

## Quality of life in studies with patients under treatment for substance abuse and addiction

### Qualidade de vida em pesquisas com usuários em tratamento para abuso e dependência de substâncias

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#### ABSTRACT

The purpose of this study was to find Quality of Life (QoL) instruments and their purpose in studies with patients under treatment for substance abuse and addiction. This is an integrative review, whose articles were available on the Virtual Health Library (VHL) and published between 2010 and 2015 with the associated descriptors "Substance-Related Disorders" and "Quality of Life". Twenty-nine texts were analyzed and the instruments were grouped into four possible uses of measurement of Quality of Life. The majority used generic instruments such as WHOQOL-Bref for general Quality of Life and the SF-36 of Health-Related Quality of Life (HRQoL). It is recommended that further studies be carried out on the use of Quality of Life instruments in relation to addiction, especially with specific instruments that are beginning to appear in some studies and which have not been consolidated in the field.

**Descriptors:** Quality of Life; Substance-Related Disorders; Questionnaires.

#### RESUMO

O estudo objetivou identificar instrumentos de Qualidade de Vida e sua finalidade em pesquisas com usuários em tratamento para abuso e dependência de substâncias. Trata-se de revisão integrativa, cujos artigos estavam disponíveis na Biblioteca Virtual de Saúde (BVS), e publicados entre 2010 e 2015 com os descritores Transtornos Relacionados ao Uso de Substâncias e Qualidade de Vida associados. Vinte e nove textos foram analisados e os instrumentos agrupados em quatro diferentes possibilidades de utilização de medidas de Qualidade de Vida. A maioria utilizou instrumentos genéricos, tais como WHOQOL-Bref de Qualidade de Vida geral, e SF-36 de Qualidade de Vida Relacionada à Saúde (QVRS). Recomenda-se a realização de mais estudos relacionados ao uso de instrumentos de Qualidade de Vida no âmbito da dependência, principalmente em relação aos instrumentos específicos que começam a surgir nas pesquisas e ainda não são consolidados na área.

**Descritores:** Qualidade de Vida; Transtornos Relacionados ao Uso de Substâncias; Questionários.

## INTRODUCTION

Consumption and addiction to alcohol and other drugs are a worldwide concern which result in several clinical and social complications<sup>(1)</sup>, and thus have become a challenge for public health. There are different levels of severity in individual consumption patterns. Substance Use Disorder (SUD), for instance, concerns abuse or addiction to a substance<sup>(2)</sup> related to increased risk of harmful consequences to the individual.

The National Institute on Drug Abuse (NIDA) of the United States concluded in 2009 that effective treatments for SUD should address the consequences and characteristics of abuse or addiction, as well as the quantity and frequency of drug use. In this way, according to this study, Quality of Life (QoL) may be considered as a primary outcome of treatment, which brings about three important considerations. First, a subjective assessment by the individual increases the possibility of assessing the patient's evolution, which is not well captured by reports that come from secondary sources, such as caregivers, relatives, friends and medical records. Second, the assessment of QoL refers to both the impact of abuse or addiction and its treatment, which enables to evaluate the effects of treatment that reduce QoL even when they reduce the use of drugs. And third, by the fact that potentially harmful consequences of substance abuse may be serious and affect various fields of human life, an assessment of quality of life that distinguishes these different fields will bring about relevant contributions<sup>(3)</sup>.

The introduction of the concept of QoL as an outcome measure appeared in the 1970s. The attempt to assess chronic diseases in a situation of progress of medicine revealed that the traditional methods based on laboratory exams and clinical evaluation were insufficient to assess the way people lived for more years when they underwent treatments that did not heal but allowed for controlling symptoms or a delay in its natural course<sup>(4-5)</sup>.

Substance use disorder is a chronic condition for most affected individuals. In this case, the improvement of QoL becomes a rather important objective. From that

perspective, treatment for substance abuse or addiction must be a broad objective for recovery, defined as abstinence plus quality of life<sup>(6)</sup>. Therefore, the importance of QoL rates in services and studies is clear, with the purpose of improving treatment outcomes.

Despite the acknowledgment of the importance of assessing QoL, the lack of consensus on its concept has led to the formulation of different definitions and to the development of different instruments<sup>(4)</sup>. The World Health Organization (WHO) defined QoL as the "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns"<sup>(7:3)</sup>. This definition is based on the broad overview of health as a state of complete physical, mental and social well-being, not only the absence of illness.

