

## Commentary

### Dual Disorder: Substance Use Disorder in People with Severe Mental Disorders

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#### Introduction

##### What is dual disorder?

History of the concept: In the early 1980s, Pepper and Ryglewicz [1] used the acronym YACP (Young Adult Chronic Patient) to define a new profile of “new chronics” as opposed to the profile of the “old institutionalised chronic”. YACP was a new generation of people with Severe Mental Disorder (SMD): young, between 18 and 35 years old, with different diagnoses, living in their community and using drugs. They were also called “new chronics”, as opposed to the classic “chronic institutionalised” and were characterised by severe social adjustment deficits, poor engagement with health services, frequent aggressive behaviours and being a problem for community mental health services: they do not attend community consultations, drop out of treatment, are frequently admitted to inpatient units and increase the burden on their families. Pepper et al., tested approaches to this new “patient” profile, most notably residential programmes with long-term support.

Definition: In the 1990s, the term Dual Disorder (also dual or comorbid diagnosis: hereafter DD) began to be used more specifically to designate the coexistence of a severe mental disorder (mainly schizophrenia) and a Substance Use Disorder (hereafter SUD). In the same years it was already seen that drug use in people with SMD is one of the variables that best predicts the prognosis of schizophrenia [2].

Characteristics: Firstly, DD is notable for its high prevalence, estimated at 30-50% of people with MDD; for these people the lifetime risk of developing a substance abuse disorder is 3 times higher than in the general population [3].

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Citation: Fernández JA (2022) Dual Disorder: Substance Use Disorder in People with Severe Mental Disorders. J Addict Addictv Disord 9: 079.

Received: December 30, 2021; Accepted: January 06, 2022; Published: January 13, 2022

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Secondly, DD is associated with a course with serious complications in the prognosis and evolution of MSD, such as

- Increased violent behaviour and suicide [4]
- Increased number of hospitalisations [2]
- Loss of home [5]
- Worse adherence to treatment [6]
- More frequent tardive dyskinesias [7]
- Increased risk of acute dystonia [8]
- Increased disorganisation [9]
- Worse prognosis [10]
- More frequent and more treatment-resistant hallucinations [11]
- More depressive symptoms [12]
- Other health problems: AIDS, etc., [5]
- Worse quality of life [13]
- Increased use of services (hospital, emergency) and higher cost [14]

Thirdly, the contradiction in the relationship between psychosocial rehabilitation and drug use. People with schizophrenia and a predominance of negative symptoms are less exposed to the risks (and opportunities) of their community, including the supply of drugs. Psychosocial rehabilitation processes aim to reverse disability and increase community integration, which leads to increased accessibility to drugs. In other words, the risk of drug use in a person with SMD may increase if he/she enters rehabilitation treatment. This risk is higher if the person has a history of drug use, as a history of drug use is one of the best predictors of new drug use.

Studies have described the profile of people with SMD who use drugs as having less negative symptomatology, being more cognitively and socially preserved, which is very necessary for the drug-taking process. Wherewith, many people with schizophrenia worsen their prognosis with drug use. This bleak prognosis of DD can be changed by cessation of drug use, in addition to appropriate antipsychotic medication and social support. This fatal coincidence - those who would have a better prognosis are made worse by drug use - makes the detection and treatment of people with DD so important at any moment in their treatment.

#### Prevalence

Many mental disorders are associated with increased comorbidity with SUD compared to the general population. The most severe psychiatric disorders have the highest rates of substance-related disorders. In the most extensive research conducted so far in the general population in relation to this comorbidity [3], the lifetime rate of drug-related disorder in the general population was approximately

17%, compared to 47% in people with schizophrenia. As mentioned above, the prevalence of DD varies between studies, but it can be stated that around 25-35% of people with MDD have a concomitant SUD at the present time and around 50% at some point in their history [15]. Another important study on substance use and psychosocial functioning in schizophrenia [16] found that out of 1,460 participants 23% were substance users and 37% had SUD.

