







Compendium of measuring instruments of problematic drug use

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I. Introduction

The data on prevalence and incidence of psychoactive substances and, in general, all of the epidemiological picture of this phenomenon, constitute a warning and, at the same time, an incentive for political and health institutions about the great need for action in the prevention and treatment of this problem. The effectiveness of these actions must be measured to determine their relevance and make decisions about it, relying on scientific evidence.

The use of psychoactive substances and associated problems, are measured and evaluated by multiple strategies, which include self-report, report of a close person, as well as the quantitative and qualitative evaluation of a variety of markers, with the use of different measures, obtaining different results, which makes it sometimes difficult to compare data between studies, between institutions or between states and countries (Wells, Hawkins & Catalano, 1988).

Although the consumption behaviour is the central feature of problematic of substance use and is the main objective of interventions, it is not the only outcome of interest, because there are important bio-psychosocial dimensions to consider (Donovan & Marlatt, 2005; McLellan, Chalk & Barlett, 2007, Darke, Hall, Wodak, Heather & Ward, 1992).

An important factor contributing to this lack of consensus is the different perspectives of the researcher, the professional, the user or the politician. Researchers are often interested in the impact of interventions on substance use, regardless of how it is measured, while the interest of clinicians and program managers may be oriented towards a wider range of outcomes, defined as a "clinically significant change" (Miller & Manuel, 2008).

From the perspective of the customer or user experience reduction in the severity of symptoms and improvement in quality of life are important outcomes (Laudet,









Compendio de instrumentos de medida sobre el uso problemático de drogas Becker & White, 2009; Miller & Miller, 2009). Politicians and society in general expect the treatment of problematic substance use to bring improvements in multiple areas of psychosocial functioning, for example, increasing public safety and reducing the economic burden of the problem (McLellan, Chalk & Bartlett, 2007).

A second factor in determining the results of treatment for problematic substance use is whether an intervention focuses on one or multiple substances. This would reflect the specificity versus generalization of the effects of a particular treatment (Raunsaville, Petry, Carroll, 2003).

Setting a treatment goal related to the use of the substance, either to stop it or reduce it, or to mitigate its harmful consequences, can also impact how a treatment (Kellogg, 2003; Marllat, Witkiewitz, 2010) is valued.

The type of intervention, behavioural, pharmacological or otherwise, may influence the potential therapeutic target and the associated outcomes (Miller, LoCastro, Longabaugh, O'Malley, Zweben, 2005). The latter factor can also have an influence at the moment of outcome assessment. Some interventions aimed at the immediate effects of substance use, have a relatively short time frame, while other interventions focused on improving the psychosocial dimensions, typically have a relatively longer time frame (Wells, Hawkins, Catalano, Jackson & Donovan, 1988).

Given the difference of perspective that arises when trying to assess the goals, the procedures and results of the actions taken in the prevention and treatment of problematic substance use, it becomes essential to have a reference framework for harmonization that allows the stakeholders to carry out the evaluation of the various aspects considered, providing reliable and valid tools that help make the available information more homogeneous, facilitating the analysis.

In such a way that, the conclusions of each analysis can be used more reliably as guiding element for decision-making for adjustment and improvement actions









related to problematic substance use.

I. Evaluation and measurement of problematic drug use

• Generalities of the assessment and measurement of problematic drug use

The assessment concerning problematic drug use is to detect the presence of a particular indicator (condition, symptom, perception, etc.), according to the area considered the objective thereof.

In a broad sense, the term evaluation is not constrained to only the identification or diagnosis of a result, but to a whole process whose goal is to identify, select and set objectives, intervene, as well as to predict and measure whether the objectives were achieved. The purpose of the assessment lies primarily in its usefulness for decision-making (Aragon, 2011).

The behavioural assessment of psychoactive substance use arises as a necessary requirement of interventions and aims at obtaining a change considered positive, as to a number of behaviours that have been identified as problematic. A number of measuring devices can be used, such as tests, observations or self-registrations, among others, in order to determine which variables are maintaining or controlling the problematic drug use, and to make predictions about how they will behave.

