

The influence of familial support and dysfunctional attitudes on depression and delinquency in an adolescent population

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This study evaluates the role of familial support and dysfunctional attitudes in depression, delinquency and the concomitance of these disorders in an adolescent population from a middle-class community in the Trois-Rivières area. The Beck Depression Inventory and the Mesure d'adaptation sociale et personnelle pour adolescents québécois – MASPAQ (Measure of social and personal adaptation in Quebec adolescents) were used respectively to evaluate depression and delinquency. The Mesure de la perception du soutien familial (Measure of perceived social support – family) and Echelle des attitudes dysfonctionnelles (Dysfunctional attitude scale) served to evaluate the familial and cognitive variables of the study. The findings confirm that a higher incidence of disorders concerning depression and delinquency in adolescents is associated with a lower level of familial support. Moreover, whereas dysfunctional attitudes concerning dependence and achievement are related to the presence of internal disorders such as depression, dysfunctional attitudes concerning self-control are linked to external problems such as delinquency. Findings of the test on the mediating role of dysfunctional attitudes in the relationship between familial support on the one hand and depression and delinquency on the other, do not support the presence of such a role.

The objective of this study is to evaluate the role played by familial support and dysfunctional attitudes in the depression and delinquency of an adolescent population. In an exploratory manner, the study also examined the mediating role of dysfunctional attitudes in the relationship between familial support, on the one hand, and depression and delinquency, on the other.

Depression is a phenomenon that has reached worrisome proportions in the adolescent population. In fact, between 8 and 18% of adolescents present a depressive syndrome and report

a sufficiently high number and intensity of depressive symptoms to suggest the need for intervention (Reynolds, 1994). Depression entails a number of consequences (Gotlib & Hammen, 1992) and can ultimately lead to suicide (Reynolds, 1992). A number of authors report that boys are more depressed before puberty, whereas girls show more symptoms of depression in adolescence (Ge, Lorenz, Conger, Elder, & Simons, 1994; Kandel & Davies, 1982; Patten, Gillin, Farkas, Gilpin, Berry, & Pierce, 1997; Petersen, Compas, Brooks-Gunn, Stemmmer, Ey, & Grant, 1993).

Delinquency is another disorder that is recognized as emerging during adolescence. A vast majority of teenagers between 12 and 18 years of age, 92.8% in fact, recognize having committed at least one, more or less delinquent act during the past year (Fréchette & LeBlanc, 1987). Among that group, 8.7% of adolescents in the school environment have committed more serious delinquent acts, i.e. a "sanctioned" delinquency, which fall under laws and regulations and for which judicial sanctions are applicable (for example, a burglary). A conduct disorder during childhood has been associated to adult criminality and to other psychosocial disorders (Rutter, Harrington, Quinton, & Pickles, 1994). In general, boys commit two to five times more delinquent acts than girls. Although a number of studies do not distinguish between them clearly, delinquency and conduct disorders are different constructs. These constructs tend to converge, however, in chronic delinquency, which is marked by repetitive antisocial behaviours (Moore & Arthur, 1989, in Yoshikawa, 1994); in this literature review, we have considered all the studies in the field.

The family, and more specifically familial support, is often mentioned as a determining factor in explaining depression (e.g. Hammen, 1991). Prociano and Heller (1983) define familial support as individuals' perception that their family satisfies their support, information and feedback needs. The adolescents who recognize that their family is neither very cohesive (Donnelly, 1999) nor very supportive (Donnelly, 1999; Licitra-Kleckler & Wass, 1993) tend to manifest more depressive symptoms. Along the same lines, Patten et al. (1997) report that teenagers who receive support from both parents manifest lower rates of depressive symptoms than those living with one or both parents who are non-supportive. Likewise, in adolescents who are hospitalized for psychiatric reasons, a high level of familial support is linked to a low level of depression (Barrera & Garrison-Jones, 1992). Moreover, Aseltine and Gore (1993) have demonstrated that strong familial support was tied to a small probability of delinquency, whereas Licitra-Kleckler and Wass (1993) report a link between weak familial support and the appearance of a number of problems, namely a greater and more varied use of drugs and alcohol and involvement in delinquency and criminality.