The theoretical models of QoL may be grouped in the satisfaction model and the functionalist model. Whereas the theoretical model of satisfaction is more associated with general QoL by assessing broad objectives of individual satisfaction with life, the functionalist model considers mainly the individual's functional and health statuses. Instruments based on the functionalist model were grouped according to the term Health-Related Quality of Life (HRQoL)<sup>(4)</sup>.

General or overall QoL is related to patients' satisfaction with life as a whole and not only to limitations resulting from a disease. The most used instruments are the WHOQOL-100 and its abbreviated version, WHOQOL-Bref<sup>(6)</sup>. HRQoL is related to the individuals' perception of the effects of an illness on the physical, mental and social aspects of well-being. The most used instruments are the Medical Outcome Study SF-36 and its abbreviated version, SF-12<sup>(6)</sup>. There are also HRQoL instruments intended to a specific disease, which search for more sensitivity in the assessment of clinical changes<sup>(8)</sup>.

As regards addiction, the QoL construct has been used for different objectives, such as describing and comparing subpopulations of drug users; understanding how QoL is associated with other variables related to

abuse or addiction; using QoL as a variable of therapeutic outcome; and finally, analyzing the metric properties used to measure this construct in drug users<sup>(9)</sup>.

Despite the potential of using a QoL assessment in health, it is still recent and little explored in the monitoring of treatments and in studies with alcohol and drug abusers and addicts, when compared to other fields<sup>(6,10-12)</sup>.

The literature shows certain gaps in the investigation on the use of QoL instruments for monitoring treatments and for studies with the population of abusers and addicts, which justifies this study. This review enables to synthesize knowledge produced on the topic and to support professionals and researchers who work in this field, contributing to a redirection of actions in health and to the development of future studies.

Thus, the purpose of this study was to find instruments for measuring QoL and their purpose in studies with patients under treatment for substance abuse and addiction.

## METHOD

This is an integrative review carried out following the steps recommended by the literature<sup>(13)</sup>. The first is related to the identification of the topic and the guiding question, the second is the establishment of inclusion and exclusion criteria in studies and how the search in the literature is performed to obtain the sample. The third refers to the definition of information that will be extracted from the selected studies. The fourth step is an assessment that is similar to the data analysis of studies included in the review. The fifth consists of the interpretation and discussion of results found in studies and the sixth step presents the knowledge synthesis.

The guiding question defined for our study was: what are the QoL instruments used in studies with patients under SUD treatment and what is the aim of their use in these studies?

The search for scientific output was carried out in the Virtual Health Library (VHL), by selecting the following