When choosing the treatment to be implemented, we rely on such assumptions, as we establish predictions about the changes that are expected to be generated in the problematic use behaviour by the interventions that constitute the treatment, generating in turn other assumptions relative to the expected changes as result of such interventions.

The information obtained after the intervention and its comparison with the initial set of assumptions will be critical to assess whether the treatment has been successful.









While maintaining the importance of the explanatory or contributing biological variables, we must consider the behavioural assessment, which is based on the assumption that the behaviour of psychoactive substance use can be explained functionally, both by the current environmental conditions that maintain or control it, as well as personal variables that have formed the personal history of learning and that, interacting with the organism, characterize the current behaviour of the individual.

In order to be able to meet the goal of a comprehensive assessment of the substance use behaviour, there have been generated instruments which, according to Fernández-Ballesteros (1994), have been classified into four groups: *1*) systematic observation (conducted by experts or by physiological recordings), *2*) scales of observation by the person's significant others or the person itself (self), *3*) self-report (tests and questionnaires) and *4*) interview.

These assessment tools comply with certain required characteristics to ensure their usefulness and relevance, which will be described in detail below.

o Functions of the Assessment of Problematic drug use

Many functions have been described for the assessment of problematic drug use (Allen & Columbus, 1995; Allen & Mattson, 1993; Carey & Teitelbaum, 1996; Institute of Medicine, 1990), such as

- Screening and detection of cases
- Motivating substance users to participate in an intervention to mitigate its impact
- Describing the problem
- Planning treatment interventions. diagnosis, implementation and evaluation (process and result).









Some of these functions are related to the acquisition and integration of information on using behaviour and its consequences, while others are more directly related to motivate and induce the individual to participate in a treatment program. Hereunder we describe some of the main features and benefits of the assessment of psychoactive substances.

Screening and detection of cases

Through the assessment of substance use, it is possible to identify the individuals who may have problems related to it or are at risk of developing them.

Typical methods of screening and identifying cases of problematic use, through questionnaires or interviews, are brief, inexpensive and applicable to relatively large groups of individuals, allowing their classification within a continuum that ranges from no substance use problems, a higher or lower risk of presenting them, to the presence of serious problems that require specialized interventions.

Because the probability of incorrectly identifying someone as a "problematic user" (false positive) or vice versa (false negative), it is very important to know the sensitivity and specificity of the instruments used.

Awareness and motivation to identify the problematic drug use and to seek treatment

The objectives of screening include, identifying potentially problematic users of psychoactive substances; increasing their risk perception, suggesting the need for further assessment and increasing interest and preparing the individual for treatment (Connors, 1995).

Assessment is often one of the first steps and is a valuable driver of the treatment process for those seeking help for psychoactive substance use disorders, given









that the choice to stop using alcohol or drugs is not an easy decision and sometimes there are many barriers to doing so (Marlatt, Tucker, Donovan, & Vuchinich, 1997), implying a substantial amount of time and determination and overcoming a sense of uncertainty and ambivalence in the individual, who may or may not be aware of the need of changing (Kanfer, 1986).

During the early stages of the change process (pre-contemplation and contemplation), the substance user benefits from interventions that increase information and acquisition of awareness about the nature of his/her own problem. Similarly, the users also benefits from assessments that include feelings and thoughts about him/herself as well as their relationship with substance use, causing an increase in his/her perception of the skill that has to change and reaffirming his/her commitment to take active actions for the change (Prochaska et al., 1992).

Problem Assessment

Screening allows determining the existence of problem drug use, while assessment helps to characterize it. Once an individual with substance use problems is identified, the next step is to refer him/her to a specialised care unit for further assessment.

This action is consistent with the perspective of assessment as a sequential process (Donovan, 1988; Institute of Medicine, 1990; Sobell et al, 1994), where the next assessment level, specialized, includes the characterisation of the nature, scope and severity of the potential substance use disorder, as well as the corresponding treatment plan.

This state of assessment requires more time and resources to be carried out and is more expensive than the screening phase, but it is important to determine what









type of treatment is appropriate.

Performing diagnostic

Beyond facilitating motivation and entry into treatment, assessment serves other important functions in the management of substance use disorders (Allen & Mattson, 1993). One of them is the development and formulation of a diagnosis, which is derived from the integration of information derived from the history of psychoactive substance use, clinical interviews based on specific diagnostic systems, and may include psychometric tests as well as the results of laboratory tests.