Cognitive distortions are among those variables that are often referred to in order to explain depression. The concept of cognitive distortions originates in Beck's cognitive theory of depression (1967, 1977). According to Beck (1977), cognitive schemes errors, i.e. dysfunctional attitudes or irrational beliefs, can effect the perception of reality, the manner of responding to reality, and the negative nature of the inner language. According to this model, depression is expressed through the cognitive triad, composed of negative perceptions of oneself, the world and the future. Recently, the notion of cognitive distortions has become less comprehensive and the distinction is now made between three types. In line with this concept, Power, Katz, McGuffin, Duggan, Lam, and Beck (1994) posit a new version of the Dysfunctional Attitude Scale (DAS), which includes three sub-scales representing the following vulnerability factors: the achievement that refers to the importance of excelling in a field (e.g. academic) in order to gain respect; dependence, which calls for others' approval; and self-control, which calls forth the desire of an individual to control his or her own emotions.

The presence of cognitive distortions in adolescent populations remains largely unexplored. A few authors have observed that depressive symptoms are correlates of cognitive distortions (Garber, Weiss, & Shanley, 1993; Hammen, 1991; Marton & Kutcher, 1995). Other studies also confirm the presence of cognitive distortions in depressed adolescents from psychiatric (Tems, Stewart, Skinner, Hughes, & Emslie, 1993; Thurben, Crow, Thurber, & Woffington, 1990) and school environments in Quebec (Marcotte, 1995, 1996, 1997). According to a number of studies, the association between depression and cognitive distortions in young people from the school environment is neither effected by age (Marton & Kutcher, 1995) nor by gender (Marcotte,

Leclerc & Lévesque, submitted; Marton & Kutcher, 1995). However, the findings of the study by Marcotte et al. (submitted) indicate that boys exhibit more dysfunctional attitudes concerning achievement and self-control, while girls report more distortions concerning dependence and self-perception, and use a more pessimistic inner language.

The majority of studies that have focused on cognitive distortions have examined their link with inner disorders. Research on cognitive distortions as correlates of external problems, and more particularly delinquency, is very recent and still not well documented. Moreover, in the majority of available cases, authors do not differentiate between the types of cognitive distortions and their respective influence on delinquency. Hastings, Anderson, and Hemphill (1997) report that 15-years-old boys from a cohort of youths with conduct disorders exhibited more automatically negative thoughts and cognitive distortions than young control subjects from a school environment, despite the fact that the youths experienced similar levels of daily stress. The authors conclude that, if all young people face the same type of stress, those with conduct disorders react to it in a more inappropriate manner. As for Liau, Barriga, and Gibbs (1998), they indicate that the presence of cognitive distortions is associated to delinquent and antisocial behaviours in adolescents from a school environment as well as in delinquent boys.

If depression and delinquency can apparently be considered as different disorders, some authors affirm that close to one third of depressive adolescents concomitantly exhibit external conduct disorders (Fleming & Offord, 1990). Hammen and Compas (1994) define concomitance as the appearance in the same individual of two or more disorders that were originally independent. While Kandel and Davies (1982) find that girls are more likely to experience a concomitant disorder, Ge, Best, Conger, and Simons (1996) suggest that the rate of concomitance is similar in both sexes. As for Giguère, Marcotte, Fortin, Potvin, Royer, and Leclerc (2000), they have indicated that the concomitance of depression and delinquency is similar in both sexes, but that girls in the concomitant group report being more depressed, while boys from the same group report more external disorders and/or delinquency.

Research on familial support as a factor in concomitance is still in the early stages and little work has yet been conducted. According to Ge et al. (1996), the presence of parents who are relatively uncaring, hostile and who lack disciplinary skills, is a predictor for the appearance of the concomitance of depression and delinquency in adolescents. As for cognitive distortions, their potential link with the concomitance of internal and external disorders remains, for all intents and purposes, undocumented. In a study conducted on a cohort in a psychiatric environment, Calache, Martinez, Verhulst, Bourgeois, and Peyre (1994) report that depressive adolescents who are drug users, exhibit more cognitive distortions than non-depressive, adolescent drug users, and young control subjects.