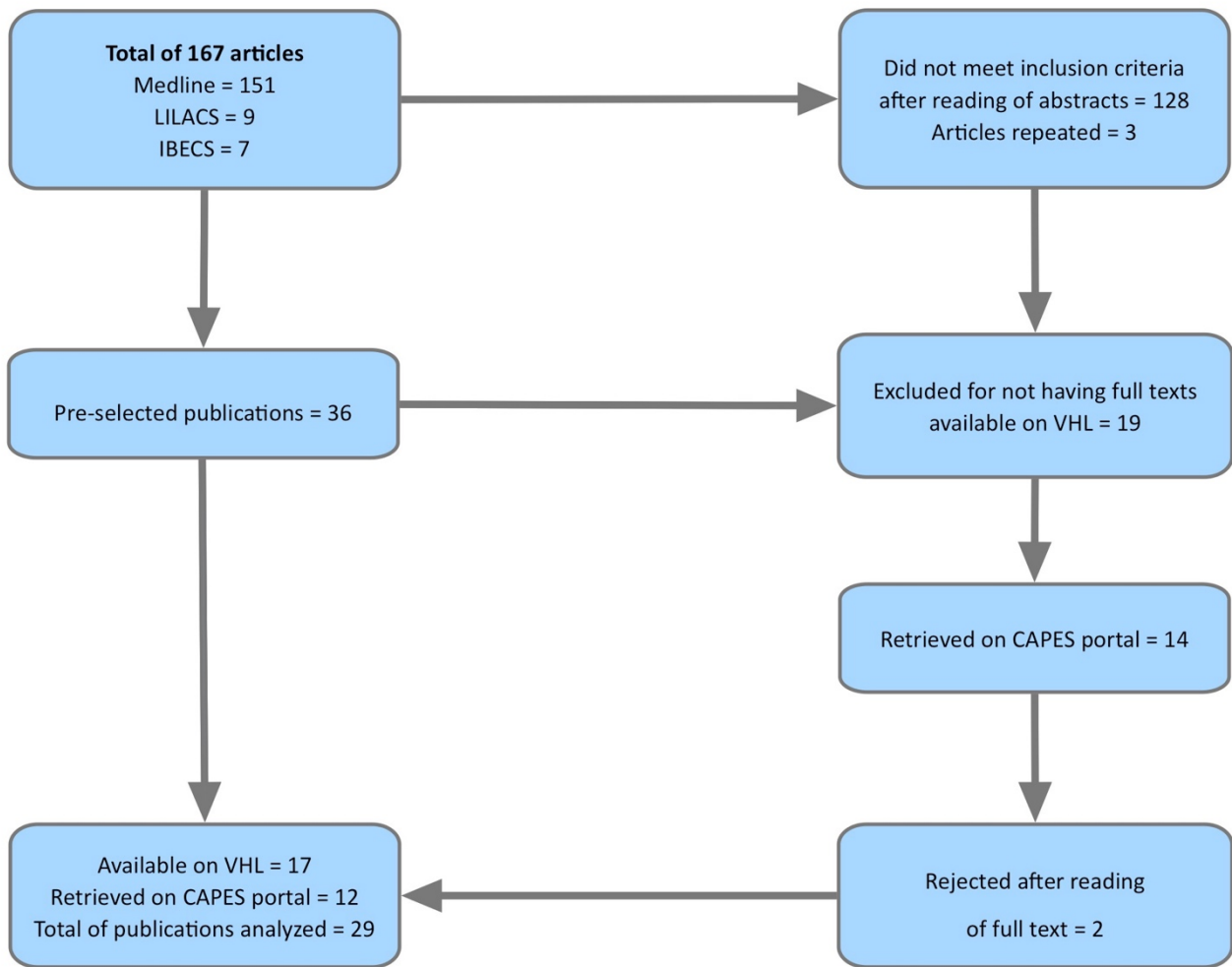
databases: the Spanish Bibliographic Index of the Health Sciences (IBECS), the Latin-American Literature in Health Sciences (LILACS) and the Medical Literature Analysis and Retrieval System Online (MEDLINE). To conduct the study, an advanced search was performed on the VHL portal by means of the Boolean operator "AND", which found documents with the descriptors "Quality of life" and "Substance-Related Disorders" appearing simultaneously.

The inclusion criteria for selecting the research material considered: articles from studies which used instruments of QoL in treatments for alcohol and drug abuse and addiction of people aged over 18, published between January 2010 and July 2015, in English, Portuguese and Spanish. The exclusion criterion was the unavailability of full texts on the VHL platform, if these could not be retrieved on the CAPES portal. Figure 1 shows the flowchart of the selection process of the scientific output of the review.

For data collection, completed in August 2015, the following items were investigated: level of evidence, population and place of treatment, QoL instruments used and purposes of the QoL instrument for this study. These items were created with the aim of leading to the study question.

The integrative review of the literature is one of the possibilities of evidence-based practice, which is an approach that enables decision making by healthcare professionals for solving problems related to clinical practice. The classification of evidence found in publications becomes necessary for this decision to be made carefully. Considering the amount of scientific output on evidence-based practice in health care, we chose to adopt for this review a classification of evidence levels already used by Brazilian authors, especially nurses<sup>(13-14)</sup>, proposed by Stetler et al.<sup>(15)</sup>. Supported by this approach, the classification of evidence levels of the analyzed articles was performed by the researchers, as shown in the chart below.

**Figure 1:** Flowchart of the selection process of the scientific output analyzed.



**Chart 1:** Classification of evidence levels as to the nature of studies

|           |  |
|-----------|--|
| Level I   | Meta-analysis of multiple controlled studies   |
| Level II  | Individual experimental studies (randomized clinical trial).   |
| Level III | Quasi-experimental studies - Non-randomized clinical studies, single pre- and post-test group, time series and case-control studies. |
| Level IV  | Non-experimental studies - descriptive, correlated and comparative studies, qualitative studies and case studies.                    |
| Level IV  | Data from assessment of programs obtained systematically.  |
| Level VI  | Specialists' opinion, experience reports, consensus, regulations and legislation.  |

Source: Stetler et al. (1998).

