PSYCHOLOGICAL ASSESSMENT OF
OPIOID DRUG ABUSE

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El incremento de la preinscripción de fármacos analgésicos opioides se ha asociado a un aumento de las tasas de abuso y las consecuencias negativas asociadas a su uso inadecuado. Diversos organismos sanitarios internacionales recomiendan la realización de una evaluación global y multidisciplinar del paciente durante todo el proceso terapéutico con opiáceos, con el fin de identificar un posible abuso. Ante la ausencia de guías específicas en el ámbito sanitario español, el objetivo de este artículo ha sido presentar una propuesta de evaluación psicológica, en base a los principales instrumentos de evaluación, disponibles actualmente para evaluar el abuso de opioides. Se establecen pautas para el proceso de evaluación en función de las variables psicológicas que puedan predecir y mantener dicho abuso, clasificando todo ello en función del momento del proceso terapéutico en el que los pacientes se encuentren. Aunque existen instrumentos con buenas propiedades psicométricas, son necesarias futuras investigaciones para la adaptación, traducción y validación de éstos a población española. Al mismo tiempo son necesarios futuros estudios que profundicen en estrategias de prevención e intervención para reducir la probabilidad de abuso en pacientes tratados con fármacos opioides.
Palabras clave: *Evaluación psicológica, Abuso de fármacos, Opioides, Dolor crónico, Factores de riesgo, Guías clínicas.*

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.*

T he 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 (Garcia del Pozo, Carvajal, Viloria, Velasco & Garcia 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 (Atluri, Sudarshan, & Manchikanti, 2014; Turk, Swanson, & Gatchel, 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

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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 guides, 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,

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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, Aasland, 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

Dimension	Instrument	Evaluación Entrada	Evaluación Control
Abuse of other psychoactive substances	Alcohol Use Disorders Identification Test (AUDIT) (Rubio, Bermejo, Caballero, & Santo-Domingo, 1998)[a]	X	
	Drug Abuse Screening Test (DAST-10)(Gálvez, Fernández, Manzanaro, Valenzuela, & Lafuente, 2010)[a]	X	
	Screening Instrument for Substance Abuse Potential (SISAP) (Coambs et al., 1996)[b]	X	
Other risk factors for abuse of opioid drugs	Opioid Risk Tool (ORT)(Webster & Webster, 2005)[c]	X	
	Screener and Opioids Assessment for Patients with Pain – Revised (SOAPP-R)(Butler et al., 2008)[b]	X	
Perceived pain	Brief Pain Questionnaire (BPQ)(Llach et al., 2003)[a]	X	X
	Visual Analogue Scale (VAS)[a]	X	X
Psychological state	Hospital Anxiety and Depression Scale (HADS) (Quintana et al., 2003)[a]	X	X
	Symptom Checklist-90-Revised (SCL-90-R) (Vallejo, Jordán, Díaz, Comeche, & Ortega, 2007)[a]	X	X
Compliance with the prescriptions of the opioid treatment	Pain Assessment and Documentation Tool (PADT)(Passik et al., 2004)[b]		X
Use and abuse of opioid drugs	Prescription Opioid Misuse Index (POMI)(Knisely et al., 2008)[d]		X
	Current Opioid Misuse Measure (COMM)(Butler et al., 2007)[b]		X

[a] This is a version that has been adapted and translated for the Spanish population.
[b] There is not a version that has been adapted and translated for the Spanish population.
[c] 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/
[d] 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 the instrument.

intra-class index of ICC = 0.94 (CI 95%: 0.90 - 0.97) with an alpha of 0.86, indicating a very good reliability. In addition, it has a sensitivity and specificity of 79% and 52%, respectively (Butler, Budman, Fernandez, Fanciullo, & Jamison, 2009).