## Profile

SD is more common in males and in young people, with the first psychotic episode occurring earlier than in non-users. It is more frequent in lower socio-economic levels [5]. Use is lower in those patients in whom negative symptoms predominate [13]. On the other hand, we know that the evolution of DD can be more favourable if drug use is abandoned and if, in addition, they receive antipsychotic medication and social support [10]. Compared to abstainers, substance users have higher psychosocial functioning so that people with drug use (without SUD) and people with SUD show higher or equivalent psychosocial functioning than abstainers (except those who used cocaine) [16]. This ambivalence of DD implies that drug use in people with SMD may be filtering out people with good prognostic characteristics.

## DD Evaluation

The evaluation of DD is multidimensional, addressing the relevant issues for this population (effects on symptoms, compliance with treatment, household stability, etc.) and should include longitudinal follow-up with recording of consumption values. Among the difficulties of assessment, drug use in schizophrenia is underestimated or underestimated by professionals [17], with under detection reaching an estimate of 50% or higher (84% in the emergency department) [18]. Another difficulty in evaluation is that some people with DD are not able to describe their consumption habits, may be prone to self-report problems (recall of details, demand-driven responses, etc.) and to cognitive, psychotic and affective distortions. People with DD are often reluctant to talk about their drug use, because they expect sanctions, or because it is not accepted in their social circle. It is also a major obstacle that standard evaluation instruments (for the general population) do not fit people with MDD. The dimensions, patterns of use, consequences of use, dependence syndrome and subjective distress are quite different for people with MDD compared to people without a mental disorder [17].

Evaluation of DD involves exploring its multiple dimensions, for which we have a series of instruments for the evaluation of drug use, which can be classified in the following sections [15]:

- Instruments for general or global evaluation
- Detection or screening instruments
- Instruments that assess the severity of dependence
- Clinical rating scales
- Descriptive frequency/quantity records
- Relapse prevention and assessment of risk of abuse
- Motivation and readiness to change
- Multidimensional

The choice of the most appropriate method or instrument will depend on the purpose of the evaluation, cost/benefit relation, professional qualification, care pressure, etc.

## Evaluation Methods and Instruments

Screening instruments are defined by their sensitivity to detect low levels of substance abuse but cannot determine a range of use or dependence. Therefore, screening instruments are more appropriate for the general population or clinical population in short-stay units (emergency department, short stay) detecting the potential presence of SUD. Screening instruments used in persons with SUD are [15]: CAGE (General Life Habits Questionnaire) [19]; DAST (Drug Abuse Screening Test) [20]; AUDIT (Alcohol Use Disorders Identification Test) [21]; DALI (Dartmouth Assessment of Lifestyle Instrument) [22]; SDS (Severity of Dependence Scale) [23]; MIDAS (Mentally Ill Drug Alcohol Screening 2000) [24].

Biochemical measures are expensive and often insensitive but can be very useful if external validation or recent use is required. Such measures, like purely quantitative measures, provide measures of drug use but do not provide information on the consequences of use (psychological, occupational, social or physical). In contrast, measures of dependence severity (ASI) [25] are often insensitive to low levels of use and are more appropriate with people who have established abuse/dependence, and for monitoring treatment outcomes. Frequency/quantity measures (TLFB) [26] are used clinically for diagnostic purposes and to determine treatment goals. Structured clinical interviews (PRISM, CIDI) [27,28] have an important role in the evaluation of drug use, especially in clinical populations, where history of use and current use are essential for diagnostic establishment, care provision and treatment.

The use of instruments that evaluate the stages of motivation for change reminds professionals of the longitudinal nature of the process and allows them to identify the treatment options that are most appropriate for the patient at each point in time. Instruments recommended for people with SMT are: SOCRATES [29]; URICA [30]; SATS [31]. The most practical recommendation for DD evaluation is to conduct a careful and respectful interview with the user and collateral informants (these with the user's agreement). Different evaluation instruments can complement the information from the interview according to their different purposes, methods, needs, timing, objectives, device and training of the practitioner.