In short, research on the more specific nature of dysfunctional attitudes related to depression, delinquency and the concomitance of these disorders in adolescence, are few and far between, as are those that have focused on the way in which dysfunctional attitudes may intervene in the relationship between familial support, depression and delinquency (Hammen, 1991; Ostrander, Weinfurt, & Nay, 1998; Simons & Miller, 1987). The general objective of the present study is to pursue the examination of these issues.

Taking into account the literature, the hypothesis put forward in this study posits that adolescents' scores for depression and delinquency are inversely proportional to familial support, and directly proportional to their scores for dysfunctional attitudes concerning achievement, dependence and self-control.

Method

Participants

The initial sample included 550 students (297 girls and 249 boys; mean age=15.09 years; *sd*:.77) from Secondary III and IV in two public schools from the Trois-Rivieres area. These adolescents came from a middle-class community and an area with high unemployment.

Measures

Depression. The French version (Bourque & Beaudette, 1982) of the Beck Depression Inventory (Beck, 1978) was used to evaluate depressive symptoms. This self-assessment measure contains 21 items and was designed to evaluate the level of affective, cognitive, behavioural and somatic aspects of depression. Psychometric attributes were confirmed using samples of adolescents in the normal and clinical groups (Baron & Laplante, 1984; Barrera & Garrison-Jones, 1988; Gosselin & Marcotte, 1997; Strober, Green, & Carlson, 1981; Teri, 1982), and the internal consistency of the present study reached .87. A cutoff score of 16 determined the presence or absence of depression in adolescents (Barrera & Garrison-Jones, 1988).

Delinquency. In order to measure delinquency, a scale from the Measure of social and personal adaptation in Quebec adolescents (MASPAQ) (LeBlanc, 1994) was used. The "serious delinquency" scale is a self-descriptive measure of violent and antisocial behaviours. It contains 21 questions related to various conducts that are listed in the Criminal Code and that can lead to an appearance in the Youth Division of the Court of Quebec. The different questions are divided into four sub-scales corresponding to the different types of delinquency: physical aggression ($\alpha=.82$), vandalism ($\alpha=.83$), petty theft ($\alpha=.91$) and robbery ($\alpha=.82$). Moreover, this set of questions establishes the overall delinquency score, i.e. the "synthesis dimension of serious delinquency" ($\alpha=.71$). The present study considers the dimension of "actual frequency of delinquent acts" (having occurred in the past 12 months) as the synthesis dimension of serious delinquency. A conversion of the raw score into standard data was done based on the formula posited by Nunnally (1967, see LeBlanc, 1994). This established the mean at 50 and divided results into two categories: subjects reporting a score higher than a standard deviation above the mean (60 and over) are considered as delinquent and participants with a score lower than the standard deviation below the mean (40 and under) are considered as non delinquent.

Familial support. Developed in 1983 by Procidano and Heller, the Perceived Social Support-Family or PSS-F, evaluates individuals' perceptions of the level of satisfaction regarding support, information and feedback needs that are met by their family. The preliminary version of 35 items presents an internal consistency coefficient of .90 and a test-retest reliability coefficient of .83 following a one-month interval on a university population whose average age is 19 years (Procidano & Heller, 1983). The internal consistency of the 20-item version (example: "I can count on my family for emotional support") used in the present study reached a coefficient of .94, which is similar to the one obtained by Sicotte and Marcotte (1998) on a French-speaking population in a school environment. The sum of items produces a total score varying between 20 and 120; a high score indicates a high level of perception concerning familial support.