In addition to the diagnosis of substance use disorders, given the frequency of cooccurrence with other psychiatric disorders, these must be considered in the assessment, which increases the complexity of the assessment process. The substance dependence represents the primary disorder, but may occur in conjunction with other psychiatric conditions or concurrently and independently coexist with other psychiatric disorders (Craig, 1988, NS Miller, 1993).

EXPLORATION of other domains related to substance use,

In order to go further in the understanding of substance use and its associated problems it is necessary to incorporate a number of additional aspects into the assessment.

The domains to be assessed in this wider view are derived from cognitive behavioural models for substance abuse problems and from the analysis of factors that may be involved in the relapse, once the individual stops using (Connors, Maisto & Donovan, 1996; Donovan, 1996; Donovan & Chaney, 1985; Marlatt &









Gordon, 1985).

According to these models, individuals may develop abuse or dependence on the substance, partly due to the perception that the use of the substance is functionally useful to address intra and interpersonal situations that are stressful, or are associated with the first uses or involve social pressure to use the substance for which the individual does not have adequate coping skills.

In situations like these, the anticipated effects of the use of the substance are seen as able to produce positive effects, influencing mood and social behaviour.

Given the above, the assessment of these additional domains should include measures on individual beliefs about the anticipated effects of the substance on the emotions and behaviour. The nature of these situations represents a great risk for relapse in the use of the substance involved.

That is why, aspects such as expectations, beliefs, risk of relapse, coping skills and self-efficacy, and the willingness to change and treatment are constructs to be measured, incorporating them in the assessment to obtain a more global view of the substance use problem.

o Characteristics of assessment and measuring instruments of problematic drug use

A test is a standardized process or tool that generates, with figures, information on a sample of behaviour or cognitive process (Hogan, 2004). To ensure that the information derived from them is useful, and psychometric clinimetric instruments used in the assessment of problematic drug use, must meet three main features: reliability, validity and standardization.

These characteristics come from the investigation that gives origin to the test or instrument, which is supported by the framework of the construct and psychometric theories, the results of the pilot test and analysis of the data obtained. Also, the test requires constant adaptation and revision of what can be derived from a series of adjustments that will improve the quality of the instrument.









The following describes the relevant aspects of the characteristics of measuring instruments:

Reliability

Reliability is one of the most important concepts in psychometrics, it relates to the consistency or ability to reproduce the scores obtained from the application of a test.

A "reliable evidence" in psychometric sense, is one that consistently generates the same score or similar, in the case of an individual. The rating can be replicated or reproduced, at least with some margin of error and a reliable test can trusted to mainly generate the same score in an individual (Hogan, 2004).

In a broader sense, the reliability is the accuracy, the precision with which an instrument measures a construct. Strictly speaking, reliability is the absence of measurement errors: the measurement stability and internal consistency (Muñiz, 2003).

The *measurement stability* means that, when measuring a psychological attribute with a specific instrument, it will be reliable if when evaluating the same subjects with the same instrument or equivalent, the measurements obtained in the second application are very similar to those obtained in the first, that is, are stable over time, indicating that measurement errors would be minimal, and therefore, the reliability would be acceptable (Muñiz, 2003).

The *internal consistency* refers to items or reagents of a given instrument being consistent with each other in the way in which they evaluate the psychological attribute. Subjects will score high on the items that tend to measure this attribute









and lower on those that do not (Aragon, 2011).

The *correlation coefficient* (r) is the most common method to express reliability, so it is important to understand the correlations and the factors influencing them. Methods that are commonly used to determine the reliability are the *test-retest reliability method* the *reliability of the alternating form*, *reliability between scores* and various types of *measurements of internal consistency* (Cronbach, average of correlations of all halves) (Hogan, 2004).

One of the most used methods in the literature for reporting the internal consistency of an instrument is Cronbach's alpha, which evaluates the extent to which items of an instrument are correlated. It is expected that a group of items that explores a common factor shows a high value of Cronbach's alpha.

