PSYCHOLOGICAL ASSESSMENT OF OPIOID DRUG ABUSE

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The increase in the prescription of opioid analgesics is related to increased rates of opioid abuse and the negative consequences of medication misuse. Several international health organisations recommend comprehensive and multidisciplinary patient assessment for the duration of the opioid treatment in order to identify and prevent medication abuse. Due to the lack of specific clinical guidelines in the Spanish National Health System, the aim of this paper is to present a proposal for psychological assessment based on the main psychological tools currently available for assessing opioid abuse. The assessment guidelines have been established based on the psychological variables that can predict and prolong the abuse, classifying all of the variables depending on the current stage of the therapeutic process for each patient. Although there are instruments with good psychometric properties, further research is necessary to adapt, translate and validate these instruments for use in the Spanish population. Future studies are also needed to investigate intervention and prevention strategies in depth in order to reduce the likelihood of abuse in patients treated with opioids.

Key words: Psychological assessment, Prescription drug abuse, Opioids, Chronic pain, Risk factors, Clinical guidelines.

The inappropriate use of psychotropic drugs is a public health problem worldwide. In 2012, the National Survey on Drug Use and Health (SAMHSA, 2013b) reported that 2.6% of the general population had consumed psychoactive drugs without a prescription in the last month. This figure rose to 5.3% for people between 18 and 25 years of age. Regarding the situation in Spain, the Spanish Observatory of Drugs and Drug Addiction (OEDT, 2011) has detected an increase in the use of hypnotic drugs during the last 30 days in the general population rising from 3.7% in 2005, to 5.2% in 2009; also, around 2% of the surveyed population had consumed hypnotic drugs without a prescription during the past year.

Special attention should be paid to analgesic opioids, given their highly addictive power (Manchikanti et al., 2012) and the considerable increase in their prescription over the last two decades, both in Spain (García del Pozo, Carvajal, Viloria, Velasco & García del Pozo, 2008) and in the rest of the world (Dhalla et al., 2009; Edlund et al., 2010; Gomes et al., 2011; Leong, Murnion, & Haber, 2009), largely due to the fact that their prescription has established itself as the treatment of choice for patients with medium-high levels of chronic pain (Liebschütz, Beers & Lange, 2014). Associated with this increase in prescriptions of opioid drugs, there has been an increase in the rates of abuse (Atfuri, Sudarshan, & Manchikanti, 2014; Turk, Swanson, & Gotchel, 2008); although there are few data on its prevalence, some studies indicate abuse rates between 20 and 24% of people receiving this treatment (Sullivan et al., 2010).

All of this is associated with an increase in the number of negative consequences associated with the inappropriate use of opioid drugs. In the United States, the rate of overdose deaths from opioid analgesics has tripled since 1999, to the point that, since 2003, there have been more deaths from overdoses related to these drugs than heroin and cocaine together (Centers for Disease Control and Prevention, 2011, 2013). Every year more than one million people visit the emergency department for problems related to drug misuse, defined as taking more than the prescribed dose, consuming drugs prescribed for someone else, voluntary poisoning or documented drug abuse. Of these emergency room visits, almost 40% are related to opioid analgesics, a percentage that represents almost half a million people each year (SAMHSA, 2013a).

In addition, the rate of admission to treatment for the abuse of opioid drugs has also skyrocketed, increasing every year since 2001 and reaching a 300% increase since then (SAMHSA, 2013c).

This situation highlights the need for strategies to identify the abuse of opioid drugs in patients who receive them. The main health institutions...
in the field of addiction and pain, the American Pain Society (APS), the American Academy of Pain Medicine (AAPM), the Grading of Recommendations Assessment (GRADE), the National Institute on Drug Abuse (NIDA) and the National Institute of Mental Health (NIMH) as well as the World Health Organization (WHO) emphasise the importance of a comprehensive and multidisciplinary patient assessment for the duration of the therapeutic process with opioids (Chou, 2009).