**RESULTS**

Twenty-nine articles met the inclusion and exclusion criteria and were selected for analysis. The results were summarized in Chart 2, which shows the details regarding the title, author, country, year, journal, level of evidence of the study, population under treatment, instrument of QoL used and its purpose in that study. Although these

studies used other related instruments, the present study took into consideration only QoL instruments.

Chart 2: Synthesis of articles included in the integrative review

| Title / Author / Country / Year  | Journal and level of evidence of the article         | Population under treatment (Samples)   | QoL instrument and its purpose in the study  |
|--|--|--|--|
| La calidad de vida en pacientes con trastorno por dependencia al alcohol con trastornos de la personalidad: relación com el ajuste psicológico y craving. Martínez González JM, et al., Spain, 2010 <sup>(16)</sup>  | Psicothema (Oviedo)<br>III                           | 65 alcohol addicted patients under treatment at the provincial center of drug addicts, Granada, Spain.   | Q-LES-Q<br>To relate QoL with dual diagnosis, psychological adjustment and craving   |
| Predictors of motivation for abstinence at the end of outpatient substance abuse treatment. Laudet AB, Stanick V., E.U.A, 2010 <sup>(17)</sup>   | Journal Substance Treatment<br>IV                    | 250 users of multiple substances of two outpatient treatment programs carried out with public funding, New York, USA   | WHOQOL-100 – item of general satisfaction with life<br>To relate QoL with commitment of abstinence by the end of treatment     |
| Quality of life among treatment seeking methamphetamine-dependent individuals. Gonzales R et al., USA, 2011 <sup>(18)</sup>  | The American Journal on Addictions<br>IV             | 838 methamphetamine-dependent individuals of a project carried out between 1999 and 2001, from eight outpatient treatment programs, California, Montana and Hawaii, USA.   | SF-36<br>To relate QoL with sociodemographic and psychosocial data, severity of use, doctors and psychiatrists.                |
| Quality of life profiles and changes in the course of maintenance treatment among 1,015 patients with severe opioid dependence. Karow A, et al., Germany, 2011 <sup>(19)</sup>   | Subst Use Misuse<br>III                              | 1,015 opioid-dependent patients under outpatient treatment with heroin injections under supervision or methadone maintenance in seven German cities.   | MSQoL<br>To compare QoL between different groups (drug users, depressed patients, schizophrenic patients, healthy individuals) |
| Clinical correlates of health-related quality of life among opioid-dependent patients. Heslin KC, et al., USA, 2011 <sup>(20)</sup>  | Quality of Life Research<br>IV                       | 344 opioid-dependent individuals, of which 113 were hospitalized and 231 were under outpatient treatment, treated at the CTN (National Institute on Drug Abuse Clinical Trials Network) in different states of the USA | SF-36<br>To relate QoL with physiological factors, withdrawal symptoms, addiction severity                                     |
| Development and validation of a quality of life instrument for patients with drug dependence: comparisons with SF-36 and WHOQOL-100. Wan C et al. China, 2011 <sup>(12)</sup>  | International Journal of Nursing Studies<br>Level IV | 212 drug addicts, 54 heroin-dependents, cared for at a compulsory rehabilitation and detoxification center in Kunming, China   | SF-36<br>WHOQOL-100<br>To validate another QoL instrument, called QOL-DA   |
| Use of item response theory and latent class analysis to link poly-substance use disorders with addiction severity, HIV risk, and quality of life among opioid-dependent patients in the Clinical Trials Network. Wu LT, et al., USA, 2011 <sup>(21)</sup> | Drug Alcohol Depend<br>IV                            | 113 hospitalized and 230 outpatient opioid-dependent patients of 12 treatment programs in the USA  | SF-36<br>To relate QoL with the use of different substances.   |
| Problem areas reported by substance abusing individuals and their concerned significant others. Hussaats P et al., Netherlands, 2012 <sup>(22)</sup>   | The American Journal on Addictions<br>IV             | 32 users under outpatient treatment, (and 32 concerned significant others), in a mental health center in Spijkenisse and Rotterdam, Netherlands.   | EQ-5D<br>To compare QoL among different groups (drug users, relatives or significant others)                                   |