Dysfunctional attitudes. The Dysfunctional Attitude Scale or DAS, was designed by Weissman and Beck (1978). Power et al. (1994) developed a new 24-item version that includes the global score as well as three sub-scales representing factors of vulnerability: achievement ("People will probably have a lower opinion of me if I make a mistake"), dependence ("My happiness depends more on others than on myself") and self-control ("I should always have total control over my emotions"). The coefficients of internal consistency obtained from adults are .84 for achievement, .74 for dependence and .68 for self-control. Internal consistency coefficients of .76 for the total range of dysfunctional attitudes, .73 for achievement, .69 for dependence and .63 for self-control were obtained in the present study. The sum total of items gives a total score varying between 7 and 168, where a high score denotes a strong presence of dysfunctional attitudes. In order to verify the specificity of items related to each of the sub-scales and to validate the DAS on a French-speaking adolescent population, a factor analysis of the principal components was performed in the framework of the present study. The findings of this analysis mirror the structure of the original version of the measuring instrument.

Procedure

Subjects' written consent, as well as parental consent for youths under 14 years of age were collected and subjects were assured that their confidentiality would be protected. A meeting with each group was then organized during the regular school hours for adolescents to fill out the described questionnaires. The amount of time given to fill out the questionnaires was limited to a class period, with most youths finishing in time.

Results

Before examining the main hypothesis of the study, preliminary analyses were made to verify certain authors' positions (Hammen, 1991; Ostrander, Weinfurt, & Nay, 1998; Peiser & Heaven, 1996), which suggest that dysfunctional attitudes play a mediating role in the relationship between familial support on the one hand and depression and delinquency on the other. Correlational analyses between the different variables were performed on boys and girls separately. The correlation coefficients thus found are presented in Table 1.

Table 1
Intercorrelations between variables among boys and girls

	Depression	Delinquency	Familial support	Success	Dysfunctional attitudes		
					Dependency	Self-control	Total
Depression		.30***	-.31***	.33***	.19**	.10	.30***
Delinquency	.39***		-.23**	.19*	.03	.23**	.24**
Familial support	-.42***	-.25***		-.19**	-.07	-.02	-.13*
Dysfunctional attitudes							
Success	.12	.11	-.13*		.42***	.27***	.83***
Dependency	.32***	.12	-.23**	.42***		-.09	.67***
Self-control	-.03	.02	-.03	.37***	.07		.55***
Total	.28***	.12	-.18**	.84***	.71***	.63***	

Note. * $p < .05$, ** $p < .005$, *** $p < .001$; Girls: below the diagonal; Boys: above the diagonal.

This table shows that, for both boys and girls, depression and delinquency are positively related and that both are also negatively related to familial support. Concerning dysfunctional attitudes related to achievement, the analysis reveals a positive relationship with a higher level of depression for boys than for girls as well as a positive relationship with a level of delinquency that is similar for both sexes. It is worth noting, however, that the last association is only significant in boys. The results also showed that the dysfunctional attitudes related to dependence are more clearly linked to depression in girls. Lastly, a more positive association between dysfunctional attitudes related to self-control and delinquency has been found in boys than in girls.

Subsequently, a hierarchical regression analysis was performed. Adhering to the guidelines established by Baron and Kenny (1986), familial support was introduced in a first step, followed by dysfunctional attitudes. Findings do not demonstrate any significant Beta variation in familial support following the introduction of dysfunctional attitudes. Consequently, this study shows no evidence to support the hypothesis of a mediating role for dysfunctional attitudes in the relationship between familial support on the one hand, and depression and delinquency on the other, which let us to examine the study's first hypothesis.

According to this hypothesis, scores reported by adolescents in depression and delinquency are indirectly proportional to their scores for familial support, and directly proportional to their scores for dysfunctional attitudes concerning achievement, dependence and self-control.

In order to verify the hypothesis of the present study, two multiple regression analyses were made, one to explain depression and one for delinquency. In each of these regressions, the age and gender of participants were introduced into the first analysis block and the variables of familial support and dysfunctional attitudes concerning achievement, dependence and self-control were introduced into the second analysis block. The examination of collinearity indices (VIF) demonstrated that all indices range between 1 and 1.5, none reaching 2. Consequently, no multicollinearity problem should affect the analysis' results.