The development and use of valid and reliable assessment tools is not only useful for identifying cases of abuse but also for planning preventive strategies and specific treatments for addiction to opioids (Chang & Compton, 2013). In the absence of specific guidelines for the Spanish population, the present study aims to present a proposal for psychological assessment addressing the main strategies and psychological tools currently available to assess the abuse of opioid drugs, as well as the psychological variables that predict and maintain it. To this end, a narrative review was conducted of the clinical guidelines for instruments of detection and assessment of the Opioid Risk project (funded by the National Institute on Drug Abuse) and the clinical guidelines of the American Pain Society (APS) and the American Academy of Pain Medicine (AAPM) for the use of opioid therapy in patients with chronic non-cancer pain. From these guidelines, the instruments with the best psychometric properties in terms of reliability and validity were selected, as well as the most used ones according to the guidelines themselves, after reviewing the original articles of each of these assessment tools.

THE PSYCHOLOGICAL ASSESSMENT OF ADDICTION TO OPIOID DRUGS

The psychological assessment of opioid addiction and the factors that may be involved in it is useful for health care settings (e.g., pain units of hospitals) where patients with chronic pain problems are treated by medical specialists in order to improve their adaptation to their daily activities and to improve their quality of life (Chang & Compton, 2013). These assessment procedures have several purposes within these health care settings: (1) on the one hand, they are aimed at identifying those patients who may be abusing and/or dependent on these drugs, (2) on the other hand, the intention is to examine the medical, psychological and social factors that can predict the risk that a person may develop an addictive process, (3) in line with the previous purpose, in cases where the probability of developing an addiction is high, this assessment would enable alternative pain management interventions to be sought, (4) to develop specific preventive strategies to reduce the likelihood of abuse and/or dependence appearing, (5) to plan guidelines for opioid drug use (e.g., drug dosage and route of administration) according to the patient’s risk of developing an addiction, and (6) finally, the aim is to plan interventions in cases where addiction appears, based on the characteristics and circumstances of each patient.

General considerations of the assessment

This type of clinical assessment has certain peculiarities, common to the assessment of addictive behaviours, which should be evaluated at the time of carrying out the assessment, such as: (1) that the patient is under the influence of the drug when being assessed, which will impact the validity of the results, (2) low motivation to change and to recognise or identify that they may be using the drugs inappropriately; it could be contradictory for the patient to consider that something that is “alleviating” them and has been prescribed by a specialist can create an addiction, and (3) finally, as mentioned above, the recommendations of healthcare organisations emphasise the need for the assessment to be multidisciplinary since there are many factors involved in the risk of abuse and the consequences that these may entail can affect many areas of the patient’s life.

CLASSIFICATION OF THE ASSESSMENT INSTRUMENTS

The international assessment guidelines emphasise the importance of the assessment being made throughout the whole of the therapeutic process and the importance is stressed of differentiating between two moments of assessment, with specific methods and procedures (see Table 1): the Initial Assessment (before starting to use the drug) and the Control Assessment (after starting to use it).

Initial Assessment

When considering starting treatment with opioid drugs, the risk of abuse or their problematic use should be evaluated carefully, in order to be able to identify the probability that the patient has of developing these issues (Passik, 2009). This is why conducting an initial assessment is essential, since the definition of alternative treatments for pain, in the case of likelihood of abuse, is essential and necessary for an appropriate intervention and for preventing the abuse of opioids (Chou et al., 2009). Thus, this assessment would facilitate the establishing of a prescription drug appropriate to the patient’s condition, limiting, for example, the dose and the maximum duration of the prescription, as well as selecting the most appropriate drug for each case (Thorson et al., 2014).

To carry out the initial assessment, it would be appropriate to assess the following aspects:

Assessment of socio-demographic characteristics and general state of health

Different studies show differences in the consumption of psychoactive drugs according to socio-demographic variables such as sex, age, type of family life or employment status. These studies suggest a higher prevalence of abuse of psychotropic drugs in women and at older ages, as well as in people with a low educational level who are unemployed and living alone (Secades Villa et al., 2003).

The sociodemographic variables can be assessed by administering questionnaires and/or clinical interviews to collect data on age, sex, marital status, employment status, educational and economic level. In relation to the assessment of the general state of health, given the multidisciplinary nature of this assessment, the psychologist must have information of the state of health assessment contained in the patient’s clinical record.