In terms of performance, the minimum acceptable value is 0.70; below this value the internal consistency of the evaluated level is low. The maximum expected value is 0.90; above this value it is considered that there is redundancy or duplication, which means that several items are measuring exactly the same element of a construct. Usually, the preferred alpha values are between 0.80 and 0.90.

The value of the alpha coefficient is directly affected by the number of items that make up a scale. The alpha coefficient is more reliable when calculated for an instrument with twenty items or less. Scales with a larger number of items that measure a single construct may appear to have a great internal consistency, when in fact it is not like that. That should also be considered for the sample size because the larger the number of individuals who complete a scale, the higher the expected variance.









Validity

In a very general sense, a measuring instrument is valid, if it does that for which it was conceived. The validity of a test concerns what it measures, their effectiveness and what we can infer from the scores on the test.

The study of the validity of an instrument refers basically to validate the data provided by it: the appropriateness, significance and usefulness of the specific inferences that can be derived from the test scores (Aragon, 2011).

Validation always requires empirical research and the type of data needed for this depends on the kind of validity that is wanted to be set and the use that will be given to data obtained from the application of the test.

There are several types of validity: *construct validity* (theory, empirical evidence, interpretation of results), *criterion validity* (predictive capacity, compared to an external criterion) and *content validity* (representativeness or sampling adequacy of the content, clear description of the domain of interest through "refereeing"). (Hogan, 2004).

Standardization

For Nunnally and Bernstein (1995), norms or rules are an important aspect of standardization. A measure is standardized if: 1) its rules are clear, 2) its application is practical, 3) it does not require great skill by managers to carry it out and 4) the results do not depend on the specific administrator.

The central point of standardization is that users of a particular instrument should achieve similar results. For example, we say that a test is standardized, if different









Compendio de instrumentos de medida sobre el uso problemático de drogas examiners obtain similar scores when evaluating a particular child at a particular time (Aragon, 2011).

Reliability, validity and standardization of instruments, are prerequisites to obtain useful information from the application itself, to allow timely decisions based on the certainty that the data under consideration are real and representative of the problem that is analyzed. In this case, substance use and the individual variables that are associated with it.

There are specific areas around the substance use that need to be considered in order to have a complete and comprehensive picture of the phenomenon. These dimensions described below must be measured with valid, reliable, standard instruments, in order to understand the variables involved in the problem and above all, to observe changes in them from the interventions that may be proposed.

III. Measurement indicators

o Dimensions and areas of assessment in problematic drug use

Most research on the effectiveness of treatments for substance use disorders focuses on the extent to which the interventions that make such treatment reduce the use of the substance as primary outcome.

However, a more complete view of appropriate targets to be considered in the assessment of treatment extends beyond the quantity and frequency of use of the substance. For example, highly relevant constructs such as "craving" are experienced by the user as aversive and distressing symptoms for their functioning, while a change in self-efficacy is an important and commonly









established goal in treatment.

Substance use disorders frequently affect the functioning of users outside the immediate scope of the substance. This includes consequences for health, welfare, psychological functioning, social relationships, productivity and crime.

Being precisely the impact of these effects on the user, his/her partner, family, the primary support group and society as a whole, rather than the use *per se,* the main source of concern for the use of psychoactive substances.

Therefore, comprehensive assessments of treatment results for substance use disorders must address these consequences (Tiffany, Friedman, Greenfield, Hasin, & Jackson, 2001).

There are additional reasons to incorporate a wide variety of outcome measures in research on the effectiveness of treatments. Importantly, other results, in addition to the use of the substance, can provide crucial information about the mechanisms responsible for the efficiency and effectiveness of treatment (Tiffany, Friedman, Greenfield, Hasin, & Jackson, 2001).

These results can also be used as critical markers in adapting intervention strategies in which these are systematically modified depending on treatment response by the user (Murphy, Lynch, Oslin, McKay, Ten Have, 2007). In addition, other measures of results may allow addressing critical issues on safety and treatment costs. Issues that cannot be evaluated through the simple consideration of the use of the substance.

On the other hand, researchers interested in harm reduction, as treatment objective should consider a range of outcomes than the mere use of the substance (Witkiewitz & Marlatt, 2006).