| Title / Author / Country / Year   | Journal and level of evidence of the article | Population under treatment (Samples)   | QoL instrument and its purpose in the study  |
|---|--|--|--|
| Quality of life and depressive symptoms among caregivers and drug dependent people.<br>Marcon SR et al. Brazil, 2012 <sup>(23)</sup>  | Latin American Nursing Magazine<br>IV        | 109 individuals under outpatient treatment (and 109 caregivers), selected from 4 Psychosocial Care Centers - Drugs and alcohol (CAPS), in the state of Mato Grosso, Brazil                   | SF-36<br>1. To relate QoL with depressive symptoms<br>2. To compare QoL among different groups (drug users, relatives/caregivers)  |
| The application of the drug user quality of life scale (DUQOL) in Australia. Zubarán C et al., Australia, 2012 <sup>(24)</sup>  | Health Quality of Life Outcomes<br>IV        | 120 drug users under hospital or outpatient treatment in the western district of Sydney, Australia   | WHOQOL-Bref<br>To validate another QoL instrument, called DUQOL  |
| Improvement of quality of life following 6 months of methadone maintenance therapy in Malaysia.<br>Baharom N et al., Malaysia, 2012 <sup>(25)</sup>   | Subst Abuse Treat Prev Policy<br>IV          | 122 drug users of two government programs of methadone maintenance in the district of Tampin, Negeri, Sembilan, Malaysia   | WHOQOL-Bref<br>1. To use QoL as a variable of therapeutic outcome.<br>2. To relate QoL with sociodemographic variables, HIV, hepatitis C, beginning and duration of drug use |
| Comparison of the course of substance use disorders among individuals with and without generalized anxiety disorder in a nationally representative sample.<br>Magidson JF et al., USA, 2012 <sup>(26)</sup>   | J Psychiatr Res<br>III                       | 6016 drug users. SUD:5730 and SUD and generalized anxiety disorder (GAD): 286 accessed in the National Epidemiological Survey on Alcohol and Related Conditions (NESARC) in the USA          | SF-12<br>To compare QoL among different groups (drug users without SUD, drug users with SUD)   |
| Prospective patterns and correlates of quality of life among women in substance abuse treatment.<br>Tracy AM et al., USA, 2012 <sup>(27)</sup>  | Drug Alcohol Depend<br>IV                    | 240 women in substance abuse treatment in Cleveland, Ohio, USA.  | WHOQOL-Bref<br>To relate QoL with sociodemographic, clinical and social support variables  |
| Health-related quality of life in patients with dual diagnosis: clinical correlates.<br>Benaiges I et al., Spain, 2012 <sup>(28)</sup>  | Health Qual Life Outcomes<br>IV              | 125 users: 35 with SUD and severe mental disorders (SMD); 35 with SMD only and 35 with SUD only (3rd group in treatment in the therapeutic community of Gressol, Barcelona, Catalonia, Spain | SF-36<br>To compare QoL among different groups (drug users without SMD, drug users with SMD, patients with SMD without SUD)  |
| TDAH en pacientes con adicción a sustancias: análisis de la prevalencia y de los problemas relacionados con el consumo en una muestra atendida en un servicio de tratamiento ambulatorio.<br>Torrío Linares J, E, et al., Spain, 2012 <sup>(29)</sup> | Trastor adict<br>IV                          | 162 substance users under treatment at the provincial center of drug addicts of Huelva, Spain.   | TECVASP<br>To relate QoL with attention deficit hyperactivity disorder (ADHD)  |

