetamine, barbiturate, heroin, hallucinogen, solvent, tranquillizer. (no info on exact measurement)</i>	<u>Individual</u> : Attitudes toward beer or liquor, fatalism, tolerance toward deviance. <u>Family</u> : parental support, control,

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	DiTecco, D. & Manske, S.R. (1987)	Origin: USA.		expectations, agreement with parents, attitude and approval toward substance use, drinking behaviour. <u>School</u> : value/ expectation on achievement <u>Peer</u> : Probability that friends get drunk, peer support, controls, expectations, influence, attitude and approval toward substance use, pressure to use substance. <u>Other</u> : religiosity
150)	Rohrbach, J. & Jessor, R. (1975)	Two longitudinal samples: N=T1a: 949 T1b: 276, T2a: 475, T2b:220 Age: high school and college students Gender: M+F Origin: USA	<u>Deviant behaviour</u> : SRQ: Lying, stealing, cheating, aggression, activism behaviour (militant protest or peaceful demonstration), premarital sexual behaviour, marijuana behaviour,	<u>Individual</u> : value and expectations of independence, social love, affection, self-control, social criticism, self-esteem, attitude toward deviance, premarital sex, marijuana use. <u>Family & Peers</u> : parent-peer compatibility, parent vs. peer influence, peer control, peer support, peers' premarital sex, approval for marijuana use. <u>School</u> : values and expectations on achievement, GPA.
151)	Jessor, R., Turbin, M.S., Costa, F.M., Dong, Q., Zang, H. & Wang, C. (2003)	N=3,335 Grade: 7, 8, and 9 Gender: M+F Origin: China & USA	<u>Problem Behaviour</u> : SRQ; <i>Part of the Adolescent Health and Development Questionnaire</i> ; Delinquent behaviour, (e.g., theft, vandalism, physical aggression), Cigarette smoking (frequency and amount of smoking in the past month and the past year), Problem drinking (frequency of drunkenness, frequency of high-volume drinking (four or more drinks per occasion), and negative consequences of drinking).	<u>Individual</u> : Attitudinal intolerance of deviance of peers, stress, depression, low expectations for success , low self-esteem <u>Family</u> : Conventional, health behaviour of parents, sanctions controls, Modelling of risk behaviour, support, availability of alcohol and drugs at home. <u>Peers</u> : Conventional, health behaviour, peer controls disapproval, support, modelling risk behaviour <u>School</u> : School controls Student disapproval, support from teachers, modelling risk behaviour by school. <u>Other</u> : controls, disapproval, support, modelling risk behaviour, availability of alcohol and drugs, opportunity risk-gangs

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
152)	Turbin, M.S., Jessor, R. & Costa, F.M. (2000)	Longitudinal, 4 waves N=1782 Age: middle and high school Gender: M+F Origin: USA	<u>Cigarette smoking</u> : SRQ; 2 items. I.e., Have you ever smoked a cigarette (1=never-4=more than a few times), During the past month, how many cigarettes have you smoked on an average day (1=none-7=about two or more packs a day). <u>Problem behaviour</u> : SRQ; freq. during the past 6 months. I.e., sexual intercourse (2 items: vergin/nonvergin, nr sex partners), alcohol abuse (3 items; frequency of use and drunkenness), illicit drug use (3 items; marijuana, other illicit drugs), delinquency (2 items; damaging property, theft).	<u>Individual</u> : Unhealthy dietary habits, sedentary behaviour, unsafe behaviour, poor dental hygiene.
153)	Donovan, J.E., Jessor, R. & Costa, F.M. (1999)	Longitudinal, several samples. N=432-5563 Age: 14-18 yrs. Gender: M+F Origin: USA	<u>Problem drinking</u> : SRQ; 4 measures. I.e., alcohol intake, frequency of drunkenness, negative consequences of drinking, driving and drinking <u>General deviant behaviour</u> : SRQ; 8 items, frequency during the past 6 months. I.e. shoplifting, property destruction, getting into fights, lying to parents <u>Marijuana use</u> : SRQ; frequency during the past 6 months <i>All: based on Jessor & Jessor, 1977</i>	<u>Individual</u> : independence, intolerance of deviance <u>Family & Peer</u> : parent-peer compatibility, parent vs. peer influence, approval of drinking and drug use, friends models for drinking and drug use. <u>School</u> : performance, values and expectations on academic achievement <u>Other</u> : religiosity
154)	Jessor, R., Turbin, M.S. & Costa, F.M. (1998)	Longitudinal, 4- waves. N=1638 Grade: T1: 7 th -9 th , T4: 10 th -12 th Gender: M+F Origin: USA	<u>Problem behaviour</u> : SRQ, in the past 6 months: problem drinking (2), marijuana and other drug use (8), delinquent behaviour (10) (i.e. theft, physical aggression).	<u>Individual</u> : expectations for success, self-esteem, social control, hopelessness, attitude toward deviance, orientation to health, prosocial activities. <u>Family</u> : education, family composition. <u>Peers</u> : orientation to friends, friends as models for problem behaviour and conventional behaviour. <u>School</u> : engagement <u>Other</u> : relation with adults, religiosity
155)	Costa, F.M., Jessor, R., Donovan, J. E. & Fortenberry, J.D. (1995)	N=1330 MA=T1; 14 yrs; T4; 18 yrs Gender: M+F Origin: USA	<u>Deviant behaviour</u> : SRQ: 10 items, freq. during the past 6 months; physical aggression, property destruction, theft, lying. <u>Problem drinking</u> : SRQ; 3-component scale, frequency and negative consequences in the past 6 months. I.e., high volume drinking, negative consequences. <u>Marijuana Behaviour Involvement</u> : SRQ; 4-item scale, involvement, use, availability.	<u>Individual</u> : attitudinal tolerance of deviance, <u>Family & Friends</u> : parent-friends incompatibility, parent-friends influence, parental disapproval-approval of problem behaviour, friends as models for problem behaviour, family activities. <u>School</u> : school performance, independence-

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
156)	Donovan, J.E. (1993)	N=1196; 1104 Age: 18-25yrs Gender: M+F Origin: USA	<u>Sexual Behaviour</u> : SRQ; 2 items; have you ever had sexual intercourse? How old were you? <u>Problem Driving</u> : SRQ: 29 items, 1=never-14=100 or more times in the past year. Drinking-driving, drug-driving, risky driving. <u>Problem Behaviour</u> : SRQ; freq. in the past 6 months. I.e., problem drinking, marijuana use, other illicit drug use, delinquent behaviour (theft (2), lying (2), aggression (4). <i>Both: Part of the Young Adult Driving Questionnaire</i> <u>Hostility/ Aggression</u> : SRQ; adaptation of Buss-Durkee Hostility Scale (Buss & Durkee, 1957). Verbal aggression (3), physical aggression (4)	achievement value discrepancy, expectation for achievement <u>Individual</u> : psychosocial unconventionality, risk taking.
157)	Dinh, K.T., Roosa, M.W., Tein, J.Y & Lopez, V.A. (2002)	N=330 Grade: longitudinal 4 th - 8 th Gender: M+F Origin: Hispanic, USA	<u>Externalising problem behaviour</u> : SRQ; YSR: delinquency scale, aggressiveness	<u>Individual</u> : Acculturation, self-esteem, substance use attitudes <u>Family</u> : parental involvement, <u>Peers</u> : Association with delinquent peers, gang involvement
158)	Doljanac, R.F. & Zimmerman, M.A. (1998)	N=850 Grade: 9 th Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : SRQ: Non-violent delinquency (10 items, 5-point Likert, never- 4 times or more), violent behaviour (7 items, same scale), cigarette (2 items), alcohol (4 items) and marijuana use (3 items), number of whole days of school skipped in the last 4 weeks (1=none-7 =11+), <u>High risk sexual behaviour</u> SRQ; 4 items. Yes/no, age of first time, nr of times, nr of sexual partners.	<u>Individual</u> : Prosocial behaviour, condom use <u>Family</u> : time with parents, family conflict, monitoring, support, parental problem solving. <u>Peers</u> : Peer problem behaviour, alcohol use, illicit substance use. <u>School</u> : GPA
159)	Gillmore, M.R., Spencer, M.S., Larson, N.C, Tran, Q.D. & Gilchrist, L.D. (1998)	N=233 pregnant Age: 12-17 yrs. Gender: F Origin: USA	<u>Substance use</u> : SRQ; Items adapted from Monitoring the Future (Johnston, O'Malley & Bachman, 1988), alcohol, smoking, marijuana and other drugs. <u>Delinquent Behaviours</u> : SRQ; Items adapted from National Youth Survey (Elliott, Huizinga & Ageton, 1985) minor delinquency (5 items; yes/no), Serious delinquency (5 items, yes/no), Legal involvement (i.e. with justice),	<u>Individual</u> : Pregnancy, sexual involvement <u>School</u> : commitment
160)	William, J.H.,	N=808 Grade: 10 th	<u>Substance abuse</u> : SRQ: 12 items; alcohol (1 item), marijuana use (1 item), substance use problem behaviour (10 items).	

