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Abstract

Delusions with a mystical theme appear to be associated with violence from a clinical standpoint. In addition, substance abuse seems to have an interactive effect in the relationship between delusions and acts of violence. In order to verify these hypotheses, 55 psychotic subjects taken from a criminal detention centre and a psychiatric hospital were diagnosed by means of the Structured Clinical Interview for DSM-III-R (SCID). Mystical delusions were identified on the basis of the verbatim transcript of the interviews. Subjects presenting a secondary diagnosis of drug abuse, associated with a primary diagnosis of delusional disorder or of psychotic disorder not otherwise specified (NOS) and delusions of the mystical type, were 27.1 times more likely to have performed a violent act punished by law. Results are explained by the different life-style of the subgroup of violent subjects and by their tendency to deny their illness.

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Mystical Delusions and Violence

Violence and Delusions

Recent articles have concluded that subjects suffering from a major mental disorder (e.g., psychosis, major mood disorder) are at higher risk of manifesting violent behaviour in comparison with the general population (Hodgins, 1993; Monahan, 1992; Otto, 1992; Wessely & Taylor, 1991). Three studies in particular have been decisive in this regard (Hodgins, 1992; Hodgins, Mednick, Brennan et al., 1996; Swanson, Holzer, Ganju et al., 1990). However, primary diagnoses are not sufficiently accurate predictors of violence (Teplin, McClelland, & Abram, 1993). Positive psychotic symptoms, for instance, are more directly associated with violence (Link, Andrews, & Cullen, 1992; Swanson, 1994). This link, though, remains vague, as more than 90% of diagnosed psychotics are not violent (Swanson, 1994).

Delusions are the main psychotic symptom associated with violence (Addad & Bénézech, 1977; Taylor, 1985). Studies indicate that the predominance of delusions in a clinical picture (Robertson & Taylor, 1993) and the level of conviction regarding delusions are linked to violence (Taylor et al., 1994). On the other hand, although the systematization of delusions has been found to be associated with homicide (Hafner & Boker, 1982), it is not, generally speaking, associated

with acting on delusions, be it violently or not (Buchanan et al., 1993).

A number of studies have explored the relationship between delusions and violence on the basis of delusional themes. Results have been varied, to say the least. Mystical and persecutory delusions have been found to be associated with potential dangerousness (Bénézech, Addad, & Grasset, 1981). Feelings of being threatened or of being controlled by an external force have been reported to be associated with acts of violence either punished by law (Taylor et al., 1994) or self-reported (Link & Stueve, 1994). Link and Stueve (1994) have indicated that the set of other psychotic symptoms as defined by the Psychiatric Epidemiology Research Interview (P.E.R.I.) also is correlated to violence, but that the association is not significant when the "threat/control-override" symptoms and the mental patient status are kept constant. Persecutory delusions and suspicions of being poisoned, too, have been found to be associated with violent behaviours (Humphreys, Johnstone, MacMillan et al., 1992). Finally, delusions of interpretation, reference, persecution and jealousy have, for their part, been correlated to homicide (Hafner & Boker, 1982).

This disparity across studies is not surprising. First, the definitions of the types of delusions vary

widely from one study to another, thus rendering comparisons difficult. Second, the manner in which violence is acted out is not uniform. Despite these differences, delusions of being persecuted or controlled often emerge as factors associated with violence. However, the association between mystical delusions and violence is based solely on clinical observations (Bénézech et al., 1981). The DSM-III-R and DSM-IV (American Psychiatric Association, 1987, 1994) do not even list delusions of the mystical type, which may explain its absence from studies conducted in the United States.

On the basis of the works of Henri Ey (1952, 1973), mystical delusions may be characterized as follows: They involve imaginary communication with supernatural forces and the celestial world. If the contact is experienced as good or benevolent, subjects present an expansive megalomaniac aspect, as they feel protected by the supernatural beings. If the contact is experienced as evil or apocalyptic, subjects instead feel possessed by the beings and damned. By definition, "supernatural forces" include any and all representations of beings capable of dominating humans, such as gods, devils, angels, and superior beings from outer space.

In an indirect fashion, mystical delusions may be present in subjects suffering from delusions of

spiritual or physical control which, needless to say, have been found to be associated with violent behaviours. There is reason to believe that delusions of the mystical type may constitute a better predictor of violence owing to their greater specificity.

Substance abuse, Major Mental Disorders and Violent Behaviour

Alongside of psychotic symptoms, several other variables may determine whether subjects suffering from major mental disorders will commit violent acts (Steadman et al., 1993, 1994). Various studies, for example, have established a link between substance abuse (alcohol and drugs combined) and violence (Lindqvist & Allebeck, 1990; McCarrick, Manderscheid, & Bertolucci, 1985; Swanson, 1994; Yesavage & Zarcone, 1983;). Although other studies have reported the contrary (Hafner & Boker, 1982; Tardiff & Sweillam, 1980), these are marked by a number of limitations. First, Hafner and Boker used data dating back to the period between 1955 and 1964 and, consequently, found very low rates of substance abuse. Second, the issue of dual diagnoses (i.e., major mental disorder and substance abuse) was not yet a focus of attention at the time of these studies, and so, efforts to establish such diagnoses may have been minimal. Finally, these studies diagnosed subjects on the basis of their files.