| Title / Author / Country / Year  | Journal and level of evidence of the article | Population under treatment (Samples)   | QoL instrument and its purpose in the study  |
|--|--|--|--|
| Improving physical health and reducing substance use in psychosis-randomized control trial (IMPACT RCT): study protocol for a cluster randomized controlled trial. Gaughran F et al., United Kingdom, 2013 <sup>(30)</sup>                               | BMC Psychiatry<br>II                         | 392 drug users with SMD, assisted by the Community Mental Health Team of South London, United Kingdom  | SF-36<br>To use QoL as a variable of therapeutic result  |
| Does buprenorphine maintenance improve the quality of life of opioid users?<br>Dhawan A; Chopra A, India, 2013 <sup>(31)</sup>   | Indian J Med Res<br>III                      | 231 opioid users selected from five treatment units, two in Delhi and three in eastern India   | WHOQOL-Bref<br>To use QoL as a variable of therapeutic result  |
| Drogodependientes vs. Usuários de salud mental com transtornos de personalidade: su relación com la calidade de vida, la psicopatología em Eje I, el ajuste psicológico y dinámica familiar.<br>Martínez-González JM et al., Spain, 2013 <sup>(32)</sup> | An. psicol.<br>IV                            | 68 patients with personality disorder (PD), of which 42.6% were users without SUD, 57.4% were drug addicts under outpatient treatment at the provincial center of drug addicts in Granada, Spain | Q-LES-Q<br>To compare QoL in different groups (individuals with PD and SUD, individuals with PD with no SUD) |
| Quality of life, self-esteem and self-identity of drug addicts<br>Silveira CD et al., Brazil, 2013 <sup>(33)</sup>   | Cien Saude Colet<br>IV                       | 100 hospitalized users or under outpatient treatment at the São José institute in the state of Santa Catarina, Brazil  | WHOQOL-Bref<br>To relate QoL with self-esteem, self-identity   |
| Quality of life determinants in patients of a Psychosocial Care Center for alcohol and other drug users. Marini M, et al., Brazil, 2013 <sup>(34)</sup>  | Issues Ment Health Nurs<br>IV                | 77 substance-dependent patients under outpatient treatment at a Psychosocial Care Center for alcohol and drugs (CAPSad), in the south of Brazil  | WHOQOL-Bref<br>To relate QoL with addiction severity and depression  |
| Auricular acupuncture for drug dependence: an open-label randomized investigation on clinical outcomes, health-related quality of life, and patient acceptability. Lua PL; Talib NS, Malaysia, 2013 <sup>(35)</sup>                                      | Altern Ther Health Med<br>II                 | 69 opioid-dependent individuals under treatment with methadone maintenance in a government hospital and 2 community clinics in Terengganu, Malaysia  | WHOQOL-Bref<br>To use QoL as a variable of therapeutic result  |
| Severity of psychiatric and physical problems is associated with lower quality of life in methadone patients in Indonesia. Iskandar S, et al., Indonesia, 2013 <sup>(36)</sup>   | Am J Horthopsychiatr.<br>IV                  | 112 opioid-dependent individuals under treatment with methadone maintenance in Banung, Indonesia   | EQ-5D<br>To relate QoL with other clinical aspects (QoL and severity of physical and psychiatric issues)     |
| The efficacy of atomoxetine as adjunctive treatment for co-morbid substance use disorders and externalizing symptoms. Benegal V, et al., India, 2013 <sup>(37)</sup>   | Asian J Psychiatr<br>III                     | 14 users of alcohol, tobacco and other drugs with externalization of symptoms, under outpatient treatment in a de-addiction center in India  | WHOQOL-Bref<br>To use QoL as a variable of therapeutic result  |
| A validation study of the ALQoL9 to measure quality of life.<br>Zubaran C et al., Australia, 2014 <sup>(38)</sup>  | Am J Drug Alcohol Abuse<br>IV                | 138 alcohol-dependent or abuser individuals, under outpatient treatment or hospitalized in the western district of Sydney, Australia   | WHOQOL-Bref<br>To validate another QoL instrument, called ALQoL 9  |