## Treatment

Effective treatment of DD requires a diversified offer of therapeutic resources addressing the different needs of people with DD [32,33]. From an evidence point of view (Cochrane) no support has been found for psychosocial treatment over standard care [34]. Still, most studies support Integrated Models and integration of services as more effective [35]. Integrated Treatment models address both disorders together and different treatment options can be found in the literature [36,37]: MTAS, BTSAS; STAR; 12 Steps; SMART; TAU; IDDT; FMI (family); etc. According to Ortega-Fons' recent review of treatment studies for DD, [36] Integrated Dual Disorder Treatment (IDDT) [38] would be the most effective for schizophrenia with SUD and for improving quality of life. The treatments with the best results are outpatient, integrated model, multidisciplinary team and aiming at psychosocial integration. An overview of these DD treatments that have undergone efficacy studies can be found in table 1 [36].

Authors	Treatment and Intervention Format	N	Time Frequency	Treatment Components
Bellack et al., [39]	Comparison of two integrated treatments BTSAS vs STAR - Group	129	6 months (2 per week)	Social intervention Motivational interviewing Social skills Uproanalysis
Brooks y Penn, 2003	Comparative 12 Steps (group) vs SMART (individual)	112	6 months 1 per week	Manualised treatments Self-help Psychoeducation Relapse prevention, etc. EPPIC Manual
Hjorthoj et al.,	Comparison of two integrated treatments Cap Opus vs TAU - Individual	103	6 months 1-2 perweek	Motivational interviewing Assertiveness, etc. Psychosocial improvement
Laudet et al.,	DTR Integrated Treatment - Group	310	12 months	Mutual support Spiritual support Psychotherapy; psychoeducation
Margolese et al.,	Non-Integrated Treatment (for schizo- phrenia) CCS Group and individual	147	12 months	Crisis intervention Social skills Vocational Residential
Morrens et al.,	Comparison of two integrated treatments IDDT vs TAU Group and individual	110	12 months	Motivational interviewing Relapse prevention Skills training
Smeerdijk et al.,	Comparison of two treatments FMI (Integrated Family Support vs. RFS (Standard Family Support) Group and Multifamily	75 patients 95 families	6 months	Psychoeducation FMI: 12 group sessions RFS: 2 per month
Xie et al., [38]	IDDT (Integrated) Individual and group	162	3 years	Motivational interviewing Psychoeducation Relapse prevention Skills training Problem solving

**Table 1:** Studies on effectiveness of DD treatments (based on Ortega Fons, 2021) [36].

Drake, O’Neal and Wallach [32] reviewed 45 studies of psychosocial interventions for people with DD. They identified three types of intervention with consistent positive effects on SUD in people with MDD:

- Advisory, counselling or support groups are usually at a frequency of once or twice a week, for more than 6 months, with cognitive-behavioural techniques, tailored to the stage of treatment and recovery. They include psychoeducation and peer support within an integrated treatment. Such groups have positive effects on substance use outcomes. Group interventions are becoming more specific, standardised and effective. Bellack, Bennett, Gearon, Brown and Yang [39] found positive results with very specific interventions (cognitive performance, skills training and contingency management) for people with schizophrenia and SUD. A pertinent caveat for all clinicians is that these treatments have a high attrition rate. Therefore, the evidence shows that group counselling and advice groups have positive impacts on substance use and other outcomes, if people with DD are willing to attend the group
- The contingency management technique is a behavioural intervention in which material incentives are given based on biological confirmation of drug abstinence [40]. Contingency management is effective in promoting abstinence from a variety of substances including alcohol, opioids and stimulants. Studies finding greater efficacy in contingency management look at a medium-term intervention over 4-6 months, with a focus on both substance use reduction and additional outcomes. In the review by Drake et al., [32] they found that all but one study had significant improvements in substance use outcomes as well as other functional behaviours. Therefore, contingency management appears to be a very promising intervention for addressing substance use disorder in this population. The complexity of implementing this technique in people with DD is outlined in Desrosiers, Tchiloemba,