A panel of experts in treatment and research on substance abuse, was convened by the US National Institute on Drug Abuse (NIDA, 2009), with the purpose of discussing the proper measurement of results in clinical trials on treatment for substance abuse. Among their considerations, the following list of areas of potential outcomes to consider (primary dimensions in bold) were found

- o Arrest / detention
- o Change in self-efficacy
- o clinically significant reduction in damages related to drugs
- o Reduce severity of the problem
- o Coping skills
- o Craving
- o Days in stable housing
- o Days worked / or spent at school
- o day / time treatment
- o Decrease of days in the hospital or emergency room
- o withdrawal syndrome (acute and prolonged)
- o overall assessment of the functioning of the individual
- o Health
- o Intentions and plans to abstain from drugs
- o psychiatric outcomes
- o psychosocial performance
- o Quality of life
- Stage of change
- o social networks / social support
- o Stress
- o Subjective effects of the drug
- o treatment success

Primary dimensions are described as follows:

Self-efficacy

There is a long history of research on self-efficacy in the field of problematic substance use, which has allowed accumulating a considerable amount of evidence about it and from which the concept is derived that people with substance









use disorders have relatively lower self-efficacy regarding their ability to control their substance use at risk situations (Moos, 2007).

The perception of self-efficacy has emerged as a consistent predictor of the treatment outcome for substance use across multiple studies (Greenfield, Hufford, Vagge, Nuenz, Costello, & Weiss, 2000; Gwaltney, Shiffman, Norman, Gnys & Hickcox, 2001; Ilgen, Mckellar, & Tiet, 2005).

There are several validated instruments for assessing self-efficacy for most substances and there is considerable evidence that self-efficacy may be increased as a result of treatment (Breslin, Sobell, Sobell, & Agrawal, 2000; Condiotte, Lichtenstein, 1981; Dolan, Martin, & Rohsenow, 2008; Feeney, Connor, Young, Tucker, & McPherson, 2006)

Psychosocial functioning

Problems in functioning in different areas (work, school, marital, parental, family and community), which together define the "impaired psychosocial functioning" is a characteristic of psychiatric disorders listed in the Statistical Manual of Mental disorders DSM-, in which substance abuse is included (APA, 1994).

A variety of validated measures for psychosocial functioning and it is considered that the deterioration in this area is a predictor of treatment outcomes and, in turn, treatment may improve psychosocial functioning.

Social networks and support

Social networks and social support are related concepts. The first refers to a person's set of social relations, while the second, the degree to which a person meets his/her needs through interaction with others.









Both are important correlates of substance use disorders. Those who use psychoactive substances are more likely to be associated with other substance users; social support to reduce or stop taking the substance influences the levels of use and attempts to quit.

Both social support, as well as social networks, can be evaluated with a variety of instruments suitable for application in the field of substance use and both constructs can positively influence the treatment of disorders (Tiffany, Friedman, Greenfield, Hasin, & Jackson, 2001)

craving

"Craving" or avidity occurs in all psychoactive substance use disorders, especially when dependence has already developed. At present, it is considered that this clinical manifestation plays a central role in the evolutionary process toward dependence as cause and also as consequence of chronic substance use.

There are many recommendations, according to which changes in the "craving" should be considered as a standard outcome in all treatment studies. A quick review of the literature shows that craving is one of the most commonly assessed elements, in addition to use. (Tiffany, et al, 2001)

Clinically, craving is substantial for the diagnosis and has predictive relevance. It is included in the tenth edition of the International Classification of Diseases (ICD-10), as an important component of drug dependence and has been proposed in the DSM V, as a defining characteristic of substance use disorders.

Although the craving and drug use are not necessarily matched in the sense that not all substance use is always preceded by craving; There is evidence that managing the craving can prevent the relapse.

For the problematic drug user, the craving is a highly salient sensation. Substance









Compendio de instrumentos de medida sobre el uso problemático de drogas dependent people often describe the craving as an obstacle to stop further use. Additionally, the symptom itself acts as a stressor and disruptor of individual performance (Tiffany, et al, 2001).