Pain assessment and impact on daily activities

Adequate pain assessment enables us to evaluate both the effectiveness of treatment and possible adverse effects thereof (Ibáñez, Morales, Calleja, Moreno & Gálvez, 2001). Thus, if a patient requests a dose increase, through this evaluation it is possible to determine whether the pain has increased, there is tolerance or other effects are being sought, such as sedation or anxiety reduction (Center for Substance Abuse Treatment, 2012). The most commonly used instruments for this evaluation are:

The Spanish version (Llach et al., 2003) of the *Brief Pain Questionnaire* (BPQ; Cleeland & Ryan, 1994), which is a self-administered questionnaire that includes two dimensions: the intensity of the pain and its impact on the patient's daily activities through 9 items using Likert scales and dichotomous answers (yes / no). The reliability analysis shows a Cronbach's alpha greater than 0.70 for each of the dimensions (Badia et al., 2003).

The *Visual Analogue Scale* (VAS), graded numerically, is a unidimensional scale that measures the severity of the pain, representing the subjective feeling of the patient in numbers. It is a 100mm horizontal line ranging from "no pain" to "the worst pain imaginable" in which the patient must indicate the intensity of their pain. This tool allows us to compare pain scores at different times. It is a simple instrument to use, which has shown good properties of test-retest reliability of r = 0.947 and intra-class index ICC = 0.97 (Grupo Valoración, 2009).

Assessment of psychological state

Psychopathological comorbidity is one of the main risk factors in the development of abuse of opioid drugs (Chou, 2009) and therefore it requires a specific assessment. Given the hospital setting, where these patients generally receive care, the validated Spanish version (Quintana et al., 2003) of the *Hospital Anxiety and Depression Scale* (HADS; Zigmond & Snaith, 1983), could be used to assess symptoms of anxiety and depression. It has two subscales, each consisting of 7 items that are valued from 0 to 3 and a score of higher than 10 is considered indicative of morbidity. The scale has high internal consistency, with a Cronbach's alpha of 0.86 and 0.86, for the scales of anxiety and depression respectively; and high test-retest reliability, with a correlation coefficient above 0.85 (Quintana et al., 2003).

Other instruments which can be used, in addition to the clinical history of psychological and psychiatric treatment, for a brief, general assessment of psychopathological symptoms include, for example, the *Symptom Checklist - Revised* (SCL-90-R; Derogatis, 1975) in its Spanish version (Vallejo, Jordán, Díaz, Comeche, & Ortega, 2007). This is a self-report questionnaire of 90 items with a Likert scale, which assesses psychological symptoms and distress.

Control Assessment

Once the treatment with opioids for pain management has started, 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 interrater 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).

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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 the opioid drug 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.

REFERENCES

Atluri, S., Sudarshan, G., & Manchikanti, L. (2014). Assessment of the trends in medical use and misuse of opioid analgesics from 2004 to 2011. *Pain physician*, 17(2), E119-128.

Badia, X., Muriel, C., Gracia, A., NunezOlarte, J. M., Perulero, N., Galvez, R., Carulla, J., et al. (2003). [Validation of the Spanish version of the Brief Pain Inventory in patients with oncological pain]. *Medicina Clínica*, 120(2), 52-59.

Barry, D. T., Irwin, K. S., Jones, E. S., Becker, W. C., Tetrault, J. M., Sullivan, L. E., Hansen, H., et al. (2010). Opioids, Chronic Pain, and Addiction in Primary Care. *The Journal of Pain: Official Journal of the American Pain Society*, 11(12), 1442-1450.

Butler, S. F., Budman, S. H., Fernandez, K. C., Fanciullo, G. J., & Jamison, R. N. (2009). Cross-Validation of a Screener to Predict Opioid Misuse in Chronic Pain Patients (SOAPPR). *Journal of Addiction Medicine*, 3(2), 66-73.

Butler, S. F., Budman, S. H., Fernandez, K. C., Houle, B., Benoit, C., Katz, N., & Jamison, R. N. (2007). Development and Validation of

the Current Opioid Misuse Measure. *Pain*, 130(1-2), 144-156.

Butler, S. F., Fernandez, K., Benoit, C., Budman, S. H., & Jamison, R. N. (2008). Validation of the revised Screener and Opioid Assessment for Patients with Pain (SOAPPR). *The Journal of Pain: Official Journal of the American Pain Society*, 9(4), 360.

