International Journal of Law and Psychiatry 34 (2011) 44–48

Contents lists available at ScienceDirect

International Journal of Law and Psychiatry

Study of the correlation between psychiatric and psychological diagnoses in sample offenders

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ARTICLE INFO

Available online 18 December 2010

Keywords:
Offenders
Expert psychiatrists and psychologists
Diagnoses
Inter-observer agreement

ABSTRACT

This study deals with the frequency with which expert psychiatrists and psychologists make structural or nosographic diagnoses within the context of expert assessment.
Thus, the rates of concordance between psychiatrists and psychologists in both types of diagnoses will be assessed.
To do so, the level of inter-observer agreement on diagnoses between 1990 and 2003 was studied retrospectively in France through psychiatric and psychological assessments of 505 male offenders. The assessment of the correlation rates was carried out using the Kappa coefficient.
The results show a range of 0.55 to 0.71 in inter-observer (psychiatrists vs psychologists) agreement for structural diagnoses, and 0.51 to 0.89 for nosographic diagnoses.
In addition, a marked correlation between psychiatrists and psychologists may be noted regarding abstention in both structural ($k=66$) and nosographic ($k=73$) diagnoses. In fact, recommendations are made for improvement in the consistency of offender assessment in the psycho-legal French context.

For a long time, the validity and reliability of psychiatric (and/or psychological) diagnosis has been questioned by researchers (Regier, Kaelber, Roper, Rae, & Sartorius, 1994; Smolik, 1998; Nestadt et al., 2006). Indeed, many diagnostic entities are not subject to consensus and a clear distinction between certain disorders is not always made.

In addition, the appreciation of different symptoms can be highly subjective and psychiatric diagnoses tend to be associated with each other (psychiatric comorbidity). For this reason, many structured and semi-structured diagnostic-oriented interviews have been developed to improve inter-observer agreement (Lecrubier et al., 1997).

The problem of the correlation between diagnoses is also acute in the context of medical and psychological assessment of people subject to trial (Grisso & Vincent, 2005). Again, many authors note significant disagreement between mental health professionals, both for nosographic diagnoses (Rogers, 2004; Merten, Friedel, & Stevens, 2006) and the assessment of the dangerousness of the individual (Freedman, 2001; Douglass, Ogloff, & Hart, 2003).

In France, the principle of assessment in general and of psychiatric and psychological criminal assessment in particular, is based on the fact that it must provide the defendant with the best expertise available. Article 156 of the Code of Criminal Procedure (CPP) (2005) provides that, "on a technical matter", a judge can either order an expert assessment himself or at the request of the prosecution or the litigants.

Furthermore, it is anticipated that "if circumstances warrant, the judge may designate several experts" (article 159 CPP), which leads to joint assessment. Thus, it is very common for individuals facing justice to be assessed, in turn, by an expert psychiatrist and an expert psychologist.

When their conclusions differ, the judge may then order a second assessment, carried out by another psychiatrist or psychologist.

Today, a direct and exclusive relationship between pathological mental state and the offense is required. Indeed, the expert's approach involves a clinical examination, which most often leads to a diagnosis, followed by a retrospective analysis of the mental state at the time of the act and finally, the evaluation of the relationship between the mental state and the charges against the offender.

Hence, a great deal is at stake when it comes to the fidelity and congruence of a diagnosis, with regards the criminal responsibility of the subject. According to major psychiatric entities (Lopez & Bornstein, 1994), and especially for subjects suffering from a psychotic delusional state at the time of the offense (Trape, Benezech, & Delpla, 2002), the diagnosis should result from a consensus among experts, even if there are "systematic" answers to the question of responsibility.

1. Objectives

Until now, very little French research has concentrated on evaluating the correlation between diagnoses by psychiatrists and psychologists

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doi:10.1016/j.ijlp.2010.11.007

within the context of expert assessment (Combalbert, 2005). There was therefore a strong case for undertaking an initial study of a large sample of offenders.

Thus, we are targeting two main objectives:

- To determine the frequency with which expert psychiatrists and psychologists make structural and/or nosographic diagnoses;
- To evaluate the correlation rates between psychiatrists and psychologists.

2. Material and method

2.1. Material

The data studied are from the retrospective study of 505 criminal cases of male subjects, convicted and imprisoned for crimes committed against the person. All criminal cases investigated include psychiatric and psychological expert assessment, ordered during the investigation by the judge hearing the case.

