

Life quality among consumers of psychoactive substances: evaluation of the Medical Outcomes Study Short Form 36

Bárbara Lais da Cruz¹

 <https://orcid.org/>

Patricia Ucelli Simioni^{2,3}

 <https://orcid.org/0000-0002-6951-5040>

Thais Adriana do Carmo⁴

 <https://orcid.org/>

Objective: to describe the use and results obtained with the instrument Medical Outcomes Study Short Form -36 item (SF-36) to evaluate the quality of life of people in situations of use, abuse or dependence of psychoactive substances (SPA). Method: a bibliographic survey was carried out in articles and scientific journals, dissertations and monographs. Results: studies show that the use of psychoactive substances affects health and quality of life. Conclusion: it can be observed that the SF-36 instrument is valid and reliable for the assessment of the quality of life among SPA users and has in its domains some dimensions that are very sensitive to the evaluation of quality of life aspects of this population.

Descriptors: Quality of Life; Evaluation; Etanol; Street Drugs.

¹ Universidade de São Paulo, Faculdade de Medicina, Hospital das Clínicas, São Paulo, SP, Brazil.

² Universidade Estadual Paulista Júlio de Mesquita Filho, Rio Claro, SP, Brazil.

³ Faculdade de Americana, Americana, SP, Brazil.

⁴ Universidade Cruzeiro do Sul, São Paulo, SP, Brazil.

How to cite this article

Cruz BL, Simioni PU, Carmo TA. Life quality among consumers of psychoactive substances: evaluation of the Medical Outcomes Study Short Form 36. SMAD, Rev Eletrônica Saúde Mental Álcool Drog. 2019;15(3):1-9. doi: <https://dx.doi.org/10.11606/issn.1806-6976.smad.2019.000422>

Qualidade de vida entre consumidores de substâncias psicoativas: avaliação do instrumento *Medical Outcomes Study Short Form 36*

Objetivo: o presente trabalho teve por objetivo descrever a utilização e os resultados obtidos com o instrumento *Medical Outcomes Study Short Form -36 item* (SF-36) para avaliação de qualidade de vida de pessoas em situação de uso, abuso ou dependência de substâncias psicoativas (SPA). Método: realizou-se um levantamento bibliográfico em artigos e revistas científicas, dissertações e monografias. Resultados: os estudos mostram que o uso de substâncias psicoativas traz prejuízos para saúde e qualidade de vida das pessoas. Conclusão: observa-se que o instrumento SF-36 se mostra válido e confiável para a avaliação da qualidade de vida entre consumidores de SPA e possui em seus domínios algumas dimensões que são bastante sensíveis a avaliação de aspectos da qualidade de vida desta população.

Descritores: Qualidade de Vida; Avaliação; Etanol; Drogas Ilícitas.

Calidad de vida entre los consumidores de sustancias psicoactivas: evaluación de *Medical Outcomes Study Short Form 36*

Objetivo: Describir el uso y los resultados obtenidos con el instrumento *Medical Outcomes Study Short Form -36 item* (SF-36) para evaluar la calidad de vida de las personas en situaciones de uso, abuso o dependencia de sustancias psicoactivas. Método: Se realizó una encuesta bibliográfica en artículos y revistas científicas, disertaciones y monografías. Resultados: Los estudios muestran que el uso de sustancias psicoactivas afecta la salud y la calidad de vida. Conclusión: Se puede observar que el instrumento SF-36 es válido y fiable para la evaluación de la calidad de vida de los usuarios de SPA y tiene en sus dominios algunas dimensiones muy sensibles a la evaluación de los aspectos de calidad de vida de esta población.

Descriptores: Calidad de Vida; Evaluación; Etanol; Drogas Ilícitas.

Introduction

In the search for better health conditions and quality of life for patients in situations of use, abuse or dependence on psychoactive substances, instruments have emerged that provide information on intervention. Thus, using the Medical Outcomes Study Short Form -36 item (MOS SF-36), popularly known as SF-36 in Brazil, initially proved to be the best tool, since its use is simple, easy, and does not require much time for application⁽¹⁾.

In order to deepen the knowledge about the administration of this instrument with those in situations of use, abuse or dependence on psychoactive substances, we searched for publications with relevant information to understand the health and quality of life of this specific population.