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Ayers, C.D., Abbott, R.D., Hawkins, J.D. et- al. (1996)	Gender: M+F Origin: USA	<u>Delinquency</u> : SRQ, <i>freq. during past year</i> : minor non-violent delinquent acts (4), major non-violent delinquent acts (4), violent acts (4). SRQ; 3 items. I.e., Juvenile Justice system involvement: nr of times stopped or picked up by the police.	
161)	Ingersoll, G.M. & Orr, D.P. (1989)	N=1508 MA=13.70 yrs, Gender: M+F Origin: USA	<u>Delinquency & substance abuse</u> : SRQ: <i>part of Health Behaviour Questionnaire (Hibbard, Brack, Rauch & Orr, 1988). (1=never- 4= frequently) I.e.</i> runaway, dropout plans, arrested, suspended, alcohol and drug use):	<u>Individual</u> : sexual activity, management of emotions, self-esteem, conceptual level. <u>Family</u> : SES <u>Peers</u> : relationships with others
162)	Hays, R.D., Stacy, A.W. & DiMatteo, M.R. (1987)	N=226 MA=16.7 yrs Gender: M+F Origin: USA.	<u>Substance use</u> : SRQ: <i>Quantity- Frequency Index (QFI; Stacy, Wadaman, Hays, & DiMatteo, 1985) frequency of alcohol use during the last 30 days.</i> SRQ: Cigarette use, hard drug use.	<u>Individual</u> : values and expectations for dependence, recognition, altruism, social acceptance and health, drinking beliefs, life satisfaction, meal regularity, exercise, hours sleep <u>Family</u> : siblings, parental models for alcohol and drug use, income, social class <u>Peers</u> : friends' models for alcohol and drug use. <u>Other</u> : church attendance, religious affiliation
163)	Lo, C.C. (2000)	Cross-sectional, N =1691-2608 Age: high school seniors. Gender: M+F Origin: USA	<u>Substance abuse</u> : SRQ; 6 items, <i>part from Monitoring the Future, (frequency of occasions during lifetime and in the past 12 months; never, 1-2, 3-5, 6-9, 10-19, 20-39, 40 or more).</i> Use of alcohol, marijuana, cocaine.	<u>Individual</u> : Onset age of drinking and drug use
164)*	Barnes, G.M. & Welte, J.W. (1986)	N= 27.335 Gender: M+F Grades 7 th -12 th Origin: USA.	<u>Alcohol consumption</u> : SRQ; <i>frequency, (every day-never) and quantity (twelve or more-never) of beer, wine, liquor.</i> <u>School misconduct</u> : SRQ: <i>number of days</i> : cut class, sent out of class, someone from home was called to school.	<u>Individual</u> : alcohol- and illicit drug-related problems
165)	Windle, M. & Barnes, G.M. (1988)	N=124 and 50 siblings. Age: 12 -17 yrs. Gender: M+F Origin: USA	<u>Alcohol consumption</u> : SRI, <i>telephonic: 6 items; 8-point scale for frequency; 11 point scale for quantity questions (Barnes, 1984; Rachal et al 1980). SRI; telephonic; 1 item; Times get drunk.</i> <u>Delinquent behaviour</u> : SRI, <i>telephonic; 10 items; 6 point scale; never- 10 or more times (See Johnston, 1973; Gold and Mann,</i>	<u>Individual</u> : reasons for drinking, physical appearance, distress symptoms, self-esteem <u>Peers</u> : peer integration, peer drinking, social pressure, <u>School</u> : grades, attitude.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
166)	Schmeelk-Cone, K.H. & Zimmerman, M.A. (2003)	N=421 Grade: 4 waves, T1; 9 th Gender: M+F Origin: African American, USA	1972). I.e. skipping school, beating up someone, stealing <u>Delinquent behaviour</u> : <i>SRI: 12 months, 1=0 times-5=4 or more times</i>). Violent (7 items, getting into a fight, using a knife or gun), non-violent delinquent behaviour (10 items, stealing, damaging property, or trespassing.)	<u>Individual</u> : Perceived stress, depression/ anxiety, coping <u>Family</u> : support <u>School</u> : Academic success
167)	Mitchell, C.M. & Beals, J. (1997).	N=1622 Age: high school Gender: M+F Origin: American Indians, USA	<u>Problem behaviour</u> : <i>SRQ: 5 items selected from Donovan et al, 1988, past 6 months, 1=never-5=5 or more times</i> ; I.e. aggression, stealing, vandalism, lying, acting without permission. <u>Alcohol use</u> : <i>SRQ: 6 items, past 6 months</i> . Level of alcohol consumption. 14 items adapted from DISC, 1= rarely/ never=almost always; negative consequences of drinking. 2 additional items; problems with family and friends due to drinking. <u>Drug use</u> : <i>SRQ: 4 indicators; 0-31 times</i> . Nr of times used marijuana, nr of times used inhalants, nr of drugs ever used, nr of drugs used during the past month. <u>Sexual behaviour</u> : <i>SRQ, 4 items</i> .	<u>Individual</u> : Positive behaviour, social competencies, anxiety, depression, sensation seeking, self-esteem, personal mastery <u>Family</u> : support <u>Peer</u> : support <u>School</u> : success <u>Other</u> : cultural activities, community mindedness
168)	Kaplan, H.B., Martin, S.S. & Robbins, C. (1982)	N=T1: 7727, T3 an overlap of 3148 Grade: T1; 7 th , T3; 9 th Gender: M+F Origin: USA	<u>Drug use</u> : <i>SRQ yes/no, within the last year, within the last month</i> . Narcotic drug use.	<u>Individual</u> : Self-derogation, identification with normative structure, self-enhancing potential of deviance. <u>Peers</u> : Felt rejection by peers, peer endorsed attributes, friends get into trouble, kids at school/ friends use narcotics. <u>Family</u> : felt rejection by family <u>School</u> : Felt rejection by school. <u>Other</u> : Adult-endorsed attributes.
169)	Kaplan, H.B. & Peck, B.M. (1992)	N=2238 Grade: 7 th Gender: M+F Origin: USA	<u>Violence</u> : <i>SRQ, 3 items, yes/no, within last year</i> : beat up someone, gang fight, carry weapons, <u>Theft</u> : <i>SRQ, 3 items, yes/no</i> ; small theft, large theft, steal from desk. <u>Substance use</u> : <i>SRQ, 2 items, yes/no</i> ; narcotics use, marijuana use,	<u>Individual</u> : self-derogation, avoidant coping style, attack coping style <u>Family</u> : rejection by parents <u>School</u> : rejection by teachers
170)	Kaplan, H.B. (1977a)	longitudinal, 3 waves N=3148 Grade: 7 th , - 9 th	<u>Deviant behaviour</u> : <i>SRQ, 22 items, yes/no/ within the last month/ within the last year</i> : theft, skipped school, damaging, drugs.	<u>Individual</u> : Negative self-attitudes, subjective association of negative self-attitudes with membership group experience, contra

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
		Gender: M+F Origin: USA		normative attitudes, frustration of self-esteem motive, awareness of deviant patterns, defencelessness.
171)	Kaplan, H.B. (1977b)	N=4694 Grade: T1; 7 th , T2; 8 th Gender: M+F Origin: USA	<u>Deviant behaviour</u> : SRQ, 22 items, yes/no/ within the last month/ within the last year: theft, skipped school, damaging, drugs.	<u>Individual</u> : Perceived negativism of the normative system, frustrated self-esteem, awareness of deviant behaviour, self attitudes
172)	Kaplan, H.B. (1975)	longitudinal, 3 waves N=3148 Grade: 7 th , - 9 th Gender: M+F Origin: USA	<u>Deviant behaviour</u> : SRQ, 22 items, yes/no/ within the last month/ within the last year: theft, skipped school, damaging, drugs.	<u>Individual</u> : Negative self-attitudes
173)	Crosnoe, R., Erickson, K.G. & Dornbusch, S.M. (2002)	N=3046 MA: 15,05 yrs Gender: M+F Origin: USA	<u>Delinquency</u> : SRQ: 7 items (past year, 1: never- 4 often) I.e. used phoney ID, took something of value, ran away from home, gotten in trouble with police, carried a weapon, started a fight at school, damaged school property. <u>Substance use</u> : SRQ, during past year, 1=never-4=often; tobacco (2), alcohol (2), marijuana (1), non-marijuana illegal drugs (1).	<u>Family</u> : monitoring, involvement, household organization, demographic <u>Peers</u> : having deviant friends. <u>School</u> : bonding to teachers, academic achievement, orientation to school
174)	Herman, M.R., Dornbusch, S.M., Herron, M.C. & Herting, J.R. (1997)	N=2850 . Age: 12-18 Gender: M+F Origin: USA.	<u>Substance use</u> : Smoked cigarettes, bought beer, used alcohol excessively, smoked marijuana, used other drugs <u>Delinquency</u> : Used phoney ID, take something of value, run away from home, got in trouble with police, carried a weapon to school, got into a physical fight at school, purposely damaged school property <u>ALL</u> : SRQ; Gold (1970). 12 items, frequency since the beginning of the school year; 4-point scale: never-often	<u>Individual</u> : somatic and psychological symptoms <u>Family</u> : structure, education, monitoring, household organization, parental locus of decision making, regulation, involvement, psychological autonomy. <u>School</u> : GPA, educational expectations
175)*	Lamborn, S.D., Mounts, N.S, Steinberger, L. & Dornbusch, S.M. (1991)	N=10.000 Gender: M+F Grade: 9 th - 12 th Origin: USA	<u>Substance use</u> : SRQ; frequency; Greenberger, Steinberg & Vaux, 1981. cigarettes, alcohol, marijuana and other drugs <u>School misconduct</u> , SRQ; frequency. Cheating, copying homework, tardiness. <u>Delinquency</u> , SRQ; frequency, based on Gold, 1970. Carrying weapon, theft, getting into trouble with the police	<u>Individual</u> : work orientation, self-reliance, social competence, internalised distress <u>Family</u> : authoritative, authoritarian, indulgent or neglectful, demographic variables. <u>School</u> : academic competence