Assessment of consumption of psychoactive substances and opioid drugs prior to treatment

The history of personal and family substance abuse appears to be significantly related to the risk of abuse of opiates in pain patients (Chou et al., 2009; Matteliano, St Marie, Oliver, & Coggins, 2012; Sehgal,
Manchikanti, & Smith, 2012). Therefore it is important, before initiating treatment with opioid drugs, to evaluate specifically, the possible existence of substance abuse and to intervene, if abuse is detected, at the same time as treating the pain with opioids (Passik, Kirsh, & Casper, 2008). The following are some of the most used instruments for the evaluation of psychoactive substance consumption, due to their simplicity and good psychometric properties:

On the one hand, screening instruments such as the Alcohol Use Disorders Identification Test (AUDIT; Saunders, Asland, Babor, de la Fuente, & Grant, 1993) in its Spanish version (Rubio et al., 1998) and the Drug Abuse Screening Test (DAST-10; Bohn, Babor & Kranzler, 1991) for illegal drugs, which also has a Spanish version (Gálvez et al., 2010).

The Screening Instrument for Substance Abuse Potential (SISAP; Coambs, Larry, Santhiapillai, Abrahamsohn et al, 1996) could also be used. This is an interview composed of 5 items, through which both the history of substance abuse and the risk of dependence or abuse of opioid drugs are assessed. This interview is recommended by the guidelines for the assessment of abuse of opioid drugs, and shows good sensitivity and specificity, 0.91 and 0.78 respectively (Coambs et al. 1996).

All of these self-reports could be accompanied by assessments by family members or individuals living with the patient, as well as biochemical tests for detecting use (e.g., markers in urine samples) in the event that the presence of consumption of one or several psychoactive substances is suspected, given the high risk of developing abuse behaviours of opioid drugs in polydrug-using patients.

Evaluation of other psychosocial variables related to the risk of abuse

A personal and family history of abuse of alcohol and other drugs, along with a personal history of physical and sexual abuse and the presence of psychiatric disorders are the main risk factors identified for the abuse of psychotropic drugs (Chou, et al., 2009; Matteliano, et al, 2012; Sehgal et al, 2012). SAMHSA (2012) determined the risk in terms of these variables, classified as low (e.g., no history of substance abuse); medium (e.g., having a personal and family history of substance abuse) and high (e.g., presenting current substance abuse and a history of previous abuse of opioid drugs).

The questionnaire Opioid Risk Tool (ORT; Webster & Webster, 2005), developed specifically for pain patients, enables us to assess the risk of abuse of psychotropic drugs. It is a self-report composed of 5 items in which the following dimensions are included: personal and family history in relation to substance abuse, age, episodes of sexual abuse in preadolescence and presence of psychological disorders. The higher the score, the greater the risk, which can be classified as follows: 0-3 points (low risk), 4-7 points (moderate risk) and more than 8 points (high risk). This instrument provides excellent discrimination between patients with high and low risk, and between men and women in the analyses showing a capacity of 90.9% for predicting abuse of opioid drugs in high risk patients and 94.4% for predicting no abuse in patients with low risk (Webster & Webster, 2005).

On the other hand, the Screener and Opioid Assessment for Patients With Pain - Revised (SOAPP-R; Butler et al, 2007), is a self-report developed specifically to predict the abuse of psychotropic drugs in pain patients (Butler, Fernandez, Benoit, Budman, & Jamison, 2008). It consists of 24 items with a Likert scale, which ranges from O (never) to 4 (very often). The dimensions evaluated are as follows: history of consumption of alcohol or other substances, psychological state and stress. The higher the score, the greater the risk of abuse of psychotropic drugs. The SOAPP-R is the only questionnaire of this type that has undergone cross-validation. The test-retest reliability analysis shows an

