Adolescent problem behaviours associated with parental divorce, interparental conflict, and parent-child relationships.

Cheryl Robyn. Lavitch
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ADOLESCENT PROBLEM BEHAVIOURS
ASSOCIATED WITH PARENTAL DIVORCE,
INTERPARENTAL CONFLICT, AND
PARENT-CHILD RELATIONSHIPS

by

Robyn Lavitch

B.A. (Honours), University of Manitoba, 1994

A Thesis Submitted to the
Faculty of Graduate Studies and Research
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in Partial Fulfillment of the
Requirements for the Degree
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1998

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ABSTRACT

The purpose of the present study was to identify several variables (parental marital status, interparental conflict, parent-child relationships) related to the divorce process and the association that these variables have on adolescent problem behaviours (sexual activity, alcohol consumption, cigarette smoking). Students ($N = 2,087$) from all high schools across Windsor and Essex county were included in this study. The age of the participants ranged from 14 year olds or younger to 18 year olds or older, with slightly more females ($n = 1125$) than males ($n = 876$) participating in this study. The participants completed a “Teen Health Centre Survey”, with only the relevant subsections included in the present study. Overall, adolescents living in divorced and/or separated homes had higher rates of sexual activity, alcohol consumption, and cigarette smoking. In addition, adolescents living in divorced and/or separated homes with high levels of interparental conflict had higher rates of these problem behaviours compared to adolescents living in married homes with high levels of interparental conflict. Quality of parent-child relationships was not related to these rates of problem behaviours. The current findings suggest that multiple stressors during the divorce process have serious consequences for adolescent’s behaviour. Consequently, parental efforts should concentrate on minimizing the number of stressors an adolescent experiences during times of marital transitions.
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CHAPTER I
INTRODUCTION

The purpose of the present study is threefold: a) to determine if adolescents who have experienced their parents' divorce differ from adolescents from intact families on the following problem behaviours: sexual activity, alcohol consumption rates, and cigarette smoking rates; b) to identify the relationship between divorce, interparental conflict and the three problem behaviours; c) to examine parent-child relationship(s) as a mitigating factor moderating sexual activity, alcohol rates, and smoking rates for adolescents experiencing parental divorce.

Adolescent Problems Behaviours

Donovan and Jessor (1985) found high inter-correlations among alcohol consumption, the use of marijuana, the commission of different delinquent-type behaviours, and precocious involvement in sexual intercourse for adolescents. These behaviours were found to be part of a single underlying factor they labeled "syndrome of problem behaviours", which reflects a general dimension of unconventionality in adolescents and young adults. Similarly, various studies have found adolescents who become sexually active are much more likely than their sexually abstinent counterparts to subsequently begin using alcohol or cigarettes (Brooks-Gunn, & Furstenberg, 1989; Mott & Haurin, 1988). Furthermore, those who use tobacco or marijuana at early ages also seem to be more likely to
have sexual intercourse at younger ages (Devine, Long, & Forehand, 1993; Dorius, Heaton, & Steffen, 1993).

Sexual activity. The majority of youths report being sexually active. Among people aged 15-19 in 1990, 60% of men and 56% of women reported having been sexually active (those who have had sexual intercourse) (Statistics Canada, 1994). Of the 15-19 year olds who have had sex, 64% of males, versus 83% of females, had had only one partner (Statistics Canada, 1994). Similarly, Bibby and Posterski (1992) reported that 55% of 15-19 year olds were sexually active. Numerous other reports have indicated the average age of first intercourse is between 14 and 16 years of age (Dabrow, Merrick, & Conlon, 1995; Rodriguez & Moore, 1995; Seidman, Mosher, & Aral, 1992; & Smith, 1994). One factor linked to both early onset of sexual intercourse and higher rates of sexual activity in adolescence has been parental divorce and/or separation.

An early investigation by Hetherington (1972) found that girls from divorced families displayed forms of early heterosexual behaviours such as an openness and responsiveness towards males. These girls displayed greater attention seeking from both male and female adults. In addition, girls from divorced families initiated physical contact with male adults, and spent more time in male areas and less in female areas compared to girls from widowed or intact homes. This behaviour may set the foundation for a female's early sexual involvement.
According to Forste and Heaton (1988), adolescent females who were living with both parents at age 14 had more conservative sexual behaviours during their teen years than those from non-intact homes. By age 15, only 16% of teens with both parents had engaged in sexual intercourse, whereas, 36% of teens from non-intact homes had engaged in sexual intercourse. By 19 years of age the rates were 66% and 81% respectively (Forste & Heaton, 1988). Similarly, Dorius, Heaton, and Steffen (1993) also found youths with the lowest odds of sexual intercourse were those whose parents were married. Devine, Long, and Forehand (1993) found adolescents from divorced families reported more frequent and/or earlier sexual involvement. Kaler and Rembar (1981) also reported adolescent girls referred for psychiatric treatment who have experienced their parent's divorce show increased sexual behaviour.

The association between sexual involvement and parental divorce and/or separation may be different for females than for males. Newcomber and Urdy (1987) found that being in a mother-only household was associated with females' age at first intercourse, whereas the disruption of the two-parent household between interviews was associated with boys' age at first intercourse. Similarly, Miller and Bingham (1989) found teenage young women who had been raised by a single-parent were more likely to have nonmarital sexual intercourse than young women from intact marriages. On the other hand, Fergusson, Horwood, and Lynskey (1994) found both male and female children exposed to parental separation had
earlier sexual activity in adolescence. In either case, whether the gender differences are pronounced or not, the experience of parental divorce is associated with earlier sexual involvement in adolescence regardless of gender.

Alcohol consumption. As previously noted, the occurrence of early sexual involvement coincides with the occurrence of other behaviours such as alcohol consumption and cigarette smoking. Statistics Canada (1994) reported that less than half of all young people drink alcohol on a regular basis (those who drink at least once a month). In 1991, 43% of people aged 15-19 reported they consumed alcohol at least once per month (Statistics Canada, 1994). Furthermore, Bibby and Posterski (1992) reported that the weekly alcohol use among teens has declined slightly in the past decade, from 23% to 18%, with 25% saying they never use alcohol at all. Young men are more likely than young women to consume alcohol regularly. In 1991, 47% of men aged 15-19 drank at least once per month, compared with 38% of women in this age group (Statistics Canada, 1994). Kandel and Logan (1984) reported that the consumption of alcohol began earlier for males than for females.

Alcohol consumption among adolescents is linked to parental marital status. After ten years of parental marital separation, adolescents had a higher incidence of alcohol consumption (Fergusson, Horwood, Lynskey, 1994). Workman and Beer (1992) also noted a correlation between parental divorce and higher scores on the alcohol use scale.
Adolescent girls from families with divorced parents exhibited higher incidences of alcohol involvement than their male counterparts (Kalter & Rembar, 1981). However, Doherty and Needle (1991) found more adverse effects on the frequency of alcohol consumption for boys from disrupted households. Although the same effects for alcohol consumption were shown before and after the parental marital disruption for girls.

The alcohol consumption among adolescents may be related to the parents marital status because of decreasing parental or adult supervision, which is experienced earlier for those whose parents have divorced and later (entering college) for those students whose parents have not divorced (Billingham, Post, & Gross, 1993).

Cigarette smoking. In 1991, 16% of people aged 15-19 smoked regularly, down from 20% in 1985 and 33% in 1978 (Statistics Canada, 1994). Another 6% were occasional smokers, 6% were former regular smokers who had quit, while the majority of youths, 72% in 1991, had never smoked daily (Statistics Canada, 1994). Cohn, Lawrence, MacFarlane, Yanez, and Imair (1995) found that 57% of teens had smoked at least once. Bibby and Posterski (1992) noted the smoking rate among teens has also been decreasing, with approximately 65% of teens surveyed, said they don’t smoke. Regular cigarette smoking as reported by adolescents, dropped from 30% in 1984 to 26% in 1988, and in 1992 was at 20%.

Research reporting gender differences indicates that cigarette smoking begins earlier from males than for females (Kandel & Logan, 1984). There
has been a particularly sharp drop in the percentage of male youths who smoke regularly. Between 1985 and 1991, the proportion of men aged 15-19 smoking daily fell from 20% to 12%. In contrast, the proportion of female youths smoking regularly declined only from 21% to 20% in the same period. As a result, women aged 15-19 were more likely than their male counterparts to smoke in 1991. During that year 20% of female 15-19 year olds compared with 12% of male youths smoked daily (Statistics Canada, 1994).

Divorce has been implicated as a factor influencing the smoking rate among adolescents. For both males and females, parental marital status was related to smoking rates among adolescents (Fergusson, Horwood, & Lynskey, 1994; Newcomber & Urdy, 1987). Results also indicate that the children who are at greatest risk for smoking in adulthood are those who have experienced parental divorce (Tucker, Friedman, Tomlinson-Keasey, Schwartz, Wingard, Criqui, & Martin, 1995).

Summary

One consistent finding has been that divorce and/or separation is related to the occurrence of the three problem behaviours discussed above. Fergusson, Horwood, and Lynskey (1994) found in a fifteen-year longitudinal study that children exposed to parental separation have higher rates of problem behaviours and psychopathology in adolescence. Adolescents who experienced parental divorce and/or separation reported
between 1.11 and 4.00 times higher occurrence of problem behaviours and sexual activity.

However, the correlations with sexual activity, alcohol rates, and smoking rates with parental marital status may be an oversimplification. It may for example be triggered by the degree of conflict a child experiences during the divorce rather than the event of divorce itself. There are also a number of factors which may account for the relationship between divorce and/or separation and the incidence of sexual activity, alcohol rates, and smoking rates. For instance, the modeling of sexually permissive attitudes and behaviours (Thornton & Camburn, 1987), and a lack of adult supervision available for adolescents in single parent homes (Hetherington, 1989; Newcomber & Urdy, 1987) may account for the relationship between divorce and/or separation and the rate of problem behaviours. Three factors are of particular interest in the present study. The first factor is the adolescent’s perception of interparental conflict. Newcomber and Urdy (1987) indicated that it was the events associated with family disruption rather than the marital status that was related to adolescent problem behaviours. The second factor is the quality of the parent-child relationship. Hess and Camara (1979) reported that the most crucial factor in divorced families is the quality of the parent-child relationship. Finally, the last factor is the time since the divorce and/or separation occurred. Generally, if the parental separation is not compounded by stress and adversity, the adolescent will show improved functioning two to three years following the
separation (Hetherington, 1989; 1993). Thus, examination of these
variables; divorce and/or separation, interparental conflict, the parent-child
relationship, and time since divorce and/or separation will be investigated in
the present study to determine their relationship on adolescent sexual
activity, alcohol rates, and smoking rates. Before addressing these factors,
however, a brief overview of divorce is warranted.

**Parental Divorce and/or Separation**

Even though the divorce rate has stabilized in recent years (Dumas &
Peron, 1992; Glick & Lin, 1986; and Sweet & Bumpass, 1980) it is still
projected that at least half of all marriages will end in divorce (Furstenberg,
1990). The high prevalence of divorce also implicates the number of
adolescents who will experience their parent's divorce. It has been estimated
that 44% of children/adolescents will live in a single parent household by
age 16 (Bumpass & Sweet, 1989). The large number of adolescents
involved in marital disruption and the sorts of problem behaviours
encountered by adolescents raises concern over the consequences that
parental divorce and/or separation will have on the adolescents
developmental progression and well-being.

**The divorce process.** To state that divorce and/or separation is related to
adolescent problem behaviours is oversimplifying the actual process of the
marital transition as indicated earlier. Instead, the divorce per se may not be
the only factor implicated in the problem behaviours for adolescents, but the
events which surround the divorce itself may effect the adolescent outcome.
Divorce is a multistage process with altering family relationships and roles. The marital rupture brings about a sudden reconfiguration of the family, which often continues for many years following the dissolution of the marriage (Wallerstein, 1991). According to Wallerstein (1983) during the acute phase of the divorce process (the actual separation, the legality of filing for divorce, and the departure of one parent from the household) a diminished capacity to parent is evidenced. This usually occurs since both parents become preoccupied and absorbed in adapting to the transition themselves. The transition from a two-parent household to a single-parent household disrupts the parenting system and usually reduces the economic support available to adolescents. Poorly enforced rules and discipline, as well as a decrease in enforcing regular household routines are all common occurrences. The custodial parent tends to be less competent, less able to maintain the structure of the household, and less available in general (Hetherington, Stanley-Hagaan, & Anderson, 1989; Wallerstein, 1983). Such alterations truncate the existing family structure and necessitate adaptive capacities for all family members, which also generates reduced supervision of the adolescent's activities.

Adolescent reactions to divorce. The adolescents reaction to their parent's divorce differs from the reaction experienced by children (Wallerstein, 1983). According to Wallerstein (1983) adolescent's often experience intense anger toward one or both of their parents, which is similar to the preadolescent, and older-school age child, but different than the reaction of
younger children. Adolescents display a range of behavioural responses, which seem to reflect the impact of the divorce on the adolescent developmental process (Wallerstein, 1983). When adolescents experience their parents divorce, they must integrate their losses, and express their feelings of anger, sadness, and abandonment in order to resume age appropriate developmental tasks (Wallerstein, 1983). According to Emery (1982), adolescents are particularly vulnerable to their parents separation because they are likely to have been exposed to the disruptive circumstances for a prolonged period of time. It is therefore suggested that the period of adolescence may be a difficult time for a divorce to occur. Thus, the experience of their parent's divorce may have a stronger association than other time periods. A meta-analysis conducted by Amato and Keith (1991) found that levels of well-being were relatively low for adolescents experiencing parental marital disruption.

Amato and Keith's (1991) meta-analysis of ninety-two studies on the effects of divorce concluded that children (inclusive of children up to college students, but not including adult children of parental divorce) from divorced families scored between one-fifth and one-eighth of a standard deviation below children from intact families on several outcome measures. These outcome measures included academic achievement, conduct, psychological adjustment, self-concept, social adjustment, mother-child relationships, father-child relationship and other. Their study also confirmed that children of divorce experience a lower level of well-being
than do children living in continuously intact families. More than two-thirds of the studies found that children with divorced parents reported lower levels of well-being than did children from intact homes (Amato & Keith, 1991).

Several studies have indicated that children of divorced families showed difficulties in academic and cognitive realms, externalizing behavioural problems such as aggression, antisocial behaviour, and acting out behaviours, and internalizing problems such as depression and negative self-concepts (Amato & Keith, 1991; Forehand, Wierson, Thomas, Armistead, Kempton, and Neighbors, 1991; Hess & Camara, 1979; Hetherington, 1989; Hetherington, Stanley-Hagan, & Anderson, 1989; Shaw, 1991; and Wallerstein, 1991).

Generally, boys exhibit more externalizing problems and girls exhibit more internalizing problems (Furstenberg, 1990). Initially, if the custodial parent is the mother, girls seem to adjust better at home and at school than boys. Consequently boys seem to be more vulnerable to the disruption caused by the divorce than girls (Wallerstein, 1983). Investigations have consistently found boys to be more affected by parental divorce and/or separation than girls (Block, Block, & Gjerde, 1986; Emery, 1982; Hess & Camara, 1979). Boys are at an increased risk for antisocial and aggressive behaviour (Block, Block, & Gjerde, 1986). Furstenberg (1990) suggests that it may not be worse for boys, they may just behave differently. In a six year follow-up study by Hetherington, Cox and Cox (1985) on the effects
of divorce, more adverse effects were found for boys, whereas remarriage was more disruptive for girls. However, girls not living with their biological fathers may encounter more problems in managing sexuality and adjusting to heterosexual relations (Furstenberg, 1990).

Thus, it may be that boys do not necessarily incur more negative effects from parental divorce than girls, but that they manifest themselves in different behaviour problems depending on the child's age. Hetherington (1993) noted these gender differences for adverse responses to parental marital transitions disappeared as children moved into adolescence. In addition, Wallerstein (1983) found the difference in behaviour problems between males and females declined after 5 years of the initial separation. Furthermore, Amato and Keith's (1991) meta-analysis indicated that when a large number of studies were considered, including studies that are infrequently cited, gender differences were not as pronounced as indicated in the research literature.

Frost and Pakiz (1990) noted that adolescents from more recently disrupted households consistently reported specific kinds of antisocial behaviour in greater proportions than did those from intact households. Significant relationships between marital disruption and adolescent reports of antisocial behaviour were found for cigarette smoking, becoming involved with alcohol and drugs, and appearing in juvenile court, with no gender differences found.
However, the divorce per se or family structure alone cannot be considered independently of the family process variables (Kurdek & Sinclair, 1988). Numerous studies have shifted investigation to examining the contributing relationship of the processes involved in divorce (Shaw, 1991). That is, the events that occur during the dissolution of the marriage, rather than the occurrence of the divorce itself. Thus, events which precede and follow the occurrence of divorce must be taken into account when investigating the short- and long-term effects of divorce on adolescents. The functioning of the family prior to the divorce and the functioning of the family following the divorce are relevant for predicting how well the adolescent will adjust to these marital transitions.