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
176)	Jackson, N.M. & Center, D.B. (2002)	N=84 suspended Grade: 6 th – 12 th Gender: M+F Origin: USA	<u>Problems behaviour</u> : SRQ: YSR; externalizing scales.	<u>Individual</u> : psychoticism, neuroticism, extraversion.
177)	Edelbrock, C., Rende, R., Plomin, R. & Thompson, L.A. (1995)	N= 99 monozygotic, 82 dyozygotic twins Age: 7- 15 yrs Gender: M+F Origin: USA	<u>Problem behaviour</u> : PRQ; CBCL	<u>Peers</u> : quality of relationships <u>School</u> : School performance, area of competence <u>Other</u> : involvement in organizations, activities
178)*	Petrides, K.V., Frederickson, N. & Furnham, A. (2004)	N= 650 Gender: M+F Mean age = 16.5 Origin: Great Brittan	<u>Deviant behaviour at school</u> . <i>School reports</i> : unauthorized absence, authorized absence, exclusion from school	<u>Individual</u> : trait emotional intelligence, verbal reasoning, personality traits <u>School</u> : academic achievement.
179)	Romero, E., Luengo, M.A. & Sobral, J. (2001)	N=964 M+F students, 95 delinquent boys. Age: 14-20 yrs. Origin: Spain.	<u>Antisocial behaviour</u> : SRQ: <i>Antisocial Behaviour Questionnaire</i> : Luengo et al., 1994: 82 items, 0= never, 1= rarely (1-5 times), 2 = several (6-10 times), 3 = frequently (more than 10 times). Vandalism (13), theft (18), aggression (15), rule breaking (13), drug involvement (21).	<u>Individual</u> : Personality: extraversion, neuroticism, psychoticism. Impulsivity, sensation seeking.
180)	Forrest, R. (1977)	N= 445 non-delinquents, 134 Non-institutionalized delinquents, 419 institutionalized delinquents Age 13-16. Gender: M Origin: Great Brittan	<u>Delinquency</u> : SRQ: 3 items, part of the Eysenck Questionnaire: did you ever write your name on a school or library book. Are you in more trouble at school than most children? Are you always especially careful with other people's things? (a new scale)	<u>Individual</u> : psychoticism, extraversion, neuroticism, lie-scale VS neuroticism/depression, social adjustment/ sensitivity, psychoticism, impulsivity, social extraversion
181)	Romero, E., Sobral, J., Luengo, M.A. &	N= 964 M+F, 95 delinquent boys. Age: 14-19 yrs Origin: Spain	<u>Antisocial behaviour</u> : SRQ; ABQ; developed by Luengo et. al. (never, rarely, several times, frequently) 82 items: vandalism (13), theft (18), aggression (15), rule-breaking (13), drug-involvement (21), never, rarely, several times, frequently.	<u>Individual</u> : Values: hedonistic, conventional, social

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
Marzoa, J.A. (2001)				
182)*	Allsopp, J.F. & Feldman, M.P. (1974)	N= 197 Gender: F Age: 11-15 yrs. Origin: Great Brittan.	<u>Antisocial behaviour SRQ</u> ; <i>ASB Questionnaire (Allsopp, 1972): 28 items. Never, once or twice, three or more; 20 items added on misbehaviour from girls of their age, ranging from mild (e.g., making a noise in class) to serious offences (e.g., braking into private property to steal something).</i> <i>School record</i> ; school naughtiness (number of marks lost for bad behaviour)	<u>Individual</u> : Extraversion, neuroticism, psychoticism
183)	Rowe, D.C., Rodgers, J.L, Meseck-Bushey, S. & StJohn, C. (1989)	N=I: 62 brother pairs, 91 sister pairs, 97 mixed, II: 19 brother pairs, 24 sister pairs, 35 mixed Age: I: 16-32 yrs. II; 13.8-18.1yrs Origin: USA	<u>Deviance</u> : <i>SRQ: 12 items, yes/no, score 0-12: Aggressive (3), stealing property (4), vandalism (2), defying adult authority (3).</i>	<u>Individual</u> : Sexual experience. <u>Family</u> : Parental education, closeness of sibling relationship.
184)*	Raine, A. & Venables, P.H. (1984).	2 samples: N1=50, N2=51. Gender: M Age: 14-16 yrs Origin: USA	<u>Classroom behaviour</u> : <i>TRQ:17 items of the Behaviour Problem Checklist (Quay & Parson, 1970)</i> <u>Socialization</u> : <i>SRQ: based on 18 standardized self-report scales. 6 measure socialization/delinquency. 12 measure personality dimensions related to antisocial behaviour. Raine, Roger & Venables (1981)</i>	<u>Individual</u> : Tonic heart rate level <u>Family</u> : SES
185)	Tubman, J.G., Windle, M. & Windle, R.C. (1996)	Longitudinal design. N=1167 Grade: T1:10th–T2:11th Gender: M+F Origin: USA	<u>Delinquency</u> : <i>SRQ: 6 behaviours, age they had done these things for the first time. I.e., Police contact, destroyed property, stole from store, started fight, skipped school, ran away from home. 16 item scale on current delinquent behaviour: 6 point scale: never, once, 2-3 times, 4-5 times, 6-9 times, 10 or more (i.e. skipped school, destroyed public property, hit a parent or a teacher, stole a car.</i> <u>Substance abuse</u> : <i>SRQ: First use of alcohol (3). Alcohol problems (13) about experience and consequences for school of drinking.</i>	<u>Individual</u> : Sexual intercourse patterns, depressive symptoms, childhood problem behaviour. <u>School</u> : GPA
186)		N=163	<u>Delinquency</u> : <i>SRQ: 23 items adapted from Elliott, Huizinga &</i>	<u>Family</u> : Attachment with parents

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Marcus, R.F. & Betzer, P.D. (1996)	Grade: 6th, 7th, 8th Gender: M+F Origin: USA	<i>Ageton, 1985. (yes/no), age of first time, how often; 4-point scale never- 6 or more). I.e. run away, thrown objects to people to hurt them, theft, robbery, beat up someone, damage things, sold drugs</i>	<u>Peers</u> : attachment with peers
187)	Arbona, C. & Power, T.G. (2003)	N=1583 Age =13-19 years Gender: M+F Origin: African-Amer., European-Amer, Mexican-Amer, USA	<u>Antisocial behaviour</u> : SRQ: 10 items, adaptation from Jessor & Jessor (1977) How often during the past year: 6 point scale: never - 11 or more times. E.g., lying, stealing, aggression, vandalism, drugs.	<u>Individual</u> : self-esteem <u>Family</u> : Attachment with parents, avoidance, demographics
188)	Marcus, R.F. (1999)	N=163 Grade: 6 th -8 th . Gender: M+F Origin: USA	<u>Antisocial behaviour</u> : SRQ, based on Elliott et al (1985), 23 items: yes or no, frequency: 0=never, 1= once, 2= 2 or 3 times, 3= 4 to 5 times, 4 = 6 or more.	
189)	Kuther, T.L. & Higgins-D'Alessandro, A. (2000)	Intervention group: 68, comparison group: 122 Grade 10-12. Gender: M+F Origin: USA	<u>Risky behaviour</u> : SRQ: 7-point scale: never- almost every day. Antisocial behaviour (theft, violence), substance involvement (alcohol, marijuana, illicit drugs, selling drugs), sexual involvement (engagement, unprotected), suicidal ideation.	<u>Individual</u> : Perception of risky behaviour as moral, social or personal transgression, moral reasoning
190)*	Dettenborn, H. & Boehnke, K. (1994).	N=176 Gender: M+F Grade: 6 th , 8 th , 10 th Origin: German	<u>Deviant school behaviour</u> : Rated by conduct grades of teacher	<u>Individual</u> : Social cognitions (misuse of complexity reduction, non-use of socio-cognitive competence) <u>School</u> : performance.
191)*	Boehnke, K. & Bergs-Winkel, D. (2002)	N=7282 Gender: M+F Grade: 7 th Origin: Germany, Poland, Russia, Bulgaria, Greece Slovakia, Czechia, Hungary,	<u>Deviant school behaviour</u> : SRQ: 7 items: 0= never- 3= often: I.e., harassing teachers, damaging things, beating up weaker persons, spreading stories about classmates, fighting with others, challenging other people, and insulting teachers.	<u>Individual</u> : Delinquent drift, feelings of justice <u>Family</u> : Parental control and nurturance <u>Other</u> : Rapid social change
192)		N=239 intervention	<u>Problem Behaviour</u> SRQ: Frequency Scales (Farrell, Kung, White, &	<u>Individual</u> : Anxiety, knowledge of the