There are validated psychometric instruments for the main substances of abuse, including alcohol, cocaine, heroin, marijuana and nicotine. Short versions of these instruments have been developed and are suitable for rapid assessment of overall levels of craving. There is a considerable amount of evidence about how treatments for problem substance use can reduce the levels of craving. (Tiffany, et al, 2001)

Quality of life

The construct quality of life has received considerable attention from researchers in various areas of health, who have included quality of life as an outcome variable in numerous clinical trials. At present, several researchers have recommended its inclusion as part of any evaluation of results in the treatment of problematic substance use (Tiffany, et al, 2001).

Although it has been defined in many ways, quality of life generally refers to an individual perception of welfare or satisfaction in various areas of functioning. The US Federal Food and Drug Administration (FDA) and defines quality of life as "... a multidimensional concept that represents the overall perception of the patient of the effect of the disease and treatment on physical, psychological and social aspects of life "(Compton, Thomas, Stinson, & Grant2007).

The concept brings together three important features: it is a subjective assessment by the individual; It refers to an assessment of the effects of the disorder (abuse, dependence) and treatment on functioning; and finally, the quality of life reflects









assessments across multiple domains of functioning, which must be considered in a comprehensive assessment of the construct.

A wide range of assessment tools on quality of life is available. For example, SF-36 and the WHO Quality of Life. Both instruments have acceptable reliability and validity.

Quality of life and its effect on substance use is a highly significant clinical outcome. The DSM IV recognizes in its description of substance dependence disorder "a maladaptive pattern of the use of the substance, which causes clinically significant distress or impairment".

A reduction in quality of life has been associated with substance use, for a wide variety of them, such as alcohol, heroin, cocaine and tobacco. There is also evidence that the quality of life can be improved with treatment, resulting in a reduction in substance use (Tiffany, et al, 2001).

• Definition of indicators in the Identification Chart of Measuring Instruments of problematic drug use.

The Identification Chart of Instruments is a database that allows the compilation of clinical measuring instruments used in the field of study of problematic substance use by participating countries or institutions, enabling the identification of the main psychometric features of each of the reported clinical measuring instruments and their form and context of application.

Clinical measuring instruments are identified on the *Chart,* based on the dimensions of each of them for the assessment of substance use, considering the specific areas and measuring variables. Its structure has two main sections: *Aspects of Evaluation and characteristics of the instrument.*

The following describes each of the assessment dimensions according to which









the instrument can be identified.

Assessment aspects

Dimension: Case detection

It refers to the ability to identify in timely manner people who have risk factors associated with the use of psychoactive substances. These tools fall into two areas:

- **Screening:** They work as filter to detect cases of substance use.
- **Exploratory interview:** Their purpose is to obtain general information about the user regarding use related problems.
- **Self-efficacy:** They investigate the perceived ability the user has to perform a specific task or solve a problem.

The above areas may have specific variables such as the type of drug, for example, applying a screening only for measuring alcohol use. If this is the case, it should be specified in paragraph *Specificity*.

Dimension: Characteristics of use

It refers to the ability to identify variables that are associated with substance use. The instruments can be grouped into the following areas:

- <u>Use pattern</u>: They investigate the quantity and frequency of use of the substance
- <u>Level of dependence</u>: They inquire about symptoms and indicators that characterize the substance dependence (tolerance, withdrawal, consumption despite awareness negative effects, difficulty controlling consumption, etc)
- **Craving and withdrawal:** They refer to symptoms related to an intense desire or appetite for using the substance.
- Precipitators of use: They detect triggers or situations in which the user









uses (contextual, external and internal factors that predispose use).

- **Expectations on use:** They can identify the level of motivation to change drinking behaviour on the user and what the user expects from using.

The above areas may have specific variables such as the type of drug, for example, an instrument only for measuring alcohol use. If applicable, it shall be specified in paragraph *Specificity*.

Dimension: Problems associated with use

It refers to those instruments that explore aspects of various areas related to the consequences associated with substance use. The measurement areas include:

- *Family Area:* They investigate the functioning of the individual in relation to his/her family: specificity in divorce, separation and family atmosphere.
- **Quality of life Area:** They inquire about the different areas of the users' life and their level of perceived quality.
- <u>Co-morbidity / Mental Health</u>: They inquire about aspects of psychiatric disorders, or related emotions and cognitions: specificity anxiety, depression, schizophrenia, psychosis, suicidal ideation, emotions, coping or other mental disorders.
- <u>Work / school area</u>: They inquire about the functioning of the individual at school or work: specificity of functioning at work or school, absenteeism, unemployment.