**Long-term effects of divorce.** Children's/adolescent's long-term adjustment to divorce is related to the following variables: (a) interparental conflict; (b) separations from an attachment figure; (c) temporal relationships, including the passage of time and the children's age at the time of divorce; (d) parenting practices and the nature of relationship between the child and their nonresidential parents; (f) remarriage; (g) family economics; and (h) the sex of the child (Shaw, 1991). Since several variables are associated, it is difficult to predict adolescent outcomes from divorce. The acute phase can differ significantly from the long-term aftermath. In the acute phase, changes or losses may first occur, but other secondary losses may affect the long-term consequences. Several stressful experiences occurring together
can lead to multiple and interactive effects that adversely affect children (Wallerstein, 1983).

Multiple stressors are especially likely to occur during the first two years following divorce when children and parents undergo an initial period of emotional distress as indicated by psychological, health, and behaviour problems that are common at this time (Hetherington 1989; 1993). During the separation and/or divorce children often experience multiple stressors. Children are frequently exposed to environments with high levels of parental conflict, and must adjust not only to the absence of the noncustodial parent, but also to changes in custodial parent's availability, overall parenting style, and depressed economic resources.

According to Shaw (1991), children are affected by the decline in family income at two levels. First, the child is indirectly affected through poorer parenting. Parents have less time and energy for their children because of the increased demands that the parents must endure. As the primary parent struggles to keep emotional balance and still manage the home, children receive less attention and energy during a time when they need more support and nurturing (McKay, Rogers, Blades, & Gosse, 1984). Second, the child is directly affected by a lowered income through changes in the environment. For example, if the child has to relocate for financial reasons, they may move to an environment with lower quality schools and neighborhoods, in addition to experiencing a loss of friends (McKay, Rogers, Blades, & Gosse, 1984).
Rutter (1987) reports that a single stressor typically carries no appreciable psychiatric risk for children. When children are exposed to multiple stressors, however, such as divorce, interparental conflict, depressed economic resources, and changes in parenting styles, the adverse effects increase multiplicatively. Thus, divorce, interparental conflict, and parent-child relationships were found to be related to difficulties occurring in adolescence (Forehand, Wierson, McCombs-Thomas, Fauber, Armistead, Kempton, & Long, 1991).

The influence of many stressors is reduced with the passage of time since both children and adults learn to adapt and adjust to their new roles and circumstances. Generally, preadolescents/adolescents show improved functioning two to three years after the parental separation, if the separation is not compounded by continued stress and adversity (Hetherington, 1989; 1993). Longitudinal studies generally provide support for the notion that preadolescent’s/adolescent’s adjustment difficulties following divorce usually abate with the passage of time (Amato & Keith, 1991; Frost & Pakiz, 1990; Furstenberg, 1990).

Although adjustment difficulties may dissipate when preadolescents/adolescents adjust to new roles and relationships, difficulties may still be present. Kalter and Rembar (1981) found that adolescents who experienced their parent’s divorce still had a prevalence of psychological problems, academic troubles, and difficulties with intense angry feelings towards their parents after five years. Similarly, Hetherington, Cox, and
Cox (1985) found preadolescents of divorced families had more behaviour problems than families that were intact in a six year follow-up study. A longitudinal study examined adolescent functioning following divorce and noted that adolescents from divorced families were functioning less well than those from married families, with no changes occurring from the first to second year post-divorce (Forehand, Wierson, McComb-Thomas, Fauber, Armistead, Kempton, & Long, 1991).

A ten-year longitudinal study by Wallerstein and Corbin (1989) suggests the possibility of a sleeper effect, whereby a delayed emergence of negative effects from marital transitions occur. The emergence of intense anxieties that may have been repressed during earlier development or constrained by the close mother-daughter relationship may appear later. As a consequence these young women suffer anxiety in their relationships with men, which at least temporarily diminishes their self-confidence and ability to address the complex psychological and social tasks of their young adult years (Wallerstein & Corbin, 1989). It is likely that following the parental separation the daughter identifies intensely with the mother. However, such an identification may evoke extreme fears in the daughter because she fears that her relationships with men will be similar to that of her mothers. The consequence then would be problems in developing relationships with males (Wallerstein & Corbin, 1989).

On the other hand, when considering longitudinal studies that indicate problems with children of divorce, these problems may actually be
evident before the parents have separated (Block, Block, & Gjerde, 1986; Cherlin, Furstenberg, Chase-Lansdale, Keirnan, Robins, Morrison, & Teitler, 1991; Emery & Kitzman, 1994; Shaw, Emery, & Tuer, 1993). According to Emery (1982) the increase in children's behaviour problems prior to divorce are due to the occurrence of disturbance and distress that precedes the actual separation. The disruptions in the family household typically precede the actual event of separation. Thus, it is likely that some behavioural difficulties will occur prior to the actual separation.

**Interparental Conflict**

Since parental conflict usually begins prior to and does not terminate with the dissolution of the marriage, and may even increase following the divorce, the association between divorce and ongoing child behaviour problems may be explained by interparental conflict (Emery, 1982). This is in accordance with one of Amato and Keith's (1991) theoretical notions regarding the intervening processes accounting for negative consequences of children who experience their parents' divorce. The family conflict notion assumes that conflict between parents before and during the separation period is a severe stressor for children. Such an environment lends itself to feelings of insecurity, unhappiness, and distress. These feelings in turn lead to behaviour problems.

Interparental conflict has been consistently identified as a major contributor to behaviour problems in preadolescents/adolescents across a wide array of family structures and settings, including divorced and
separated families. Thus, researchers suggest that the divorce and/or separation per se is not as an important factor in predicting preadolescent’s/adolescent’s adjustment as is the hostility and interparental conflict before and after the separation (Black & Pedro-Caroll, 1993; Fergusson, Horwood, & Lynskey, 1994; Tannenbaum, Neighbors, & Forehand, 1992). Interparental conflict emerged as a significant predictor for externalizing problems for boys. In addition, conflict was a predictor of internalizing problems for both boys and girls (Tannenbaum, Neighbors, & Forehand, 1992).

Amato and Keith’s (1991) meta-analysis revealed that children in high-conflict intact families scored 0.32 of a standard deviation below children in low-conflict intact families, and 0.12 of a standard deviation below children in divorced families on the eight outcome measures discussed earlier. These results strongly support the notion that the high conflict typical of divorcing parents will produce lower levels of well-being among their children.

Forehand, Wierson, McCombs-Thomas, Fauber, Armistead, Kempton, and Long (1991) similarly found that adolescents in the divorced sample who perceived more interparental conflict than adolescents from the married sample had higher rates of teacher-reported externalizing and internalizing problems. Portes, Howell, Brown, Eichenberger, and Mas (1992) found preadolescent’s/adolescent’s reaction to and insight into the divorce and conflict in the home after divorce was related to children’s
socioemotional adjustment. Therefore, the adolescents perception of high conflict between parents is related to adolescent adjustment difficulties.

Borrine, Handal, Brown and Searith (1991) found support for the psychological wholeness position. This position views perceived current family conflict as the critical variable influencing adjustment regardless of marital status. Hence, adolescent adjustment is related to the level of perceived family conflict, rather than the parental marital status (Borrine, Handal, Brown & Searith, 1991).

The family conflict perspective assumes two operating factors produce problems for the preadolescent/adolescent; a deterioration in the parent and child relationship, and less effective parenting (Amato & Keith, 1991). According to this perspective, preadolescents/adolescents of divorce exhibit problems not only from the family structure, but also from the accompanying conflict (Amato & Keith, 1991). Therefore, if single parents create harmonious family environments, these preadolescents/adolescents should be better adjusted. Furthermore, since the conflict usually dissipates with time, child adjustment problems should likewise dissipate with time, a finding which has already been noted (Amato & Keith, 1991).

Buchanan, MacCoby, and Dornbusch (1991) found that high discord and hostility and low cooperative communication between parents predicted more feelings of being caught between parents. These feelings of "being caught" were related to higher levels of depression/anxiety and more deviant behaviour. It is suggested that parental conflict has negative effects
by altering family interactions in such a way that the child may be drawn
directly into the conflict, or the child may become fearful of the
consequences for choosing one parent over the other. Another factor
related to the feelings of being caught between parents is the quality of the
parent-child relationship (Buchanan, MacCoby, & Dornsbusch, 1991). The
conflict between parents causes adjustment difficulties in adolescence
because it disrupts the parent-child relationship and parenting skills through
three mechanisms: (a) lax control, or a decline in discipline; (b)
psychological control; and (c) parental rejection or withdrawal. Forehand,
Wierson, McComb-Thomas, Fauber, Armistead, Kempton, and Long
(1991) found that high levels of interparental conflict in divorced families
were associated with more parent-adolescent relationship problems. Several
studies report that parent-child relationship problems served as the best
predivorce indicator of concurrent and subsequent difficulty in adolescent
functioning before and after the divorce (Forehand, Wierson, McComb-

Parent-Child Relationships

Consistent with the above, Black and Pedro-Caroll (1993) suggest the
effects of family disruption on psychological well-being are indirect, such
that the effects are mediated by the quality of parent-child relationships.
The adolescent during the time of marital transitions is focusing on the
personal affects of parental divorce, and thus, may invest in greater than
normal importance of the relationship with his or her parents. In turn, that
relationship becomes a prime predictor of adolescent functioning

(Forehand, & McCombs-Thomas, 1992; Schwartzberg, 1992).

According to Forehand et al. (1991) a good parent-child relationship has been viewed as a protective factor against family stressors. A good parent-child relationship can buffer the child from some of the negative effects of marital turmoil, even in instances where there is only one parent (Black & Pedro-Carroll, 1993; Emery, 1982; Kurdek & Sinclair, 1988). Devine, Long, and Forehand (1993) noted that social support from the family was associated with a lower frequency of sexual intercourse and fewer sexual partners for adolescents.

However, the quality of the parent-child relationship is usually disrupted following divorce. Hetherington (1993) proposes that because of multiple role demands and stressors, the ability of many divorced mothers to effectively support, control, monitor and discipline their children declines in the immediate aftermath of divorce. Following divorce, custodial parents typically become more authoritarian, whereas noncustodial parents become more relaxed. Both adults tend to lower their standards for their children's behaviour and school achievement. Parents may experience difficulty in communication, maintaining consistent discipline, and displaying affection (Brenner, 1984). Divorced single parents face particular troubles with affection, parental authority, completing household tasks, less affection, more erratic discipline, and greater responsibility than they have previously
received. Some of these difficulties predate the marital separation (Emery & Forehand, 1994).

Hetherington (1989) states that both sons and daughters in divorced families were allowed more responsibility, independence, and power in decision making than were children in non-divorced families. Other researchers have found single-parent mothers to be more authoritarian, more permissive, negative, inconsistent, and less affectionate than married mothers (Hess & Camara, 1979; Fauber, Forehand, McCombs-Thomas, & Wierson, 1990). Block, Block, and Gjerde (1988) noted that the to-be divorced parents had relations with their children that were characterized by paternal disengagement, maternal resentment, and parental conflict between parents and their sons. Hetherington (1989) found that the mother-child relationship was troubled after divorce. In particular, divorced mothers and their sons engage in escalating episodes and hostile interchanges. Girls also exhibit increased non-compliance, anger, and demandingness and dependency the year following divorce (Hetherington, 1989).

In general then, the mother-child relationship tends to be strained following divorce, but they typically improve over time (Emery & Kitzman, 1994). We can conclude that on average, children of parental divorce encounter a residential parent who offers them less affection, more erratic discipline, and greater responsibility than they had previously received. Thus, children face enormous change in their required roles and expectations and they experience somewhat troubled relationships with both
their residential and their nonresidential parents as a result of parental
divorce (Emery & Forehand, 1994; Forehand & Thomas, 1992). Jenkins
and Smith (1990) found children who had poor relationships with parents
were at risk of developing emotional and behavioural problems even if their
parents had a harmonious marriage. Similarly, Wallerstein and Kelly
(1980) found that good parent-child relationship was associated with better
adjustment in children following their parents divorce. Supportive
structured, predictable parent-child relationships seems to protect children
from the adverse effects of marital transitions (Hetherington, 1989).

Rutter (1987) found the presence of at least one good parent-child
relationship served to reduce the psychiatric risk associated with family
discord. The presence of at least one authoritative parent-child relationship
and the absence of conflict between children's parental figures both are
good predictors of children's adjustment within and across family forms
(Emery & Kitzman, 1994).

Neighbors, Forehand, and McVicar (1993) found that of two groups
experiencing high interparental conflict, the resilient adolescents have better
relationships with their mothers, and higher levels of self-esteem than do the
nonresilient adolescents. Buchanan, MacCoby, and Dornbush (1991) state
that adolescents who have close relationships with their parents are less
likely to feel caught between their parents. Feelings of "being caught"
mediated between the interparental relationship and adolescent adjustment
outcomes. High conflict often leads to children feeling caught in the
middle of their parents' arguments because either the child is drawn directly into the conflict, or is fearful of siding with one parent (Buchanan, MacCoby, & Dornbusch 1991).

Forehand, Wierson, McCombs-Thomas, Fauber, Armistead, Kempton, and Long (1991) across a two year study found adolescents from divorced families with high conflict had more mother-adolescent relationship difficulties than adolescents from divorced families with low conflict. Also parent-child relationships during the first year post divorce can serve to predict initial difficulties at school and one year later (Forehand et. al, 1991).

Hess and Camara (1979) maintain that the negative effects of divorce can be mitigated if positive relationships with parent(s) can be established; even in instances with only one parent. They state the quality of relationship(s) between the child and parent(s) is the most crucial factor in divorced families. Such that, the relationship with family members are more important in predicting the child's behaviour than is the actual marital status or level of conflict between the parents. According to Emery (1982) such a relationship can mitigate, but it can not completely eliminate the negative effects of parental divorce.

Present Study

As summarized above several variables related to the divorce process have been linked to adjustment difficulties in adolescence. However, currently no single study has investigated all of these variables at the same
time. The purpose of the present study was to examine the divorce process in a more global context, that is, by considering several variables that have been associated with adolescent problem behaviours in previous research. The present research investigated the following hypotheses based on previous research outcomes and theoretical considerations.

Hypothesis 1a. Adolescent’s who have experienced their parents divorce and/or separation will have higher rates of sexual activity, alcohol consumption, and cigarette smoking compared to adolescents from intact homes. In general, adolescents from divorced and/or separated homes have been found in separate studies to have higher rates of these problem behaviours (e.g., Doherty & Needle, 1991; Fergusson, Horwood, & Lynskey, 1994; Forste & Heaton, 1988; Newcomber & Urda, 1987).

Hypothesis 1b. A comparison between males and females will show higher rates of problem behaviours for males than for females. Males tend to exhibit more externalizing problems than females and tend to more vulnerable to the disruption caused by divorce than females (e.g., Furstenberg, 1990; Wallerstein, 1983).

Hypothesis 1c. A comparison between ages groups will show higher rates of problem behaviours for older adolescents than younger adolescents. Forste and Heaton (1988) have shown that the rates of problem behaviours increase as the adolescent’s age increases.
**Hypothesis 1d.** Those adolescents who have recently (within the last two years) experienced their parents divorce and/or separation will show higher rates of problem behaviours compared to adolescents who have experienced their parents divorce and/or separation more than two years ago. With the passage of time many stressors are reduced when adolescent's adapt and adjust to their circumstances. Consequently, if parental divorce is not compounded by continued stress than adolescent adjustment difficulties should dissipate with the passage of time (e.g., Amato & Keith, 1991; Frost & Pakiz, 1990; Furstenberg, 1990).

**Hypothesis 1e.** Adolescents who were teens at the time of their parents divorce will show higher rates of problem behaviours compared to adolescents who were preteens at the time of their parents divorce.

According to Emery (1982), adolescents are particularly vulnerable to their parents separation because they have been exposed to the disruptive circumstances for a longer period of time than younger children. Therefore, the experience of their parent's divorce may have a stronger association than at other time periods.

**Hypothesis 2.** Intervariable conflict may be a more important variable in predicting adolescent problem behaviours than parental marital status. Therefore, adolescents who have experienced parental divorce in addition to high levels of interparental conflict will have higher rates of problem behaviours than adolescents who have experienced parental
divorce with low levels of interparental conflict. Several researchers suggest that the divorce and/or separation is not as important a factor in predicting adolescent's adjustment as is the amount of interparental conflict during the separation (e.g., Black & Pedro-Caroll, 1993; Fergusson, Horwood, & Lynskey, 1994; Tannenbaum, Neighbors, & Forehand, 1992).