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	Farrell, A.D., Meyer, A.L., Sullivan, T.N. & Kung, E.M. (2001)	group, 236 control Age: 12-17 yrs, Gender: M+F Origin: USA	<i>Valois, 2000): frequency during the last 30 days, 1= never- 6= 20 times or more. Violent behaviours, non-physical aggression, drug use delinquent behaviour:</i>	intervention program, attitudes towards violence.
193)	Liau, A.K., Barriga, A.Q. & Gibbs, J.C. (1998)	N=52 delinquents, 51 students Age: 14-18 years. Gender: M Origin: USA	<u>Delinquency</u> : <i>SRI: 12 items adapted from Self-Reported Delinquency (SRD) scale (Elliott and Ageton, 1980)</i>	<u>Individual</u> : Cognitive distortions
194)	Joseph, J. (1996)	N=272 Age: 12-17 yrs Gender: M+F Origin: African American, USA.	<u>Delinquency</u> : <i>SRQ: Selected form Nye & Short, 1957, number of times during the last 12 months: Theft (3), vandalism (1), break and enter (1), assault (3), involvement in drugs (3).</i>	<u>School</u> : school experience, attitudes about school, academic achievement, educational expectations, relevance of the curriculum, school involvement, future educational plans.
195)	Winfree, L.T.jr. & Griffiths, C.T. (1983)	N= I: 277, II; 217 MA=I; 13 yrs, II; 14yrs. Gender: M+F Origin: USA	<u>Marijuana use</u> : <i>SRQ: number of times in the past month, 90 days, year or lifetime they had smoked marijuana.</i>	<u>Individual</u> : differential associations, deviance-supportive definitions, differential reinforcements.
196)*	Rosenfeld, L.B., Richman, J.M & Bowen, G.L. (2000)	N1= 827 N2= 988 MA= N1: 12.6, N2: 15.9 yrs Gender: M+F Origin: USA	<u>Problem behaviour</u> : <i>SRQ: Part of the SSP (School Success Profile (Bowen & Chapman, 1996; Richman & Bowen, 1997): 4 items, during the past 30 days. E.g., "I was sent out of class because I misbehaved</i>	<u>Family</u> : social support of parents, SES, structure <u>Peers</u> : perceived social support of friends <u>School</u> : attendance, hours studying, school satisfaction, school engagement, school self-efficacy, grades, perceived social support of teachers.
197)	Shek, D.T.L. (2002a)	N=1519 Age: 11-18 yrs. Gender: M+F Origin: Chinese	<u>Delinquency</u> : <i>SRQ: 12 items: frequency. Stealing, cheating, truancy, running away from home, damaging others properties, assault, having sexual relationships, gang fight, speaking foul, staying away from home, strong-arming others, breaking into other places.</i> <u>Substance abuse</u> : <i>SRQ: 8 items; frequency. Alcohol, tobacco, ice, cannabis, coughs mixture, organic solvent, tranquilizers, narcotics.</i>	<u>Individual</u> : mental health <u>Family</u> : family functioning, <u>School</u> : academic performance, satisfaction with one's academic performance, school conduct.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
198)	Shek, D.T.L. (2002b)	N=229 Age: adolescents Gender: M+F Origin: Chinese	<u>Delinquency</u> : SRQ: 12 items: frequency. Stealing, cheating, truancy, running away from home, damaging others properties, assault, having sexual relationships, gang fight, speaking foul, staying away from home, strong-arming others, breaking into other places. <u>Substance abuse</u> : SRQ; 8 items; frequency. Alcohol, tobacco, ice, cannabis, cough mixture, organic solvent, tranquillizers, narcotics.	<u>Individual</u> : existential well-being, life satisfaction, self-esteem, sense of mastery, general psychiatric morbidity <u>Family</u> : parenting styles, support, help, conflict, relationship <u>School</u> : academic performance, satisfaction with academic performance, school conduct
199)	Ma, H.K., Shek, D.T.L., Cheung, P.C. & Oi-Bun-Lam, C. (2000)	N=71 Grade 7-10. Gender: M+F Origin: Chinese	<u>Delinquent behaviour</u> : SRQ: part of <i>Antisocial Behaviour Questionnaire</i> ; Ma, 1988. 7 point scale on frequency in the preceding year; 1= none- 7=more than 10 times. stealing, cheating, coming to school late, playing truant, lying, deviance of parents (shouting at one's father or mother, going against one's parents' wishes), aggressiveness (group fist fighting).	<u>Individual</u> : altruistic, socially acceptable, normative behaviour, identity status <u>Family</u> : parental influence, relationship <u>Peer</u> : peer influence, relationship <u>School</u> : teacher influence, relationship
200)	Shek, D.T.L. (1997)	N=429 Age: 12-16 yrs Gender: M+F Origin: Chinese	<u>Substance abuse</u> : SRQ; 2 items: never, rarely, sometimes, frequently: psychotropic drug abuse, smoking	<u>Individual</u> : Psychological well-being, life satisfaction, purpose in life, hopelessness, self esteem <u>Family</u> : Parent-adolescent conflict <u>School</u> : school performance and conduct
201)	Shek, D.T.L., Ma, H. K. & Cheung, P.C. (1994)	N=790 Age: 11-19 yrs. Gender: M+F Origin: Chinese	<u>Antisocial behaviour</u> : SRQ: part of <i>Antisocial Behaviour Questionnaire</i> ; Ma, 1988. 7 point scale on frequency in the preceding year; 1= none- 7=more than 10 times. Cognitive and academic deviant or socially disapproved acts in classroom or school setting; undesirable sexual activities, antisocial acts in school, antisocial acts in the family, antisocial acts in other settings, aggression.	<u>Individual</u> : intensity of life meaning, prosocial behaviour, personality traits, hopelessness, life satisfaction, purpose in life, locus of control.
202)	Ma, H.K., Shek, D.L.T., Cheung, P.C. & Tam, K.K. (2002)	N=T1; 108; T2; 56 Grade: T1; 7 th , 9 th T2 ; 9 th 11 th Gender: M+F Origin: Chinese	<u>Antisocial behaviour</u> : SRQ: part of <i>Antisocial Behaviour Questionnaire</i> ; Ma, 1988. 7 point scale on frequency in the preceding year; 1= none- 7=more than 10 times.	<u>Peers</u> : influence of peers, relationship <u>School</u> : influence of teachers, relationship
203)	Ma, H.K., Shek,	N=2862 Grade: 7 th , -10 th	<u>Antisocial Behaviour</u> : SRQ: part of <i>Antisocial Behaviour Questionnaire</i> ; Ma, 1988. 7 point scale on frequency in the	<u>Individual</u> : Prosocial behaviour, psychoticism, neuroticism

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
	D.L.T., Cheung, P.C. & Lee, R.Y.P. (1996)	Gender: M+F Origin: Chinese	<i>preceding year; 1= none- 7=more than 10 times.</i>	<u>Peers</u> : peer influence <u>School</u> : academic achievement
204)	Saner, H. & Ellickson, P. (1996)	N=4586 Grade: 12 th Gender: M+F Origin: USA	<u>Violent behaviour</u> : SRQ: <i>involvement in the past year</i> ; gang fights, using force or strong arm methods to get money or things from people, carrying hidden weapons other than a plain pocket knife, attacking someone with the idea of serious hurting or killing that person, hitting or threatening to hit someone in your family, hitting or threatening to hit someone NOT in your family. <u>Behavioural risk factors</u> : SRQ; <i>involvement</i> with drugs (3), dropping out of school, non violent felony offences (e.g. breaking into a house), minor delinquency (e.g. minor theft, public disorder, begging, obscene phone calls, joyriding, shoplifting, truancy, running away from home overnight), full time employment.	<u>Individual</u> : negative life events. <u>Family</u> : Demographic risk factors, <u>Other</u> : Environmental risk factors/ institutional bonds.
205)	Masten, A.S.M. Miliotis, D., Graham-Bermann, S. A., Ramirez, M. L. & Neemann, J. (1993)	N=159 homeless , 62 low-income Age: 8-17 yrs. Gender: M+F Origin: USA	<u>Problem behaviour</u> : PRQ; CBCL.	<u>Individual</u> : stressful life events, child status and opinions, depressive mood of the child, self-perceptions <u>Family</u> : status and background, parent symptoms
206)	Whitbeck, L.B., Conger, R. D., Simons, R. L. & Kao, M. Y. (1993)	N= 152 Age: 14-18 yrs. Gender: M+F Origin: USA	<u>Minor deviant behaviour</u> : SRQ; alcohol use (3 <i>dich. Items</i>), tobacco use (2 <i>dich items</i>)	<u>Individual</u> : Attitudes about sexuality, sexual activity, physical development <u>Peers</u> : friends' sexual behaviour
207)	Lahey, B.B., Gordon, R.A., Loeber, R., Stouthamer-Loeber, M. & Farrington, D.P.	Longitudinal. T1: N= 347, T2: N= 500. Gender: M Age: T1: 12-14, T2: 18-21 yrs. Origin: USA	<u>Conduct disorder behaviours</u> : SRQ/ TRQ/ PRQ: YSR, CBCL, TRF. Bullying, fighting, lying, cruelty to animals, attacking people, running away from home, fire setting, theft, truancy, vandalism), <u>Delinquency</u> : SRI; SRD (Elliott, Huizinga & Ageton, 1985).	<u>Individual</u> : Gang membership, , <u>Peers</u> : Peer delinquency. <u>Family</u> household structure, household income, parental supervision, <u>Other</u> : neighborhood crime