Findings from the analysis on depression show that the entire set of variables explains 27.5% of the total variance ($F(4,518)=37.47, p<.001$). As shown in Table 2, the variables most significantly associated with depression are: gender, dysfunctional attitudes concerning achievement and dependence, as well as the quality of familial support. For example, being a girl, adopting dysfunctional attitudes related to achievement and dependence, as well as receiving weak familial support, are all related to the depression score. Tests on the semi-partial correlations associated with these variables show the following contributions for each individual variable: 4.4% for gender, 3.2% for dysfunctional attitudes concerning achievement, 1.2% for those related to dependence, and 9.5% for familial support.

The results of the analysis on delinquency show that the entire set of variables accounts for 12.7% of the total variance ($F(4,458)=9.69, p<.001$). As seen in Table 2, the variables significantly associated to delinquency are: gender, dysfunctional attitudes concerning self-control, as well as the quality of familial support. Thus, being a boy, adopting dysfunctional attitudes concerning self-control, and not being able to depend on strong familial support, are variables related to delinquency. Test on the semi-partial correlations associated to each of these variables show the following contributions for each individual variable: 4.3% for gender, 1.0% for dysfunctional attitudes concerning self-control and 4.0% for familial support.

Table 2

Regression of depression and delinquency

	Depression					
	Block 1			Block 2		
	β	<i>t</i>	<i>p</i> <	β	<i>t</i>	<i>p</i> <
Gender	.26	6.01	.001	.22	5.62	.001
Age	.01	.34	<i>ns</i>	.05	1.16	<i>ns</i>
Familial support				-.32	-8.27	.001
Dysfunctional attitudes related to success				.21	4.79	.001
Dysfunctional attitudes related to dependency				.13	2.91	.005
Dysfunctional attitudes related to self-control				-.05	-1.22	<i>ns</i>
Total of the variance explained	6.6%			27.5%		
	Delinquency					
	Block 1			Block 2		
	β	<i>t</i>	<i>p</i> <	β	<i>t</i>	<i>p</i> <
Gender	-.23	4.98	.001	-.22	-4.74	.001
Age	-.07	-1.47	<i>ns</i>	-.07	-1.59	<i>ns</i>
Familial support				-.21	-4.60	.001
Dysfunctional attitudes related to success				.08	1.62	<i>ns</i>
Dysfunctional attitudes related to dependency				.01	.17	<i>ns</i>
Dysfunctional attitudes related to self-control				.11	2.18	.05
Total of the variance explained	5.3%			12.7%		

In order to continue examining the hypothesis, clinical groups were formed to verify the effect of gender, membership group, and the interaction of these factors on familial support

and on the dysfunctional attitudes concerning achievement, dependence and self-control. The depressive group is made up of youths who scored higher than 15 on Beck's Depression Inventory; the delinquent group is composed of youths having scored higher than 60 on the serious delinquency scale of the MASPAQ. Depression and delinquency scores were considered simultaneously to identify adolescents who made up the concomitant group as well as those included in the normative group. Youths having scored higher than 15 on the depression scale while scoring higher than 60 in delinquency were classified in the concomitant group. As no participant had a score lower than 40 in the delinquency measure, and that over one hundred had a score between 40 and 42, the lower cut off score was set at 43. Thus, adolescents having scored a 9 or lower in the depression measure and lower than 43 in the delinquency measure were ranked among the normative group. It is worth mentioning that groups were formed in an exclusive manner, so that no participant is classed in more than one group at a time. The application of the different procedures of subject classification has led to a reduction in the total sample to 193 participants, distributed as follows: depressive group: $n=60$; 11 boys and 49 girls; delinquent group: $n=39$; 31 boys and 8 girls; concomitant group: $n=13$; 4 boys and 9 girls; normative group: $n=81$; 37 boys and 44 girls.

A bifactorial variance analysis was made (gender X membership group) in order to determine the effect of the membership group (X4) and gender (X2) on the familial support. Table 3 shows the data on which the analyses were made. This data is presented according to participants' gender and membership group.