When the type of drug is specified, only PCP

appears to be associated with violence among subjects with a major mental disorder (Yesavage & Zarcone, 1983). Studies have revealed no significant correlation with amphetamines (Klassen & O'Connor, 1988), cannabis, LSD or opioids (Hemphill & Fisher, 1980). It should be noted, however, that few studies have focused on major mental disorders, substance abuse and violence simultaneously. Generally speaking, studies that investigated substance use disorders without discriminating between alcohol and drugs have reported an association with violence. This association, however, has been disputed in studies specifying the exact types of substances. This notwithstanding, subjects who suffer from major mental disorders and use alcohol also often consume a variety of other substances (Drake, Osher, & Wallach, 1989; Drake & Wallach, 1989; McCarrick et al., 1985; Safer, 1987). In these cases, it is difficult to isolate the effects of the respective substances.

Delusions, Substance Abuse and Violence

Delusions and substance abuse, which both appear to be associated with violence to varying degrees, are inter-related. Substance abuse has frequently been reported to cause an increase in the intensity of delusions (Barbee, Clark, Crapanzano et al., 1989; Carey, M. P., Carey, K. B., & Meisler, 1991; Negrete, Knapp, Douglas et al., 1986; Schuckit, 1983), although

one study found no such effect (Alterman, Erdlen, Laporte et al., 1982). To date, only one study has explored simultaneously how substance abuse, psychotic symptoms and violence are related (Link et al., 1992). The results obtained indicate that psychotic symptoms remain associated with violence even when the effect of substance abuse is controlled for. However, the methods employed in this study to define drug or alcohol abuse are questionable, particularly when compared against the diagnostic criteria of the DSM-III-R, as the authors checked for such disorders solely by means of two questions from the P.E.R.I.

Method

The data used here were taken from a broader study of complementary diagnoses and social adjustment among psychotic or depressive inmates (Côté & Lesage, 1995).

Subjects

The sample consisted of 55 male subjects ranging in age from 19 years 8 months to 42 years 6 months. Their mean age was 31 years 3 months with a standard deviation of 5 years 7 months. Of these subjects, 29 were from the Regional Reception Centre, a federal institution located in the Province of Quebec, where all males newly sentenced to two or more years of detention are sent. The other 26 subjects were taken from the Louis-H. Lafontaine psychiatric hospital in Montreal. For the purposes of the broader study,

subjects from the detention centre and the psychiatric hospital were matched for age and duration of current institutionalization; the latter criterion had to be relaxed, however, towards the end of the selection process. Moreover, the maximum duration of current hospitalization was fixed at 6 months in order to avoid an over-representation of chronic patients. All individuals meeting the criteria for psychosis retrospectively in the last month of freedom were retained as subjects. The secondary diagnoses of alcohol/drug abuse or dependence were for lifetime.

Instruments

The diagnoses were established by means of the Structured Clinical Interview for DSM-III-R (SCID) (Spitzer, Williams, Gibbon et al., 1992). The SCID is based on the DSM-III-R criteria, according to which were defined the primary diagnoses, the diagnoses of alcohol/drug abuse or dependence, and the types of delusions (except for mystical type). The SCID has proven reliable and valid with subjects suffering from mental disorders (Segal, Hersen, & Van Hasselt, 1994; Williams et al., 1992).

Where the present study is concerned, inter-rater agreement, based on the absence or presence of a diagnosis of psychosis, was excellent (k=.91). For specific diagnoses, agreement was as follows: schizophrenia, .78; schizoaffective disorder, 1.00;

delusional disorder, .83; and psychotic disorder NOS, .78. Inter-rater agreement was very good regarding secondary diagnoses of alcohol (k=.90) or drug (k=.75) abuse or dependence. Agreement was verified with 24 subjects.

Inter-rater agreement, however, varied across delusional themes: delusions of reference, .58; persecutory delusions, .80; grandiose delusions, .80; somatic delusions, .35; thought-broadcasting delusions, 1.00; and delusions involving the feeling of being controlled, .58. The mean agreement for the presence or absence of specific delusional themes was quite good (k=.69). Only 10 cases of psychosis were used to measure inter-rater agreement on delusional type, as the excellent agreement rates obtained with the 24 subjects above prompted the researchers of the main study, which covered also major mood disorders, to limit the number of cases inter-rated.