Centers for Disease Control and Prevention. (2011). Vital signs: overdoses of prescription opioid pain relievers - United States, 1999-2008. *MMWR. Morbidity and Mortality Weekly Report, 60*(43), 1487-1492.

Centers for Disease Control and Prevention. (2013). Vital signs: overdoses of prescription opioid pain relievers and other drugs among women United States, 1999-2010. *MMWR. Morbidity and Mortality Weekly Report, 62*(26), 537542.

Chang, Y.P., & Compton, P. (2013). Management of chronic pain with chronic opioid therapy in patients with substance use disorders. *Addiction Science & Clinical Practice, 8*(1), 21.

Chou, R. (2009). 2009 Clinical Guidelines from the American Pain Society and the American Academy of Pain Medicine on the use of chronic opioid therapy in chronic noncancer pain: what are the key messages for Clinical practice? *Polskie Archiwum Medycyny Wewn trznej, 119*(7-8), 469-477.

Chou, R., Fanciullo, G. J., Fine, P. G., Adler, J. A., Ballantyne, J. C., Davies, P., Donovan, M. I., et al. (2009). Clinical guidelines for the use of chronic opioid therapy in chronic noncancer pain. *The Journal of Pain: Official Journal of the American Pain Society, 10*(2), 113-130.

Chou, R., Fanciullo, G. J., Fine, P. G., Miaskowski, C., Passik, S. D., & Portenoy, R. K. (2009). Opioids for Chronic Noncancer Pain: Prediction and Identification of Aberrant Drug-Related Behaviors: A Review of the Evidence for an American Pain Society and American Academy of Pain Medicine Clinical Practice Guideline. *The Journal of Pain, 10*(2), 131-146.e5.

Cleeland, C. S., & Ryan, K. M. (1994). Pain assessment: global use of the Brief Pain Inventory. *Annals of the Academy of Medicine, Singapore, 23*(2), 129-138.

Dhalla, 1. A., Mamdani, M. M., Sivilotti, M. L. A., Kopp, A., Qureshi, O., & Juurlink, D. N. (2009). Prescribing of opioid analgesics and related mortality before and after the introduction of longacting oxycodone. *Canadian Medical Association Journal, 181*(12), 891-896.

Edlund, M. J., Martin, B. C., Fan, M.Y., Braden, J. B., Devries, A., & Sullivan, M. D. (2010). An analysis of heavy utilizers of opioids for chronic noncancer pain in the TROUP study. *Journal of Pain and Symptom Management, 40*(2), 279-289.

Gálvez, B. P., Fernández, L. G., Manzanaro, M. P. de V., Valenzuela, M. A. O., & Lafuente, M. L. (2010). Validación española del Drug Abuse Screening Test (DAST-20 y DAST-10) [Spanish validation of the Drug Abuse Screening Test (DAST-20 and DAST-10)]. *Health and Addictions/Salud y Drogas, 10*(1).

Garcia del Pozo, J., Carvajal, A., Viloria, J. M., Velasco, A., & Garcia del Pozo, V. (2008). Trends in the consumption of opioid analgesics in Spain. Higher increases as fentanyl replaces morphine. *European Journal of Clinical Pharmacology, 64*(4), 411-415.

Gomes, T., Juurlink, D. N., Dhalla, 1. A., MailisGagnon, A., Paterson, J. M., & Mamdani, M. M. (2011). Trends in opioid use and dosing among socioeconomically disadvantaged patients. *Open Medicine, 5*(1), e13-e22.

Grupo "Valoración". Consejería de Salud y Servicios Sanitarios. Principado de Asturias [Ministry of Health and Healthcare Services, Asturias] (2009). *Proceso de cuidados: Valoración enfermera [Care process: Nurse Rating].* Asturias: Asturgraf S. L.

Knisely, J. S., Wunsch, M. J., Cropsey, K. L., & Campbell, E. D. (2008). Prescription Opioid Misuse Index: A brief questionnaire to assess misuse. *Journal of Substance Abuse Treatment, 35*(4), 380-386.