Even though there are "numerous models proposed, there is no consensus in the literature on the definition of quality of life"⁽²⁾. The concept of Quality of Life, used by several disciplines of human knowledge, still lacks an adequate definition, since it remains non-consensual⁽³⁾. In addition, the concept is characterized by aspects linked to subjectivity and multidimensionality.

The aspects related to subjectivity are those that consider the individual's own perception of his or her health and the non-medical aspects of life. In other words, the subject himself evaluates their personal situation in aspects related to their quality of life. The subjective character contemplates the perspective of the individuals themselves and not the vision of health professionals. In the health area there seem to be two trends regarding the conceptualization of the term *quality of life*. The first tendency is to understand quality of life as a more general concept and the other is to understand the concept of health-related quality of life⁽⁴⁾.

Regarding the generic aspects, the conceptualization of quality of life seems to be influenced by sociological studies, since it does not mention dysfunctions or aggravations. An example of this type of understanding can be observed in the World Health Organization (WHO) concept for the quality of life assessment tool: the World Health Organization Quality of Life (WHOQOL). The preparation of the WHOQOL quality of life assessment instrument was administered through a multicenter project. Despite the lack of consensus on the concept of quality of life, the specialists of different cultures chose three fundamental aspects regarding the conception of quality of life: (1) subjectivity; (2) multidimensionality; (3) presence of positive and negative dimensions⁽⁵⁻⁶⁾.

From this outline, the WHOQOL group arrived at the definition of quality of life as "the individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns"^(5,7-9).

When speaking of studies that use a generic definition of the concept of quality of life, they include healthy people in their population samples, not restricting the sample population to those with specific diseases^(5,7-9). On the other hand, health-related quality of life concepts value aspects associated with health disorders or interventions. One of the possible definitions of quality of life related to health "is the subjective assessment that the patient makes of different aspects of his life, in relation to his state of health"⁽⁴⁾.

The issue of Health and Quality of Life in chemical dependence has been evaluated with generic and specific instruments. SF-36 is a generic quality of life assessment instrument, as is the WHOQOL^(5,9-11).

Medical Outcome Study Short Form -36 (SF-36)

The Medical Outcomes Study Short Form -36 item (MOS SF-36) is considered an instrument which evaluates generic quality of life and is easy to apply and comprehend^(3,10). The questionnaire consists of 36 items distributed in 8 scales or components; therefore, it is characterized as a multidimensional instrument. The 8 scales consist of: functional capacity, physical aspects, pain, general health, vitality, social aspects, emotional aspects and mental health^(10,12).

The questionnaire has a final score of 0 to 100, with 0 (zero) corresponding to the worst result and 100 to the best result in quality of life and health. This questionnaire was translated into Portuguese and validated because the need to evaluate quality of life and health in the Brazilian population was perceived. The SF-36 presented an instrument with good design and measurement properties that have already been demonstrated in other studies. For the translation and validation of the instrument, the researchers performed an initial translation process of the instrument for Portuguese, an evaluation of the initial translation and an evaluation of cultural equivalence.

After evaluation of the reproducibility and validity for the Brazilian version, as well as evaluation of the clinical parameters, SF-36 was compared with other quality-of-life assessment questionnaires such as the Nottingham Health Profile (NHP), Health Assessment Questionnaire (HAQ), and Arthritis Impact Measurement Scale 2 (AIMS-2). Thus, it was verified that the SF-36 proved to be an adequate instrument for Brazilian socio-economic and cultural conditions, as well as its properties of measurements made possible the use of this instrument in the evaluation of the quality of life of patients with rheumatoid arthritis and other diseases in the Brazilian population^(5,13-15).

In Brazil, there is some research comparing the evaluation of quality of life measured by the two instruments: SF-36 and WHOQOL. Lima⁽²⁾ used

both instruments to evaluate quality of life in alcohol dependents. According to the author, both the SF-36 and the WHOQOL were useful for assessing quality of life in this population.

Because it is a generic instrument, the SF-36 has the characteristic of not adapting to any specific health problem, for this reason, it can be applied to samples of patients with different health problems⁽¹⁶⁾. The SF-36 makes it possible to evaluate several dimensions at the same time and favors the comparison between populations⁽³⁾.