Mystical themes were identified on the basis of the descriptions of delusions provided by the interviewers. The definition of "mystical delusions" was based essentially on the works of Ey (1952, 1973) (see the theoretical background for the exact definition). It should be noted that "communication with supernatural beings" was the fundamental criterion underlying the definition. A blind assessment was rendered separately by two persons, each of whom had to

determine whether mystical delusions were indeed present based on the fundamental criterion. According to other clear-cut criteria, the assessment also had to specify whether the delusions were experienced by the subject as positive, neutral or negative. Inter-rater agreement was measured for all 55 cases in the study. It was found to be excellent regarding the presence or absence of mystical delusions (k=.92) and very good regarding the classification of the delusions as positive, neutral or negative (k=.87).

The "violence" variable was established based on the subjects' official criminal record held by the Royal Canadian Mounted Police. Acts of violence were labelled as per the Statistics Canada system (Canadian Center for Justice Statistics, 1995). This classification covers the various degrees of violence from simple assault to homicide.

Procedure

The study design was quasi-experimental. Information on the selection method and data collection is available in greater detail elsewhere (Côté & Lesage, 1995).

Results

The distribution of primary diagnoses was as follows: schizophrenia, 36.4%; schizoaffective disorder, 14.5%; delusional disorder, 25.5%; and psychotic disorder NOS, 23.6%. For the purposes of

statistical analysis, the first two diagnoses were grouped together, as were the last two. A lifetime diagnosis of alcohol abuse or dependence was established for 35.2% of the subjects; 54.5% of the subjects received lifetime diagnoses of drug abuse or dependence. More than half of the drug abusers consumed multiple substances. Subjects had a mean number of 3.2 delusional themes, with a standard deviation of 1.5 themes (including mystical delusions). Finally, 62.0% of the subjects had a criminal record marked by a violent act.

Delusions of a mystical type differentiate significantly violent from non-violent subjects, $\chi^2(1,N = 55) = 4.70$, $p < .05$ (Table 1). No specificity was discerned regarding the classification of mystical delusions as positive, neutral or negative. Lifetime substance abuse, also, discriminates between violent and non-violent subjects at a very high level of significance, $\chi^2(1,N = 55) = 19.29$, $p < .0001$. As seen in Table 1, alcohol and drugs are both implicated in this statistical signification. Finally, the combined diagnoses of delusional disorder and psychotic disorder NOS, too, distinguish between violent and non-violent subjects $\chi^2(1,N = 55) = 12.97$, $p < .001$.

Insert Table 1 About Here

Following the caveats and recommendations issued in earlier reports, analyses were performed beyond the level of simple effects. First, in view of logistic regression analyses, variables that differentiated between violent and non-violent subjects at a significance level of .25 or less were identified. This cutoff was suggested by Hosmer and Lemeshow (1989). The variables thus retained were substance abuse, primary diagnosis, and delusions of the mystical type, of the persecutory type and of thought broadcasting. Possible interactions among the main variables were then verified, as they could have a bearing on logistic regression analyses. The variable "violence", too, was compared in order to avoid the possibility of excessively high co-variance. The correlation matrix (Table 2) indicates that, although several of the variables were associated, none of the correlation coefficients suggested redundancy of effect.

Insert Table 2 About Here

Given the high number of associated variables, hierarchical loglinear analyses were performed in order to identify the main interactions with greater accuracy. Unlike contingency coefficients, hierarchical loglinear analyses make it possible to measure multiple interactions. The idea behind this

analysis is to saturate the model, that is to recreate the initial sample as accurately as possible from the variables or from their most relevant associations. The small number of subjects in the study precluded analysis of all variables simultaneously; analyses were thus limited to three variables at a time in order to maintain a certain statistical power. Substance abuse and primary diagnosis were included in all the hierarchical loglinear analyses, as these were not only the variables most highly associated with violence, but also pivotal variables associated with most of the others. These two variables were analyzed together with each of the following, one at a time: delusions of a persecutory type, delusions of thought broadcasting, and delusions of a mystical type. Simultaneous three-way interactions were found to be insignificant. Table 3 gives a detailed account of the one- and two-variable effects. These relationships confirm those identified with the contingency test, except for the association between primary diagnosis and delusions of the persecutory type. Hierarchical loglinear analyses also revealed that the variable "thought-broadcasting delusions" saturated the model to a significant degree. The discrepancies observed between the associations that appear more than once in Table 3 are attributable to missing data.

These results indicate, among other things, that

Insert Table 3 About Here

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substance abuse does not have a significant simple effect, but varies systematically according to the other variables. Consequently, the one-variable analyses above require refinement.

On the basis of the interactions yielded by logarithmic hierarchical analyses, paired variables were created in order to control for the interactive effects of individual variables with violence. The labels given to these variables are a compound of the abbreviation of their two components. Accordingly, the paired variables are the following: "SUBS*DIAG" for substance abuse and primary diagnosis (delusional disorder or psychotic disorder NOS); "SUBS*NPER" for substance abuse and absence of persecutory delusions; "DIAG*NTHT" for primary diagnosis and absence of thought-broadcasting delusions; and "SUBS*MYST" for substance abuse and mystical delusions.