DIMENSION	AREA	SPECIFICITY
CASE DETECTION	SCREENING	ALCOHOL
		TOBACCO
		ILLEGAL DRUGS
	INTERVIEW	ALCOHOL
		TOBACCO
		ILLEGAL DRUGS









	EFFICACY	GENERAL
CHARACTERISTICS OF USE	USE PATTERN	GENERAL
	LEVEL OF DEPENDENCE	ALCOHOL
		GENERAL
	CRAVING AND ABSTINENCE	ALCOHOL
		ТОВАССО
		ILLEGAL DRUGS
	PRECIPITATORS OF USE	ALCOHOL
		ILLEGAL DRUGS
	EXPECTATIONS ON USE	GENERAL
PROBLEMS ASSOCIATED WITH USE	FAMILY AREA	GENERAL
	QUALITY OF LIFE	GENERAL
	COMORBIDITY	GENERAL
	VIOLENCE	GENERAL
	LABOUR	GENERAL

Instrument characteristics

The third section of the Chart corresponds to the detailed description of the characteristics of the instruments, comprising:

- *Tool name:* Enter the full name of the instrument and its abbreviation between parentheses if applicable.









- Abbreviation or acronym: Initials with which the instrument is identified.
- Factors or dimensions: Areas in which the instrument is divided.
- *Purpose:* Indicate the purpose for which the instrument was created.
- *Authors:* Mentioning the name of the original authors of the instrument and its adapters if it concerns an adaptation of it.
- Year: Specify the year of publication of the instrument.
- *Description:* List in this section the general characteristics that make up the instrument: number of items, display format, type of response, areas or factors that it measures.
- *Psychometric characteristics*: Specify if there are values of reliability for the instrument and how they were obtained, as well as evidence of their validity, adaptation and standardization in a given population.
- No. of items: Indicate the number of items composing the instrument.
- *Method of administration:* Mention if the instrument is self-administered or directed and if the evaluator needs any prior training.
- *Way of rating:* Specify how to describe and interpret the results of the instrument. Describe if yields score, percentage, areas, total score, etc. And how these results are understood and used in clinical practice.
- *Application Context:* Mention under what conditions and context it should be applied.
- *Population:* Mention the target population of the instrument (adolescents, adults, elderly population, etc.)
- *Availability:* Indicate where the instrument is available, if available freely on the net, indicate link, etc.
- *References:* Mention the texts where the instrument is referenced.

IV. Hemispheric platform and electronic database of measuring instruments in addictions

As result of filling the **Instrument Identification Chart** an electronic data base was created where the main measuring instruments in the field of addictions were recorded; this base gives a broad description of their main characteristics and 24









provides information on the areas of application for each one of them.

Because of the amount of data that could be collected from each of the instruments and the need for constant updating, editing and storing of more instruments, it was considered impractical to elaborate a print publication of this base, for which it was proposed to generate an electronic platform that would allow consulting the information in this compilation in a complete and simple way.

The objective of this electronic platform is, in addition to host the database with the compilation of instruments, to allow a space where evidence-based information on evaluation and measurement in the field of addictions is generated and provided.

As a first proposal, it is suggested that, based on the information generated for the compilation of the instruments, the electronic platform is comprised of 7 major components (tabs): Theoretical Component, Database Tools, Documents or interesting articles, News and events, Security system, Contact and Logbook.

The following describes each of the components proposed to integrate the electronic platform:

- Theoretical Component: The main objective of this space is to provide information on the importance of evaluation and measurement in the field of addictions, as well as the description of each of the areas and dimensions of the measuring instruments database generated by the compilation. This section will be a guide that explains how to use and interpret the information in the database and give the theoretical and methodological justification for its creation and use.
- Hemispheric database on clinical measurement instruments in addictions: The platform must accommodate the instrument base that was generated as part of the compilation of the project, so there should be a tab that displays a search control to facilitate consultation of instruments. This search control must have the necessary mechanisms to locate the instruments systematically (either by name, area, size, year, etc.). It is important to note that the database must be dynamic in a way that allows updating, editing and storage of new instruments.
- **Documents or items of interest:** In this tab scientific articles or academic papers related only to assessment and measurement in the field of addictions, so they can be stored and consulted. The main objective is to









have a space for its consultation dedicated to talk about the importance of assessment in the field.