Research that evaluated the productions related to the thematic quality of life in the public universities of the State of São Paulo identified 53 studies that used quality of life assessment tools. In this realm, the researchers observed that 15 studies used only generic instruments to assess quality of life, another 15 used specific instruments and 11 studies used an association of both instruments. The most frequently used generic instruments were the Medical Outcomes Study Short Form -36 item (MOS SF-36) and the Ferrans and Powers Quality of Life Index. The SF-36 appears in 18 studies while the Ferrans and Powers index was used in 4 studies⁽¹²⁾. The authors note that among the 18 studies that used SF-36, the instrument was applied as an exclusive measure of quality of life in 8 studies with different populations and 10 studies in association with a specific type instrument, according to Figure 1⁽¹²⁾.

Studies based on exclusive use of the SF-36	Studies with association of the SF-36 and instrument of the specific type
Workers (2)	Workers (1)
Patients with renal disorders (1)	Patients with renal disorders (1)
Patients with heart disorders (1)	Patients with heart disorders (1)
Patients with lung disorders (1)	Patients with lung disorders (1)
Patients with tumors (1)	Patients with gastrointestinal disorders (1)
General population (1)	Patients with orthopedic disorders (1)
Women with physiological disorders (1)	Patients with immunological disorders (3)
Total number of studies: 08	Total number of studies: 10

Source: Adapted⁽¹²⁾

Figure 1 - Classification and number of studies by assessment instruments

The researchers concluded that "the choice of Outcome Studies 36-item Short-Form (MOS SF-36) for 18 of the 53 papers surveyed is in agreement with the international situation, since this instrument has been considered the most used in the world"⁽¹²⁾.

Considering that SF-36 has been widely used to evaluate quality of life in different populations, both in national and international studies, it is important to verify the use of SF-36 to evaluate quality of life in the population involved with psychoactive substances.

Method

In this work, a systematic literature search was conducted by means of a bibliographical survey of studies published in scientific articles and journals available on the subject in the PubMed and Scielo indexes, using the descriptors "quality of life", "SF-36", "evaluation", "Alcohol" and "illicit drugs", which located 316 articles.

A total of 302 studies related to the following exclusion criteria were excluded: medical conditions associated with the use of psychoactive substances, studies on the testing of drugs for the treatment of substance use disorders, therapeutic use of marijuana and quality of life assessment by instruments other than SF-36.

Thus, the present review resulted in a compilation of 14 studies related to the use of the SF-36 instrument to evaluate quality of life and use of psychoactive substances. These studies were read to create discussion and obtain results. The timeline for considering the inclusion of articles was that it be written within the last 18 years, from November 1995 to May 2017.

Results and discussion

In the initial electronic bibliographic survey, 316 articles were found, of which 217 articles related to alcohol use, 77 articles to opioid use, 15 articles to illicit drug use, 6 articles related to marijuana use and 6 articles to cocaine use. Only 46 articles were selected after the first review. We excluded the articles that focused on medical conditions associated with the use of psychoactive substances and studies on drug testing for treatment of substance use disorder. From this stage were excluded another 32 studies dealing with drug tests, medical conditions associated with the use of SPAs, therapeutic use of marijuana and evaluation of quality of life by instruments other than SF-36.

Therefore, this review was structured from 14 studies on the use of the SF-36 instrument to evaluate quality of life and use of psychoactive substances. Thus, the articles are divided by the type of substance studied: eight studies with users of multiple drugs, four studies with alcohol users, one study with heroin users, and one study with crack users.

The specific study for crack users was performed to verify the reliability of the use of the SF-36 to evaluate health and quality of life of this population that was not included in treatment. In this study⁽¹⁷⁾, they explored the relationship between the frequency of use of crack, alcohol and tobacco, perception of dependence on these

substances, and health status. The authors found that the dependency scores showed that the participants perceived that they were, on average, "more dependent" on crack than on alcohol or tobacco, confirming that crack use is a complicating factor of addiction. The authors also suggest that their results indicate that SF-36 may be useful in applications with the substance abuse population. The study demonstrated that there was no significant association between alcohol and tobacco use frequency and any of the SF-36 dimensions, except in the dimension of physical functionality that was statistically significant. However, the study was the first to indicate the reliability of SF-36 for assessing perceived health status among cocaine and crack users⁽¹⁷⁾. The instrument can provide an assessment of the health status of individuals dependent on crack or other drugs⁽¹⁷⁾.