Hypothesis 3. For adolescents who have experienced parental divorce and high levels of interparental conflict a positive parent-child relationship will buffer the adolescents from the family stress and in turn they will have lower levels of problem behaviours compared to adolescents who have experienced parental divorce and high levels of interparental conflict with negative parent-child relationships. A good parent-child relationship is viewed as a protective factor against family stressors (Forehand et al., 1991). Therefore, if such a relationship exists, it may protect the adolescent during high levels of interparental conflict and parental divorce.
CHAPTER II

METHOD

Participants

All research participants were recruited from high schools across the Windsor and Essex County during the 1996-1997 academic year. There was a total of 2,087 subjects who participated in this survey about adolescent issues and concerns. This research was based on a subset of data taken from The "Teen Health Centre Survey" (see Appendix A). A total of twenty-six schools from the Windsor and Essex County were selected, including both separate and public schools. One class from each grade was provided by each school. That is, students from one grade nine-ten-eleven- and twelve-class were included in this study. In addition, some schools also provided an Ontario Academic Credit class (OAC). Each individual school was responsible for randomly selecting the participating classes. The age of the participants ranged from 14 years of age or below to 18 years of age or older. There were more females (n = 1125) than males (n = 876) who participated in this study. The proportion of females and males in each age group and grade are presented in Table 1.

Materials

The research team at The Teen Health Centre (including the present author) in Windsor, Ontario developed the survey to identify areas of importance for adolescents. The survey consists of 179 questions divided
Table 1

Demographics of the Adolescent Sample (N = 2,087)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Male</th>
<th></th>
<th>Female</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>% of Total Males</td>
<td>n</td>
<td>% of Total Females</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>92</td>
<td>10.6</td>
<td>147</td>
<td>13.1</td>
</tr>
<tr>
<td>15</td>
<td>191</td>
<td>21.9</td>
<td>278</td>
<td>24.7</td>
</tr>
<tr>
<td>16</td>
<td>136</td>
<td>15.6</td>
<td>214</td>
<td>19.0</td>
</tr>
<tr>
<td>17</td>
<td>209</td>
<td>24.0</td>
<td>354</td>
<td>22.6</td>
</tr>
<tr>
<td>18 or above</td>
<td>244</td>
<td>28.0</td>
<td>232</td>
<td>20.6</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>175</td>
<td>20.1</td>
<td>232</td>
<td>20.6</td>
</tr>
<tr>
<td>10</td>
<td>185</td>
<td>21.2</td>
<td>292</td>
<td>26.0</td>
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<td>11</td>
<td>126</td>
<td>14.4</td>
<td>189</td>
<td>16.8</td>
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<td>12</td>
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<td>29.5</td>
<td>263</td>
<td>23.4</td>
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<tr>
<td>OAC</td>
<td>129</td>
<td>14.8</td>
<td>148</td>
<td>13.2</td>
</tr>
</tbody>
</table>
into eleven subsections (see Appendix A). The eleven subsections include
the following topics: (a) general attitudes on several issues including
enjoyment, importance, and problems of various activities; (b) self-esteem;
(c) anger management; (d) use of alcohol and drugs; (e) opinions on health
risks of using drugs and other substances; (f) use of tobacco; (g) sexuality
and health care; (h) eating habits; (i) family life; (j) personal demographics
and; (k) attitudes and perceptions of the Teen Health Centre.

There were various formats for responding the these questions. Some
questions had yes/no responses, while others had four or five -point likert-
type response. For instance, the response may have ranged from (a) a lot
to (d) not at all. Other responses included a four or five -point scale that
was not likert-type, but listed possible answers specific to each question.

The survey was adapted from several sources, and permission to
incorporate items was obtained by correspondence with the authors listed
below. Approximately one-third of the items were based on previous
research conducted by Bibby and Posterski (1992). They conducted a
national youth survey entitled Project Teen Canada 92. The first subsection
assessing the teen’s enjoyment, importance, as well as their belief system
about current issues, was adapted and modified from their research.

Questions were drawn from several sources including The Adolescent
Health Questionnaire (Ontario Medical Association Committee on Child
Welfare), The Ontario Student Drug Use Survey, The Health Behaviour
Questionnaire (Central West Health Planning Information Network), and
The Sandwich Community Health Centre Needs Survey. The remaining questions were devised by the Research Team at the Teen Health Centre.

The survey was created to assess the major issues in adolescence. All of the questions have face validity, but the reliability of these questions in this context has not been assessed. For the purpose of the following study only four subsections of the survey were relevant. The pertinent sections were: family life, sexual activity, alcohol consumption, and cigarette smoking.

The items used in the current study are also listed in Appendix A and are denoted by an asterisk.

Family life. The section on family life comprised seventeen questions in total. These questions were devised to explore three key aspects of family life: marital status of the adolescent's parents, interparental conflict and parent-child relationships. There were four questions investigating the parent's marital status: The marital status of the parents, the adolescent's age at the time of divorce and/or separation, the time since the parent's divorce and/or separation, and the primary custody of the adolescents.

The conflict dimension of the scale was comprised of four questions assessing the adolescent's perception of their parents hostility towards each other. These four questions assessed how well the parents got along, how much the parents argued, how often the adolescent felt caught in the middle of their parents disputes, and how often the adolescent felt he/she must mediate between their parents. These four questions have been added together to arrive at a total interparental conflict score. The scores ranged
from one to five. Several items were reverse coded so that higher adolescent scores would reflect higher rates of interparental conflict.

The third aspect of the family life subsection investigated the nature of the parent-child relationship(s). Three questions were relevant: how well the adolescent got along with her/his mother, how well the adolescent got along with her/his father, and how well the adolescent felt that his/her parents understood them. Again responses to these three questions have been added together to yield one total score indicating the nature of the parent-child relationship. The scores ranged from one to thirteen.

**Sexual activity.** Under the subsection of sexuality three questions were explored: whether the adolescents have had sexual intercourse, the age at first sexual intercourse, and how many partners the adolescent has had. All three items were combined to yield one total score representing sexual activity. The scores ranged from one to twelve. Some items have been reverse coded so that higher scores represent a higher rate of sexual activity.

**Alcohol consumption.** There were five questions listed under the use of alcohol and drugs. These questions explored the age and grade at which the adolescents first drank alcohol. As well, the frequency with which the students drank alcohol in the last four weeks, the last three months, and the average alcohol consumption at one time were investigated. A total score of alcohol consumption was obtained by combining all five items. The scores ranged from three to fifteen. Some items have been reverse coded so that a
higher score would indicate a higher rate of alcohol consumption among the adolescent.

Cigarette smoking. Three relevant questions were asked: if the adolescent has ever tried cigarettes, at what grade they first tried cigarettes, and how many cigarettes were smoked on an average day. These three items were added together to arrive at a total cigarette smoking score. The scores ranged from one to twelve. Some items have been reverse coded so that higher scores would indicate higher rates of cigarette smoking among the adolescent.

Procedure

All participants received a consent form prior to administration of the survey. Informed consent was obtained from all participants, and a parent, if participants were under the age of eighteen. The consent form asked subjects (and their parent where necessary) for permission to participate in the study, in addition to explaining the purpose and content of the survey. The survey included an assessment package containing a cover sheet, the survey, and a scantron answer sheet. The scantron answer sheet is a computerized form where subjects respond to the questions by filling in the corresponding bubbles with their answers. The cover sheet identified the purpose of the study and described the confidentiality and anonymity of the participant's responses. The cover sheet was handed out prior to administration of the survey. Once subjects had reviewed the cover sheet, instructions on how to complete the survey were outlined.
The survey was administered over a period of three months. Within this time each of the twenty-six participating schools were completed. Approximately one-hundred participants from each of the twenty-six schools responded to this survey. Standardized procedures were utilized whereby, all subjects received the same introduction and instructions prior to completing the questionnaire. Facilities for administering the survey varied depending upon the school. That is, administration occurred in a classroom setting with only one class, or in a cafeteria style with numerous classes combined at one time. All testing sessions were conducted during regular school hours, either during the morning or afternoon. Subjects had the entire class period to finish the survey. The allotted time for each period depended upon the school.
CHAPTER III
RESULTS

Frequency of Adolescent Problem Behaviors

Sexual activity. The results of the demographics for sexual activity are presented in Table 2. The proportion of adolescents who reported having engaged in sexual intercourse is 41%. Of this proportion 37% were males and 44% were females. Considering the adolescents who had engaged in sexual intercourse, 42% did so before the age of fourteen, where the proportion of males and females was 39% and 44% respectively. In addition, 85% of the adolescents engaged in sexual intercourse by the age of sixteen, where the proportion of males and females was 87% and 82% respectively. Furthermore, 80% of the adolescents had between one and four partners, where the proportion of males was 84% and the proportion of females was 75%. Twenty percent of the adolescents had five or more partners, with the proportion of males at 16% and the proportion of females at 25%.

Alcohol consumption. The results of the demographics for alcohol consumption are presented in Table 3. The majority (79%) of adolescents have tried alcohol, with slightly more males (82%) than females (77%) having tried alcohol. In addition, 63% of the adolescents had drunk alcohol at least once or twice in during the previous four week period, with approximately an equal proportion between males (62%) and females (65%). Of the adolescents who had drunk alcohol, 54% had become
Table 2

Frequency of Adolescent Sexual Activity (N = 2,087)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Engaged in Sexual Intercourse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>419</td>
<td>37.2</td>
<td>378</td>
<td>43.9</td>
</tr>
<tr>
<td>No</td>
<td>693</td>
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<td>480</td>
<td>55.7</td>
</tr>
<tr>
<td>Age of First Intercourse</td>
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<tr>
<td>12 Years Old or Younger</td>
<td>21</td>
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<td>47</td>
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</tr>
<tr>
<td>13 to 14 Years Old</td>
<td>156</td>
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<td>138</td>
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<tr>
<td>15 Years Old</td>
<td>124</td>
<td>27.5</td>
<td>90</td>
<td>21.5</td>
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<tr>
<td>16 Years Old</td>
<td>90</td>
<td>20.0</td>
<td>73</td>
<td>17.5</td>
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<tr>
<td>17 Years Old or Older</td>
<td>60</td>
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<td>70</td>
<td>16.7</td>
</tr>
<tr>
<td>Number of Sexual Partners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>173</td>
<td>40.2</td>
<td>147</td>
<td>37.3</td>
</tr>
<tr>
<td>Two</td>
<td>93</td>
<td>21.6</td>
<td>84</td>
<td>21.3</td>
</tr>
<tr>
<td>Three to Four</td>
<td>95</td>
<td>22.1</td>
<td>65</td>
<td>16.5</td>
</tr>
<tr>
<td>Five to Seven</td>
<td>46</td>
<td>10.7</td>
<td>31</td>
<td>7.9</td>
</tr>
<tr>
<td>Eight or More</td>
<td>23</td>
<td>5.3</td>
<td>67</td>
<td>17.0</td>
</tr>
</tbody>
</table>
Table 3

Frequency of Adolescent Alcohol Consumption (N = 2,087)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Ever Drank Alcohol or Used Drugs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never Tried Alcohol and Drugs</td>
<td>203</td>
<td>18.1</td>
<td>200</td>
<td>23.0</td>
</tr>
<tr>
<td>Tried Alcohol and Drugs</td>
<td>916</td>
<td>81.9</td>
<td>668</td>
<td>77.0</td>
</tr>
<tr>
<td>How Often Drank Alcohol in Last 4 Weeks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None in Four Weeks</td>
<td>341</td>
<td>36.2</td>
<td>197</td>
<td>27.9</td>
</tr>
<tr>
<td>Once or Twice in Four Weeks</td>
<td>403</td>
<td>42.8</td>
<td>267</td>
<td>37.9</td>
</tr>
<tr>
<td>Three or Four Times in Each Week</td>
<td>125</td>
<td>13.3</td>
<td>138</td>
<td>19.6</td>
</tr>
<tr>
<td>Five Times or More in Each Week</td>
<td>51</td>
<td>5.4</td>
<td>53</td>
<td>7.5</td>
</tr>
<tr>
<td>Within 3 Months How Many Times Drunk</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Alcohol</td>
<td>192</td>
<td>20.6</td>
<td>129</td>
<td>18.5</td>
</tr>
<tr>
<td>Not Became Drunk</td>
<td>251</td>
<td>26.9</td>
<td>184</td>
<td>26.4</td>
</tr>
<tr>
<td>Once</td>
<td>205</td>
<td>21.9</td>
<td>131</td>
<td>18.8</td>
</tr>
<tr>
<td>Twice</td>
<td>136</td>
<td>14.6</td>
<td>80</td>
<td>11.5</td>
</tr>
<tr>
<td>Three or More Times</td>
<td>150</td>
<td>16.1</td>
<td>174</td>
<td>24.9</td>
</tr>
<tr>
<td>Average Alcohol Consumption at One Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One to Two Drinks</td>
<td>292</td>
<td>31.9</td>
<td>165</td>
<td>24.1</td>
</tr>
<tr>
<td>Three to Four Drinks</td>
<td>250</td>
<td>27.4</td>
<td>110</td>
<td>16.1</td>
</tr>
<tr>
<td>Four to Six Drinks</td>
<td>244</td>
<td>26.7</td>
<td>154</td>
<td>22.5</td>
</tr>
<tr>
<td>Seven or More Drinks</td>
<td>122</td>
<td>13.3</td>
<td>251</td>
<td>36.6</td>
</tr>
<tr>
<td>When First Drank Alcohol</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 5 or Less</td>
<td>98</td>
<td>10.6</td>
<td>95</td>
<td>13.8</td>
</tr>
<tr>
<td>Grade 6-7</td>
<td>166</td>
<td>18.0</td>
<td>141</td>
<td>20.5</td>
</tr>
<tr>
<td>Grade 8</td>
<td>249</td>
<td>27.0</td>
<td>157</td>
<td>22.8</td>
</tr>
<tr>
<td>Grade 9-10</td>
<td>329</td>
<td>35.6</td>
<td>222</td>
<td>22.3</td>
</tr>
<tr>
<td>Grade 11 or Later</td>
<td>81</td>
<td>8.8</td>
<td>73</td>
<td>10.6</td>
</tr>
</tbody>
</table>
drunk at least once within the three months prior to taking the survey, with approximately an equal proportion between males (53%) and females (55%). The average alcohol consumption for 49% of those adolescents who had drunk once or twice a week, was four or more drinks in one night. Of that proportion 40% were males and 59% were females. Sixty-nine percent of the adolescents first began drinking before grade 8, with the proportion of males and females at 71% and 66% respectively.

Cigarette smoking. The results of the demographics for cigarette smoking are presented in Table 4. Seventy percent of the adolescents report having tried cigarettes. Of that proportion 72% were males and 68% were females. For those adolescents who tried cigarette smoking 70% did so before grade eight, with the proportion of males and females at 84% and 75% respectively. On an average day, 24% of the adolescents report smoking a half a pack (nine or more cigarettes) or more, with an equal proportion between males and females.

Simple Correlations Between Problem Behaviours

The simple correlations between sexual activity, alcohol consumption rates, and cigarette smoking rates are presented in Table 5. The three problem behaviours were all significantly correlated with each other (p < .001). The correlation coefficients are all moderate ranging from .25 to .42.

Family Patterns

The data describing the adolescent’s parental marital status are presented in Table 6. Approximately two-thirds of the adolescents were
Table 4

Frequency of Adolescent Cigarette Smoking (N = 2,087)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Ever Tried Cigarettes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>806</td>
<td>72.2</td>
<td>591</td>
<td>68.2</td>
</tr>
<tr>
<td>No</td>
<td>305</td>
<td>27.3</td>
<td>273</td>
<td>31.5</td>
</tr>
<tr>
<td><strong>Grade when Tried Cigarettes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade 4 or earlier</td>
<td>38</td>
<td>4.6</td>
<td>58</td>
<td>9.3</td>
</tr>
<tr>
<td>Grade 4-6</td>
<td>190</td>
<td>22.9</td>
<td>125</td>
<td>20.1</td>
</tr>
<tr>
<td>Grade 7-8</td>
<td>359</td>
<td>43.3</td>
<td>250</td>
<td>40.1</td>
</tr>
<tr>
<td>Grade 9-10</td>
<td>191</td>
<td>23.0</td>
<td>150</td>
<td>24.1</td>
</tr>
<tr>
<td>Grade 11 or Later</td>
<td>51</td>
<td>6.2</td>
<td>40</td>
<td>6.4</td>
</tr>
<tr>
<td><strong>Number of Cigarettes on Average Day</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One to Three</td>
<td>63</td>
<td>7.9</td>
<td>78</td>
<td>13.4</td>
</tr>
<tr>
<td>Four to Eight</td>
<td>80</td>
<td>10.1</td>
<td>68</td>
<td>11.7</td>
</tr>
<tr>
<td>Nine to Twelve</td>
<td>113</td>
<td>14.2</td>
<td>79</td>
<td>13.6</td>
</tr>
<tr>
<td>Thirteen or More</td>
<td>79</td>
<td>9.8</td>
<td>61</td>
<td>10.5</td>
</tr>
<tr>
<td>Don’t Smoke Every Day</td>
<td>459</td>
<td>57.9</td>
<td>296</td>
<td>50.9</td>
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</table>
Table 5

Simple Correlations Between Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Alcohol</th>
<th>Smoking</th>
<th>Sexuality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>---</td>
<td>.42</td>
<td>.25</td>
</tr>
<tr>
<td>Smoking</td>
<td>---</td>
<td>.32</td>
<td></td>
</tr>
<tr>
<td>Sexuality</td>
<td>---</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. All correlation coefficients are significant at p < .001
<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>1258</td>
<td>66.7</td>
</tr>
<tr>
<td>Separated</td>
<td>131</td>
<td>6.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>404</td>
<td>21.4</td>
</tr>
<tr>
<td>Living Common-Law</td>
<td>30</td>
<td>1.6</td>
</tr>
<tr>
<td>Widow/Widower</td>
<td>63</td>
<td>3.3</td>
</tr>
</tbody>
</table>
living in a two-parent household, where 98% of those adolescents were living with parents who were currently married. One-third of the adolescents were living in a single-parent household, where 90% of that proportion were adolescents whose parents were divorced and/or separated.