| Title / Author / Country / Year  | Journal and level of evidence of the article | Population under treatment (Samples)   | QoL instrument and its purpose in the study  |
|--|--|--|--|
| Engaging in job-related activities is associated with reductions in employment problems and improvements in quality of life in substance abusing patients. Petry NM, et al., E.U.A. 2014 <sup>(39)</sup>   | Psychol Addict Behav<br>III                  | 185 substance-dependent patients under outpatient treatment in 3 community-based clinics, USA  | QOLI<br>To use QoL as a variable of therapeutic result   |
| Correlation between depressive symptoms and quality of life in users of psychoactive substances. Marcon SR et al., Brazil, 2014 <sup>(40)</sup>  | Ver Esc Enf USP<br>IV                        | 109 substance users under outpatient treatment assisted in 4 CAPSad of the center-west region of Brazil  | SF-36<br>To relate QoL with depressive symptoms  |
| Quality of life in a cohort of high-dose benzodiazepine dependent patients. Lugoboni F, et al., Italy, 2014 <sup>(41)</sup>  | Drug Alcohol Depend<br>IV                    | 622 benzodiazepine dependent patients hospitalized for detoxification at the university hospital of Verona, Italy  | SF-36<br>GHQ-12<br>To relate QoL with sociodemographic factors, and expected QoL   |
| Pain and emotional distress among substance-use patients beginning treatment relative to a representative comparison group. Wiest KL, et al., USA, 2014 <sup>(42)</sup>  | J Addict Med<br>IV                           | 406 substance-dependent patients beginning treatment, 170 with methadone maintenance and 236 under outpatient treatment of 3 clinics located in Oregon, Pennsylvania and Washington, USA | PROMIS<br>To compare QoL between different groups (patients under methadone treatment, other treatments, general population) |
| Combination of classical test theory (CTT) and item response theory (IRT) analysis to study the psychometric properties of the French version of the Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form (Q-LES-Q-SF). Bourion-Bédès S, et al., France, 2015 <sup>(43)</sup> | Qual life Res<br>IV                          | 124 alcohol- or opioid-dependent patients under outpatient treatment in 4 centers of two regions of France   | SF-12<br>To validate another QoL instrument, called Q-LES-Q-SF   |



Most of the studies analyzed used generic instruments of QoL, of both overall QoL (12 texts), which used mainly WHOQOL-Bref, and HRQoL (18 texts), which used mainly SF-36. Despite the fact that only one article used a specific instrument for SUD, three analyzed studies referred to the validation of specific scales for the disorder.

Regarding the purpose of the use of QoL instruments in the studies analyzed, 14 studies used QoL to relate it to other clinical characteristics, seven studies did it to compare it between different groups, six studies used it as a variable of therapeutic outcome, and four studies did it to validate a new instrument of QoL. In Chart 3, the instruments used or validated in the articles are described.

**Chart 3:** Description of instruments used or validated in the studies

| Instruments  | Instrument description   |
|--|--|
| World Health Organization Quality of Life<br>1. WHOQOL-100<br>2. WHOQOL-Bref                     | Generic. 100 items that assess six aspects: physical, psychological, degree of dependence, social relationships, environment and spirituality<br>WHOQOL-Bref is its abbreviated form, with 26 items  |
| 3. Quality of Life Inventory - QOLI  | Generic. 17 aspects: work, life events, home, love, friendship, leisure, self-esteem, life philosophy, learning, creativity, social services, civic action, community, neighborhood, health, relationship with children and parents  |
| Medical Outcomes Study<br>4. MOS SF-36:<br>5. MOS SF-12:   | HRQoL (generic). 36 items. Physical (functional capacity, physical aspects, pain, general state of health) and mental aspects (vitality, social aspects, emotional aspects, mental health)<br>MOS SF-12 is its abbreviated form, with 12 items   |
| 6. European Quality of Life Scale - EQ-5D  | HRQoL (generic). Five items: mobility, self-care, usual activities, pain/discomfort, anxiety/depression. The second part inquires about the current health state   |
| 7. Quality of Life Enjoyment and Satisfaction Questionnaire - Q-LES-Q<br>8. Q-LES-Q-SF           | HRQoL (generic). Psychiatric/psychological disorder. 93 items, which reflect satisfaction with physical health, subjective feelings, work, domestic chores, school, leisure, social relationships and general activities, and satisfaction with medication and life as a whole.<br>Q-LES-Q-SF is its abbreviated form, with 14 items         |
| 9. Modular System for Quality of Life - MSQoL  | HRQoL (generic). Mental disorders. 39 items measuring physical health, vitality, psychosocial QoL, emotional QoL, material satisfaction, free time, and one item measuring overall QoL.<br>Optional modules of family, children and occupation   |
| 10. General Health Questionnaire GHQ-12  | HRQoL (generic). 12 items that describe mood: lost sleep, tension, lack of concentration, unhappiness, depression, lack of confidence, uselessness, and the inability to play a useful role, to face problems, to make decisions, to overcome difficulties, to enjoy everyday activities.  |
| 11. Patient-Reported Outcomes Measurement Information System -PROMIS                             | HRQoL (generic). Item response theory (IRT) model. 4 measures (impact of pain, anxiety, depression, fatigue). It also assesses response to pain, anger and the ability to perform everyday duties  |
| 12. Drug Users Quality of Life Scale-DUQOL   | SUD specific. 22 aspects: to feel useful, drugs, drug treatment, education, family, well-being, friends, harm reduction, health, medical assistance, housing, freedom of choice, leisure, money, neighborhood security, partner(s), community resources, sex, spirituality, transport, future, treatment by others.                          |
| 13. Quality of Life for Individuals with Drug Addiction/Dependence - QOL-DA                      | SUD specific. 4 aspects: physical function (body movement, sensory perception, appetite, sexuality, sleep and energy), psychological function (emotion, cognition, resistance to stress and self-esteem), social function (social support and family adaptation and career support) and elimination of symptoms and side effects.            |
| 14. Test para la Evaluación de la Calidad de Vida en Adictos a Sustancias Psicoactivas – TECVASP | SUD specific. 22 items. Physical aspect (functional activity, pain, sleep, nausea, fatigue, physical dependence). Psychosocial aspect (psychological dependence, depression, anxiety, aggressiveness, memory, hallucinations, concentration, orientation, perception of physical and psychological health, social functioning, expectations. |
| 15. 9-item QoL scale -ALQoL 9  | SUD specific. 9 items that assess health and the consequences of alcoholism on individuals which are not related to health. Designed by a condensation of the SF-36 and the inclusion of aspects related to alcoholism.  |