Leong, M., Mumion, B., & Haber, P. S. (2009). Examination of opioid prescribing in Australia from 1992 to 2007. *Internal Medicine Journal, 39*(10), 676-681.

Liebschutz, J., Beers, D., & Lange, A. (2014). Managing Chronic Pain in Patients With Opioid Dependence. *Current Treatment Options in Psychiatry, 1*(2), 204-223.

Llach, X. B., Cleeland, C. S., Muriel, C., Gracia, A., Perulero, N., Carulla, J., Olarte, J. M. N., et al. (2003). Validación española del cuestionario Brief Pain Inventory en pacientes con dolor de causa neoplásica [Spanish Validation of the Brief Pain Inventory in pain patients with neoplastic cause]. *Medicina Clínica, 120*(2), 52-59.

Manchikanti, L., Abdi, S., Atluri, S., Balog, C. C., Benyamin, R. M., Boswell, M. V., Brown, K. R., et al. (2012). American Society of Interventional Pain Physicians (ASIPP) guidelines for responsible opioid prescribing in chronic noncancer pain: Part 2guidance. *Pain Physician, 15*(3 Suppl), S67-116.

Matteliano, D., St Marie, B. J., Oliver, J., & Coggins, C. (2012). Adherence Monitoring with Chronic Opioid Therapy for Persistent Pain: A Biopsychosocial Spiritual Approach to Mitigate Risk. *Pain Management Nursing*. Retrieved June 22, 2014, from http://www.sciencedirect.com/science/article/pii/S15249042120 01427

Morasco, B. J., Duckart, J. P., & Dobscha, S. K. (2011). Adherence to Clinical Guidelines for Opioid Therapy for Chronic Pain in Patients with Substance Use Disorder. *Journal of General Internal Medicine, 26*(9), 965-971.

Morgan, L., Weaver, M., Sayeed, Z., & Orr, R. (2013). The use of prescription monitoring programs to reduce opioid diversion and improve patient safety. *Journal of Pain & Palliative Care Pharmacotherapy, 27*(1), 49.

National Institute on Drug Abuse. (2012). *Los medicamentos de prescripción: Abuso y Adicción [Prescription medicines: Abuse and addiction].* Washington, DC: NIH.

OEDT. (2011). *Informe 2011: Situación y tendencias de los problemas de drogas en España [2011 Report: Status and trends of drug problems in Spain].* Madrid: Ministry of Health, Social Policy and Equality.

Passik, S. D. (2009). Issues in Long-term Opioid Therapy: Unmet Needs, Risks, and Solutions. *Mayo Clinic Proceedings, 84*(7), 593-601.

Passik, S. D., Kirsh, K. L, & Casper, D. (2008). Addiction Related Assessment Tools and Pain Management: Instrumenta for Screening, Treatment Planning, and Monitoring Compliance. Pain Medicine, 9, S145-S166.

Passik, S. D., Kirsh, K. L., Whitcomb, L., Portenoy, R. K., Katz, N. P.,

JOSÉ LUIS CARBALLO, AINHOA COLOMA-CARMONA, DANA MROZOWICZ-GAUDYN,
VERÓNICA VIDAL-ARENAS, CARLOS VAN-DER HOFSTADT AND
JESÚS RODRÍGUEZ-MARÍN

Special Section

Kleinman, L., Dodd, S. L., et al. (2004). A new tool to assess and document pain outcomes in chronic pain patients receiving opioid therapy. *Clinical Therapeutics, 26*(4), 552-561.

Quintana, J. M., Padiema, A., Esteban, C., Arostegui, I., Bilbao, A., & Ruiz, I. (2003). Evaluation of the psychometric characteristics of the Spanish version of the Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica, 107*(3), 216-221.

Rubio, G., Bermejo, J., Caballero, M. C., & SantoDomingo, J. (1998). AUDIT. *Revista Clínica Española, 198*(1), 11-14.