Table 7 presents the data summarizing the living arrangements of the adolescents from divorced and/or separated homes by gender. Approximately half (51%) of the adolescents were living only with their mother, and roughly 10% of the adolescents were living only with their father. Almost one-quarter of these adolescents were living in a household with one parent plus another partner. A small proportion (8%) of these adolescents were living with both of their parents (shared custody).

Table 8 presents the results of the Chi Square Distribution for parental custody between male and female adolescents. The Pearson Chi Square Test of Association comparing the distribution of parental custody revealed a significant difference between males and females $X^2(4, N = 506) = 18.0, p < .001$. Specifically, a Goodness of Fit Pearson Chi Square was performed to examine the distribution of males and females on each of the parental custody categories. The results of the Goodness of Fit revealed a higher proportion of females living with their mother $X^2 (1, N = 257) = 7.19, p < .01$, and a higher proportion of males were living with their father $X^2 (1, N = 66) = 7.33, p < .01$. In addition, a higher proportion of females were living with a parent plus another partner $X^2 (1, N = 102) = 8.82, p < .01$. 
Table 7

Frequency of Adolescents from Divorced/Separated Homes by Age

Category and Custody (N = 519)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Males</th>
<th></th>
<th>Females</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td></td>
<td>n</td>
</tr>
<tr>
<td>Both Parents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>3</td>
<td>5.3</td>
<td>4</td>
<td>11.8</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>27.8</td>
<td>7</td>
<td>10.0</td>
</tr>
<tr>
<td>16</td>
<td>1</td>
<td>2.2</td>
<td>4</td>
<td>6.9</td>
</tr>
<tr>
<td>17</td>
<td>6</td>
<td>17.6</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>18 or above</td>
<td>4</td>
<td>7.0</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Mother Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>36</td>
<td>63.2</td>
<td>16</td>
<td>47.1</td>
</tr>
<tr>
<td>15</td>
<td>5</td>
<td>27.8</td>
<td>32</td>
<td>45.7</td>
</tr>
<tr>
<td>16</td>
<td>26</td>
<td>57.8</td>
<td>30</td>
<td>51.7</td>
</tr>
<tr>
<td>17</td>
<td>12</td>
<td>35.3</td>
<td>36</td>
<td>58.1</td>
</tr>
<tr>
<td>18 or above</td>
<td>27</td>
<td>47.4</td>
<td>36</td>
<td>58.1</td>
</tr>
<tr>
<td>Father Only</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>3</td>
<td>5.3</td>
<td>1</td>
<td>2.9</td>
</tr>
<tr>
<td>15</td>
<td>4</td>
<td>22.2</td>
<td>5</td>
<td>7.1</td>
</tr>
<tr>
<td>16</td>
<td>7</td>
<td>15.6</td>
<td>7</td>
<td>12.1</td>
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<td>17</td>
<td>8</td>
<td>23.5</td>
<td>6</td>
<td>9.7</td>
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<tr>
<td>18 or above</td>
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<td>22.8</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>Parent Plus Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>9</td>
<td>15.8</td>
<td>11</td>
<td>32.4</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>11.1</td>
<td>20</td>
<td>28.6</td>
</tr>
<tr>
<td>16</td>
<td>9</td>
<td>20.0</td>
<td>12</td>
<td>20.7</td>
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<tr>
<td>17</td>
<td>4</td>
<td>11.8</td>
<td>14</td>
<td>22.6</td>
</tr>
<tr>
<td>18 or above</td>
<td>10</td>
<td>17.5</td>
<td>14</td>
<td>22.6</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>6</td>
<td>10.5</td>
<td>2</td>
<td>5.9</td>
</tr>
<tr>
<td>15</td>
<td>2</td>
<td>11.1</td>
<td>6</td>
<td>8.6</td>
</tr>
<tr>
<td>16</td>
<td>2</td>
<td>4.4</td>
<td>5</td>
<td>8.6</td>
</tr>
<tr>
<td>17</td>
<td>4</td>
<td>11.8</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>18 or above</td>
<td>3</td>
<td>5.3</td>
<td>4</td>
<td>6.5</td>
</tr>
</tbody>
</table>
Table 8

Chi Square Distribution for Parental Custody Between Males and Females

(N = 506)

<table>
<thead>
<tr>
<th>Custody</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Both Parents</td>
<td>19</td>
<td>19</td>
</tr>
<tr>
<td>Mother Only**</td>
<td>106</td>
<td>150</td>
</tr>
<tr>
<td>Father Only**</td>
<td>35</td>
<td>25</td>
</tr>
<tr>
<td>Parent Plus Other**</td>
<td>34</td>
<td>71</td>
</tr>
<tr>
<td>Other</td>
<td>17</td>
<td>21</td>
</tr>
</tbody>
</table>

Note. ** represents values significant at p < .01
The ages at which the adolescent experienced their parent’s divorce and/or separation and the time since the adolescent’s parent’s divorced and/or separated are reported in Table 9. The majority (83%) of the adolescents were below the age of twelve when their parent’s divorced and/or separated. Approximately ten percent of the adolescents experienced their parent’s divorce/separation when they were between thirteen and fifteen years old. Only a small percentage (5%) experienced their parents divorce and/or separation as adolescents (sixteen years old or above). Only a small percentage (16%) of these adolescents experienced their parents divorce and/or separation within two years or less. The remaining adolescents experienced their parents divorce and/or separation more than two years ago.

Parental Divorce and/or Separation on Adolescent Problem Behaviours

In order to determine the effect of parental marital status on adolescent problem behaviours, adolescents from divorced and/or separated homes were compared to adolescents from intact (married) homes on each of the three problem behaviours (sexual activity, alcohol consumption, and cigarette smoking).

Sexual activity. A 2 x 2 x 5 (gender x parental marital status x age)

Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated homes (non-intact homes) had higher rates of sexual activity compared to adolescents living in married homes (intact homes). The results of the ANOVA revealed a significant two-way
Table 9

General Descriptives of Adolescent’s From Divorced/Separated Homes

(N = 534)

<table>
<thead>
<tr>
<th>Variable</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age of Parental Divorce/Separation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 years old or Below</td>
<td>259</td>
<td>37.3</td>
</tr>
<tr>
<td>5 to 8 years old</td>
<td>176</td>
<td>25.4</td>
</tr>
<tr>
<td>9 to 12 years old</td>
<td>142</td>
<td>20.5</td>
</tr>
<tr>
<td>13 to 15 years old</td>
<td>77</td>
<td>11.1</td>
</tr>
<tr>
<td>16 years old or Above</td>
<td>40</td>
<td>5.8</td>
</tr>
<tr>
<td><strong>Time Since Parental Divorce/Separation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One Year or Less</td>
<td>44</td>
<td>7.4</td>
</tr>
<tr>
<td>One to Two Years</td>
<td>49</td>
<td>8.2</td>
</tr>
<tr>
<td>Two to Five Years</td>
<td>102</td>
<td>17.1</td>
</tr>
<tr>
<td>Five to Ten Years</td>
<td>169</td>
<td>28.3</td>
</tr>
<tr>
<td>Ten Years or More</td>
<td>234</td>
<td>39.1</td>
</tr>
</tbody>
</table>
interaction between parental marital status and age $F(4, 1835) = 2.87, p < .05$ (see Figure 1). Table 10 presents the means and standard deviations for adolescent sexual activity by parental marital status and age. Post hoc comparisons using Tukey’s honestly significant difference revealed a significant difference between adolescents living in divorced and/or separated homes and adolescents living in married homes for 17 year olds, and 18 year olds ($p < .05$). At this age, the rates of sexual activity were significantly higher for adolescents living in divorced and/or separated homes than adolescents living in married homes. Comparisons were also performed across age categories. Tukey’s honestly significant difference revealed significant differences for several age groups. For adolescents living in married homes, 18 year olds had significantly higher rates of sexual activity than 14 year olds and 15 year olds ($p < .05$). For adolescents living in divorced and/or separated homes, 18 year olds had significantly higher rates of sexual activity than 14 year olds, 15 year olds, and 16 year olds ($p < .05$). In addition, 17 year olds had significantly higher rates of sexual activity than 14 year olds and 15 year olds ($p < .05$). Sixteen year olds had significantly higher rates of sexual activity than 14 year olds ($p < .05$).

Significant main effects were found for gender, $F(1,1835) = 6.91, p < .01$, parental marital status $F(1,1835) = 48.33, p < .001$ and age $F(4, 1835) = 21.65, p < .001$. Table 11 presents the means and standard deviations for adolescent sexual activity for gender, parental marital status, and age. Overall, males had significantly higher rates of sexual activity than
Figure 1. Interaction between adolescent sexual activity and age by parental marital status. Rates of sexual activity for adolescents living in divorced and/or separated (non-intact) homes are significantly higher at ages 17 and 18 than for adolescents living in married (intact) homes.
Table 10

Means and Standard Deviations for Adolescent Sexual Activity by Parental Marital Status and Age (N = 1835)

<table>
<thead>
<tr>
<th>Age</th>
<th>Intact Homes</th>
<th>Non-Intact Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>14 or below</td>
<td>2.21 (2.68)</td>
<td>2.70 (3.10)</td>
</tr>
<tr>
<td>15</td>
<td>2.83 (3.05)</td>
<td>3.96 (3.62)</td>
</tr>
<tr>
<td>16</td>
<td>3.39 (3.36)</td>
<td>4.13 (3.43)</td>
</tr>
<tr>
<td>17</td>
<td>3.25a (3.00)</td>
<td>5.25b (3.45)</td>
</tr>
<tr>
<td>18 or above</td>
<td>4.17a (3.31)</td>
<td>5.97b (3.57)</td>
</tr>
</tbody>
</table>

Note. Higher sexual activity scores reflect higher rates of sexual activity.

Means in the same row that do not share subscripts differ at p < .05 in the Tukey honestly significant difference comparison.
females. In addition, adolescents living in divorced and/or separated homes had significantly higher rates of sexual activity than adolescents living in married homes. Furthermore, the rates of sexual activity increased steadily from 14 to 18 years of age. The lowest rate of sexual activity was found among 14 year olds or younger, followed by 15 year olds and 16 year olds, then 17 year olds, and the highest rate of sexual activity found among 18 year olds or older.

**Alcohol consumption.** A 2 x 2 x 5 (gender x parental marital status x age) Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated homes (non-intact homes) differed significantly from adolescents living in married homes (intact homes) on rates of alcohol consumption. The results of the ANOVA revealed a significant two-way interaction between gender and age, \( F(4, 1836) = 4.19, p < .01 \) (see Figure 2). Table 12 presents the means and standard deviations for rates of alcohol consumption by gender and age. Post hoc comparisons using Tukey's honestly significant difference revealed no significant differences between males and females across any age group. However, there were significant differences between the various age groups. For females, the lowest rate of alcohol consumption was found among 14 year olds, which differed significantly from all the other age categories (\( p < .05 \)). For males, 18 year olds had significantly higher rates of alcohol consumption compared to 14 year olds, 15 year olds, and 16 year olds (\( p < .05 \)). Seventeen year had significantly higher rates of alcohol
Table 11

Means and Standard Deviations for Adolescent Sexual Activity (N = 1835)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sexual Activity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4.04a</td>
<td>(3.54)</td>
</tr>
<tr>
<td>Female</td>
<td>3.57b</td>
<td>(3.18)</td>
</tr>
<tr>
<td><strong>Parental Marital Status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact Homes</td>
<td>3.19a</td>
<td>(3.18)</td>
</tr>
<tr>
<td>Non-Intact Homes</td>
<td>4.42b</td>
<td>(3.63)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>2.57a</td>
<td>(2.79)</td>
</tr>
<tr>
<td>15</td>
<td>3.43b</td>
<td>(3.22)</td>
</tr>
<tr>
<td>16</td>
<td>3.70b</td>
<td>(3.39)</td>
</tr>
<tr>
<td>17</td>
<td>4.26c</td>
<td>(3.23)</td>
</tr>
<tr>
<td>18</td>
<td>5.07d</td>
<td>(3.48)</td>
</tr>
</tbody>
</table>

*Note.* Means in the same category that do not share subscripts differ at p <.05 in the Tukey honestly significant difference comparison.
Figure 2. Interaction between adolescent alcohol consumption and age by gender. Rates of alcohol consumption for males and females do not differ significantly from each other on any age category.
Table 12

Means and Standard Deviations for Alcohol Consumption by Gender and Age (N = 1836)

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>14 or below</td>
<td>7.03a (5.73)</td>
<td>7.50a (5.29)</td>
</tr>
<tr>
<td>15</td>
<td>8.49a (5.84)</td>
<td>9.84b (5.41)</td>
</tr>
<tr>
<td>16</td>
<td>10.16b (5.59)</td>
<td>10.15b (5.13)</td>
</tr>
<tr>
<td>17</td>
<td>11.72b (5.29)</td>
<td>10.35b (4.29)</td>
</tr>
<tr>
<td>18 or above</td>
<td>12.26c (5.36)</td>
<td>10.80b (4.28)</td>
</tr>
</tbody>
</table>

Note. Higher alcohol consumption scores reflect higher rates of alcohol consumption. Means in the same column that do not share the same subscript differ at $p < .05$ in the Tukey honestly significant difference comparison.
consumption compared to 14 year olds, and 15 year olds (p < .05). In addition, 16 year olds had significantly higher rates of alcohol consumption compared to 14 year olds (p < .05).

There were significant main effects for parental marital status $F(1, 1836) = 13.23$, $p < .001$, and age $F(4, 1836) = 23.06$, $p < .001$. Table 13 presents the means and standard deviations for rates of alcohol consumption for gender, parental marital status, and age. Overall, adolescents living in divorced and/or separated homes had significantly higher rates of alcohol consumption than adolescents living in married homes. The rates of alcohol consumption increased steadily across the various age groups. The lowest rate of alcohol consumption was found among 14 year olds or younger, followed by 15 year olds, then 16 year olds, then 17 year olds, and the highest rate was found among 18 year olds or older.

**Cigarette smoking.** A $2 \times 2 \times 5$ (gender x parental marital status x age)

Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated (non-intact) homes differed significantly from adolescents living in married (intact) homes on their rates of cigarette smoking. The results of the ANOVA revealed no significant interactions between any of the above variables. However, a significant main effect was found for parental marital status, $F(1, 1832) = 42.24$, $p < .001$, and age $F(4, 1832) = 9.55$, $p < .001$. Table 14 presents the means and standard deviations for rates of cigarette smoking for gender, parental marital status, and age. Adolescents living in divorced and/or separated homes had
Table 13

Means and Standard Deviations for Adolescent Alcohol Consumption (N = 1836)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Alcohol Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>10.41a</td>
</tr>
<tr>
<td>Female</td>
<td>9.91a</td>
</tr>
<tr>
<td>Parental Marital Status</td>
<td></td>
</tr>
<tr>
<td>Intact Homes</td>
<td>9.49a</td>
</tr>
<tr>
<td>Non-Intact Homes</td>
<td>10.53b</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>7.52a</td>
</tr>
<tr>
<td>15</td>
<td>9.40b</td>
</tr>
<tr>
<td>16</td>
<td>10.16b</td>
</tr>
<tr>
<td>17</td>
<td>11.27c</td>
</tr>
<tr>
<td>18</td>
<td>11.68c</td>
</tr>
</tbody>
</table>

Note. Means in the same category that do not share the same subscript differ at \( p < .05 \) in the Tukey honestly significant difference comparison.
Table 14

Means and Standard Deviations for Adolescent Cigarette Smoking (N = 1832)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cigarette Smoking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5.30a</td>
<td>(3.26)</td>
</tr>
<tr>
<td>Female</td>
<td>5.31a</td>
<td>(3.01)</td>
</tr>
<tr>
<td>Parental Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intact Homes</td>
<td>4.84a</td>
<td>(3.06)</td>
</tr>
<tr>
<td>Non-Intact Homes</td>
<td>5.94b</td>
<td>(3.15)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>4.27a</td>
<td>(3.09)</td>
</tr>
<tr>
<td>15</td>
<td>5.34b</td>
<td>(3.12)</td>
</tr>
<tr>
<td>16</td>
<td>5.56c</td>
<td>(3.11)</td>
</tr>
<tr>
<td>17</td>
<td>5.84c</td>
<td>(3.04)</td>
</tr>
<tr>
<td>18</td>
<td>5.97c</td>
<td>(3.08)</td>
</tr>
</tbody>
</table>

Note. Means in the same category that do not share the same subscript differ at p < .05 in the Tukey honestly significant difference comparison.
significantly higher rates of cigarette smoking than adolescents living in married homes. There was a steady increase in the rates of cigarette smoking across the various age categories. Fourteen year olds or younger had the lowest rates of cigarette smoking, followed by 15 year olds, then 16 year olds, and then 17 year olds. The highest rate of cigarette smoking was found among 18 year olds or older.