Logistic regression analyses then served to isolate the effects of these new interactive variables on violence. It is important to note that the principal goal of these logistic regression analyses was to identify the best predictors of violence. To this effect, the variables were arranged hierarchically according to the strongest correlations to violence.

It should also be noted that the variables thus created were present in 19 (SUBS*MYST), 22 (SUBS*DIAG), and 23 subjects (DIAG*NTHT, SUBS*NPER and SUBS*NTHT).

Here, too, the small size of the sample restricted analyses to a maximum of three variables at a time. Two logistic regressions made it possible to retain the variables of SUBS*DIAG, SUBS*MYST and SUBS*NTHT for the final logistic regression (Table 4). The variables of SUBS*DIAG and SUBS*MYST maintained sufficient significance as predictors of violence. Subjects presenting simultaneously a diagnosis of substance abuse, a primary diagnosis of delusional disorder or of psychotic disorder NOS, and delusions of the mystical type were 27.1 times as likely to have committed an act of violence punished by law in their lifetime as the other subjects of the study. Their violence probability stood at 96.4%. Substance abuse independent of either of these two paired variables was associated with violence in only three subjects. In sum, substance abuse, a primary diagnosis other than schizophrenia, and delusions of the mystical type together correctly predicted 77.4% of all the violent cases in this study.

Insert Table 4 About Here

Discussion

It is interesting to note that mystical delusions, when interacting with substance abuse, were found to be a direct predictor of violence. These results confirm the importance of the mystical theme over other types of delusions. Contrary to early studies, however, delusions of being persecuted or of being controlled by an external force were not found to be associated with violence. The sampling method employed in this study probably had much to do with this, as most of the violent subjects in the study were taken from a criminal detention centre. Most of the other studies of delusional disorder drew their samples either from hospitals or from the general population. Several authors have ventured in this regard that whether a person is admitted to a hospital or to a detention centre is not a random occurrence: Unruly individuals are more likely to end up in a penitentiary (Weller & Weller, 1988). It is also known that simple diagnoses (no secondary diagnoses) are less common in the prison system (Côté & Hodgins, 1990; Côté & Lesage, 1995).

Substance abuse, a primary diagnosis of delusional disorder or of psychotic disorder NOS and, to a lower degree of significance, delusions of the mystical type are predictors of violence. However, the relationship between mystical delusions and violence is heavily modulated by alcohol/drug abuse: Of the 23 subjects presenting mystical delusions, only four never abused

substances.

On the basis of the results of the multiple-factor analyses, violence is best explained by a subject's specific personality make-up. Subjects presenting substance abuse and a primary diagnosis of delusional disorder or of psychotic disorder NOS are more likely to have been violent in their lifetime. The same holds true for subjects presenting substance abuse and delusions of the mystical type. What's more, subjects presenting all three of these characteristics were 27.1 times as likely to have committed violent acts punished by law as other psychotic subjects.

Despite the particularities of this study, the results confirm the conclusions reached in reviewing the literature, namely, that the interaction between variables is an important element in understanding the predictors of violence. However, further research is needed in order to explain each of these specific inter-relations.

In addition, these results point to a very distinct subgroup within the psychotic population. Dual diagnoses (major mental disorder and substance abuse) are a principal characteristic of young adult chronic patients, who have been the object of much research since Bachrach (1982) first drew attention to them. This group is, among other things, more reticent to admit their illness and to accept treatment. They

are also considered to be more aggressive (Pepper, Kirshner, & Ryglewicz, 1981), although Intagliata and Baker (1984) caution that all these characteristics are associated with a subgroup of patients as yet ill-defined. In fact, evidence suggests that these subjects reject the traditional health and mental care system because they refuse above all to perceive themselves as sick. Yet, they must still find ways of countering the negative effects of their illness. This is how drug abuse becomes for them a form of self-medication (Dixon, Haas, Weiden et al., 1991; Khantzian, 1985; Schneier & Siris, 1987).

Delusions with a mystical theme, which often follow in the wake of substance abuse and are strongly associated with these substances, could also constitute a means of fighting illness or of denying its existence. As defined in this study, mystical delusions enable subjects to assume an exaggerated sense of importance on account of their relationship with a superior being. This then restores in them a certain self-confidence necessary for adequate daily functioning. In addition, such fantasizing colours the symptoms of the disorder by making them seem rather like paranormal experiences, which are more socially acceptable. In this connection, certain authors (Sizaret, Degiovanni, & Faure, 1987) have indicated that, in certain societies, delusions with a paranormal

theme enable subjects to acquire a new social status. Delusions thus facilitate social integration, which represents another means of support against illness. Such attempts at self-medication, however, simply serve to mask both the inability of these subjects to accept their mental condition and their desire to do something about their illness. In healthy individuals, the tendency to take action in the face of adversity constitutes a strength; in mentally disorganized individuals such as the subjects of this study, however, it often translates into violence.