Table 3

Means and standard deviations () of variables according to youths' gender and group

		Dysfunctional attitudes			
		Familial support	Success	Dependency	Self-control
Normative					
Boys		93.46	24.00	26.76	33.62
($n=37$)		(14.10)	(6.88)	(8.15)	(6.90)
Girls		91.77	21.98	29.27	30.18
($n=44$)		(21.05)	(7.13)	(7.36)	(6.52)
Depressive					
Boys		66.09	34.36	33.00	37.82
($n=11$)		(27.26)	(6.36)	(10.29)	(7.72)
Girls		69.35	27.40	32.42	31.20
($n=49$)		(20.92)	(8.89)	(8.78)	(6.96)
Delinquent					
Boys		79.61	26.91	27.36	39.06
($n=31$)		(18.53)	(9.48)	(8.53)	(7.04)
Girls		80.13	26.00	29.00	33.63
($n=8$)		(18.89)	(9.67)	(7.17)	(8.38)
Concomitant					
Boys		81.00	33.00	33.00	36.75
($n=4$)		(9.83)	(5.48)	(6.98)	(11.35)
Girls		55.89	26.56	34.78	31.33
($n=9$)		(23.74)	(8.95)	(3.60)	(7.35)

Results from the analysis on familial support show an effect from the membership group ($F(3,185)=15.72$, $p<.001$), but none from gender, and no interaction effect between the factors. The multiple comparison test (Tukey, $p<.05$) shows that youths from the normative group report a higher level of familial support than adolescents from the depressive, delinquent and concomitant groups. Moreover, youths from the delinquent group report a higher level of familial support than those in the depressive group.

A multifactorial variance analysis was made to examine the effect of membership group (X4) and gender (X2) on the different types of dysfunctional attitudes. An important effect is observed for membership group ($F(9,452.83)=3.77, p<.001$) and for gender ($F(3,186)=5.88, p<.005$). The interaction effect between these two factors, however, is not significant. Univariate analyses reveal that the group has an effect on the three types of dysfunctional attitudes: those concerning achievement ($F(3,188)=8.83, p<.001$), dependence ($F(3,188)=4.04, p<.01$), and self-control ($F(3,188)=3.01, p<.05$). Multiple comparison tests (Tukey, $p<.05$) reveal that youths from the normative group score lower on dysfunctional attitudes concerning achievement than youths from the depressive group, and the results are similar when comparing them to youths from the delinquent and concomitant groups. It is worth noting that observable differences between youths from the three clinical groups were not significant. As for dysfunctional attitudes concerning dependence, the multiple comparisons allowed to conclude that youths from the normative group scored lower than adolescents from the depressive and concomitant groups. Moreover, the difference between the depressive group and the delinquent group was significant: youths from the former group scoring higher than youths from the latter. Lastly, as for dysfunctional attitudes concerning self-control, analysis reveals that the observable difference between the normative group and the delinquent group is significant: youths from the former group scoring lower than the youths from the latter group. Moreover, youths from the depressive group scored lower than those from the delinquent group.

Finally, concerning the effect of gender, univariate analyses indicate that only dysfunctional attitudes concerning achievement ($F(1,188)=5.97, p<.05$) and those related to self-control ($F(1,188)=12.90, p<.001$) are affected. In both cases, boys showed a higher score than girls.

Discussion

The aim of this study was to examine the role of familial support and of various cognitive distortions in the presence of internal and external disorders, and in the concomitance of these problems in an adolescent population.

As in other studies, the findings have demonstrated that young girls scored higher on the depression scale than boys did (Baron & Groulx, 1992; Gosselin & Marcotte, 1997; Nolen-Hoeksema & Girgus, 1994), whereas boys scored higher in terms of delinquency than girls (Ge et al., 1996). Few studies have focused on the differences between the sexes in terms of cognitive distortions. According to Calache et al. (1994), gender does not influence the level of dysfunctional attitudes (as measured by the DAS) reported by adolescents. And yet, this study pointed out that boys presented more dysfunctional attitudes concerning achievement and self-control. These findings are in line with those of Marcotte et al. (submitted) who reported that boys adopted more dysfunctional attitudes concerning achievement and self-control.