**Time Since Parental Divorce on Adolescent Problem Behaviours**

To determine if adolescent problem behaviours dissipate with the passage of time, adolescents who experienced their parent’s divorce and/or separation within two years or less were compared to adolescents who experienced their parent’s divorce and/or separation more than two years ago on all three problem behaviours (sexual activity, alcohol consumption, cigarette smoking).

**Sexual activity.** A 2 x 5 x 2 (gender x age x time since parental divorce/separation) Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated homes for more than two years had higher rates of sexual activity than adolescents living in divorced and/or separated homes for less than two years. The results of the ANOVA revealed that there were no significant interactions between any of the above variables on rates of sexual activity. However, there was a significant main effect for age $F(4,492) = 4.93$, $p < .001$. Table 15 presents the means and standard deviations of sexual activity for adolescents across the various age categories. There is a steady increase in sexual
activity as age increases. The lowest rate of sexual activity was found among 14 year olds or below, and the highest rate of sexual activity was found among 17 and 18 year olds or older.

**Alcohol consumption.** A 2 x 5 x 2 (gender x age x time since parental divorce and/or separation) Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated homes for more than two years had higher rates of alcohol consumption than adolescents living in divorced and/or separated homes for less than two years. The results of the ANOVA revealed no significant interactions among any of the above variables for rates of alcohol consumption. However, there was a main effect for age, \( F(4, 493) = 2.83, p < .05 \).

Table 16 presents the means and standard deviations for alcohol consumption across the various age categories. Similar with sexual activity, the rate of alcohol consumption increased with age. The lowest rate of alcohol consumption was found among 14 year olds or younger, and the highest rate of alcohol consumption was found among 18 year olds or older.

**Cigarette smoking.** A 2 x 5 x 2 (gender x age x time since parental divorce/separation) Analysis of Variance (ANOVA) was performed to determine if adolescents living in divorced and/or separated homes for more than two years had higher rates of cigarette smoking than adolescents living in divorced and/or separated homes for less than two years. The results of the ANOVA revealed no significant interactions between any of the above variables and no significant main effects for any of the above variables on
Table 15

**Means and Standard Deviations for Time Since Parental Divorce and/or Separated Homes on Sexual Activity (N = 492)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>5.00a</td>
<td>(3.32)</td>
</tr>
<tr>
<td>Female</td>
<td>4.32a</td>
<td>(3.07)</td>
</tr>
<tr>
<td>Time Since Divorce</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Two Years</td>
<td>5.01a</td>
<td>(3.40)</td>
</tr>
<tr>
<td>More Than Two Years</td>
<td>4.31a</td>
<td>(3.26)</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>3.21a</td>
<td>(3.10)</td>
</tr>
<tr>
<td>15</td>
<td>4.50b</td>
<td>(3.62)</td>
</tr>
<tr>
<td>16</td>
<td>3.82b</td>
<td>(3.43)</td>
</tr>
<tr>
<td>17</td>
<td>5.71c</td>
<td>(3.45)</td>
</tr>
<tr>
<td>18</td>
<td>6.07c</td>
<td>(3.57)</td>
</tr>
</tbody>
</table>

**Note.** Means in the same category that do not share the same subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.
Table 16

Means and Standard Deviations for Time Since Parental Divorce and/or Separated Homes on Alcohol Consumption (N = 493)

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>11.01a</td>
<td>(5.74)</td>
</tr>
<tr>
<td>Female</td>
<td>10.30a</td>
<td>(4.87)</td>
</tr>
<tr>
<td><strong>Time Since Divorce</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less Than Two Years</td>
<td>10.79a</td>
<td>(4.99)</td>
</tr>
<tr>
<td>More Than Two Years</td>
<td>10.52a</td>
<td>(4.91)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 or below</td>
<td>8.49a</td>
<td>(5.30)</td>
</tr>
<tr>
<td>15</td>
<td>10.16</td>
<td>(5.97)</td>
</tr>
<tr>
<td>16</td>
<td>10.69</td>
<td>(5.27)</td>
</tr>
<tr>
<td>17</td>
<td>11.89</td>
<td>(4.79)</td>
</tr>
<tr>
<td>18</td>
<td>12.03b</td>
<td>(4.70)</td>
</tr>
</tbody>
</table>

Note. Means in the same category that do not share the subscript differ at p < .05 in the Tukey honestly significant difference comparison.
rates of cigarette smoking.

The Effect of Age at Time of Parental Divorce on Adolescent Problem Behaviours

In order to examine if there are any differences between the age at the time the adolescents parents were divorced and/or separated on the three problem behaviours, teens (13 or above) were compared with preteens (12 or below). A 2 x 2 x 5 (age at time of parental divorce x gender x age) Analysis of Variance (ANOVA) was performed on each of the three problem behaviours (sexual activity, alcohol consumption, and cigarette smoking).

Sexual Activity. The results of the ANOVA revealed no significant interactions between any of the above variables. However, a significant main effect was found for age, $F(4, 494) = 7.17$, $p < .001$. Adolescents with the lowest rates of sexual activity were 14 year olds or younger ($M = 2.54$, $SD = 3.10$), followed by 15 year olds ($M = 3.69$, $SD = 3.62$), then 16 year olds ($M = 3.63$, $SD = 3.43$), then 17 year olds ($M = 5.64$, $SD = 3.45$), and the highest rate of sexual activity was found among 18 year olds or older ($M = 5.77$, $SD = 3.57$). Post Hoc Comparison using Tukey’s honestly significant difference found 17 and 18 year olds had significantly higher rates of sexual activity than the other age groups ($p < .05$)

Alcohol Consumption. The results of the ANOVA revealed no significant interactions between any of the above variables. However, a significant main effects was found for age, $F (4, 495) = 4.64$, $p < .001$. Adolescents
with the lowest rates of alcohol consumption were 14 year olds or younger
(M = 7.90, SD = 5.30), 15 year olds (M = 9.17, SD = 5.97), and 16 year
olds (M = 10.12, SD = 5.27). The highest rate of alcohol consumption was
found among 17 year olds (M = 12.17, SD = 4.79) and 18 year olds or
older (M = 11.77, SD = 4.70).

Cigarette Smoking. The results of the ANOVA revealed no significant
interactions between any of the above variables. However, a significant
main effect was found for age, F(4, 493) = 2.78, p < .05. Adolescents with
the lowest rates of sexual activity were 14 year olds or younger (M = 4.72,
SD = 3.28), 15 year olds (M = 5.68, SD = 3.16), and 18 year olds or older
(M = 5.97, SD = 3.23). The highest rate of cigarette smoking was found
among 16 year olds (M = 6.51, SD = 2.80) and 17 year olds (M = 6.93, SD
= 3.08).

Frequency of Introparental Conflict

Table 17 presents the frequency of interparental conflict by gender.

A small proportion (16%) of adolescents report that their parents do not get
along well, or do not get along at all. Of this proportion 15% were males
and 17% were females. The proportion of adolescents who report that
their parents argue very often to moderately often is 40%, with the
proportion of males and females at 36% and 42% respectively. The
proportion of adolescents who report feeling caught in the middle of their
parent’s arguments moderately often to fairly often is 29%. Of this
proportion 27% were males and 31% were females. Approximately one-
Table 17

Interparental Conflict Among Adolescents (N = 2,087)

<table>
<thead>
<tr>
<th>Interparental Conflict</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>How Well Parents Get Along</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Well</td>
<td>342</td>
<td>39.0</td>
</tr>
<tr>
<td>Fairly Well</td>
<td>234</td>
<td>26.7</td>
</tr>
<tr>
<td>Moderately Well</td>
<td>119</td>
<td>13.6</td>
</tr>
<tr>
<td>Not Very Well</td>
<td>58</td>
<td>6.6</td>
</tr>
<tr>
<td>Not At All</td>
<td>72</td>
<td>8.2</td>
</tr>
<tr>
<td>How Often Parents Argue</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Often</td>
<td>58</td>
<td>6.6</td>
</tr>
<tr>
<td>Fairly Often</td>
<td>81</td>
<td>9.2</td>
</tr>
<tr>
<td>Moderately Often</td>
<td>179</td>
<td>20.4</td>
</tr>
<tr>
<td>Not Very Often</td>
<td>303</td>
<td>34.6</td>
</tr>
<tr>
<td>Rarely/Never</td>
<td>203</td>
<td>23.2</td>
</tr>
<tr>
<td>Middel of Arguments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Often</td>
<td>57</td>
<td>6.5</td>
</tr>
<tr>
<td>Fairly Often</td>
<td>73</td>
<td>8.3</td>
</tr>
<tr>
<td>Moderately Often</td>
<td>110</td>
<td>12.6</td>
</tr>
<tr>
<td>Not Very Often</td>
<td>226</td>
<td>25.8</td>
</tr>
<tr>
<td>Rarely/Never</td>
<td>358</td>
<td>40.9</td>
</tr>
<tr>
<td>Mediate Between Parents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Often</td>
<td>43</td>
<td>4.9</td>
</tr>
<tr>
<td>Fairly Often</td>
<td>54</td>
<td>6.2</td>
</tr>
<tr>
<td>Moderately Often</td>
<td>79</td>
<td>9.0</td>
</tr>
<tr>
<td>Not Very Often</td>
<td>175</td>
<td>20.0</td>
</tr>
<tr>
<td>Rarely/Never</td>
<td>475</td>
<td>54.2</td>
</tr>
</tbody>
</table>
quarter (22%) of adolescents report having to mediate between their parents’ interactions, with the proportion of males and females at 20% and 23% respectively.

**Interparental Conflict on Adolescent Problem Behaviours**

To examine the role of interparental conflict on adolescent problem behaviours, interparental conflict was included as an additional variable to the already existing ANOVA examining the role of parental divorce and/or separation. Therefore, a 2 x 5 x 2 x 2 (gender x age x parental marital status x interparental conflict) Analysis of Variance (ANOVA) was performed. A median split was used to divide interparental conflict into high and low categories. The values ranged from one to twenty, with 50% of the cases below the value of seven, indicating low interparental conflict, and 50% of the remaining cases above the value of eight, indicating high interparental conflict.

**Sexual activity.** The results of the ANOVA revealed a significant two-way interaction between parental marital status and interparental conflict $F(1, 1815) = 6.78, p < .01$ (see Figure 3). Table 18 displays the means and standard deviations for parental marital status and interparental conflict. Post hoc comparisons using Tukey’s honestly significant difference found adolescents living in divorced and/or separated homes with high levels of interparental conflict have significantly higher rates of sexual activity than adolescents living in married homes with high levels of interparental conflict ($p < .05$)
Figure 3. Interaction between adolescent sexual activity and interparental conflict by parental marital status. Rates of sexual activity are significantly higher for adolescents living in divorced and/or separated (non-intact) homes with high levels of interparental conflict than adolescents living in married (intact) homes with high levels of interparental conflict.
Table 18

**Means and Standard Deviations for Parental Marital Status and Interparental Conflict on Adolescent Sexual Activity (N = 1815)**

<table>
<thead>
<tr>
<th></th>
<th>Parental Marital Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intact Homes</td>
<td>Non-Intact Homes</td>
</tr>
<tr>
<td>M (SD)</td>
<td>M (SD)</td>
<td></td>
</tr>
</tbody>
</table>

**Interparental Conflict**

<table>
<thead>
<tr>
<th></th>
<th>Low Interparental Conflict</th>
<th>High Interparental Conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.07a (3.06)</td>
<td>5.05b (3.59)</td>
</tr>
<tr>
<td></td>
<td>3.55a (3.31)</td>
<td>4.54b (3.64)</td>
</tr>
</tbody>
</table>

**Note.** Means in the same row or column that do not share subscripts differ at p < .05 in the Tukey honestly significant difference comparison.
In addition, adolescents living in divorced and/or separated homes with low levels of interparental conflict had significantly higher rates of sexual activity than adolescents living in married homes with high levels of interparental conflict \( (p < .05) \). Furthermore, adolescents living in divorced and/or separated homes with low levels of interparental conflict had significantly higher rates of sexual activity than adolescents living in married homes with low levels of interparental conflict \( (p < .05) \). Adolescents living in divorced and/or separated homes with high levels of interparental conflict had significantly higher rates of sexual activity than adolescents living in married homes with low levels of interparental conflict \( (p < .05) \).

The results of the ANOVA also revealed a significant interaction between parental marital status and age, \( F(4, 1815) = 2.94, p < .05 \), which has already been discussed under the heading parental divorce and/or separation. There were significant main effects for gender \( F(1, 1815) = 6.19, p < .01 \), parental marital status \( F(1, 1815) = 43.85, p < .001 \), and age \( F(4, 1815) = 19.79, p < .001 \), which was previously discussed under the heading of parental divorce and/or separation.

**Alcohol consumption.** The results of the ANOVA revealed a significant three-way interaction between age, parental marital status, and interparental conflict \( F(4, 1816) = 3.56, p < .01 \). Figure 4 presents the interaction between the various age groups and parental marital status with low levels of interparental conflict. Figure 5 presents the interaction between the various age groups and parental marital status with high levels of interparental
conflict. Table 19 presents the means and standard deviations for adolescent’s parental marital status and interparental conflict by age. Post hoc comparisons using Tukey’s honestly significant difference revealed several differences among the three variables. Adolescents living with low levels of interparental conflict in divorced and/or separated homes at 14 years of age and at 16 years of age had significantly higher rates of alcohol consumption than adolescents living with low levels of interparental conflict in married homes (p < .05). Adolescents living in divorced and/or separated homes with high levels of interparental conflict did not have significantly higher rates of alcohol consumption than adolescents living in married homes with high levels of interparental conflict across any age category.

Comparisons were also performed across the various age categories. For adolescents living in married homes with low levels of interparental conflict, 18 year olds had significantly higher rates of alcohol consumption than the corresponding 14 year olds, 15 year olds, and 16 year olds (p < .05). In addition, the lowest rate of alcohol consumption was found among 14 year olds, who differed significantly from all other age categories (p < .05).

For adolescents living in married homes with high levels of interparental conflict, 14 year olds had significantly lower rates of alcohol consumption compared to 16 year olds, 17 year olds, and 18 year olds (p < .05). Similarly, for adolescents living in divorced and/or separated homes with high levels of interparental conflict, 14 year olds had significantly lower
Figure 4. Interaction between adolescent alcohol consumption and age by parental marital status with low levels of interparental conflict. Rates of alcohol consumption for adolescents living in divorced and/or separated (non-intact) homes at age 14 and 16 were significantly higher than for adolescents living in married (intact) homes at this age.
Figure 5. Interaction between adolescent alcohol consumption and age by parental marital status with high levels of interparental conflict. Rates of alcohol consumption for adolescents living in divorced and/or separated (non-intact) homes did not differ significantly from adolescents living in married (intact) homes with high levels of interparental conflict at any age group.
Table 19

Means and Standard Deviations for Adolescents Parental Marital Status and Inteparental Conflict by Age for Alcohol Consumption (N = 1816)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Intact Homes</th>
<th>Non-Intact Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>Age</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>14 or below</td>
<td>5.42 (4.93)</td>
<td>8.37 (5.72)</td>
</tr>
<tr>
<td>15</td>
<td>8.38 (5.54)</td>
<td>9.52 (5.46)</td>
</tr>
<tr>
<td>16</td>
<td>9.21 (5.53)</td>
<td>10.94 (5.04)</td>
</tr>
<tr>
<td>17</td>
<td>10.28 (4.90)</td>
<td>10.99 (4.79)</td>
</tr>
<tr>
<td>18 or above</td>
<td>11.47 (5.13)</td>
<td>10.88 (4.81)</td>
</tr>
</tbody>
</table>
rates of alcohol consumption compared to all other age categories (p < .05). In addition, for adolescents living in divorced and/or separated homes with low levels of interparental conflict, 18 year olds had significantly higher rates of alcohol consumption than 15 year olds (p < .05).