From another perspective, substance abuse takes on a particular significance in association with specific diagnoses: Subjects suffering from delusional disorder or psychotic disorder NOS distinguish themselves from those with schizophrenia in that the former are less likely to become withdrawn than the latter. Their more social life-style predisposes them to externalise their violent impulses were it only for the greater number of contacts they have. This is an element that seems to characterize a subgroup of young adult chronic patients.

In future, researchers will need to place greater emphasis on interactive effects. In addition, a qualitative interpretation of the data used in this study suggests that the different forms of violence should be investigated separately in order to shed

light on certain specific associations which go undetected when violence is explored in general terms. For instance, variables associated with homicide appear to differ from other predictors of violence. All these efforts will require larger sample sizes. Furthermore, future research should pay special attention to delusions of the mystical type. Finally, however noteworthy, the results of this study need to be replicated. Confirmation of these results would warrant inclusion of this delusional theme among recognized diagnostic criteria.

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Appendix A: Tables

Table 1

Proportions on Main Variables as a Function of Lifetime Violence

Variable	Lifetime violence		χ^2	p
	Absent (%) n=21	Present (%) n=34		
Substance abuse	23.8	82.4	19.29	<.0001
(Alcohol)	9.5	51.5	11.12	<.001
(Drug)	23.8	73.5	13.44	<.001
Primary diagnosis (delusional disorder or psychotic disorder NOS)	19.0	67.6	12.97	<.001
Types of delusions:				
Mystical	23.8	52.9	4.70	<.05
control	33.3	41.9	0.39	n.s.
Grandiose	61.9	69.7	0.35	n.s.
Reference	71.4	66.6	0.14	n.s.
Thought-broadcasting	42.1	25.8	1.42	n.s.
Persecution	57.1	38.2	1.87	n.s.
Systematized delusional disorder	28.6	44.1	0.34	n.s.

Table 2

Contingency Coefficients (p of χ^2) Between Study's Main Variables

Variables	1	2	3	4	5	6
1. Substance abuse	---	---	---	---	---	---
2. Primary diagnosis	.395 (.001)	---	---	---	---	---
3. Mystical delusions	.364 (.004)	.125 (.35)	---	---	---	---
4. Persecutory delusions	.349 (.006)	.30 (.02)	.179 (.18)	---	---	---
5. Thought-broadcasting delusions	.081 (.57)	.457 (.000)	.248 (.07)	.11 (.43)	---	---
6. Violence	.502 (.000)	.427 (.000)	.276 (.03)	.181 (.17)	.167 (.23)	---

Table 3

Hierarchical Loglinear Analyses

Interactions	d.f.	partial χ^2	Prob	iter
A				
Substances*Diagnosis	1	6.93	.009	2
Substances*Persecution	1	4.08	.04	2
Diagnosis*Persecution	1	1.75	.19	2
Substances	1	2.22	.14	2
Diagnosis	1	0.02	.89	2
Persecution	1	0.46	.50	2
B				
Substances*Diagnosis	1	12.24	.001	2
Substances*Thought-Br.	1	1.79	.18	2
Diagnosis*Thought-Br.	1	15.92	.000	2
Substances	1	2.91	.09	2
Diagnosis	1	0.00	1.00	2
Thought Broadcasting	1	6.63	.01	2
C				
Substances*Diagnosis	1	9.90	.002	2
Substances*Mystical	1	8.18	.004	2
Diagnosis*Mystical	1	0.14	.71	2
Substances	1	2.22	.14	2
Diagnosis	1	0.18	.89	2
Mystical	1	1.48	.22	2

Table 4

A

Logistic Regression of Variables SUBS*DIAG, SUBS*MYST and SUBS*NPER as a Function of Lifetime Violence

Variables	B	S.D.	Wald	d.f.	p	R	Exp(B)
SUBS*MYST(1)	1.68	.88	3.67	1	.055	.15	5.38
SUBS*DIAG(1)	2.20	.85	6.64	1	.01	.25	8.99
CONSTANT	-.61	.39	2.37	1	.12		

Variables not in the equation

Residual χ^2 = 1.28 d.f.=1 p = .26

	Score	d.f.	p	R
SUBS*NPER(1)	1.28	1	.26	.00

B

Logistic Regression of Variables DIAG*NTHT, DIAG and NTHT as a Function of Lifetime Violence

Variables	B	S.D.	Wald	d.f.	p	R	Exp(B)
DIAG*NTHT(1)	1.78	.67	7.01	1	.008	.27	5.94
CONSTANT	-.22	.39	0.33	1	.56		

Variables not in the equation

Residual χ^2= .49 d.f.=1 p = .48

	Score	d.f.	p	R
NTHT(1)	.08	1	.78	.00

Table 4 (continued)

C

Logistic Regression of Variables SUBS*DIAG SUBS*MYST and DIAG*NTHT as a Function of Lifetime Violence

