SN209

Substance use disorder and risk of violence - VIORMED study (2014-2016)

Uso di sostanze e rischio di violenza - studio VIORMED (2014-2016)

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Methodological Notes[1]

Substance use disorder and risk of violence is a dataset related to the VIORMED (VIOlence Risk and MEntal Disorders) study carried out in 2014-2016. The aim of the study is to compare patients with severe mental disorders and with different substance use behaviours in terms of socio-demographic and clinical characteristics and assess violent behaviour during 1-year follow-up.

Sampling Procedures

VIORMED is a prospective cohort study conducted at residential facilities and at 4 Departments of Mental Health in Italy. The study included 378 participants with Severe Mental Disorders (SMD) and were categorized as Persons with Current Substance Users (PCSU), Persons with Former Substance Users (PFSU) and Persons with Non-Substance Users (PNSU).

Recruitment started in the second half of 2014 and study participants were then consecutively recruited during six months. Inclusion criteria were a primary psychiatric diagnosis and age between 18 and 65 years. Exclusion criteria included a diagnosis of organic mental disorder, mental retardation, dementia, or sensory deficits.

Cases (patients with a violence history) were recruited first. The selection of these patients was based solely on a comprehensive and detailed documentation (as reported in clinical records) about a history of violent behavior(s). Violent patients had to meet any of the following criteria: (i) to have been admitted at least once to a Forensic Mental Hospital for any violent acts against people and then discharged; and/or (ii) to have a documented lifetime history of violent acts against people in the last 10 years (as reported in the official clinical records), which caused physical harm to the victim, or having committed armed robbery, pyromania, or sexual violence; these behaviors led to legal prosecution or to arrest. The control group included patients who did not meet any of these three conditions during their lifetime.

All participants provided written informed consent before entering the study. Before signing consent, the treating clinician with the local research assistant provided the potential participant with detailed information about the observational nature of the study, of the study aims and methods. The participant information sheets and consent/assent forms made explicit the voluntary nature of subjects' involvement and the possibility to withdraw from the study at any time.

Ethical approval was granted by the ethical committee of the coordinating center (IRCCS Saint John of God, Fatebenefratelli; n° 64/2014) and by ethical committees of all other recruiting centers.

Dataset content

The *Substance use disorder and risk of violence* dataset provides detailed information on a set of socio-demographic and clinical characteristics, and the assess of the violent behaviour.

The study was carried out with a baseline cross-sectional comparative design, followed by a 1-year follow-up observation period. Several variables included in the dataset reports therefore the assessment at the baseline (T0) and at the 1-year follow-up (T1). The purpose of the observation follow-up period, which started once patients had completed baseline assessment, was to measure and quantify patients' aggressive and violent behavior.

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1 The Methodological Notes are curated by UniData – Bicocca Data Archive and prof. Giovanni de Girolamo. For more information, please contact gdegirolamo@fatebenefratelli.eu or see Barlati S, Stefana A, Bartoli F, Bianconi G, Bulgari V, Candini V, et al. (2019) *Violence risk and mental disorders (VIORMED-2): A prospective multicenter study in Italy.* PLoS ONE 14(4): e0214924. https://doi.org/10.1371/journal.pone.0214924

Patients were assessed with several standardised instruments used in the field of psychiatric research. In particular, the Personal and Social Performance (PSP) scale[2], the Specific Levels of Functioning scale (SLOF)[3], the Insight Scale[4], the Brief Psychiatric Rating Scale-Expanded (BPRS-E)[5], the Buss-Durkee Hostility Inventory (BDHI)[6], the Barratt Impulsiveness Scale (BIS, Version 11)[7], the State-Trait Anger Expression Inventory 2 (STAXI-2)[8], the Brown-Goodwin Assessment for Lifetime History of Aggression scale (BGLHA)[9] and the Modified Overt Aggression Scale (MOAS)[10].