The results of the ANOVA also revealed a significant two-way interaction between parental marital status and interparental conflict $F(1, 1816) = 7.37$, $p < .01$ (see Figure 6). Table 20 presents the means and standard deviations for parental marital status and interparental conflict for rates of alcohol consumption. Post hoc comparisons using Tukey's honestly significant difference found that adolescents living in divorced and/or separated homes with either high or low levels of interparental conflict had significantly higher rates of alcohol consumption compared to adolescents living in married homes with low levels of interparental conflict ($p < .05$).

The results of the ANOVA also revealed a significant two-way interaction between gender and age, $F(4, 1816) = 2.89$, $p < .05$, which was previously discussed under the heading of parental divorce and/or separation. Main effects were also found for parental marital status $F(1, 1816) = 12.36$, $p < .001$, and age $F(4, 1816) = 18.69$, $p < .001$, which was previously discussed also under the heading of parental divorce and/or separation.

**Cigarette smoking.** The results of the ANOVA revealed a significant three-way interaction between age, parental marital status, and interparental
Figure 6. Interaction between adolescent alcohol consumption and interparental conflict by parental marital status. Rates of alcohol consumption for adolescents living in divorced and/or separated (non-intact) homes with either low or high levels of interparental conflict were significantly higher than for adolescents living in married (intact) homes with low levels of interparental conflict.
Table 20

Means and Standard Deviations for Parental Marital Status and Interparental Conflict on Adolescent Alcohol Consumption (N = 1816)

<table>
<thead>
<tr>
<th></th>
<th>Parental Marital Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intact Homes</td>
<td>Non-Intact Homes</td>
</tr>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Interparental Conflict</td>
<td>Low Interparental Conflict</td>
<td>9.33a (5.54)</td>
</tr>
<tr>
<td></td>
<td>High Interparental Conflict</td>
<td>10.24a (5.19)</td>
</tr>
</tbody>
</table>

Note. Means in the same row or column that do not share subscripts differ at p <.05 in the Tukey honestly significant difference comparison.
conflict, $F(4, 1812) = 2.92, p < .05$. Figure 7 presents the interaction between the various age groups and parental marital status with low levels of interparental conflict. Figure 8 presents the interaction between the various age groups and parental marital status with high levels of interparental conflict. Table 21 presents the means and standard deviations for adolescents parental marital status and interparental conflict by age. Post hoc comparisons using Tukey's honestly significant difference revealed that adolescents living with low levels of interparental conflict in divorced and/or separated homes had significantly higher rates of cigarette smoking across all of the age categories compared to adolescents living with low levels of interparental conflict in married homes ($p < .05$).

Adolescents living with high levels of interparental conflict in married homes at 14 year of age, had significantly higher rates of cigarette smoking than adolescents living with high levels of interparental conflict in divorced and/or separated homes at 14 years of age ($p < .05$).

Comparisons were also made across age categories. For adolescents living in married homes with low levels of interparental conflict, 14 year olds had significantly lower rates of cigarette smoking than 15 year olds, 16 year olds, 17 year olds and 18 year olds ($p < .05$). In addition, 18 year olds had significantly higher rates of cigarette smoking than 15 year olds, 16 year olds, and 17 year olds ($p < .05$).

For adolescents living in married homes with high levels of interparental conflict there were no significant differences between any of
Figure 7. Interaction between adolescent cigarette smoking and age by parental marital status with low levels of interparental conflict. Rates of cigarette smoking for adolescents living in divorced and/or separated (non-intact) homes with low levels of interparental conflict at all age groups were significantly higher than for adolescents living in married (intact) homes with low levels of interparental conflict.
Figure 8. Interaction between adolescent cigarette smoking and age by parental marital status with high levels of interparental conflict. Rates of cigarette smoking for adolescents at 14 years old living in divorced and/or separated (non-intact) homes with high levels of interparental conflict were significantly lower than for adolescents at 14 year old living in married (intact) homes with high levels of interparental conflict.
Table 21

Means and Standard Deviations for Adolescents Parental Marital Status and Inteparental Conflict by Age for Cigarette Smoking (N = 1812)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Intact Homes</th>
<th>Non-Intact Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low</td>
<td>high</td>
</tr>
<tr>
<td>Age</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>14 or below</td>
<td>3.06 (2.63)</td>
<td>5.01 (3.04)</td>
</tr>
<tr>
<td>15</td>
<td>4.23 (2.91)</td>
<td>5.41 (3.15)</td>
</tr>
<tr>
<td>16</td>
<td>4.51 (3.20)</td>
<td>5.70 (3.08)</td>
</tr>
<tr>
<td>17</td>
<td>4.60 (2.90)</td>
<td>5.41 (2.86)</td>
</tr>
<tr>
<td>18 or above</td>
<td>5.66 (2.98)</td>
<td>5.47 (3.01)</td>
</tr>
</tbody>
</table>
the age groups. However, for adolescents living in divorced and/or
separated homes with low levels of interparental conflict 17 year olds had
significantly higher rates of cigarette smoking compared to 14 year olds, and
15 year olds (p < .05). Furthermore, 18 year olds and 16 year olds, had
significantly higher rates of cigarette smoking compared to 15 year olds (p
< .05). For adolescents living in divorced and/or separated homes with high
levels of interparental conflict, the lowest rate of cigarette smoking was
found among 14 year olds, which differed significantly from all of the other
age categories (p < .05).

The results of the ANOVA also revealed a significant two-way
interaction between parental marital status and interparental conflict, F(1,
1812) = 17.05, p < .001 (see Figure 9). Table 22 presents the means and
standard deviations for parental marital status and interparental conflict for
rates of cigarette smoking. Post hoc comparisons using Tukey’s honestly
significant difference found that adolescents living in married homes with
high levels of interparental conflict had significantly higher cigarette
smoking rates than adolescents living in married homes with low levels of
interparental conflict (p < .05). However, there was not a significant
difference between adolescents living in divorced and/or separated homes
on high and low levels of interparental conflict for rates of cigarette
smoking.

Adolescents living in divorced and/or separated homes with low levels
of interparental conflict had significantly higher rates of cigarette smoking
Figure 9. Interaction between adolescent cigarette smoking and interparental conflict by parental marital status. Rates of cigarette smoking for adolescents living in divorced and/or separated (non-intact) homes with high levels of interparental conflict were significantly higher than for adolescents living in married (intact) homes with high levels of interparental conflict.
Table 22

Means and Standard Deviations for Parental Marital Status and Interparental Conflict on Adolescent Cigarette Smoking (N = 1812)

<table>
<thead>
<tr>
<th>Parental Marital Status</th>
<th>Intact Homes</th>
<th>Non-Intact Homes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td>Intercybal Conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Interparental Conflict</td>
<td>4.57a (3.04)</td>
<td>6.39c (2.88)</td>
</tr>
<tr>
<td>High Interparental Conflict</td>
<td>5.42b (3.02)</td>
<td>6.06c (3.25)</td>
</tr>
</tbody>
</table>

Note. Means in the same row or column that do not share subscripts differ at p < .05 in the Tukey honestly significant difference comparison.
than adolescents living in married homes with low levels of interparental conflict (p < .05). Consequently, adolescents living in divorced and/or separated homes with high levels of interparental conflict had significantly higher rates of cigarette smoking than adolescents living in married homes with either high or low levels of interparental conflict (p < .05).

Furthermore, adolescents living in divorced and/or separated homes with low levels of interparental conflict had significantly higher rates of cigarette smoking than adolescents living in married homes with high levels of interparental conflict (p < .05).

The results of the ANOVA also revealed significant main effects for parental marital status $F(1, 1812) = 40.77$, $p < .001$, and age $F(4, 1812) = 6.98$, $p < .001$, which was previously discussed under the heading of parental divorce and/or separation.

**Frequency of Parent-Child Relationships**

Table 23 presents the frequency of parent-child relationships by gender. A large proportion (67%) of the adolescents describe their relationship with their mother as good. Of this proportion 71% were males and 64% were females. The proportion of adolescents who report a good relationship with their father is 51%. Of this proportion 59% were males and 44% were females. Consequently, a large proportion (76%) of the adolescents report feeling that their parents understand them moderately well to very well. Of this proportion 78% were males and 72% were females.
Table 23

Parent-Child Relationships Among Adolescents (N = 2,087)

<table>
<thead>
<tr>
<th>Parent-Child Relationship</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td><strong>Relationship With Mother</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>618</td>
<td>70.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>153</td>
<td>17.5</td>
</tr>
<tr>
<td>Poor</td>
<td>66</td>
<td>7.5</td>
</tr>
<tr>
<td>No Mother</td>
<td>24</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Relationship With Father</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Good</td>
<td>514</td>
<td>58.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>202</td>
<td>23.1</td>
</tr>
<tr>
<td>Poor</td>
<td>114</td>
<td>13.0</td>
</tr>
<tr>
<td>No Father</td>
<td>30</td>
<td>3.4</td>
</tr>
<tr>
<td><strong>How Well Parents Understand</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very Well</td>
<td>165</td>
<td>18.8</td>
</tr>
<tr>
<td>Fairly Well</td>
<td>296</td>
<td>33.8</td>
</tr>
<tr>
<td>Moderately Well</td>
<td>224</td>
<td>25.6</td>
</tr>
<tr>
<td>Not Very Well</td>
<td>129</td>
<td>14.7</td>
</tr>
<tr>
<td>Not Much</td>
<td>58</td>
<td>6.6</td>
</tr>
</tbody>
</table>
Parent-Child Relationships on Adolescent Problem Behaviours

In order to examine the role that parent-child relationships have on adolescent problem behaviours when adolescents are living in divorced and/or separated homes with high levels interparental conflict a 2 x 5 x 2 (gender x age x parent-child relationship) ANOVA was performed. This ANOVA only included cases where adolescents were living in divorced and/or separated homes with high levels of interparental conflict. A median split was used to divide parent-child relationships into high (poor parent-child relationship) and low (good parent-child relationship) categories. The values ranged from one to thirteen, with 56% of the cases below the value of seven, indicating good parent-child relationships, and the remaining cases above the value of eight, indicating poor parent-child relationships.

Sexual activity. The results of the ANOVA revealed no significant interactions between any of the above variables. However, there was a main effect found for age, F(4, 350) = 5.93, p < .001. The lowest rate of sexual activity among adolescents living in divorced and/or separated homes with high levels of interparental conflict was found among 14 year olds (M = 2.75, SD = 2.97), 15 year olds (M = 4.19, SD = 3.69), and 16 year olds (M = 3.71, SD = 3.50). The highest rate of sexual activity was found among 17 year olds (M = 5.29, SD = 3.48) and 18 year olds (M = 5.77, SD = 3.39). Post Hoc comparisons using Tukey's honestly significant difference found that 17 and 18 year olds had significantly higher rates of sexual activity than 14 year olds (p < .05). In addition, 18 year olds had
significantly higher rates of sexual activity compared to 16 year olds (p < .05).

**Alcohol consumption.** The results of the ANOVA revealed no significant interactions between any of the above variables. However, there was a main effect found for age, F(4, 351) = 4.43, p < .01. The lowest rate of alcohol consumption among adolescents living in divorced and/or separated homes with high levels of interparental conflict was found among 14 year olds (M = 8.62, SD = 5.41), 15 year olds (M = 10.43, SD = 5.98), and 16 year olds (M = 9.89, SD = 5.55). The highest rate of alcohol consumption was found among 17 year olds (M = 12.34, SD = 4.72), and 18 year olds (M = 12.20, SD = 4.69). Post hoc comparisons using Tukey's honestly significant difference found that 17 and 18 year olds had significantly higher rates of alcohol consumption compared to 14 year olds (p < .05). In addition, 17 year olds had significantly higher rates of alcohol consumption compared to 14 year olds and 16 year olds (p < .05).

**Cigarette smoking.** The results of the ANOVA revealed no significant interactions for any of the above variables. In addition, the results revealed no main effects for any of the above variables.
CHAPTER IV
DISCUSSION

The purpose of the present study was to examine several variables related to the divorce process and the association these variables have on adolescent problem behaviours. Specifically, the adolescent’s parental marital status, levels of interparental conflict, and quality of parent-child relationships were identified as important variables related to adolescent rates of sexual activity, alcohol consumption, and cigarette smoking. Furthermore, several incidental variables were also examined as potential contributors associated with adolescent rates of sexual activity, alcohol consumption, and cigarette smoking. These variables included, the gender of the adolescent, the age of the adolescent, the length of time since the parents were separated, and the age of the adolescent at the time the parents were separated.

Parental Divorce and/or Separation

One purpose of the present study was to determine if adolescents living in divorced and/or separated homes had higher rates of problem behaviours compared to adolescents living in married homes. The results indicate that overall adolescents living in divorced and/or separated homes had higher rates of sexual activity, alcohol consumption, and cigarette smoking compared to adolescents living in married homes, lending support to the initial hypothesis.

The higher rate of problem behaviours among adolescents living in
divorced and/or separated homes can be explained by two factors. First, when parents separate the adolescent experiences a reduction is parental supervision, which may allow adolescents more opportunity to become involved the these activities. During the time when marital transitions occur, adolescents and parents must adjust the changes in living arrangements, alterations in roles, and even a decrease in economic resources. Subsequently, changes in overall parenting style are inevitable. Wallerstein (1983) reported that during the divorce process a diminished capacity to parent is evidenced, usually accompanied by poorly enforced rules and discipline.

Second, the adolescent’s may be angry by the parents separation and may in turn retaliate or rebel against the parent’s separation by acting out. According to Wallerstein (1983) adolescent’s often experience intense anger toward one or both of their parents, often displaying a range of behavioural responses. These two factors however may not be mutually exclusive. That is, the adolescent may retaliate against the parent’s separation by acting out, and since there is a decline in supervision these problematic behaviours continue.

Future research should examine in further detail the reactions of adolescents when they experience their parent’s divorce. Furthermore, accurately identifying the reaction of adolescents should help identify specific negative responses associated with the problematic behaviours. In turn, these negative responses can be eliminated and/or minimized with the
intention of decreasing the occurrence of problem behaviours. Further research is also necessary to determine which changes in parenting style contribute to the problematic behaviours for adolescents. Certainly, if both factors are associated with increases in the rates of problem behaviours for adolescents, the link between the two factors needs to be specified.

**Gender Differences on Adolescent Problem Behaviours**

The present study compared the differences between males and females on their rates of problem behaviours. It was hypothesized that males would show higher rates of problem behaviours compared to females. The results indicate that males had higher rates of sexual activity compared to females, but this difference was not evident for rates of alcohol consumption and cigarette smoking.

Previous research reports that males tend to exhibit more externalizing behaviours, and females tend to exhibit more internalizing behaviours (Furstenberg, 1990). However, a meta-analysis by Amato and Keith (1991) stated that gender differences are not as pronounced as indicated in the research literature. In addition, Hetherington (1993) noted that gender differences for adverse responses to parental marital transitions disappeared as children moved into adolescence. Consequently, the similar rates of alcohol consumption and cigarette smoking found among male and female adolescents in the present research is not surprising.

Despite the similarities between males and females on rates of alcohol consumption and cigarette smoking, there were differences between males
and females on rates of sexual activity. The inconsistent findings in
previous research regarding gender differences may be attributable to the
type of behaviour being examined. Males may have higher rates of certain
behaviours, such as sexual activity, compared to females, although on other
types of behaviours, males may have similar rates as females.

Further investigation is necessary to resolve the inconsistency in
research regarding gender differences. If males have higher rates of
externalizing problems, and females have higher rates of internalizing
problems, but these differences tend to disappear during adolescence, more
research is needed to determine, what if any differences are apparent during
adolescence.

Age Differences on Adolescent Problem Behaviours

The present study investigated the rates of problem behaviours among
various age categories (14 - 18 year of age). It was hypothesized that the
rates of problem behaviours would increase as the adolescent’s age
increases. Indeed, for all three problem behaviours (sexual activity, alcohol
consumption, and cigarette smoking), older adolescents (18 year of age) had
higher rates of problem behaviours than younger adolescents (14 years of
age). Although the exact differences between all of the age groups differed
depending on the gender of the adolescents and the problem behaviour that
was investigated, there was a general trend across all problem behaviours,
and genders to have an increase in rates of problem behaviours as the
adolescent’s age increases. This finding is supported by previous research
consistently finding higher rates of problem behaviours among older adolescents compared to younger adolescents (Forste & Heaton, 1988). This finding is not surprising considering that once a behaviour is initiated at a particular age, the rate of that behaviour should increase over time.

**Time Since Parental Divorce and/or Separation on Adolescent Problem Behaviours**

It was hypothesized that for adolescents who had experienced their parents divorce and/or separation within the last two years would show higher rates of problem behaviours than adolescents who had experienced their parents divorce and/or separation more than two years ago. The results of the present study found no differences in rates of sexual activity, alcohol consumption, or cigarette smoking when adolescents who experienced their parent’s divorce and/or separation within two years were compared to adolescents who experienced their parent’s divorce more than two year ago.