Variables	B	S.D.	Wald	d.f.	p	R	Exp(B)
SUBS*DIAG(1)	2.26	.86	6.86	1	.009	.27	9.62
SUBS*MYST(1)	1.75	.89	3.84	1	.05	.17	5.73
CONSTANT	-.71	.43	2.70	1	.10		

Variables not in the equation

Residual χ^2= .25 d.f.=1 p = .62

	Score	d.f.	p	R
DIAG*NTHT(1)	.25	1	.62	.00

Appendix B: French version (Summary)

Délire mystique et violence

La Violence et le Délire

Les symptômes psychotiques sont associés à la violence selon des études récentes (Link, Andrews & Cullen, 1992; Swanson, 1994). Toutefois, peu d'études ont vérifié ce lien en se basant sur la thématique du délire. Malgré certaines divergences, les délires de persécution (Bénézech, Addad & Grasset, 1981; Hafner & Boker, 1982; Humphreys, Johnstone, Mac Millan & Taylor, 1992) et de contrôle externe (Link & Stueve, 1994) ressortent comme les principaux thèmes associés à la violence.

L'association entre le délire à thème mystique et la violence est basée uniquement sur des observations cliniques (Bénézech & al., 1981). En se basant sur les écrits d'Henri Ey (1952, 1973), le délire mystique comporte comme principale caractéristique une communication imaginaire avec les forces surnaturelles et le monde céleste. Par définition, le terme «force surnaturelle» inclut toutes les représentations d'êtres ayant un pouvoir dominant face aux humains, tels Dieu,

Diable, anges, extra-terrestres supérieurs aux humains, etc...

Indirectement, le délire mystique pourrait être présent chez les sujets ayant un délire de contrôle spirituel ou physique. Ce dernier thème, rappelons-le, est lié aux comportements violents. Il y a lieu de croire que le délire mystique serait un meilleur indicateur de violence en raison de sa plus grande spécificité.

Parallèlement aux symptômes psychotiques, différentes études établissent un lien entre l'abus de substances psychoactives et la violence (Lindqvist & Allebeck, 1990; Mc Carrick, Manderscheid & Bertolucci, 1985; Swanson, 1994; Yesavage & Zarcone, 1983). Plus encore, l'abus de substances psychoactives provoque fréquemment une hausse de l'intensité du délire (Barbee, Clark, Crapanzano, Heinz & Kehoe, 1989; Carey, Carey & Meisler, 1991). A ce jour, une seule étude a vérifié de façon simultanée les relations entre l'abus de substances psychoactives, les symptômes psychotiques et la violence (Link & al., 1992). Toutefois, les

moyens entrepris pour définir l'abus de drogue ou d'alcool ne sont pas ceux reconnus par le DSM-III-R.

Méthode

Les données proviennent d'une étude plus large portant sur les diagnostics complémentaires et l'adaptation sociale chez des détenus psychotiques ou dépressifs (Côté & Lesage, 1995).

Sujets

L'échantillon comprend 55 sujets masculins. Leur âge varie entre 19 et 42 ans, avec une moyenne de 31 ans. Vingt-neuf sujets proviennent du Centre régional de réception, établissement fédéral situé au Québec où sont envoyés tous les hommes nouvellement sentencés à deux ans ou plus de détention. Vingt-six sujets proviennent du centre hospitalier psychiatrique Louis-H. Lafontaine de Montréal. Pour les besoins de l'étude principale, les sujets du centre de détention sont jumelés avec ceux de l'hôpital Louis-H. Lafontaine selon leur âge et le temps actuel d'hospitalisation ou d'incarcération. Toutefois, pour ce dernier critère,

les chercheurs ont dû être plus souples à la fin de l'expérimentation. De plus, le temps maximum d'hospitalisation actuelle a été fixé à six mois, afin de ne pas surreprésenter le nombre de patients chroniques. Tous les individus rencontrant les critères de la psychose pour la période rétrospective du dernier mois de liberté ont été retenus à l'étude. Les diagnostics secondaires d'abus ou de dépendance aux drogues ou à l'alcool sont basés sur la présence à vie.

Instruments

Les diagnostics sont établis à l'aide du Structured Clinical Interview for DSM-III-R (SCID) (Spitzer, Williams, Gibbon & First, 1992). Le SCID est basé sur les critères du DSM-III-R; ainsi sont définis le diagnostic principal, les diagnostics d'abus ou dépendance à l'alcool ou aux drogues, et les aspects thématiques du délire (sauf mystique). La fidélité et la validité du SCID sont bonnes chez des sujets atteints de troubles mentaux (Segal, Hersen, & Van Hasselt, 1994; Williams & al., 1992).

Des mesures d'accord inter-juges ont été effectuées sur toutes les variables diagnostiques à l'études, comprenant les thèmes de délires. Les taux d'accord sont très bons.

La description du délire, recueillie par les interviewers, a servi à coter le thème mystique. La cotation a été faite à l'aveugle par deux personnes; ces dernières devaient déterminer si le délire mystique était présent eu égard au critère de base.