Every prisoner therefore underwent both psychiatric and psychological assessments. Thus, we studied the correlation of diagnoses from these two types of expert assessment for the 505 subjects (totalling 1010 assessments). It should be noted that expert psychiatrists and psychologists received no instruction from the judges to establish a diagnosis (using a diagnostic reference guide, use of specific assessment tools, and so on).

2.2. Data collection

Data were collected in the clerk's office at the Muret detention centre (Haute-Garonne, France) for the period between September 2002 and September 2003. The cases were selected from the list of Criminal Registry, which indicated the nature of the crime for which each detainee had been convicted.

All criminal cases of detainees between 1990 and 2003 were selected and are the subject of this study. Access permits to data were issued by the French Ministry of Justice.

2.3. The variables studied

Socio-demographic characteristics enabling the description of the sample were collected in criminal cases (age, marital status, educational level, criminal record, employment before detention).

In the study, information was collected on two variables:

- Variable 1: structural diagnosis by experts. This variable has three labels: neurosis, psychosis and borderline organization.
  The structural diagnosis refers to the structure of the subject and the organization of his personality. It is established through a psychodynamic approach of the subject and his experience (type of conflict, the nature of object relations and anguish, defensive system, etc.) (Bergeret, Bécache, Boulanger, & Chartier, 2004).
- Variable 2: nosographic diagnosis by the experts. In principle, this variable reckons as many labels as there are mental health diagnoses (diagnostic codes; DSM-IV, 1994).

For each of the variables, we also took into account the missing data related to the lack of mention of a diagnosis by the expert psychiatrist or psychologist. By “lack of diagnosis” we mean a lack of information on the diagnosis of a disorder. Finally, perversion and psychopathy diagnoses given by experts were included in the class of nosography diagnoses.

Although not listed in the DSM-IV or ICD-10, it seemed appropriate to retain these two types of diagnoses in the light of the population studied and the frequency with which they were established by experts.

Data were collected by two psychologists. Each dealt with half of the criminal records available. In fact, it was not possible to conduct a study on inter-observer agreement between the two investigators. However, to limit bias related to the subjectivity of researchers, a grid for data collection was established in advance. This grid was based on the study of two variables. For example, for the first variable, the psychologist was asked to answer the question, “does the expert give an explicit structural diagnosis: Yes/No. If yes, which one? ”.

Investigators only proceeded with gathering information and made no diagnosis when reading the assessments.

2.4. The inter-observer agreements

The matching rates via the Kappa coefficient (Cohen, 1960), were studied between two groups of experts (psychologists vs psychiatrists) for each diagnostic category chosen. The Kappa coefficient is the best known inter-observer correlation coefficient when taking chance into account. It represents the percentage of perfect agreement adjusted for the effect of chance (Landis & Koch, 1977).

3. Results

3.1. Criminal and sociodemographic characteristics of the sample

The records studied refer to eight groups of convicted subjects and prisoners sentenced for the following charges: voluntary manslaughter (N = 94), murder (N = 116); torture and rape with barbaric acts (N = 14); simple rape (N = 43); rape of a minor under fifteen years of age (N = 185); violence causing death without intent (N = 18); infanticide (N = 9) and robbery (N = 26) (Table 1).

3.2. Structural diagnosis and inter-observer agreement

We found that structural diagnosis was made in 18.6% of cases (N = 94) by expert psychiatrists and in 17.8% of cases (N = 90) by expert psychologists (Table 2). It is the diagnosis of psychosis which shows the highest rate of concordance (k = 71). Indeed, according to experts, in 23 subjects with a psychotic structure, 13 were diagnosed similarly by psychiatrists and psychologists. The greatest lack of agreement is found in the borderline organization of personality; there was a consensus for only 19 subjects out of 47 (common diagnosis) (k = 55).

Finally, for 383 subjects, the absence of structural diagnosis is noted in both assessments (k = 66) (Table 3).

Table 1
Sociodemographic characteristics of the sample (N = 505).

Variables	N=	%
Marital status		
-Single	243	48.1
-Married	120	23.8
-Divorced	117	23.2
-Widowed	25	5
School background		
-Illiterate	37	7.3
-Primary	310	61.38
-Secondary/Technical	111	21.98
-Tertiary	47	9.30
Employment status (before detention)		
-Employed	252	49.90
-Unemployed	230	45.54
-Retired	23	4.55
Criminal status (%)		
-Primary	276	54.65
-Repeat offender	229	45.34