In accordance with data that has been collected by other authors (e.g. Patten et al., 1997; Reicher, 1993), the results show that weak familial support is associated to the presence of depressive symptoms. Baron (1993) has already posited that symptoms of depression in adolescents can emerge when they are living in a familial environment that is lacking in emotional availability or exhibiting unreasonable control or open conflict. The study's findings have also showed familial support to be a correlate of delinquency, which is in line with previous research. For example, Gardner (1992) suggests that the presence of social and familial problems in adolescents' environment is characteristic of youths with conduct disorders. Lastly, the results outlined a link between familial support and concomitance, which is a position that is held by Reinecke (1995), according to whom the family plays an important role in explaining the causes and perpetuating the concomitance of conduct disorders and depression.

The results confirm the existence of a link between dysfunctional attitudes and depression in adolescents, thus supporting Beck (1967) and his cognitive model. This theory

has been confirmed by the findings of other studies conducted on adolescent populations (e.g. Baron, 1993; Marcotte, 1996; Marton, Churchard, and Kutcher, 1993; Marton & Kutcher, 1995). For example, Garber et al. (1993) conclude that depression is directly proportional to the manifestation of dysfunctional attitudes in adolescents from a school environment. Moreover, new information has been extracted from the findings of the present study, since few studies concerning adolescents have, until now, used the DAS as an instrument to identify the types of dysfunctional attitudes that characterize the different problems. The findings, therefore, have showed that depressive adolescents manifest more dysfunctional attitudes concerning achievement than the control subjects. Moreover, depressive youths report a more significant level of dysfunctional attitudes concerning dependence than the subjects from the control and the delinquent groups. These findings corroborate those gathered by Marcotte et al. (submitted), which have demonstrated a link between depression and the dysfunctional attitudes related to achievement and dependence in an adolescent population. Likewise, as the findings have indicated, Marcotte et al. (submitted) do not identify any difference between the depressive subjects and those from the control group, in terms of dysfunctional attitudes concerning self-control.

As mentioned above, the link between cognitive distortions and external problems has received little attention, and not one study has allowed to distinguish between cognitive distortions that are specific to each of these problems. According to the findings of this study, delinquent subjects adopt a greater number of dysfunctional attitudes related to self-control than youth from both the control group and the group of depressive subjects. A similar interpretation was made with the findings reported by Liao et al. (1998), and those of Hasting et al. (1997), which highlight the important presence of negative automatic thoughts and cognitive distortions in adolescent sexual offenders and youth with conduct disorders. However, our findings broaden the scope of previous research by demonstrating the relevance of evaluating not only the cognitive limits that have been examined and recognized in delinquents, but also their dysfunctional attitudes. Consequently, after having distinguished different types of dysfunctional attitudes, the present research has collected information that is significant for the development of differential response programs for each of these problems.

To the best of our knowledge, the present study is one of the first to have focused on the role of dysfunctional attitudes in explaining the concomitant presence of depression and delinquency. According to the findings, the concomitance of these disorders is associated to a higher level of dysfunctional attitudes than those observed in adolescents from the control group. These results are in line with those of Calache et al. (1994) who demonstrated that young, depressive drug-users presented a greater number of dysfunctional attitudes than young, non-depressive drug-users and control subjects.

Finally, although a number of authors have posited that some dysfunctional attitudes play a mediating role in the relationship between familial support on the one hand, and depression and delinquency on the other (Hammen, 1991; Ostrander et al., 1998; Simons & Miller, 1987), no study had yet truly examined this issue. The results measured in the present study have not demonstrated such a link. Future research could examine if other types of dysfunctional attitudes than the ones studied here can be seen to play a mediating role in the relationship between familial support, and depression or delinquency.

In short, the findings of this study have confirmed that adolescents with high scores in depression, delinquency and in both disorders concomitantly, perceive less familial support and exhibit a greater amount of dysfunctional attitudes than their peers in the control group. In an innovative manner, this study has also allowed to demonstrate that dysfunctional attitudes concerning self-control are characteristic of boys and delinquents, while dysfunctional attitudes concerning dependence characterize depressive subjects. Other such studies may help to refine these results and to confirm the role of each type of dysfunctional attitude according to a specific disorder and gender.