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(1999)				
208)	Tremblay, R.E., LeBlanc, M & Schwartzman, A.E. (1988)	Longitudinal: N=T1: 167, T2: 104 Grade: T1: 1 st , T2: 7 th Gender: M+F Origin: Canada	<u>Delinquency</u> : SRQ 28 items, frequency in the previous 12 months <i>developed for this and other studies</i> : Minor theft, major theft, use of drugs, aggression, vandalism.	<u>Individual</u> : personality functioning, 1 st grade antisocial behaviour, attitude toward parents <u>School</u> : attitudes toward school <u>Other</u> : attitude toward the juvenile justice system. leisure activities
209)	Fergusson, D.M., Warner, B., Vitaro, F., Horwood, L.J. & Swain-Campbell, N. (2003)	N=I:1265, II: 240 Age: I: Longitudinal; 16, 18, 21, II: 13 yrs Gender: M+F Origin: New Zealand, Canada	<u>Delinquent behaviour</u> : SRI; <i>Self-Report of Early Delinquency Scale</i> (SRED; Moffitt & Silva, 1988). <i>Self-Report Delinquency Inventory</i> (SRDI; Huizinga & Elliott, 1986). SRQ; SRDQ (LeBlanc & Frechette, 1989) (1- never- 4-often, during the last 12 months). Violent offending (fighting, theft, use of weapon, threatening), Property offending (vandalism, burglary, fire setting) <u>Substance abuse</u> : SRI; <i>Rutgers Alcohol Problem Index</i> (RAPI; White & Labouvie, 1989). Alcohol use and abuse; SRI; CIDI; Alcohol and cannabis abuse and dependence	<u>Individual</u> : childhood problem behaviour, major depression, child neuroticism, novelty seeking, life events, <u>Family</u> : SES, family functioning, parental adjustment, child abuse, physical punishment. <u>Peer</u> : Deviant peer affiliation, unpopularity <u>School</u> : Academic performance, school punishment
210)*	Lansford, J.E., Criss, M.M., Petit, G.S., Dodge, K.A. & Bates, J.E. (2003)	Longitudinal sample: N= 362 Gender: M+F Grade: 5 th , 6 th , 7 th Origin: USA	<u>Problem Behaviour</u> : TRQ: TRF.	<u>Family</u> : Parenting. <u>Peer</u> : peer relationships
211)*	Wentzel, K.R. & Erdley, C.A. (1993)	N = 440 Gender: M+F Grade: 6 th , 7 th Origin: USA	<u>Antisocial behaviour</u> <i>PeerR</i> ; <i>this student does this/ not</i> . I.e. fights, breaks rules	<u>Individual</u> : Strategy knowledge, IQ, social behaviour <u>Peer</u> : acceptance
212)	Guerra, N.G. (1989)	N=245 Grade: 9 th and 10 th Gender: M & F Origin: USA.	<u>Delinquency</u> : SRQ; <i>Blakely, Kushler, Parisian & Davidson, 1980</i> ; 16 <i>items from Property and Force subscales</i> . 0 = never- 5= 18 times or <i>more</i> . I.e., threatened to hurt someone, used or threatened to use a weapon to get something from a person.	<u>Individual</u> : Consequential thinking.
213)*	Kiesner, J. (2002)	T1: N=249, T2: N= 216 Gender: M+F	<u>Problem Behaviour in the class</u> : TRQ; <i>Kiesner, 1997, 7 items, 1=no</i> <i>not at all-6= yes, frequently</i>): responded badly to teacher, argumentative, argued with classmates, disturbed the lesson by	<u>Individual</u> : Depressive symptoms <u>Peer</u> : peer status.

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
		Grade: T1: 6 th , 7 th T2: 1 yr later Origin: Italian	clowning around, demanded a lot of attention, spent time with individual who get in trouble.	
214)	Skilling, T.A., Quincey, V.L. & Craig, W.M. (2001)	N=1111 Grade: 4 th ,-8 th Gender: M Origin: Canada	<u>Conduct disorder</u> : Rater report; 14 of 15 DSM-IV CD (APA, 1994) criteria (present/ not present)	<u>Individual</u> : sense of self-worth, pathological lying, conning and manipulative, lack of remorse or guilt, lack of empathy, poor behavioural control, irresponsibility, juvenile delinquency, somatic complaints, childhood antisocial behaviour. <u>Family</u> : parental alcohol problem <u>School</u> : suspended or expelled from school
215)	Dubow, E.F., Arnett, M., Smith, K. & Ippolito, M.F. (2001)	N=95 Grade: 2 waves: 6 th ,- 8 th Gender: M+F Origin: USA	<u>Problem behaviour</u> : SRQ: Health and Daily Living-Youth Form (Moos, Cronkite, Billings & Finney, 1986) (yes/no during past year; 7 behaviours: e.g. liquor, cigarettes, sexual intercourse, suspended, grade F.	<u>Individual</u> : global self-worth, problem solving efficacy, future expectation. <u>Family</u> : support <u>Peers</u> : support, peer substance use, peer pressure <u>School</u> : school involvement
216)	Mezzich, A.A., Giancola, P.R., Lu, S.Y., Parks, S.M., Ratica, G.M. & Dunn, M. (1999)	N= 180 with substance use disorder 87 controls, Age: 14-18 yrs Gender: F Origin: USA	<u>Conduct disorder</u> : SRQ: Antisocial Behaviour Questionnaire (Loeber, Stouthamer-Loeber, Van Kammen, Farrington; 1989): life time symptoms for conduct disorder and items. E.g., disruptive behaviour, hitchhiking, selling marijuana and other drugs, cheating, belonging to a gang.	<u>Individual</u> : affective disorders, early sexual development, affiliation with adult male sexual partners, age of menarche, substance use disorder <u>Family</u> : SES, parent daughter relation
217)	Martin, S.L. & Burchinal, M.R. (1992)	N=1425 mothers, Age: 15-23 yrs. Gender: F Origin: USA	<u>Delinquency</u> : SRQ: Self Reported Delinquency Index: 16 items, never, once, twice, three to five times, six to ten times, eleven to fifty times, more than 50 times. I.e., stealing worth more than \$50.-, assault, shoplifting, vandalism, robbery, run gambling operation, selling hard drugs.	<u>Individual</u> : mother's children's emotional and behavioural health
218)	McGrew, K.S. & Bruininks, R.H.	N=422. Age: Cross sectional: early childhood,	<u>Problem behaviour</u> : SRI; part of Scales of Independent Behaviour (Bruininks, et al., 1984). Internalizing, externalizing, asocial.	<u>Individual</u> : IQ (gifted-retarded), adaptive behaviour, physical competence

#	Author	Sample	Norm deviant behaviour: types and measurement	Variables studied
(1990)		childhood, adolescence /adulthood Gender: M+F Origin: USA		
219)* Houghton, S.J., Durkin, K., Parry, E., Turbett, Y. & Odgers, P. (1996)		N= 464 Gender: M+F Age: 13-18 yrs Origin: Australian	<u>school problem behaviour</u> : SRQ: 6 items; Yes/no	<u>Individual</u> : Awareness of health risk associated with tattooing, tattoos. <u>Family</u> : Demographic characteristics
220) Ellis, D. (1984)		N=258 Grade: 6 th , 7 th and 8 th Gender: M+F Origin: Canada	<u>Problem behaviour</u> : SRQ: based on Gold (1966), frequency during the past year. Stealing, vandalism, aggression, truancy, smoking, drinking	<u>Family</u> : Control. <u>School</u> : Performance <u>Other</u> : Video arcade involvement.

* indicates that the study explicitly focused on MSB at school

Table 2: Articles assessing MSB at school.