Hetherington (1989; 1993) noted that adolescents show improved functioning two to three years after the parental separation. In addition, longitudinal studies also report that adjustment difficulties following divorce usually abate with the passage of time (Amato & Keith, 1991). However, other longitudinal studies suggest that adjustment difficulties are still evident five and six years following the divorce (Hetherington, Cox & Cox, 1985; Kalter & Rembar, 1981).

Therefore, the present research findings support the notion that the passage of time is not related to adjustment difficulties for adolescents who
have experienced parental divorce and/or separation. This suggests that
difficulties do not dissipate with the passage of time. Eventhough the
association of many stressors which occur initially, such as depressed
economic resources, changes in living arrangements and adaptation to new
roles are lessened, the initial impact that parental divorce and/or separation
has on adolescents is not lessened with time.

The inconsistency in the literature must be resolved. Certainly,
examination of specific types of behaviours could prove useful when
determining the relationship that time since parental divorce has on problem
behaviours. Rates of sexual activity, alcohol consumption and cigarette
smoking may not be lessened with the passage of time, but other behaviours
such as a decrease in school performance, and difficulties in peer
relationships may be lessened with the passage of time. Accordingly, more
research is needed to identify which behaviours are related with the passage
of time.

Age at Time of Parental Divorce

It was hypothesized that adolescents who were teens at the time of
their parents divorce would show higher rates of problem behaviours
compared to adolescents who were preteens at the time of their parents
divorce. The results of the present study found that the age of adolescent at
the time their parents divorce was not related to adolescent rates of sexual
activity, alcohol consumption or cigarette smoking. Whether the adolescent
was a child at the time of the divorce, or whether the adolescent was a teen
at the time of the divorce was not related to the rate of problem behaviours.

According to Emery (1982), adolescents are vulnerable to their parents separation because they have been exposed to the disruptive circumstances for a longer period of time compared to younger children. Furthermore, the experiences of their parent’s divorce may have a stronger association than at other time periods. Contrary to above finding, other researchers state that younger children who experience their parent’s divorce have a more difficult time adjusting than adolescent’s because they are less able to cognitively understand divorce (Wallerstein, 1983). Despite the inconsistency regarding which age category is more vulnerable to disruption in marital status, the present results suggest that there will be higher rates of problem behaviours regardless of the age of the child/adolescent when the parents divorce.

Therefore, the adverse effects following parental divorce are not dependent on the age of the child/adolescent at the time of parental divorce. For parents who believe that waiting until the child is older before separating is not substantiated by the current findings. For parents who want to terminate their marriage, but remain together because they are waiting for the “right time” seems untenable. There is no “right time” where parental divorce is concerned. Regardless of the child/adolescent’s age at the time of their parents divorce, a higher rate of problem behaviours almost seems inevitable, at least in terms of sexual activity, alcohol consumption, and cigarette smoking.
Interparental Conflict on Adolescent Problem Behaviours

The second purpose of the present study was to determine if interparental conflict was a more important variable in predicting adolescent problem behaviours than parental marital status. The role of interparental conflict was examined in three ways. First, it was hypothesized that adolescents who had experienced parental divorce in addition to high levels of interparental conflict would have higher rates of problem behaviours compared to adolescents who had experienced parental divorce with low levels of interparental conflict. Second, the present study investigated the role of interparental conflict on adolescent problem behaviours by comparing adolescents living in divorced and/or separated homes with adolescents living in married homes on the two levels of interparental conflict. Third, the present study investigated the role of interparental conflict on adolescent problem behaviours by comparing adolescents living in married homes with high levels of interparental conflict to adolescents living in married homes with low levels of interparental conflict.

The results of the present study revealed an unexpected finding. When adolescents were living in divorced and/or separated homes, the level of interparental conflict was not related to the rate of problem behaviours. That is, adolescents living in divorced and/or separated homes with high levels of interparental conflict did not have higher rates of problem behaviours compared to adolescents living in divorced and/or separated homes with low levels of interparental conflict. This might suggest that the
addition of interparental conflict is not as important a factor for adolescents living in divorced homes as it is for adolescents living in married homes.

This notion is supported by the present results indicating that when adolescents were living in married homes the level of interparental conflict was related to the rate of some problem behaviours. Adolescents living in married homes with high levels of interparental conflict had higher rates of sexual activity and cigarette smoking, but not alcohol consumption, when compared to adolescents living in married homes with low levels of interparental conflict.

As expected the results also found that adolescents living in divorced and/or separated homes with high levels of interparental conflict had higher rates of sexual activity, alcohol consumption, and cigarette smoking compared to adolescents living in married homes with either high or low levels of interparental conflict.

The results suggest that the adolescent’s parental marital status is more influential on rates of problem behaviours than degree of interparental conflict. Although, when the adolescents are living in divorced and/or separated homes with high levels of interparental conflict, they encounter multiple stressors that the adolescent must adjust to. Consequently, when multiple stressors are present, adolescents have higher rates of problem behaviours than when only a single stressor (only divorce or only high levels of interparental conflict) is present. Wallerstein (1983) notes that when several stressful experiences occur together this can lead to multiple and
interactive effects that adversely affect children.

The results support previous findings describing the relationship of parental divorce and interparental conflict. A meta-analysis conducted by Amato and Keith (1991) similarly found that children in high conflict married homes had lower levels of well-being than children in low conflict married homes. Furthermore, previous research also supports the finding that adolescents living in divorced and/or separated homes with high levels of interparental conflict had higher rates of problems than adolescents living in married homes (Forehand et al., 1991).

**Parent-Child Relationships on Adolescent Problem Behaviours**

The third purpose of the present study was to determine if the quality of parent-child relationships relationships the rates of adolescent problem behaviours, when adolescents are living in divorced and/or separated homes with high level of interparental conflict. It was hypothesized that for adolescents who had experienced parental divorce and high levels of interparental conflict, a positive parent-child relationships would buffer the adolescents from the family stress and in turn they would have lower levels of problem behaviours compared to adolescents who had experienced parental divorce and high levels of interparental conflict with negative parent-child relationships.

The results of the present study did not find that quality of the parent-child relationship was associated with the rate of adolescent problem behaviours among adolescents living in divorced and/or separated homes
with high levels of interparental conflict. However, the number of items
used to investigate parent-child relationships was limited. In addition, the
parent-child relationship composite score combined the relationship of the
adolescent with both of the parents. Therefore, due to the limitation of the
current measure, it can not be concluded that the quality of parent-child
relationships are not important factors mediating the effects of parental
divorce and interparental conflict on adolescent problem behaviours.

Future research should investigate further the importance of parent-
child relationships as a factor influencing adolescent problem behaviours.
Unfortunately, past research (Black & Pedro-Caroll, 1993) that found
parent-child relationships to have a mediating effect on adolescent problem
behaviours was not supported in the present study.

Conclusion

Adolescents living in divorced homes have higher rates of sexual
activity, alcohol consumption, and cigarette smoking compared to
adolescents living in married homes. In addition, the rates of problem
behaviours tend to increase as the adolescent’s age increases, but the
differences between males and females on rates of adolescent problem
behaviours does not appear to be consistent. Furthermore, the time since
parental divorce, and the adolescent’s age at the time of parental divorce are
also not important predictors of adolescent problem behaviours. However,
Parental divorce in conjunction with high levels of interparental conflict are
related to higher rates of adolescent problem behaviours.
REFERENCES


Appendix A

The Teen Health Centre Survey:

We would like to ask you some questions about your attitudes and your life. There are no right or wrong answers; rather, we want your views. Be honest. You are the only one who will know you filled out this form. DON'T SIGN YOUR NAME.

PLEASE CHOOSE ONLY ONE ANSWER FOR EACH QUESTION

We would like to begin by asking you about the things you enjoy

How much enjoyment do you receive from each of the following:

1) Music  a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
2) Television  a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
3) Reading  a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
4) Friendship a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
5) Being by self a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
6) Boy/girlfriend a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply
7) School  a) a lot  b) quite a bit  c) some  d) little or none  e) doesn't apply

8) About how many HOURS A DAY do you watch television
   a) one or less  b) two  c) three  d) four  e) five or more

How important are the following to you:

9) Friendship  a) very  b) somewhat  c) not very  d) not at all important
10) Family life a) very  b) somewhat  c) not very  d) not at all important
11) Spirituality  a) very  b) somewhat  c) not very  d) not at all important
13) Honesty  a) very  b) somewhat  c) not very  d) not at all important
14) Religious group a) very  b) somewhat  c) not very  d) not at all important
15) Your cultural heritage  a) very  b) somewhat  c) not very  d) not at all important
16) Being Canadian a) very  b) somewhat  c) not very  d) not at all important

17) All in all, my teachers are genuinely interested in me
   a) strongly agree
   b) agree
   c) disagree
   d) strongly disagree
18) Sex before marriage is alright when people: (check one only)
   a) want it for any reason
   b) like each other
   c) love each other
   d) are living together
   e) none of the above

19) Which of the following statements BEST summarizes your opinion about obtaining a legal abortion?
   a) for any reason (a woman’s choice)
   b) if there has been rape, incest, or there is a severe defect in the fetus
   c) if there has been rape or incest
   d) if there is a severe defect in the fetus
   e) abortion should never be legal

20) Sexual relations between two people of the same sex is sometimes alright
   a) strongly agree
   b) agree
   c) disagree
   d) strongly disagree

21) It is sometimes alright for a married person to have sex with someone other than his or her marriage partner
   a) strongly agree
   b) agree
   c) disagree
   d) strongly disagree

22) Homosexuals are entitled to the same rights as other Canadians
   a) strongly agree
   b) agree
   c) disagree
   d) strongly disagree

23) It is alright to have children without being married
   a) strongly agree
   b) agree
   c) disagree
   d) strongly disagree

If two people on a date LIKE each other, do you think it is O.K. to:
24) kiss  a) yes, on the first date  b) yes, after a few dates  c) no
25) “make out”  a) yes, on the first date  b) yes, after a few dates  c) no
26) have sexual intercourse  a) yes, on the first date  b) yes, after a few dates  c) no
How often do these common problems bother you?
27) Lack of money a) a lot b) quite a bit c) sometimes d) rarely/never
28) Pressure to do well at school a) a lot b) quite a bit c) sometimes d) rarely/never
29) Sexuality a) a lot b) quite a bit c) sometimes d) rarely/never
30) Losing friends a) a lot b) quite a bit c) sometimes d) rarely/never
31) Not having girl/boyfriend a) a lot b) quite a bit c) sometimes d) rarely/never

How accurately would you say the following statements describe you?
32) I am well liked a) very well b) fairly well c) not very well d) not well at all
33) I am good looking a) very well b) fairly well c) not very well d) not well at all
34) I have lots of confidence a) very well b) fairly well c) not very well d) not well at all
35) I seem to irritate people ("rub them the wrong way"), but don't understand why a) very well b) fairly well c) not very well d) not well at all
36) I am frustrated because people don't seem to listen to me a) very well b) fairly well c) not very well d) not well at all

37) Has anyone told you, or have you ever been concerned about a problem with your self-esteem?
a) no
b) I've had others tell me, but I'm not concerned
c) I've had others tell me, and I'm also concerned
d) No-one else has been concerned, but I am
e) I need to get help for my self-esteem

38) Within the past three years, have you physically hit someone?
a) no
b) just in fun/playing
c) yes, I hit a person once in anger
d) yes, I've hit people twice in anger
e) yes, I've hit people three or more times in anger

39) Has anyone told you, or have you ever been concerned about a problem with your anger control?
a) no
b) I've had other tell me, but I'm not concerned
c) I've had others tell me, and I'm also concerned
d) no-one else has ever been concerned, but I am
e) I need to get help in controlling my anger
40) Which things have made you very, very angry?
   a) family
   b) peer group
   c) drugs and alcohol
   d) school
   e) I never get very, very angry

41) Have you ever lost a personal relationship, lost employment, been suspended from school, or been involved with the law due to anger control problems in the last six months?
   a) yes   b) no

Much publicity has been given to a number of serious problems affecting teens. APART from what you read in the papers and seen in TV, do you yourself know anyone who:

42) Has been physically attacked  a) yes   b) no
43) Has been physically abused at home  a) yes   b) no
44) Has a severe alcohol or drug problem  a) yes   b) no
45) Has attempted suicide  a) yes   b) no
46) Have you ever thought about suicide?  a) yes   b) no
47) Have you ever seriously planned suicide?  a) yes   b) no
48) Have you ever attempted suicide?  a) yes   b) no

There has been some talk about young people having an interest in Satanism and witchcraft, among teens you know, how common is

49) involvement in Satanic groups or practices
   a) fairly common   b) fairly uncommon   c) is non-existent

50) involvement in witchcraft groups or practices
   a) fairly common   b) fairly uncommon   c) is non-existent

51) All in all, would you say that you are
   a) very happy
   b) pretty happy
   c) not too happy
   d) not happy at all

All of us find ourselves having to make decisions. Who are you most likely to turn to when you are making decisions in the following areas (please choose only one): (For “other”, please write answer on separate page)

52) Money  a) parents   b) friends   c) other adults   d) no-one   e) other
53) Relationships  a) parents   b) friends   c) other adults   d) no-one   e) other
54) Sexuality  a) parents   b) friends   c) other adults   d) no-one   e) other
55) Having fun  a) parents   b) friends   c) other adults   d) no-one   e) other
56) Right/wrong  a) parents   b) friends   c) other adults   d) no-one   e) other
57) School / career  a) parents   b) friends   c) other adults   d) no-one   e) other
58) Big problems  a) parents   b) friends   c) other adults   d) no-one   e) other
How often have you:
59) skipped school all day a) never  b) rarely  c) sometimes  d) often
60) shoplifted  a) never  b) rarely  c) sometimes  d) often
61) stolen a car ("joyriding") a) never  b) rarely  c) sometimes  d) often
62) used fake I.D. to get into a bar underage  a) never  b) rarely  c) sometimes  d) often
63) participated in a gang activity  a) never  b) rarely  c) sometimes  d) often

The next questions are about the use of alcohol and drugs

*64) Have you ever drunk alcohol or used drugs
   a) no, I have never used alcohol or drugs (go to question #83)
   b) yes, I have used alcohol, but I have not used drugs
   c) yes, I have used drugs, but not alcohol (go to question #75)
   d) yes, I have used both drugs and alcohol

*65) During the last four weeks, how often did you drink any alcohol (liquor, wine, beer)?
   a) I did not drink alcohol at all in the last four weeks
   b) I drank alcohol once or twice in the last four weeks
   c) I drank alcohol once or twice each week in the last four weeks
   d) I drank alcohol 3 of 4 times each week in the last four weeks
   e) I drank alcohol 5 or more times each week in the past four weeks

*66) How many times in the last three months has drinking alcohol made you drunk (e.g. that you threw up or could not do what you wanted to do)?
   a) I have not had any alcohol in the last three months
   b) I have not been drunk in the last three months
   c) I have been drunk once in the past three months
   d) I have been drunk twice in the past three months
   e) I have been drunk three or more times in the past three months

*67) On average, how much alcohol (beer, wine, liquor) do you usually drink at one time?
   a) 1-2 drinks
   b) 3-4 drinks
   c) 4-6 drinks
   d) 7 or more drinks

Which of the following statements are true for you?
68) I wish I could drink less alcohol than I do now
   a) yes  b) no
69) I hide my drinking from my parents (they don’t know I drink)
   a) yes  b) no
70) During the past year, others have complained about my drinking
   a) yes   b) no
71) During the past year, I have felt bad/guilty because of my drinking
   a) yes   b) no
72) How do you (or how would you) usually get alcohol (choose one answer)?
   a) I usually buy alcohol myself
   b) I usually have friends who buy alcohol for me or offer it to me
   c) I buy alcohol in restaurants or bars
   d) I don't know where I would get alcohol
   e) other (please use attached sheet)

*73) When did you first drink alcohol
   a) before grade five
   b) grade 6 - 7
   c) grade 8
   d) grade 9 or 10
   e) grade 11 or later

74) Which of the following comes closest to the reason why you tried alcohol the first time (choose only one answer)?
   a) curiosity (see what it was like, to get high, etc.)
   b) my brothers, sisters, or friends were drinking it, (they offered, or I asked, or I was pressured)
   c) It was a special event (e.g. concert, New Year's eve, wedding, etc.)
   d) My parents offered it to me
   e) other (please use attached sheet)

Which of the following statements are true for you?
75) I have been arrested or warned by police because of my use of alcohol or drugs
   a) yes   b) no
76) I have needed to be treated by a doctor or hospital because of drugs or alcohol
   a) yes   b) no
77) I have been talked to by a school counsellor, nurse, or teacher because of alcohol or drugs
   a) yes   b) no
78) I need counselling/treatment for alcohol or drugs
   a) yes   b) no
79) Do you wish you could use drugs less than you do now?
   a) yes   b) no   c) I have never used drugs (go to the question #83)
80) Are you always able to stop using drugs when you want to?
   a) yes   b) no
81) When did you first try cannabis (pot, grass, hash, marijuana)?
   a) never tried cannabis
   b) before grade six
   c) grade 7 or 8
   d) grade 9 or 10
   e) grade 11 or later

82) During the past month, how often did you use cannabis (pot, grass, hash, marijuana)?
   a) I do not know what cannabis is
   b) I did not use cannabis in the past month
   c) I used cannabis 1-3 times in the past month
   d) I used cannabis 4-6 times in the past month
   e) I used cannabis 7 or more times in the past month

83) How easy or difficult would it be for you to get drugs (LSD, coke, crack, marijuana, etc) if you wanted some?
   a) it would be impossible for me to get drugs
   b) it would be very difficult for me to get drugs
   c) it would be difficult for me to get drugs
   d) it would be easy or very easy for me to get drugs

84) I have been in a car driven by someone (including myself) who is high or drunk
   a) often
   b) sometimes
   c) rarely
   d) never

85) During the last school year (Sept. 1995 - June 1996) did you have any classes lectures that talked about alcohol, drugs, or smoking?
   a) no
   b) alcohol
   c) drugs
   d) tobacco
   e) I have had two or more classes about b, c, d.