Payá et al. carried out a study to analyze the quality of life of people dependent on alcohol. The sample consisted of patients from the outpatient gastroenterology and outpatient clinic specializing in the treatment of chemical dependence. The study consisted of 181 patients, 88 patients being diagnosed in the gastroenterology outpatient clinic and 93 patients in the specialized ambulatory. According to the authors, there were significant differences in mental health and functional capacity in the assessment of quality of life. Patients in the specialized outpatient clinic had a lower mental health index (mean 52) than patients in the gastroenterology outpatient clinic (mean 61). Differences were also observed in relation to the functional capacity dimension, where the group of patients from the specialized clinic presented better results in functional capacity (mean of 79) than patients in the gastroenterology outpatient clinic (mean of 66)⁽¹⁸⁾.

One study⁽²⁾ also evaluated quality of life in patients dependent on alcohol. Patients were classified into two groups: mild to moderate dependence and severe dependence. It is observed that 63.9% of the sample consisted of patients with severe dependence on alcohol. This group presented worse scores in both instruments, indicating that the degree of dependence is associated with a worsening in the perception of quality of life. In mild to moderate dependence, the lowest results for the SF-36 were shown in the following dimensions: Physical aspects, general health and vitality. In severe dependence, the scores were lower in all dimensions, with worse results in the dimensions of physical aspects, vitality, social aspects, emotional aspects and mental health, the latter with the worst index. The results of

this study suggest that both instruments are useful for assessing quality of life in this population.

Another study⁽¹⁹⁾ comments that the data obtained in the evaluation of the SF-36 of drug users was compared with data obtained in the general population of the United Kingdom. Results in all 8 SF-36 dimensions were worse in drug users than in the general population. In the comparison of health outcomes in subcategories of drug users, the analysis was by gender, age, prisoners, individuals with personal relationship establishment, street dwellers and recent injected-drug use. Some limitations highlighted in this study point critically to the instrument itself, because the authors point out that because it is an instrument based on self-perception of health, it does not confer a formal diagnosis. They suggest that the SF-36 underestimate the health problems of this population. In addition, they did not include in the study the comorbidities most often found among drug users. Other questions refer to the fact that some questions are heavily dependent on the concept of work, which can be a problem for groups facing problems with unemployment. Comparisons between the groups do not prove that SF-36 is a valid instrument to evaluate the health of drug users⁽¹⁹⁾.

A literature review on the health status and Quality of life in Substance Use Disorder pointed out that SF-36 is the most used tool in research on quality of life among populations that present a pattern of abuse or dependence on psychoactive substances. An electronic review⁽²⁰⁾ was carried out in different databases and identified a total of 47 studies using instruments that measured Quality of life in chemical dependence. Therefore, evaluating the quality of life and use of alcohol, the researchers found 25 studies, of which 8 featured psychiatric comorbidities, 6 studies featured medical conditions and / or socio-demographic variables, and 11 studies were without category control. The most used instruments were the SF-36 (7 studies), the Nottingham Health Profile (4 studies), Quality of Life Interview (3 studies), Life Situation Survey (3 studies), and the Rotterdam Symptom Checklist Health Questionnaire (3 studies). Summarizing uncontrolled studies on alcohol use, it was observed that a reduction in quality of life was presented in the presence of alcohol use disorder, severity of dependence, relapse condition and increased alcohol consumption.

These authors also carried out studies on quality of life and other drugs, following the same criteria of distinction. We found 22 studies with a primary focus on drug use and quality of life. Of these studies, 7 were controlled by psychiatric comorbidities, 5 were controlled

by medical and / or socio-demographic conditions, and 10 studies did not have control of these variables. The authors describe that most studies in this category indicate that individuals with substance use disorders report impairments in quality of life. Some studies have identified that Substance Use Disorder contributes to a worsening in the quality of life of people with psychiatric symptoms. Other studies present contrasting results, indicating that psychiatric comorbidities do not promote a decrease in the quality of life of people with substance use disorders. Another study cited by the authors describes a population of individuals using *Cannabis Sativa* for medicinal purposes, indicating that high quality of life was associated with high rates of marijuana effects and low rates of side effects. Furthermore, another study found no relation between illicit drug use and quality of life⁽²⁰⁾.

According to some authors⁽²¹⁾ betel nut is a popular psychoactive substance consumed in Asian countries that has stimulating and tranquilizing effects. They may be chewed or smoked in tobacco cigarettes. A survey conducted in Taiwan sought to assess the perception of health and quality of life among young users of the three most commonly used psychoactive substances: alcohol, tobacco and betel nut. This study also sought to verify if the perception of health and quality of life between young people who only used alcohol was similar to young people dependent on alcohol and who also used tobacco and betel nut. The SF-36 questionnaire was applied to the young participants of the study who had consumed the 3 substances in the period of 30 days before the interview. The study pointed out that only recent alcohol use seems to have increased the harmful effects on general health more than alcohol use with tobacco or betel, or only tobacco or a tobacco and betel association, contrary to studies reviewed by them in the literature dealing with negative consequences for health with adolescents using multiple substances.