## DISCUSSION

Most articles studied used generic instruments of QoL, overall QoL<sup>(17,24-25,27,31,33-35,37-39)</sup> or HRQoL<sup>(12,16,18-23,26,28,30,32,36,40-43)</sup>. Only one study used an instrument of HRQoL that was specific to SUD<sup>(29)</sup>, although three of the selected studies referred to the validation of these scales<sup>(12,24,38)</sup>. Except for the purpose of "comparing QoL between different groups", which only used instruments of HRQoL, the others used instruments of overall QoL and HRQoL.

These results confirm previous reviews on the topic<sup>(6,9)</sup>. Generic instruments are used mainly when the purpose of the study is to compare HRQoL of drug abusers with other groups of patients or with general population<sup>(8,44)</sup> or also when there are no valid specific instruments<sup>(45)</sup>, which justifies its wider use in cases of dependence, for which there are few valid specific instruments.

The limitation of assessments made by generic scales, especially HRQoL, has been pointed out by some authors<sup>(8-9,12)</sup>, which indicates a current trend of validation and use of SUD-specific scales, adapted to the population of drug abusers, enabling to select more important aspects of life for them and thus to assess more carefully the outcomes of treatment for SUD<sup>(8,12,24)</sup>. Examples of specific scales in addition to those mentioned previously: Health-Related Quality of Life Test in Drug Abuser (HRQOLDA), Injection Drug User Quality of Life Scale (IDUQOL)<sup>(44)</sup>.

Divergent positions are frequent among authors regarding the use of instruments of QoL in the assessment of individuals undergoing treatment for abuse or dependence of alcohol and drugs. Whereas some authors<sup>(8,12,24,44)</sup> argue that specific instruments allow for

a more careful assessment of the outcomes of drug dependence treatments, others<sup>(6,17,27)</sup> recommend the use of generic instruments of overall QoL such as the WHOQOL as they consider these instruments are more directly related to rehabilitation goals than HRQoL measures.

Therefore, although it is said that generic instruments should be more used in situations such as the comparison of groups of drug abusers with other patients or with the general population, and that specific instruments may assess a therapeutic intervention more precisely, the findings of the discrepancies mentioned above show the need for further studies, especially on the distinction of specific instruments that have been emerging and WHOQOL generic instruments developed by the WHO, which seem to also measure significant aspects related to the rehabilitation of users of alcohol and drugs.

## CONCLUSIONS

The articles analyzed in this review, most of them with a level of evidence of IV, used instruments with a generic approach of QoL, both the overall QoL instruments, such as the WHOQOL-Bref, and HRQoL instruments, such as the SF-36.

As for the purpose of their use in studies with users undergoing treatment for drug and alcohol abuse or dependence, the instruments were randomly used among the different possibilities of use of QoL, except for the purpose of "comparing QoL between different groups", which only used instruments of HRQoL.

It is recommended that further studies be carried out regarding the use of quality of life instruments in relation to addiction, especially in relation to recent specific instruments that have not been consolidated in the field.

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