#	MSB at School	Aim	Main findings
1	<u>High-risk behaviour</u> : SRQ: 7 items; yes/no; part of <i>The Safe School Survey</i> developed by governing schools. Carrying weapon/ knife/ gun for protection, use marijuana or drugs at school, joined a gang, drinking alcohol, fighting at school	To compare four groups of students with respect to their MSB: victims with aggressive attitudes, victim with non-aggressive attitudes, nonvictims with aggressive attitudes and nonvictims with non-aggressive attitudes.	Victims with aggressive attitudes reported to carry more weapons, used alcohol and engaged in physical fights at school than the other three groups ($p < .001$).
2	<u>Bullying</u> : SRQ, 1 item <i>frequency during last year; never, 1-2, 3-5, 6 or more</i>	To distinct different groups of adolescents with respect to bullying and being bullied in relationship with behavioural and psychosocial variables.	Adolescents who report to bully, report more general behavioural problems, more behaviour misconduct, less self-control, more deviant peer influences, more deviance acceptance, and less social competence, less school adjustment and bonding, less parental involvement and support, than victims and a comparison group.
9	<u>General Problem Behaviour</u> : TRQ: BASC; 138 items, 4-point scale; never-almost always. Externalizing (aggression, hyperactivity, conduct problems), Internalizing (anxiety, depression, somatisation), School problems, attention problems, learning problems), Other problems (withdrawal, atypicality).	To compare emotional and behavioural adjustment of a group intellectually gifted with a matched group of adolescents of average ability.	No difference in SMB between intellectually gifted and average group.
12	<u>General Problem Behaviour</u> : TRQ: TRF	To compare emotional and behaviour problems of Moroccan immigrant children to Dutch and Turkish immigrant children	More SMB reported for Moroccan immigrant children than for Dutch and Turkish immigrant children. More problems were reported for boys than girls, but not for internalizing behaviour. More delinquent behaviour for older children.
15	<u>Bullying</u> : SRQ: 1 item; how often during past year.	To explore the relative importance of family, peers and school in predicting youth violence.	16% of bullying was explained by ethnicity, grade, gender and school factors (= alienation, low achievement, perception of violence at school): boys more than girls, Arabs more than Jews, young more than older students. Bullying was also sign related to less

#	MSB at School	Aim	Main findings
17	<u>School misbehaviour:</u> <i>Scale from the Normative Deviance Scale (NDS; Vazsonyi and Killias, 2001). (never, 1 time, 2-3 times, 4-6 times, more than 6 times). 7 items: cheated on school tests, been sent out of a classroom because of bad behaviour, been suspended or expelled, stayed away from school/ classes when your parent thought you were there, intentionally missed classes for fun, been in trouble at school so that your parents received a phone call, skipped school/ work.</i>	To examine the importance of family and school factors on the deviance of Caucasian and African-American adolescents	instrumental support of parents, spending more time with friends, Model fitted better for boys than girls. No racial differences were detected in the frequency of self-reported SMB between African-American and Caucasian adolescents. 29% of SMB was explained for African-Americans, 32 % for Caucasian students. School variables (=grades, time spent on homework, educational aspiration, commitment) explained 12 % of SMB for African-Americans and 10 % for Caucasians. Social class was not significant predictor, boys reported more SMB than girls in Caucasian youth, age was a sign predictor in the sample of African-Americans.
28	<u>General Problem behaviour:</u> <i>TRQ: QSPB40 items (no problem, slight problem, serious problem): Inhibited-Neurotic, Anti-social behaviour, insufficiency-immaturity.</i>	To examine the hypothesis that social attitudes may result in teachers overestimation behavioural problems of adolescents from separated families.	Students from separated families were rated as more problematic on all three types of MSB than children from intact families, and more antisocial and immature than children who lost a parent. Children from intact families were rated as more antisocial than children who lost a parent.
33	<u>Bullying:</u> <i>Olweus self-report questionnaire on school bullying</i>	To increase our understanding of the relationship between self-concept and bullying behaviour.	Bully/victims had the lowest self-esteem, next bullies and victims and highest self-esteem was reported by students who never been bullied nor bullied. Bullies reported equal physical attractiveness and popularity as the never (been) bullied. Self-esteem seemed to protect adolescents from involvement in bullying. Frequent bullies were least anxious.
37	<u>Deviant Behaviour:</u> <i>TRQ, Rutter School Behaviour Scale, 26 items. How applicable is this behaviour to the child, 3 point scale or 'don't know'.</i> Hyperactive behaviour Antisocial behaviour	To investigate psychiatric symptoms and deviance at the age of 15 among children involved in bullying at the age of 8 or at the age of 12. And to investigate the relationships between involvement in bullying at the age of 8, concurrent	At age 15 SMB (teacher ratings) showed that children who were bullied at age 8 or 12, showed more antisocial and hyperactive behaviour than adolescents who had never been bullied. Bully/victims showed more SMB on hyperactive, antisocial, relationship and neurotic behaviour than the control group.

#	MSB at School	Aim	Main findings
	Relationship behaviour Neurotic behaviour	psychiatric deviance, and later psychiatric deviance were studied.	
41	<u>School Misbehaviour: SRI, From NYS (Elliott & Huizinga, 1983), scale 1= never-9=2-3 times a day.</u> Disruptive acts (i.e. throw thing), school troubles (i.e. skip class)	To explore possible antisocial pathways and risk factors for antisocial participation among adolescent girls.	Continuity was found for disruptive behaviour, but not for school troubles. Both were related significantly to association with deviant friends. GPA was negatively related to school troubles, school alienation was not related to SMB.
42	<u>Disruptive Behaviour in the Classroom: Teacher Child Rating Scale, Hightower, Spinell & Lotyczewski, 1986.</u> (i.e., disruptive in class, deviant, obstinate, stubborn). <u>School records.</u> School suspension. <u>SRI:</u> disruptive behaviour in school, number of suspensions	To examine long-term effects of a program of prenatal and early childhood home visitation by nurses on children's antisocial behaviour.	No effects were found from prenatal and early childhood nurse home visitation on school records of suspension or disruptive behaviour in school.
55	<u>School Problem behaviour: SRQ, 2items,</u> how often gotten into trouble for misbehaviour or braking school rules, been sent to principal's office.	To examine the relationship between early work experience and adolescent mental health and behavioural adjustment.	For boys: self-derogation and if workdays were more predictable or they felt more internal control, less SMB was reported. For Girls: if they reported more need to think innovatively at work, or felt more responsible for things at work that were beyond their control, more SMB was reported. No differences between workers and non-workers were found. Less MSB reported if a smaller nr of hours than average was worked. High SES predicted less MSB.
58	<u>School truancy: TRQ; The School Rating Scale (no reference); 2 teachers.</u> <u>Social behaviour: TRQ SRS:</u> discipline, general conduct, class conduct, social risk, dirusptive behaviour.	To gain insight in the ecology of pro- and antisocial behaviour.	SMB (social behaviour and truancy) decreased if parents were better educated, large number of nonkin adults in the boy's network. Truancy was best predicted by father's SES and neighbourhood risk.
62	<u>School misbehaviour: SRQ:</u> aggression against students (2 items), aggression against teachers (6), breaks school rules (1), school deviance (engagement in	To investigate to what extent alienation from, or involvement in the social and educational systems of the high school, determine aggressive and deviant	All types of SMB were related to negative attitudes toward staff and less involvement in school activities. Student attitude to school may be a cause, as well as an effect of students' misbehaviour. It can be an antecedent

#	MSB at School	Aim	Main findings
	aggressive or rebellious behaviour in school)(1)	school behaviour and personality styles or orientation, through school experiences.	or a consequence of negative feelings to school. (sample of boys).
65	<i>School misbehaviour: SRQ/TRQ; By counsellor and pupil answered the degree of attainment of these goals: 1-5 (much less than expected- much more than expected). School attendance, completion of assignment, appropriate school behaviour.</i>	To examine the effect of involving conduct problem adolescents in the setting of individual counselling goals. Goals were communicated in different levels of involvement of students.	The more involved and better informed students were in setting their goals, the better these goals (=less SMB) were achieved.
66	<i>School misbehaviour (6) (tardiness in getting to school, seen principal for causing trouble, stayed out late without permission, sneaked into a movie without paying, given fake excuse for being absent, deliberately torn or marked up a library book. Based on a.o. Activity Checklist (Hundleby), General Deviant Behaviour Scale (Jessor 1969), scale by Witt (1971); frequency of occurrence during pas year/average a week.</i>	To investigate substance abuse across the full domain of adolescent behaviour in a systematic fashion.	SMB is correlated with alcohol ($r = .35$), tobacco ($r = .31$) and marijuana ($r = .34$), but not significantly with pain-killers and tea or coffee. Correlation between SMB and general delinquency was .23.
67	<i>Antisocial behaviour: TRQ: Rutter School Behaviour Scale (Rutter, 1967).</i>	To investigate the constancy of ratings of behaviour made at home and school between the ages of 7-11, 11-16 and 7-16.	Correlation for SMB between the different ages ranged from .31 to .48. Only 2% of the deviant children remained deviant at a later age, More girls were present in the low deviant group, more boys in the deviant group. At later ages, these differences became less obvious. More children form bigger families and more not first born showed MSB.
70	<i>School Opposition: SRQ; scale of Olweus' scale of antisocial behaviour (1989): school opposition (4; sworn, quarrel with teacher, sent out of class, summoned principal)</i>	To examine whether there are gender differences in the associations between conduct problems and risk factors.	Associations between risk factors and SMB were stronger for boys than for girls. For boys 22% was explained, for girls 20%. SMB of boys was associated with a lack of parental monitoring, parents substance use, friends' deviance, high participation in organized and non-organized leisure activities, low participation in family related leisure activities, achieving poor grades in