La variable violence est établie à partir du dossier criminel officiel, soit celui tenu par la Gendarmerie Royale du Canada. L'opérationnalisation de la violence s'appuie sur la classification de Statistiques Canada (Centre Canadien de la Statistique Juridique, 1995). Cette dernière inclut les différents degrés de violence entre les voies de fait simples et l'homicide.

Résultats

Les diagnostics principaux sont répartis de la façon suivante: schizophrénie (36,4%), troubles schizo-affectifs (14,5%), troubles délirants (25,5%) et

psychose non-spécifiée (23,6%). Pour les besoins de l'analyse statistique, les diagnostics sont groupés: schizophrénie unie à troubles schizo-affectifs, et trouble délirant uni à psychose non-spécifiée. Le diagnostic d'abus ou de dépendance à l'alcool se retrouve chez 35,2% des sujets à un moment ou à un autre de leur vie; quant à l'abus ou la dépendance à la drogue, le taux est de 54,5% pour la même période. Plus de la moitié des sujets abusant des drogues font usage de substances multiples. Les sujets ont en moyenne 3,2 thèmes de délire. Enfin, 62% des sujets ont un passé criminel marqué par un acte violent.

La variable violence est discriminée significativement à partir du délire mystique $\chi^2(1,N=55)=4.70$, $\underline{p} < .05$, d'un diagnostic d'abus de substances psychoactives à un moment ou un autre dans la vie du sujet $\chi^2(1,N=55)= 19.29$, $\underline{p} < .0001$, et enfin par le diagnostic spécifique de trouble délirant ou de psychose non-spécifiée $\chi^2(1,N=55)= 12.97$, $\underline{p} < .001$.

Compte tenu des mises en garde qui ont été soulevées suite au relevé des écrits, les analyses sont

poursuivies au delà des effets simples. Dans un premier temps, en prévision des analyses de régression logistique, les variables permettant de discriminer les groupes violents et non violents avec un taux de signification de .25 ou moins sont retenues; Ce critère est proposé par Hosmer et Lemeshow (1989). Les variables retenues sont: l'abus de substances psychoactives, le diagnostic spécifique, ainsi que les délires mystique, de persécution et de transmission de pensée. La matrice d'intercorrélations (C de contingence) indique que plusieurs des variables sont associées; toutefois, aucun coefficient de corrélation ne traduit une redondance de la mesure. L'abus de substances psychoactives est associé avec le diagnostic spécifique ($C(2)=0.395$, $p < .001$), le délire mystique ($C(2)=0.364$, $p<.01$), le délire de persécution ($C(2)=0.349$, $p < .01$) et la violence ($C(2)=0.502$, $p < .001$). Pour sa part, le diagnostic spécifique est associé au délire de persécution ($C(2)=0.30$, $p < .05$), au délire de transmission de pensée ($C(2)=0.427$, $p < .001$) et à la violence ($C(2)=0.427$, $p < .001$).

En raison du nombre élevé de variables associées, une analyse hiérarchique logarithmique permet de

préciser davantage les interactions principales. Contrairement au C de contingence, l'analyse hiérarchique logarithmique permet aussi de relever les interactions multiples. Chaque analyse se limite à trois variables afin de conserver une certaine puissance statistique. L'abus de substances psychoactives et le diagnostic spécifique sont introduits dans chaque analyse hiérarchique logarithmique. En effet, non seulement ces variables sont-elles les plus reliées à la violence, mais ce sont également des variables pivots, étant associées à la plupart des autres variables. A ces deux variables s'ajoutent à tour de rôle le délire à thème de persécution, le délire à thème de transmission de pensée et le délire à thème mystique. Les interactions de niveau trois (entre trois variables simultanément) ne sont pas significatives. Ces relations confirment celles relevées avec le test de contingence à l'exception de la relation entre le diagnostic spécifique et le délire de persécution. L'analyse hiérarchique logarithmique permet de constater que la variable «délire de transmission de pensée» sature le modèle de façon significative.

Ces résultats indiquent, entre autres, que l'abus de substances psychoactives n'a pas d'effet simple important; il varie systématiquement en fonction des autres variables. Les analyses de relation simple effectuées plus haut se doivent donc d'être précisées.

Les interactions observées au plan de l'analyse hiérarchique logarithmique permettent de créer de nouvelles variables pairées, qui contrôleront les effets interactifs des variables simples dans leur relation à la violence. Ces variables sont affichées en tenant compte d'abréviations, soit: «SUBS*DIAG» signifiant abus de substances psychoactives et diagnostic spécifique (trouble délirant ou psychose non-spécifiée), «SUBS*NPER» signifiant abus de substances psychoactives et absence de délire de persécution, «DIAG*NTRP» signifiant diagnostic spécifique et absence de délire de transmission de pensée et enfin «SUBS*MYST» signifiant abus de substances psychoactives et délire mystique.