For the BPRS-E, an exploratory factor analysis was used to identify the main scale domains, and it suggested a four-factor structure named affect-anxiety, activation, negative symptoms and psychotic symptoms. The score assigned to each domain is the sum of the individual items identified by the factor analysis: for Affect-Anxiety the items included are Somatic Concerns, Anxiety, Depression, Suicidality, Guilt and Tension; for Activation the items are Hostility, Elevated Mood, Grandiosity, Suspiciousness, Uncooperativeness, Excitement, and Motor hyperactivity; Negative symptoms include Blunted Affect, Emotional Withdrawal, and Motor Retardation; for Psychotic symptoms the items are Hallucinations, Unusual Thought Content, Bizarre Behaviour, Self-Neglect, Disorientation, Conceptual Disorganization, Distractibility, Mannerisms and Posturing.

Concerning MOAS, the dataset include both the 24 observations (one every fifteen days) rated during the 1-year follow-up and four aggression subdomains: verbal, against objects, against self, and physical-interpersonal. The scores are calculated assigning a value from 0 to 4 is assigned: 0 indicating no aggressive behavior and higher scores showing increasing severity. The score in each category is multiplied by a factor assigned to that category, which is 1 for verbal aggression, 2 for aggression against objects, 3 for aggression against self, and 4 for aggression against other people. The total weighted score for each evaluation ranges from 0 (no aggression) to 40 (maximum grade of

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2 For more information about construction, use and scoring to the PSP scale see Morosini P.L., Magliano L., Brambilla L, Ugolini S., Pioli R. (2000), Development, reliability and acceptability of a new version of the DSM-IV Social and Occupational Functioning Assessment Scale (SOFAS) to assess routine social functioning, *Acta Psychiatr Scand*, 101, 323-329.

3 For more information about construction, use and scoring to the SLOF scale see Montemagni C., Rocca P., Mucci A., Galderisi S., Maj M. (2015). Italian version of the "Specific Level of Functioning" , *Journal of Psychopathol*, 21, 287–296.

4 For more information about construction, use and scoring to the Insight scale see Marková I.S., Roberts K.H., Gallagher C. et al (2003). Assessment of insight in psychosis: a re-standardization of a new scale, *Psychiatry Research*, 119, 81–88.

5 For more information about construction, use and scoring to the BPRS-E scale see Ventura J., Green M.F., Shaner A., Liberman R.P. (1993). Training and quality assurance with the Brief Psychiatric Rating Scale: "The drift busters", *International Journal of Methods in Psychiatric Research*; 3, 221–244.

6 For more information about construction, use and scoring to the BDHI scale see Buss A.H., Durkee A. (1957). An inventory for assessing different kinds of hostility, *Journal of consulting psychology,* 21, 343–349.

7 For more information about construction, use and scoring to the BIS-11 scale see Fossati A., Di Ceglie A., Acquarini E., Barratt E.S. (2001), Psychometric properties of an Italian version of the Barratt Impulsiveness Scale-11 (BIS-11) in nonclinical subjects, *Journal of Clinical Psychology*, 57, 815-828.

8 For more information about construction, use and scoring to the STAXI-2 scale see Spielberger C.D., Johnson E.H., Russell S.F., Crane R.J., Jacobs G.A., Worden T.J. (1985). The experience and expression of anger: Construction and validation of an anger expression scale, *Anger and Hostility in Cardiovascular and Behavioral Disorders*, 5–30.

9 For more information about construction, use and scoring to the BGLHA scale see Brown G.L., Goodwin F.K., Ballenger J.C., Goyer P.F., Major L.F. (1979). Aggression in humans correlates with cerebrospinal fluid amine metabolites, *Psychiatry Research*,1: 131–139.

10 For more information about construction, use and scoring to the MOAS see Margari F., Matarazzo R., Cassacchia M., Roncone R., Dieci M., Safran S. et al. (2005). Italian validation of MOAS and NOSIE: A useful package for psychiatric assessment and monitoring of aggressive behaviours, *International Journal of Methods in Psychiatric Research*, 14, 109–118.

aggression); since there were 24 ratings during a 1-year period, the individual MOAS total score for that time period ranged from 0 to 960.