We would like to know your opinion on the effects of using drugs and other substances. How much do you think people risk harming themselves (physically or in other ways) if they....

86) Smoke one or more packs of cigarettes a day?
   a) no risk    b) slight risk    c) medium risk    d) great risk    e) do not know
87) Take one or two drinks nearly every day?  
   a) no risk   b) slight risk   c) medium risk   d) great risk   e) do not know

88) Try drugs once or twice?  
   a) no risk   b) slight risk   c) medium risk   d) great risk   e) do not know

89) Field parties, also known as bush or pit parties, are large outdoor parties usually held in the spring or summer. How much alcohol do you usually drink when you are at a field or bush party?  
   a) I have never been to a field or bush party  
   b) none  
   c) 1 to 3 drinks  
   d) 4 to 6 drinks  
   e) 7 or more drinks

90) How often in the past 12 months have you driven any motor vehicle (with or without a licence) within an hour of drinking two or more drinks of alcohol  
   a) I have never driven a motor vehicle (car, motorcycle, etc.)  
   b) I have never driven after drinking  
   c) once  
   d) 2 or 3 times  
   e) four or more times

91) The use of marijuana (pot, grass) should be legalized  
   a) strongly agree  
   b) agree  
   c) disagree  
   d) strongly disagree

The next questions are about the use of tobacco

*92) Have you ever tried cigarettes (even one puff)?  
   a) yes   b) no (then go to question #99)

*93) At what grade did you first try cigarettes?  
   a) under grade four  
   b) grades 4 to 6  
   c) grades 7-8  
   d) grades 9-10  
   e) grade 11 or later

94) Why do (or did) you smoke cigarettes?  
   a) I enjoy it  
   b) because my friends do  
   c) to be grown up  
   d) habit  
   e) other (please use attached sheet)
95) How many cigarettes do you smoke in an average day?
   a) 1-3 cigarettes
   b) 4-8 cigarettes
   c) 9-12 cigarettes
   d) 13 or more
   e) I don’t smoke every day

96) How difficult was it (or would it be) for you to quit smoking?
   a) I have tried to quit, and it was easy
   b) I have tried to quit, and it was hard
   c) I haven’t quit, but it would be easy
   d) I haven’t quit, but it would be hard

97) How do you obtain cigarettes?
   a) corner store (self-purchase)
   b) friends purchase for me
   c) parents purchase for me
   d) “borrow” from others

98) If you buy cigarettes yourself, how often do you get asked for age identification?
   a) less than 1/4 of the time
   b) 1/4 to 1/2 the time
   c) 1/2 to 3/4 of the time
   d) more than 3/4 of the time
   e) I do not buy cigarettes myself

99) What happens to students in your school who get caught smoking on school property?  CHOOSE ONE ONLY (the one that happens most)
   a) nothing
   b) cigarettes get taken away
   c) discipline (detention, sent home, suspended)
   d) parents called
   e) the students who smoke in my school don’t get caught

100) How many of your friends now smoke regularly?
    a) none
    b) some
    c) most
    d) all
    e) don’t know
101) How do/ would your friends feel about your smoking cigarettes? (mark the one answer that says how most of your friends would feel).
   a) against it  
   b) would leave it up to me 
   c) encourage me to smoke 
   d) don't know 

102) When you are an adult, do you think you will smoke (mark one only)  
   a) yes          b) no          c) don't know 

103) Why do you think it is that people start to smoke?  
   a) They enjoy it  
   b) because their friends or dates do 
   c) to be grown up 
   d) to stay slim 
   e) other (please use attached sheet) 

104) Why do you think it is that people continue to smoke?  
   a) They enjoy it  
   b) because their friends to 
   c) to be grown up 
   d) habit 
   e) other (please use attached sheet) 

105) Do you think people are too concerned about the effect on their health from other people smoking (second hand smoke)?  
   a) yes  
   b) no  
   c) right amount 

The following questions ask about your sexuality and your health care

*106) Have you ever had sexual intercourse?  
   a) yes          b) no (go to question #116) 

*107) At what age did you first have sexual intercourse  
   a) under 12 years of age  
   b) 13-14  
   c) 15  
   d) 16  
   e) 17 or older
108) Sometimes I feel pressured into having sexual intercourse
    a) definitely true
    b) probably true
    c) probably false
    d) definitely false

*109) With how many partners have you had sexual intercourse in your lifetime?
    a) one
    b) two
    c) 3-4
    d) 5-7
    e) eight or more

110) AIDS and sexually transmitted diseases concern many people. What do you
do to protect yourself? (check the main one ONLY)
    a) use a condom
    b) don't have sex (practice abstinence)
    c) have oral sex but not intercourse
    d) other (please use attached sheet)
    e) nothing because (please use attached sheet)

111) How often do you use condoms/insist your partner uses condoms?
    a) every single time, NO exceptions
    b) almost always
    c) usually
    d) sometimes
    e) rarely or never

112) Have you ever had a sexually transmitted disease? (example: chlamydia,
gonorrhea, herpes, genital warts, syphilis, etc.)
    a) no
    b) yes, once
    c) yes, twice
    d) yes, three or more times

113) Have you ever been pregnant, or made a female pregnant?
    a) no
    b) yes, I've been pregnant
    c) yes, I've made a female pregnant
114) Do you or your partner use any method of birth control?
   (select main method only)
   a) birth control pill/ Norplant/ Depo Provera (go to question #116)
   b) condoms (go to question #116)
   c) diaphragm, sponge, or cervical cap (go to question #116)
   d) Natural Family Planning Method (rhythm method) (go to question#116)
   e) I/we are not using any of these methods of birth control

115) What is the most important reason you are not using birth control now
   (check main reason only)
   a) want a baby
   b) partner objects
   c) can’t afford
   d) religious reasons
   e) fear side effects

116) Has a health professional ever shown you how to use a condom?
   a) yes
   b) no

117) A person who is infected with the AIDS virus will get the disease AIDS someday
   a) definitely true
   b) probably true
   c) probably false
   d) probably false
   e) don’t know

118) Looking at a person is enough to tell if he or she has the AIDS virus
   a) definitely true
   b) probably true
   c) probably false
   d) probably false
   e) don’t know

119) When was the last time you went to a physician?
   a) within the past two months
   b) within the past six months
   c) within the past year
   d) within the past two years
   e) more than two years ago
120) Where do you usually get Health care?
   a) family physician
   b) The Teen Health Centre
   c) other regular clinic
   d) after hours clinic
   e) other (please use attached sheet)

121) Answer ONE of the following two questions
FOR FEMALES: Within the past year, my doctor has given me
   a) a pap test/ vaginal/ internal exam
   b) a breast exam
   c) a pap test and a breast exam
   d) neither a pap test nor a breast exam
   e) I have not been to a doctor within the past year
FOR MALES: has your doctor explained to you about testicular exams or given
   you a testicular exam (your scrotum)?
   a) I have been given one
   b) I have had it explained to me
   c) both
   d) neither
   e) don’t know what this is

We would like to know what you do for physical activity, and for how many
minutes you spend on each occasion
122) Low energy (e.g. walking, baseball, weight training)
   a) never  b) 1-15 min  c) 16-30 min  d) 31-60 min  e) over 60 min
123) Medium energy (e.g. bicycling, jogging, skating/ hockey, skiing,
rollerblading, swimming, skateboarding, basketball)
   a) never  b) 1-15 min  c) 16-30 min  d) 31-60 min  e) over 60 min
124) High energy (e.g. aerobics, racquet sports, etc)
   a) never  b) 1-15 min  c) 16-30 min  d) 31-60 min  e) over 60 min

125) How often do you wear your seatbelt in the car?
   a) never or rarely
   b) sometimes
   c) often
   d) almost always
   e) every single time

The following questions ask you about your eating habits

126) How often do you eat well-balanced, health meals?
   a) always (then go to question #128)
   b) nearly always (then go to question #128)
   c) sometimes
   d) almost never
   e) never
127) Why aren’t your meals more well balanced, healthy? (choose main reason only)
   a) costs too much
   b) not enough time
   c) don’t like certain foods
   d) never been taught the information
   e) too much bother

128) Are you presently on a weight-loss diet? / Why are you on a weight loss diet?
   a) I want to lose weight
   b) someone else is dissatisfied about my weight
   c) for medical reasons
   d) to get fit/ feel better
   e) I am not on a weight loss diet

129) On how many school days do you typically eat breakfast?
   a) one or less   b) two    c) three     d) four   e) five

130) On how many school days do you typically eat lunch?
   a) one or less   b) two    c) three     d) four   e) five

131) On how many school days do you typically eat dinner?
   a) one or less   b) two    c) three     d) four   e) five

132) How do your eating patterns differ on weekends?
   a) they are the same
   b) I eat more often
   c) I eat better/ more nutritious foods
   d) I eat less often
   e) I eat less nutritious foods

133) Which of the following best describes your eating behaviours?
   a) I eat a variety of animal products (I do not restrict any)
   b) I only eat small amounts of animal products (I restrict a little)
   c) I consume milk products and eggs, but not chicken, red meat or fish
   d) I consume milk products but not eggs, chicken, red meat or fish
   e) I consume NO animal products at all

134) How many meals per week do you eat at a fast food restaurant?
   a) one or less   b) two    c) three to four   d) five to six   e) most meals
135) What is your favourite fast food restaurant?
   a) McDonald’s
   b) Burger King
   c) Taco Bell
   d) Wendy’s
   e) other (please use attached sheet)

136) What is your favourite snack food?
   a) chocolate or cookies
   b) chips
   c) sweets (licorice, hard candy)
   d) fruits or veggies
   e) ice cream

137) How often do you eat your favourite snack food?
   a) less than once per week
   b) 1-3 times per week
   c) 4-5 times per week
   d) 6-7 times per week
   e) eight or more times per week

In a typical week, how often do you eat each of the following?

138) Fruit/juice (one serving = one medium size fruit, or 1/2 cup)
   a) less than once per week
   b) 1-3 times per week
   c) 4-7 times per week
   d) 2-3 times per day
   e) more than three times per day

139) Vegetables (one serving = one medium size vegetable {carrot, tomato, etc.} or 1/2 cup)
   a) less than once per week
   b) 1-3 times per week
   c) 4-7 times per week
   d) 2-3 times per day
   e) more than three times per day

140) Whole grains (like whole wheat, rye, or multigrain bagels/bread, bran or other high fibre cereal, or whole wheat muffins, brown rice etc)
   a) less than once per week
   b) 1-3 times per week
   c) 4-7 times per week
   d) 2-3 times per day
   e) more than three times per day
141) Milk products (one serving = 1 cup milk or 3/4 cup yogurt, or 2 slices cheese)
   a) less than once per week
   b) 1-3 times per week
   c) 4-7 times per week
   d) 2-3 times per day
   e) more than three times per day

142) How do you feel about your body?
   a) thin
   b) slightly below average
   c) average
   d) slightly above average
   e) fat

143) Have you tried to lose weight in the past two years?
   a) no (then go to question #151)
   b) yes

Which of the following have you used to change your weight

144) eat less  a) yes  b) no
145) exercise more  a) yes  b) no
146) commercial diet product/ pills  a) yes  b) no
147) fasting  a) yes  b) no
148) vomiting or laxatives  a) yes  b) no
149) changed foods  a) yes  b) no
150) other (please use attached sheet)  a) yes  b) no

We would like to ask you some information about your family life

*151) Are your parents
   a) married (go the question #157)
   b) separated
   c) divorced
   d) living common-law together (go to question #157)
   e) widowed/widower (go to question #161)

*152) How old were you when your parents were separated or divorced?
   a) Before age 5
   b) When I was 5 - 8 years old
   c) When I was 9 - 12 years old
   d) When I was 13 - 15 years old
   e) When I was 16 or older
153) How many years has it been since your parents were first separated?
   a) less than one year
   b) one to two years
   c) two to five years
   d) five to ten years
   e) over ten years

154) With whom do you live the majority of the time?
   a) both parents equally (shared custody)
   b) mother only
   c) father only
   d) parent and his or her partner
   e) other (please use attached sheet)

155) In the first year that your parents were separated/divorced, how would you describe your school performance compared to the time before they were separated?
   a) much better
   b) a bit better
   c) same
   d) a bit worse
   e) much worse

156) In the 1995-96 school year, how would you describe your school performance compared to the year of separation?
   a) much better
   b) a bit better
   c) same
   d) a bit worse
   e) much worse

157) How well do your parents get along?
   a) very well
   b) fairly well
   c) moderately well
   d) not well
   e) not at all well

158) How often do your parents argue
   a) very often
   b) fairly often
   c) moderately often
   d) not very often
   e) rarely/never
*159) How often do you feel caught in the middle of your parents' arguments?
   a) very often
   b) fairly often
   c) moderately often
   d) not very often
   c) rarely/never

*160) How often do you find yourself having to mediate (be a go-between) for your parents' interactions
   a) very often
   b) fairly often
   c) moderately often
   d) not very often
   e) rarely/never

How would you describe your relationship with your:
*161) mother    a) good    b) moderate    c) poor    d) no mother
*162) father    a) good    b) moderate    c) poor    d) no father
*163) sister(s) a) good    b) moderate    c) poor    d) no sisters
*164) brother(s) a) good    b) moderate    c) poor    d) no brothers
*165) mother’s parents a) good    b) moderate    c) poor    d) no maternal grandparents
*166) father’s parents a) good    b) moderate    c) poor    d) no paternal grandparents

*167) How well do you feel your parent(s) understand you?
   a) very well
   b) fairly well
   c) moderately well
   d) not very well
   e) not much at all

Please tell us a little bit about you personally. Remember: Your answers will only be seen by researchers. Do not sign your name.

*168) What is your gender? a) female    b) male

*169) What is your age? a) 14 or under
   b) 15
   c) 16
   d) 17
   e) 18 or older
170) What grade are you in?
   a) nine
   b) ten
   c) eleven
   d) twelve
   e) OAC

171) Do you plan to go to college or university?
   a) yes         b) no         c) don’t know

172) What is your racial background?
   a) White/ European - Canadian
   b) Black/ African - Canadian
   c) Asian
   d) East Indian
   e) other (please use attached sheet)
   (e.g. Native Canadian, Pacific Islander, etc.)

173) What is your religion?
   a) Roman Catholic
   b) Anglican
   c) Protestant
   d) no religion
   e) Other (please use attached sheet)
   (e.g. Eastern Orthodox, Jewish, Muslim, etc.)

174) How important is religion to you?
   a) very important
   b) fairly important
   c) not very important
   d) not important at all

175) How many hours per week are you employed?
   a) zero (I do not work)
   b) less than ten hours
   c) ten to 15 hours
   d) 15 to 20 hours
   e) over 20 hours per week

We would like to ask you some questions about The Teen Health Centre

176) Have you ever heard of the Teen Health Centre?
   a) yes
   b) no (please go to questions on the separate page)
177) How did you hear about the Teen Health Centre?
   a) friends
   b) parents
   c) school
   d) Teen Health Centre presentation
   e) media

178) Have you ever been to the Teen Health Centre?
   a) yes
   b) no (please go to questions on the separate page)

179) How would you rate the service that you have received at the Teen Health Centre?
   a) excellent  b) better than average  c) average  d) below average  e) poor

Note. Items included in the analyses are denoted by an asterisk (*).
VITA AUCTORIS

Robyn Lavitch was born to Bernard and Barbara Lavitch on August 26, 1972, in Encino, California. In 1990 she graduated from Maples Collegiate in Winnipeg, Manitoba. In 1994, she received the degree of First Class Honours Bachelor of Arts in Psychology from the University of Manitoba. Since, 1995, she has been a graduate student in the Developmental Psychology programme at the University of Windsor.