Des calculs de régression logistique permettent enfin de départager l'effet de ces nouvelles variables interactives sur la violence. Les variables ainsi

créées sont présentes chez 19 (SUBS*MYST), 22 (SUBS*DIAG) et 23 sujets (SUBS*NPER et DIAG*NTRP). Seules les variables SUBS*DIAG et SUBS*MYST conservent un seuil de signification suffisant eu égard à la prédiction de la violence, à l'intérieur d'une régression logistique. Les sujets présentant simultanément un diagnostic d'abus de substances psychoactives, un diagnostic psychotique spécifique de trouble délirant ou de psychose non-spécifiée et un délire mystique ont 27,1 fois plus de chances d'avoir commis un acte violent sanctionné dans leur vie comparativement aux autres sujets de l'étude; leur probabilité de violence s'établit à 96,4 %. L'abus de substances psychoactives sans interaction à l'une de ces deux variables n'est associé à la violence que chez trois sujets. A l'intérieur de l'étude, l'abus de substances psychoactives, un diagnostic spécifique autre que la schizophrénie et un délire mystique ont prédit correctement 77,4% de tous les cas violents.

DISCUSSION

Il est intéressant d'observer que le délire mystique a un apport direct pour prédire la violence lorsqu'en

interaction avec l'abus de substances psychoactives. Ces résultats confirment l'importance de la thématique mystique sur les autres types de délire.

A la lumière des analyses multi-factorielles, l'organisation spécifique de la personnalité du sujet explique le mieux la violence. Les sujets présentant un abus de substances psychoactives et un diagnostic spécifique de trouble délirant ou de psychose non-spécifiée risquent davantage d'avoir été violents au cours de leur vie; cette même constatation s'applique pour les sujets présentant un abus de substances psychoactives et un délire à thème mystique.

Au delà d'une simple relation à la violence, ces résultats mettent en évidence un groupe précis à l'intérieur même de la population des psychotiques. D'abord, le double diagnostic (trouble mental grave et abus de substances psychoactives) est l'une des caractéristiques principales des sujets appelés «jeunes patients adultes chroniques», patients qui ont été décrits dans plusieurs études depuis Bachrach (1982). Ces individus sont, entre autres, plus récalcitrants à admettre leur maladie et à accepter le traitement. Ils

sont aussi considérés comme plus agressifs (Pepper, Kirshner & Ryglewicz, 1981), bien qu'Intagliata et Baker (1984) admettent que toutes ces caractéristiques se rapportent à un sous-groupe de patients encore mal défini. En fait, tout porte à croire que ces sujets rejettent le système de soins traditionnel pour la raison qu'ils refusent avant tout de se percevoir en tant que malades. Ils doivent néanmoins trouver une solution pour contrer les effets négatifs de leur maladie. C'est ainsi que l'abus de substances psychoactives devient un moyen d'auto-médication (Khantzian, 1985). Le délire à thème mystique pourrait lui aussi représenter une façon de lutter contre la maladie ou de nier son existence. Tel que défini dans cette étude, le délire mystique permet en effet au sujet de s'approprier une importance exagérée à travers la relation à un être supérieur. Ceci lui redonne une certaine confiance en soi, nécessaire pour bien fonctionner au quotidien. De plus, cette représentation fabulatoire colore les symptômes de la maladie en les laissant paraître davantage comme des expériences paranormales, mieux acceptées socialement. D'ailleurs, certains auteurs (Sizaret, Degiovanni & Faure, 1987) indiquent que, dans certaines sociétés,

les délires à caractère paranormal permettent au sujet d'obtenir un nouveau statut social. Le délire facilite ainsi l'intégration par la société, autre moyen de support contre la maladie. Toutefois, ces tentatives «d'auto-médication» ne font que cacher une incapacité des sujets à accepter leur état et une volonté d'agir contre leur mal. Cette tendance à l'action face aux difficultés peut sembler être une force pour les individus plus sains, mais chez ces individus désorganisés, elle se répercute dans la violence.

Par ailleurs, l'abus de substances psychoactives prend un sens particulier en association à un diagnostic spécifique; à cet effet, les sujets atteints d'un trouble délirant ou d'une psychose non-spécifiée se distinguent des sujets atteints de schizophrénie, en ce sens qu'ils sont moins retraitistes que ces derniers. Leur mode de vie plus relationnel les prédispose à tourner davantage leurs impulsions de violence vers l'extérieur, ne serait-ce qu'en rapport au nombre plus élevé de contacts. Cet élément semble préciser davantage le sous-groupe de jeunes patients adultes chroniques.

A l'instar de cette étude, les recherches ultérieures devront tenir compte davantage des effets interactifs. Elles devraient aussi porter une attention particulière au délire mystique. La confirmation des présents résultats rendrait pertinente la présence de cette thématique au sein des critères diagnostics reconnus. Ces résultats sont intéressants mais demandent à être répétés.

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