| TABLE 1 |
| PROPOSED MULTIDIMENSIONAL ASSESSMENT OF OPIOID DRUG ABUSE |

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Instrument</th>
<th>Evaluación</th>
<th>Evaluación</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abuse of other psychoactive substances</td>
<td>Alcohol Use Disorders Identification Test (AUDIT); (Rubio, Bermejo, Caballero, &amp; Santos-Domingo, 1998)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Drug Abuse Screening Test (DAST-10) (Gálvez, Fernández, Manzanaro, Valenzuela, &amp; Lafuente, 2010)</td>
<td></td>
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<tr>
<td>Screening Instrument for Substance Abuse Potential (SISAP); (Coambs et al., 1996)</td>
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<td></td>
</tr>
<tr>
<td>Other risk factors for abuse of opioid drugs</td>
<td>Opioid Risk Tool (ORT) (Webster &amp; Webster, 2005)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Perceived pain</td>
<td>Brief Pain Questionnaire (BPI) (Llach et al., 2003)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Psychological state</td>
<td>Hospital Anxiety and Depression Scale (HADS) (Quintana et al., 2003)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Compliance with the prescriptions of the opioid treatment</td>
<td>Pain Assessment and Documentation Tool (PADT) (Passik et al., 2004)</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Use and abuse of opioid drugs</td>
<td>Prescription Opioid Misuse Index (POMI) (Kniesly et al., 2008)</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

* This is a version that has been adapted and translated for the Spanish population.
* There is not a version that has been adapted and translated for the Spanish population.
* ORT: There is a Spanish translation. Further information can be requested from the authors of this manuscript on the adaptation and translation of the instrument, as authorisation has been obtained from the authors of the instrument. See: http://www.lynnwebstermd.com/risk-tool-download/
* POMI! There is a Spanish translation. Further information can be requested from the authors of this manuscript on the adaptation and translation of this instrument, as authorisation has been obtained from the authors of this instrument.
patients require periodic inspection and monitoring to determine and ensure compliance with the guidelines set by the specialist doctor, so as to ensure the effectiveness of the treatment, and identify and reduce the potential risk of abuse (Morgan et al., 2013; Sehgal et al., 2012).

In this sense, the Control Assessment involves the continuous monitoring of the response to treatment with opioids and the current use of the drug. Within this assessment, the following aspects should be taken into account:

Assessment of response to treatment with opioids

It is recommended that, on one hand, the presence of side effects and symptoms of tolerance to the drug should be recorded, and on the other hand, the current use of the drug (e.g., the number and frequency of doses) and the degree of perceived pain as well as the functional capacity of patients (Chou, 2009; Passik et al., 2004). In this line, other factors that may be interfering with treatment response would also be evaluated (Morasco, Duckart, & Dobscha, 2011; Sehgal et al., 2012; Sullivan et al., 2010), such as the consumption of drugs without medical supervision or the parallel use of alternatives for pain reduction (e.g., the use of medicinal plants and physiotherapy). Some of the tools that are used include:

The Pain Assessment and Documentation Tool (PADT; Passik et al., 2004). This is a structured clinical interview (or set of notes), lasting about 10 minutes, consisting of 41 items to be completed by the psychologist with the help of specialist doctors, which assesses the progress of the patient during long-term treatment with opioids, based on four dimensions: 1) analgesia or perceived pain, 2) the patient’s functional capacity (e.g., mood or social and family relationships), 3) side effects of the treatment (e.g., nausea, vomiting or constipation) and 4) presence of risk behaviours of abuse (e.g., excessive sedation, reports of lost or stolen prescriptions). Also, at the end of the questionnaire, there is a section aimed at performing a clinical assessment of the treatment benefit for the patient. The reliability analysis indicates good internal consistency of 0.86 and good intrarater reliability (Passik et al., 2004b).

Assessment of the use of the opioid drug

Different assessment strategies are proposed, such as using self-reports, which are a significant source of information for behavioural assessment of patients, collecting information on the proper use of the drug (e.g., dose, route, frequency of administration and circumstances surrounding its use). In addition, it may be useful for the clinician and the patient to identify higher risk situations, where it is more likely that the subject will consume skipping the established patterns (e.g., the time of day or where it is taken).