Boydjjeva, Jutras-Aswad [41] where both health professionals and service users agreed that the contingency approach could be integrated into regular DD treatment. In general, the contingency approach is more readily accepted by patients than by health professionals. The contingency approach was described by all participants as consistent with the overall treatment goals and led to patient awareness of their attendance to the group. It also suggests that the implementation of this approach should consider the needs and perspectives of the service users

- Residential treatment for DD has been shown to be an effective intervention for homeless people as well as for very impaired substance users [33,42]. The residential component has an important impact on increasing the motivation of the user to treat his or her problems. Since the maintenance of stable remission requires people with DD to “create a new life”, long-term residential treatment may be effective in this rebuilding work. The residential treatment studies identified by Drake et al., [32] specifically targeted people unresponsive to standard (less intensive) outpatient treatment and with DD. Longer-term studies consistently found positive outcomes related to substance use, and Brunette et al., [43] demonstrated that long-term residential treatment was more durably effective on substance use outcomes. Long-term residential treatment is the only intervention that has been shown to be useful for those who do not respond to treatment as usual. An example of an Integrated Treatment programme for homeless people with DD, residential, urban, delivered by an ACT (Assertive Community Treatment) treatment team is described by McKoy et al., [42]. The programme emphasises harm reduction and motivational interventions along with staged treatment, psychoeducational programmes and relapse prevention groups.

In addition to these three interventions with consistently positive effects on DD, there are other strategies with significant impact in

more concrete areas: case management, for example, improves sustainability in the community; and intervention from the justice system increases participation in treatment [32].

## Future Perspectives in the Treatment of DD

Following Drake, O'Neal and Wallach [32], long-term studies show that most people with MDD recover from substance use disorders in stages, gradually, over months and years [38,44-47]. Models that identify these stages of treatment and change are clinically relevant because different interventions are effective at different stages of the recovery process [48,49]. For example, engagement or practical support interventions or motivational factors external to the subject (judicial, family, medical, etc.) are effective in initiating contact with treatment. They may then need individual and group counselling to develop motivation to overcome SUD and the mental disorder. Once motivated, they require skills and support to manage their illnesses through skills training and support groups; and finally, when both disorders are going well, they may need relapse prevention techniques [49]. Intervention studies should focus on process and outcomes in relation to specific stages of treatment.

In addition to these three interventions with consistently positive effects on DD, there are other strategies with significant impact in more concrete areas: case management, for example, improves sustainability in the community; and intervention from the justice system increases participation in treatment [32]. Another important factor is the fact that people with DD respond differently to a particular intervention or programme [32]. Diagnosis does not predict response to treatment, so it is necessary to identify subgroups based on their response to treatment. Xie et al., [47] have identified four subgroups: a group of fast and stable responders, a second group of fast but unstable responders, a third group of slow but steady responders and a fourth group of complete responders. Some people with DD respond quickly to counselling and support techniques, others respond slowly or not at all. The DD field needs to develop sequenced or stepped care approaches, offering less intensive and costly interventions first, and more intensive and costly interventions contingent on earlier response [48].

The context also determines the effectiveness or relevance of interventions. People with DD in specific settings often have special needs that require special interventions. For example, people with DD in forensic environments (or homeless, or immigrants, etc.) have specific needs that respond poorly to services that do not take their needs into account.

Interventions for people with DD disorders have undergone significant development over the last 30 years. Research studies show that there are consistent positive results related to various types of interventions. Positive results have been found and there is no doubt that some techniques are effective in addressing DD refractoriness. However, there are still areas that do not respond as expected by clinicians (for example, family intervention, [50] and so it is necessary to continue searching for new, probably more holistic, formulas, involving resources (socio-health, social, employment, etc.) that have a clearer impact on the needs and circumstances of these individuals.

- "... The current psychiatric emphasis on neurobiology is apparent in clinical approaches, journal articles and research institutes. Nevertheless, substance abuse and, particularly among dual diagnosis clients, are strongly influenced by socioenvironmental

factors [44]. It has been clear for years that many of these individuals are able to be abstinent in some settings but not in others. Thus, research needs to attend to social and environmental context-the sociological point again" [32]

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