In conclusion, we would like to highlight certain limits in our study. These limits include the fact that subjects came exclusively from a school environment and that self-evaluation instruments were used for the different variables under examination. Therefore, it is

impossible to neither draw inferences about nor compare the findings with clinical populations, reducing the scope of the collected data. In fact, Tems et al. (1993) suggest that the inference of results, gathered from adolescents in a school environment, about youths in a clinical group might be open to criticism because of the important differences between these two populations. On the other hand, the knowledge related to the academic population is important because it is in schools that prevention and intervention programs are implemented. Be that as it may, future research could combine both forms of evaluation, with both populations and thus enable a valid comparison of results.

Another limit has to do with the transversal approach of this study. The same variables examined in a longitudinal study might predict the evolution, remission, and the recurrence of depressive, delinquent and concomitant disorders over time. This type of study would also allow to establish the order of appearance of the various disorders that make up the concomitance, which remains a controversial subject. Such a study could also observe the order of appearance of different psychological characteristics in adolescents. Consequently, it could be determined if the low level of familial support precedes depressive, delinquent or concomitant disorders, or if the appearance of these disorders leads to a reduction in parental commitment, therefore, a reduction in familial support provided to adolescents. Likewise, this would allow to determine if cognitive distortions are manifest before the depression, delinquency or concomitance, or vice-versa.

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Cette étude évalue le rôle du soutien familial et des attitudes dysfonctionnelles dans la dépression, la délinquance et la concomitance de ces troubles chez une population d'adolescents provenant d'un milieu socio-économique moyen dans la région de Trois-Rivières. L'inventaire de la dépression de Beck ainsi que la Mesure d'adaptation sociale et personnelle pour adolescents québécois ont respectivement permis d'évaluer la dépression et la délinquance. Pour leur part, la Mesure de la perception du soutien familial et l'Échelle des attitudes dysfonctionnelles ont permis d'évaluer les variables familiale et cognitive à l'étude. Les résultats confirment que plus les adolescents

présentent de troubles liés à la dépression et à la délinquance, moins ils rapportent recevoir de soutien familial. En outre, alors que les attitudes dysfonctionnelles relatives à la dépendance et à la réussite sont reliées à la présence de troubles intériorisés comme la dépression, les attitudes dysfonctionnelles relatives à l'autocontrôle sont plutôt liées à la présence de troubles extériorisés comme la délinquance. Les résultats de l'examen du rôle médiateur des attitudes dysfonctionnelles dans la relation entre le soutien familial d'une part et la dépression et la délinquance d'autre part ne permettent pas de soutenir la présence d'un tel rôle.

Key words: Adolescence, Concomitance, Delinquency, Depression, Dysfunctional attitudes, Familial support.

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Current theme of research:

Development of illusion of incompetence among elementary school children. Cognitive (i.e. cognitive distortions), personal and environmental influences on illusion of incompetence.

Most relevant publications in the field of Psychology of Education:

Marcotte, G. (2001). *L'influence du soutien familial et des attitudes dysfonctionnelles sur la dépression, la délinquance et la concomitance de ces troubles chez une population adolescente.* Mémoire de maîtrise inédit, Université du Québec à Trois-Rivières.

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Current theme of research:

Depression in high school students. School drop-out. Comorbidity of depression and conduct disorder

Most relevant publications in the field of Psychology of Education:

Marcotte, D., Fortin, L., Potvin, P., & Papillon, M. (2002). The mediating role of gender-typed characteristics, pubertal status, self-esteem, body image and stressful life events in the emergence of gender differences in depression during adolescence. *Journal of Emotional and Behavioral Disorders, 10*, 29-42.

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Current theme of research:

Development of students' profiles of motivation: Personal, social and environmental influences. Interplay between cognitive and metacognitive functioning and motivation. Development and correlates of illusion of incompetence.

Most relevant publications in the field of Psychology of Education:

Bouffard, T., & Vezeau, C. (1998). The development of self-system and self-regulation among primary school children. In M. Ferrari & R.I. Sternberg (Eds.), *Self-awareness: Its nature and development* (pp. 246-272). New York: Guilford Publications.

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