In this regard, and in order to corroborate the information recorded by the patient, other methods of evaluation can be used, such as:

On the one hand, conducting interviews with family members or caregivers providing information regarding the patient’s functional capacity and help in identifying problematic behaviours related to drug use (e.g., asking for help to obtain or borrow more medication). And, on the other, the use of biochemical markers (e.g., in urine), which are recommended and are especially important for high-risk patients and those who are suspected of drug misuse (Chou, 2009).
Assessment of abuse and/or dependence on opioid drugs

In recent decades, self-reports have been developed to specifically assess the abuse of opioid drugs, among which are the following:

The Prescription Opioid Misuse Index (POMI; Knisely, Wunsch, Cropsey, & Campbell, 2008b) is a clinical interview composed of 6 items of dichotomous response (Yes / No), which records aspects such as the characteristics of drug use (dose, frequency of consumption), the need to shorten the time between doses, or the feeling of euphoria and/or pleasure after taking the drug. The POMI is a sensitive and specific instrument for identifying patients who misuse opioid drugs (score > 1). The reliability analysis indicates good internal consistency, with an alpha equal to 0.85, and presenting sensitivity and specificity of 82% and 92.3%, respectively (Knisely et al., 2008). (Further information may be requested from the authors of this paper regarding the adaptation and translation of this instrument, as authorisation has been obtained from the authors).

In the same vein, the Current Opioid Misuse Measure (COMM; Butler et al, 2007) is a Likert-type scale consisting of 17 items, specifically aimed at the population experiencing chronic pain, whereby the problematic use of the drug is evaluated, taking into consideration the following dimensions: 1) signs or symptoms of problematic use of the psychotropic drug, 2) emotional/psychiatric problems, 3) failure to follow medical guidelines, 4) use of opioid drugs and 5) problematic use of the psychotropic drug. Obtaining a score equal to or greater than nine ( ≥ 9) identifies patients that are at a high risk of presenting a pattern of problematic use or abuse of opioids, presenting sensitivity and specificity of 77% and 66%, respectively (Butler et al., 2007; Chou et al., 2009). The analysis indicates a very good internal consistency (alpha = 0.86) and high test-retest reliability with ICC = 0.86 (CI 95%: 0.77 to 0.92).

CONCLUSIONS

The aim of this paper was to present an assessment proposal covering the psychological strategies and tools currently available to assess the abuse of opioid drugs, as well as the psychological variables that can predict and maintain it. Following the recommendations of the international guidelines, the assessment instruments have been classified and described according to the moment where the patient currently is in the therapeutic process, thus establishing an Initial and Control Assessment.

This article has presented a set of tools that may be useful for health professionals, especially psychologists working in health care settings with non-cancer population suffering from chronic pain. It seeks to go a step further in improving interventions with opioid drugs, and although there is still a lack of studies regarding their efficacy in the long term, they show very good results in patients’ short and medium term adaptation to daily activities (Chang & Compton, 2013). Therefore, given the addictive power of these drugs, it is necessary to prevent their inappropriate use, in cases where it is considered that they will be effective. It is necessary to assess patients in a multidimensional and multidisciplinary way before starting to use these drugs and during interventions with them (Manchikanti et al., 2012).

In this sense, faced with the increased prevalence of opioid drug abuse worldwide and the resulting health consequences, both SAMHSA (2013b) and NIDA (2012) state that is necessary to carry out studies on the efficacy of multicomponent psychological interventions to help to reduce the likelihood of addiction to opioid drugs, and this is certainly not possible without comprehensive and personalised assessments for each patient.

Although, throughout this article, specific instruments to measure addiction to opioid drugs have been presented which also have good psychometric properties in the Spanish population, there is little evidence of assessment instruments for this problem. Further research is needed both in the area of the adaptation, translation and validation of this set of tools to the Spanish population, as well as research that addresses and analyses the efficacy and efficiency of intervention strategies to reduce the likelihood of abuse among patients with chronic pain that receive pharmacological treatment with opioids.

To conclude, we make some final reflections considering this proposed psychological assessment of the abuse of opioid drugs: (1) we stress the need for the assessment to be multidisciplinary, with the participation of all health professionals involved in the treatment of non-cancer pain; (2) the evaluation procedures used in both the Initial and Control Assessment would be the collection of self-reports, biochemical samples and the application of self-reports (pencil and paper interviews and instruments); (3) it could be carried out in two assessment sessions lasting 30 to 40 minutes; in any case, it is important to track usage following the prescriptions of the opioid drug; (4) finally, it should be noted that this type of assessment generally has a low cost and is less intrusive, given the nature of the procedures applied, and at the same time, it can be a great benefit to patients’ health, as it may prevent the development of abuse and dependence on opioid drugs by identifying risk factors and problematic consumption.

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