- News and Events: This space will be dedicated to the most relevant news about the actions that countries have on the measurement and assessment of addictions. It is important that it is a dynamic space that is constantly updated.
- Security system: Access to the database should be restricted to professionals, academics and experts in the field, so it must have a security component that can filter who has access to the instrument base. It is suggested to fill in a personal identity form attested by the platform administrator to grant access keys or not. The information on documents and articles of interest will not be restricted.
- **Contact:** A tab must be generated where contact information is available both the for the platform administrator as for the coordinating institution. This tab can provide email, phone or redirect to specific pages according to the information requested.
- **Logbook:** It is important have a record of platform users both to assess its effectiveness and impact.

Based on these components a dynamic platform can be created that allows professionals in the field to have a space to acquire information based on scientific evidence and share their findings and advances in measurement and assessment in the field of addictions.

V. Final Conclusions

The focus in the field of addictions, like any other, requires an analysis to establish to what extent are both clinical intervention programs and implemented public policies effective and efficient, in such way that it is crucial to perform assessments to verify whether these interventions meet the planned objectives to address and reduce the use of psychoactive substances.

Evaluation in the field of addictions must involve the application of a model or intervention methodology capable of producing valid and reliable information









Compendio de instrumentos de medida sobre el uso problemático de drogas allowing the establishment of decision-making about what and how to act on the matter.

However, one of the main features of addiction is that we do not have biomarkers that favour their diagnosis, classification according to severity, evolution and response to treatment, and often measurement lacks technical-methodological quality as well as the necessary tools to generate valid and reliable conclusions.

Therefore the development of this project is a contribution to the field of assessment and measurement in the field of addictions and although a variety of measuring instruments (questionnaires, checklists of signs and symptoms, scales, etc.) have been created for research, diagnosis and treatment of addictions and major co-morbidities, there was no record accounting for the dimensions and areas that can be assessed on the topic, in addition to that in some cases they had not been identified and it was difficult to access them.

The Compendium of Measuring instruments of problematic drug use favours the identification of instruments that serve as tool for collecting and analyzing indicators for an objective assessment in the area of addictions.

In this first compilation it generated a database with a total of 65 revised instruments, 19 in the area of case detection (screening, interview and self-efficacy), 24 in the area of characteristics of use (use pattern, level of dependency, craving and withdrawal, precipitators of use and user expectations) and 22 in the area of Associated Problems (family area, quality of life, morbidity, violence and labour area).

In the database that constitutes the Compendium, the following were identified and described for each of the instruments: their objective, the factors that they









measure, the authors and year of publication, the psychometric characteristics (reliability and validity), the number of items that constitute, the context of application, the population to which it applies, the availability of the resource and bibliographic references that account for its relevance. It is important to note that the instruments that were compiled meet the minimum requirements of validity and reliability, ensuring that the data obtained through them are adequate and functional for use in the field.

This way, health professionals in the field now have a base of measuring instruments in addictions that facilitates obtaining reliable information and serves as support to make important decisions on case detection, diagnosis, intervention, effective treatments, prevention, research, epidemiology and public policy.

Likewise the theoretical development that was developed for the compilation of the instruments and presented here allows a first glimpse on the relevant aspects in assessment and measurement in the field as well as the detailed description of the recommended areas to assessment in the clinical area in addictions.

Finally, it is necessary to have the cooperation of other countries to feed this compiled base, so that is a means to share information generated from research institutions and to feed the field of knowledge on measuring instruments. Furthermore, to facilitate the comparison of international data in order to join efforts in this area.

Even if the validity and reliability of these instruments should be evaluated in each country, having an international compendium of them will promote their knowledge, dissemination, and subsequent adaptation and validation. The inclusion of objective measurement in research, diagnosis and treatment of addictions, will enrich the quality and variety of indicators in this area.









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