SAMHSA. (2013a). *Results from the 2012 National Survey on Drug Use and Health: Summar), of National Findings* (NSDUH Series H46, HHS Publication No. (SMA) 13-4789.). Rockville, MD: Substances Abuse and Mental Health Services Administration.

SAMHSA. (2013b). *Drug Abuse Warning Network, 2011: National Estimates of Drug — Related Emergency Department Visits* (HHS Publication No. (SMA) 134760, DAWN Series D39.). Rockville, MD: Substances Abuse and Mental Health Services Administration. Retrieved April 23, 2014, from http://jflahiff.wordpress.com/2013/07/19/drug-abuse-warning-network-2011-national-estimates-of-drug-related-emergency-department-visits/

SAMHSA. (2013c). *Treatment Episode Data Set (TEDS): 20012011. State Admissions to Substance Abuse Treatment Services.* (BHSIS Series S-68, HHS Publication No. (SMA) 14-4832.). Rockville, MD: Substances Abuse and Mental Health Services Administration.

Saunders, J. B., Aasland, O. G., Babor, T. F., de la Fuente, J. R., & Grant, M. (1993). Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption - II. *Addiction (Abingdon, England), 88*(6), 791-804.

Secades Villa, R., Rodríguez García, E., Valderrey Barbero, J., Fernández Hermida, J. R., Vallejo Seco, G., & Jiménez García, J. M. (2003). El consumo de psicofármacos en pacientes que acuden a Atención Primaria en el Principado de Asturias (España) [The consumption of psychotropic drugs in patients attending primary care in the Principality of Asturias (Spain)]. *Psicothema, 15* (4), 650655.

Sehgal, N., Manchikanti, L., & Smith, H. S. (2012). Prescription opioid abuse in chronic pain: a review of opioid abuse predictors and strategies to curb opioid abuse. *Pain Physician, 15*(3), ES67—ES92.

Substance Abuse and Mental Health Services Administration. (2012). *Managing Chronic Pain in Adults With or in Recovery From Substance Use Disorders.* SAMHSA/CSAT Treatment Improvement Protocols. Rockville (MD): Substance Abuse and Mental Health Services Administration (US).

Sullivan, M. D., Edlund, M. J., Fan, M.Y., DeVries, A., Braden, J. B., & Martin, B. C. (2010). Risks for Possible and Probable Opioid Misuse Among Recipients of Chronic Opioid Therapy in Commercial and Medic aid Insurance Plans: the TROUP Study. *Pain, 150*(2), 332-339.

Sullivan, M. D., & Howe, C. Q. (2013). Opioid therapy for chronic pain in the United States: Promises and perils. *Pain, 154*(0 1), S94-100.

Thorson, D., Biewen, P., Bonte, B., Epstein, H., Haake, B., Hansen, C., Hooten, M., et al. (2014). Acute Pain Assessment and Opioid Prescribing Protocol. Retrieved July 20, 2014, from https://www.icsi.org/_asset/dyp5wm/Opioids.pdf

Turk, D. C., Swanson, K. S., & Gatchel, R. J. (2008). Predicting opioid misuse by chronic pain patients: a systematic review and literature synthesis. *The Clinical Journal of Pain, 24*(6), 497-508.

Upshur, C. C., Luckmann, R. S., & Savageau, J. A. (2006). Primary Care Provider Concerns about Management of Chronic Pain in Community Clinic Populations. *Journal of General Internal Medicine, 21*(6), 652-655.

Vallejo, M. A., Jordán, C. M., Díaz, M. I., Comeche, M. I., & Ortega, J. (2007). Psychological assessment via the internet: a reliability and validity study of online (vs paper-and-pencil) versions of the General Health Questionnaire-28 (GHQ-28) and the Symptoms Check-List-90-Revised (SCL-90-R). *Journal of Medical Internet Research, 9*(1), e2.

Webster, L. R., & Webster, R. M. (2005). Predicting aberrant behaviors in opioid-treated patients: preliminary validation of the Opioid Risk Tool. *Pain medicine* (Malden, Mass.), 6(6), 432-442.

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica, 67*(6), 361-370.