#	MSB at School	Aim	Main findings
			school, spending little time on homework and having low educational aspirations. The same was found for girls, except participation in organized and family related leisure activities and educational aspirations were not significantly related to school opposition.
71	<u>Academic problems</u> : SRQ; skipped school or been sent out of class for causing trouble more than once in the last year, missed more than 5 days during current academic year, earned grades of c or worse, ever repeated a grade. Suspended or dropped out of school.	To compare 7 th grade non-smokers, experimenters, and smokers on the basis of prevalence of other problem behaviours at both grade 7 and 12.	Early smokers and early experimenters (but less severe than smokers) were more likely at grade 12 to drop-out of school and show more behavioural problems at school and earned lower grades than non-smokers. More girls than boys were smokers, more boys than girls were experimenters.
72	<u>Bullying</u> : SRQ; <i>derived from a WHO youth health study (King, 1996) 1=not at all-4=many times a week. 'Bullies others'.</i>	To investigate the relationship between bullying and victimization and psychosomatic symptoms, depression, anxiety, eating disorders and substance use.	Bullying is an indicator for various mental disorders in adolescence. Anxiety, depression and psychosomatic symptoms were most frequent among bully-victims and equally common among bullies and victims. Frequent excessive drinking and use of any other substance were most common among bullies and thereafter among bully-victims. Among girls eating disorders were associated with bullying.
73	<u>Problem Behaviour</u> : TRQ: <i>Rutter B2 (=questionnaire for teachers)</i> . Hyperactivity (3), externalizing (7), internalizing (5), relationship (5).	To discover whether the heavy use of alcohol in adolescence is associated with earlier psychiatric symptoms and deviance, gender, family structure and socio-economic situation of the family.	Heavy alcohol users had significant higher total scores of SMB than other students. Females in externalizing and hyperactive behaviour, boys also in internalizing and relationship behaviour. Within the heavy alcohol users, boys scored higher on externalizing hyperactive and relationship problems than girls, girls reported more internalizing behaviour. Externalizing behaviour at age 12 predicted heavy alcohol use at age 15.
76	<u>School Behaviour</u> : <i>derived from Minnesota Student Survey (freq.: none, 1-2, 3 or more)</i> skipping school, using alcohol or marijuana during or before school hours, purchasing	To assess the value of educational risk factors as indicators of other risk behaviour in the adolescent age group.	SMB is a predictor for health risk behaviour (i.e. delinquency, sexual activity, substance use), even when grade level, gender, ethnicity, and GPA are held constant. Boys more than girls, seniors more than

#	MSB at School	Aim	Main findings
	alcohol or drugs on campus. Missing school due to substance use.		freshman, American Indians more than Caucasian and African Americans.
77	<u>Truancy: SRQ; part of Michigan Survey Research Center's Monitoring the Future for 1993.</u> 2 items: number of schooldays skipped, number of classes skipped during the past month	To combine peer-orientedness and weak school attachment that are common among delinquent adolescents, in a common perspective, and indicate why they increase the chance why they engage in delinquent activities.	Truancy was positively correlated with negative self-image, curriculum track and sociability and negatively related positive self-image, ability, grades, liking of school, school rules, and school experience and not significantly related to parents education and race. Regression analysis showed that sociability (i.e. evenings going out for fun, getting together with friends) and school experience (liking of school, grades, fairness of school rules) where the best predictors for truancy. For whites 17% was explained, for blacks 7%.
78	<u>Antisocial behaviour TRQ; The SSBS (33 items) (Merrell, 1993) 5 point Likert scale, designed for school setting:</u> Hostile-Irritable, Antisocial Aggressive, Disruptive-Demanding. (I.e. Blames other students for problems. (b) Defies teacher or other school personnel, (c) Gets into fights, (d) Argues and quarrels with peers, (e) Whines and complains, (f) Disrupts ongoing activities).	To examine the relationship among a host of family characteristics and indicators of adolescent competence.	Teacher reported more SMB in adolescents from families with more conflict and enmeshment, external locus of control, and permissive or authoritarian styles. Also gender (boys more than girls), age (older than grade 9 were less problematic), and educational level of parents (higher, less problematic) were related to SMB.
92	<u>Bullying: SRQ: Questionnaire for Students (D. Olweus, 1995): Part A):</u> bullying others (4), bullying teachers (2). <u>Part B): school misbehaviour (8),</u>	To examine the prevalence of gun ownership and the links among gun ownership, reasons for gun ownership and antisocial behaviour.	Gun ownership for sporting reasons was slightly related to bullying and other SMB. Gun ownership for gaining respect or frightening others was much stronger related to SMB.
107	<u>Deviant Behaviour: SRQ, 10 items:</u> parents received a warning about my attendance, parents received a warning about my behaviour, I got into a physical fight at school. (<i>never, once or twice; more than twice</i>) I was late for school, I cut/skipped classes, I got in trouble for not following school rules, I was put on in-school	To investigate the relationship between race, family background, school bonding and school misbehaviour.	Asian-Americans committed less SMB than white, black, Hispanic, or Native American adolescents. School bonding was the best predictor for differences in SMB, contrary to family bonding. MSB was significant related to conventional attitude (B=-.44), grades (B=-.17), attachment to school (B=-.06).

#	MSB at School	Aim	Main findings
	suspension, I was suspended or put on probation from school, I was transferred to another school for disciplinary reasons, I was arrested (<i>never, 1-2, 3-6, 7-9, over 10 times</i>), ran away from home for a week or more at any time during the last 2 years, (<i>yes/no</i>)		
108	<u>School misbehaviour</u> : <i>TRQ</i> : troublesome and aggressive school behaviour, attention difficulties, school attainments, truancy. <i>Peer RQ</i> : daring, dishonesty, troublesomeness, popularity.	To summarize key predictors of offending in adulthood, to propose a theory to explain these results and to draw implications from the results and theory for prevention.	SMB was a predictor for later convictions: 57% of the 77 school delinquents were later convicted. This indicates the continuity of a construct of an antisocial personality.
114	<u>Problem behaviour</u> : <i>Peer R</i> , 11 items, 4-point scale. e.g. disrupts others, lies, often cheat in games or school work, <u>School Behaviour</u> : <i>discipline records</i> : tardiness, gum chewing, insubordination, swearing, assault, vandalism, attendance	To expand the investigation of peer-rejected subgroup differences to adolescence.	Rejected-antisocial adolescents exhibited higher levels of SMB and school discipline problems than rejected-non-antisocial students. Correlation between 8 th and 10 th grade problem behaviour was .38.
115	<u>Antisocial behaviour</u> : <i>peer R</i> . 10 items 4-point scale. E.g., starts fights, disrupts others, always in trouble, threatens others/bullies, annoys others, lies, blames others for mistakes, cheats, makes fun of others, tries to get others into trouble.	To assess the prediction of school dropout from measures of antisocial behaviour, social preference and achievement.	SMB was a unique predictor for school dropout. MSB grade 8 was related to social preference ($r = -.26$), achievement ($r = -.31$), .38 to MSB in grade 10. MSB grade 10 was related to social preference ($r = -.39$), achievement ($r = -.32$ for boys, ns for girls)
119	<u>Disruptive Behaviour</u> : <i>TRQ</i> : Physical aggressions, opposition, hyperactivity, conduct problems, violent and non-violent delinquent outcomes.	To examine the developmental course of physical aggression in childhood and to analyze its linkage to violent and non-violent offending outcomes in adolescence.	Continuity was found for physical aggression for boys. Chronic physical aggression during elementary school, increases risk for physical violence and other (non-violent) delinquent behaviour during adolescence.
120	<u>Aggressiveness</u> : <i>Peer R</i> ; 2 items, i.e. 'name 3 students you're your class that ...starts fights, pushes other kids around.	To investigate the relationship between ethnicity, peer harassment and adjustment.	African-Americans were more often nominated as aggressive (by peers) than Latino and multiethnic respondents.

#	MSB at School	Aim	Main findings
122	<u>Problem Behaviour: PeerR:</u> <i>Multidimensional Peer Rating Scale (Bierman, Morrison & Bitner, 1995). How much a statement characterizes a classmate: 3 point scale. Exhibits the behaviour rarely or not at all –a lot more than most kids his age. I.e., Aggressive, (starts fights) disruptive-hyperactive fidgets, overactive), withdrawn-internalizing (unhappy, shy), irritable-inattentive behaviour (complains, acts like a baby): Adolescent antisocial activities: peerR, 3 point scale: involvement in; stealing, vandalism, association with deviant peers, truancy, alcohol abuse.</i>	To examine the relative role of aggression and other dysregulated behaviours in the prediction of adolescent peer problems and antisocial behaviour.	Aggression and withdrawal showed stability between T1 and T2 and were linked to adolescent antisocial activities. Especially in combination with irritable-inattentive behaviours, this behaviour seems to play a key role in the prediction of adolescent maladjustment. Stability between T1 and T2 was for Aggression .49, irritable-inattentive .41, disruptive-hyperactive .52, and for Withdrawn-internalizing .36.
123	<u>Carrying weapons: SRQ:</u> ever carried a weapon to school? <u>Aggressiveness: TRQ: part of Interpersonal Competence Scale (Cairns, Leung, Gest & Cairns, 1995) 7 point Likert scale. I.e., always argues, gets in trouble, always fights.</u>	To investigate weapon carrying in rural African-American youth.	Weapon carriers tended to maintain their high level of aggression over the 3 years of study. No significant difference between boys and girls in weapon carrying, but older students. Weapon carriers consume more cigarettes. No difference in academic achievement, association with deviant friends or consuming alcohol or trying drugs.
128	<u>Norm breaking behaviour: SRQ:</u> <i>Magnusson, 1981; Frequency, 5 point Likert scale; never; once; 2-3; 4-10; more than 10. (2) (cheat, truancy).</i>	To investigate the role of biological maturity in behaviour in adolescent girls.	Early matured girls were more truant than late maturing girls. This difference is mediated by associations with older peer groups and levelled out in late adolescence. No difference in cheating on an exam.
136	<u>Problem behaviour: SRQ:</u> disturbing behaviour in class, truancy, fighting, destructive behaviour, theft, running away from home	To investigate the mechanism between delinquent behaviour and family and school processes.	delinquent behaviour at school and outside school were correlated .39. Commitment to school was related .30 to deliberate disturbances of classes and .26 to truancy, and .19 to delinquent behaviour at school. Punishment at school was related to these factors respectively .41, .25 and .29. Treatment at school was correlated with these factors respectively .24, .19, and .20. Pupils displaying

#	MSB at School	Aim	Main findings
			difficult behaviour at school, and else where, do not like going to school, devote little time to their homework, are punished regularly at school and feel the teacher treats them more strictly and rewards them less often than other pupils. School predictors appeared better predictors than home predictors. Best school predictors were more punishments in class, weaker commitment to school activities, and teacher's expectations that the pupil will frequently get into touch with police and judicial authorities.
142	<u>Problem behaviour</u> : SRQ; 18 items based on Brown et al (1986) and Kaplan (1978) 5-point scale; never- almost every day. Disobeying parents (3), school misconduct (3), substance abuse (4), antisocial behaviour (8).	To examine concurrent and longitudinal relations among Canadian adolescents' problem behaviour, self-image and peer relations.	With age, SMB increased. SMB was predicted (33%) by the perception of risk and fun. Fun was a positive predictor, perception of risk a negative predictor. Also a fun*risk interaction was found, indicating that individuals who viewed SMB as more fun and less risky, misbehaved more frequently than other adolescents. No main effect for gender. Both genders sign increased their MSB over time. Sign related to self image (T1,T3), peer involvement (T1, T2, T3) and peer acceptance (T3)
143	<u>Disruptive behaviour</u> : SRQ: 5 items, Kaplan & Maehr, 1999, 5-point scale: not at all true-very true. Disruptive behaviour and negative conduct in math class. I.e. I disturb the lesson math class, I behave in a way that annoys my math teacher, I do not follow my math teacher's directions.	To investigate how students' perceptions of the social environment of their eighth-grade classroom related to changes in motivation and engagement when they moved from seventh to eight grade.	Disruptive behaviour was related -.41 to teacher support, -.35 to promote mutual respect, .45 to promote performance goals, -.35 to social efficacy with teacher, -.38 with self-regulated learning, and -.21 with gender. Regression results for the student engagement measures showed that demographic characteristics and prior achievement were not related to changes in disruptive behaviour. Previous disruptive behaviour predicted increase disruptive behaviour. Perceptions of the teacher as supportive predicted decreased disruptive behaviour. Promotion of performance goals predicted increased disruptive behaviour. Neither promoting interaction in the classroom nor promoting mutual respect was related uniquely to changes in disruptive behaviour.

#	MSB at School	Aim	Main findings
164	<u>School misconduct</u> ; <i>SRQ: number of days</i> : cut class, sent out of class, someone from home was called to school.	To examine the relationship between alcohol use and other problem behaviours	SMB was .43 related with alcohol use, .46 with alcohol intoxication, .52 with alcohol related social problems, .51 with illicit drug use, and .50 with illicit drug use related social problems. Boys more than girls, increase with age.
175	<u>School misconduct</u> , <i>SRQ: frequency</i> . Cheating, copying homework, tardiness.	To investigate the relationship between parenting styles and adolescents' competence and adjustment.	Adolescents from indulgent homes report higher SMB and less school engagement. Children from more authoritarian parents report less SMB. SMB is reported more by children from authoritarian and most by neglectful parents. Asian students report less SMB than black, Hispanic and white students. MSB was also sign related to self reliance, work orientation, social competence, grades, school orientation, psychosomatic symptoms, drug use and delinquency (r ranges from - /+.04--/+ .49).
178	<u>Deviant behaviour at school</u> . <i>School reports</i> : unauthorized absence, authorized absence, exclusion from school	To investigate the role of trait emotional intelligence, academic performance and deviant behaviour at school.	Pupils with high trait emotional intelligence reported less SMB.
182	<u>Antisocial behaviour</u> <i>SRQ; ASB Questionnaire (Allsopp, 1972): 28 items. Never, once or twice, three or more; 20 items added</i> on misbehaviour from girls of their age, ranging from mild (e.g., making a noise in class) to serious offences (e.g., braking into private property to steal something). <i>School record</i> ; school naughtiness (number of marks lost for bad behaviour)	To investigate the relationship between personality and antisocial behaviour.	SMB was related to extraversion and psychoticism. Mild SMB more to extraversion, serious SMB more to psychoticism.
184	<u>Antisocial behaviour: Classroom behaviour</u> : <i>TRQ:17 items of the Behaviour Problem Checklist (Quay & Parson, 1970)</i> unsociales/ psychopathic	To investigate the relationship between tonic heart rate level, social class and antisocial behaviour in adolescents.	In high social class only, it was found that the antisocial group had lower heart rate levels that a prosocial group.
190	<u>Deviant school behaviour</u> : <i>Rated by conduct</i>	To test the hypothesis that a tendency	SMB was related to simplify social cognitions.

#	MSB at School	Aim	Main findings
	<i>grades of teacher</i>	towards oversimplification in situations of moral relevance is systematically related to deviant behaviour at school.	Complexity of social cognition increases with age for students without SMB only. For deviant students a decrease in complex social cognitions was found.
191	<u>Deviant school behaviour</u> : SRQ: 7 items: 0= <i>never</i> - 3= <i>often</i> : I.e., harassing teachers, damaging things, beating up weaker persons, spreading stories about classmates, fighting with others, challenging other people, and insulting teachers.	To test two hypothesis: First; rapid social change leads to feelings of injustice among youth and this in turn produces delinquency. Second; the stress of rapid social change induces decreased parental control and/or undermines the delinquency-reducing effects of parental control and nurturance.	Delinquent drift predicts SMB on the individual level, but not on the societal level. Nurturing parenting is negatively related to SMB. No direct influence from rapid social change was found on SMB.
196	<u>Problem behaviour</u> : SRQ: <i>Part of the SSP (School Success Profile (Bowen & Chapman, 1996; Richman & Bowen, 1997): 4 items, during the past 30 days. E.g., "I was sent out of class because I misbehaved</i>	To compare school outcomes for students who differ in the extent to which they perceive their parents, friends, and teachers, each alone and in combination, as important sources of social support.	Less SMB is reported when students perceive social support from teacher, parents AND peers. Perceived teacher support alone was not effective.
210	<u>Problem Behaviour</u> : TRQ: TRF.	To examine the quality of peer relationships and perceived peer antisocial behaviour as moderators of the link between negative parenting and externalizing behaviour problems in school from middle childhood to early adolescence.	High levels of friendship quality and peer group affiliation (especially with low antisocial peers) attenuated the association between unilateral parental decision making and SMB. MSB also related to parental low supervision and awareness, harsh discipline, friends' MSB, peer group MSB, externalizing behaviour grade 5.
211	<u>Antisocial behaviour</u> PeerR; <i>this student does this/ not</i> . I.e. fights, breaks rules	To examine the relations among strategy knowledge about making friends, procosial and antisocial behaviour, and peer acceptance at school during early adolescence.	Knowledge of appropriate and inappropriate strategies for making friends were related to both pro and antisocial behaviour. Display of antisocial behaviour did not represent an intermediate process that links knowledge bout these strategies to peer acceptance. SMB correlated -.35 with IQ, -.21 with giving social support for girls and -.12 for giving social support for boys.
213	<u>Problem Behaviour in the class</u> : TRQ;	To test the hypothesis that antisocial	SMB at T1 predicted SMB at T2 ($r=.66$). Peer rejection

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	<i>Kiesner, 1997, 7 items, 1=no not at all-6=yes, frequently):</i> responded badly to teacher, argumentative, argued with classmates, disturbed the lesson by clowning around, demanded a lot of attention, spent time with individual who get in trouble.	behaviour plays a causal role in the development of depression during childhood and adolescence through pervasive failures in social competence and social acceptance.	did not mediate the effect from SMB on depression. SMB at T1 was related to depression ($r=-.26$), SMB at T2 was related .32. SMB T1 and T2 predicted peer status (negative association).
219	<u>school problem behaviour</u> : SRQ: 6 items; Yes/no	To investigate reasons, experiences, methods and perceived health consequences of obtaining tattoos.	Males reported more SMB than females. Students with tattoos reported more SMB than non tattooed students. No main effect was found for gender.