A study⁽²²⁾ on the quality of life of 86 alcohol dependents of both sexes was carried out using the SF-36 instrument. Patients were excluded from the study who were also using other psychoactive substances, as this study aimed to study only alcohol and tobacco dependents. The author describes that the lowest averages in quality of life in the groups of men and women were recorded in these dimensions: physical appearance and mental health. In the study, functional capacity was the least compromised dimension, with an average score of 79. The study points out, however, that in all SF-36 dimensions women had lower mean values than men with statistically significant differences in

pain, vitality and mental health. The functional capacity dimension was the least impaired in both groups.

A study carried out⁽²³⁾ aimed to inform the potential of the harm reduction approach for populations with high-risk of substance abuse, determining which risk factors have the greatest impact on the health and quality of life of the population of illicit drug users without treatment. The sample consisted of users who were equally likely to have used crack, methamphetamine and speedball (a mixture of heroin and / or morphine with cocaine and / or methamphetamine). Sample participants were asked about the use of a variety of heavy drugs during the last 30 days, with a focus on the drugs already mentioned. Comparing data from the study population to data from the general population of the United States, it was found that the study sample showed results below the results of the general population sample in all dimensions of the SF-36.

A review of the literature on health and quality of life related to the population in drug addiction and the evaluation of the impact of substance abuse and problems related to health and quality of life was carried out⁽¹⁶⁾. These authors organized the review, grouping the studies in Health, Quality of Life and relation with standard of use of SPAs and Drug use and clinical and psychiatric comorbidities. In the review of health assessment and quality of life in the comparison between the general population and users of SPAs, the authors describe that the comparative studies showed that drug users have greater deterioration of health and quality of life than the general population. They indicate that there is enough empirical evidence for the state of deterioration of health and quality of life in people who use, abuse or have a dependence on drugs. Compared with the general population, all studies agree that substance use or substance abuse disorders impair health and quality of life.

It was studied⁽²⁴⁾ the evaluation of quality of life and drug use in 2,434 adolescents from 17 states and 5 private schools in the city of São Paulo. The present study showed that students from higher economic classes (private schools) had higher quality of life and higher drug consumption compared to other adolescents (state schools). The study points out that students who reported less drug use had better results in some areas of quality of life instruments, such as: physical dimension in both instruments, functional capacity, social aspects, general health status (SF-36) and level of independence (WHOQOL-100).

The evaluation that there are losses in the quality of life of people who use psychoactive substances exists

and seems to be unanimous between the studies. All the papers evaluated affirm that there is a perception of a lower quality of life among the population of drug users. It is interesting to verify using the SF-36 quality of life assessment how the dimensions of the questionnaire are described in the studies, because it seems that some dimensions are more sensitive to the quality of life evaluation of this population. It is observed that ten articles evaluated here refer to low scores in the Mental Health dimension of the SF-36, regardless of the type of substance used. Associated with the issue of Mental Health, the dimension of Emotional Aspects appears with a lower score in five studies. Hypotheses for this result are that the use of SPAs may bring some suffering in terms of mental health, especially in cases of abuse or dependence, since individuals are more exposed to factors of intoxication and withdrawal. In addition, psychiatric comorbidities may be elements previously existing in people who use drugs or who may be triggered by the prolonged use of psychoactive substances. The dimensions of functional capacity, physical aspects, social aspects and vitality are described as having losses in four different works, followed by the dimensions of general health state in three studies and pain, which appears with lower scores in two studies.

It seems important to mention that some studies also show the dimensions of quality of life that are less affected in this population. Studies^(16,18,22) report that the functional capacity dimension is the domain that appears with better scores, indicating a better quality of life in this sphere. Another study⁽²⁴⁾ points out that among adolescents who report effects of drug use on functional capacity and general health status are the dimensions that present better results. These also show better results after detoxification treatment, according to the study⁽²⁵⁾. The domain *Social Aspects* appears to have better results in quality of life in works⁽²⁴⁻²⁶⁾. Finally, physical aspects are relevant among adolescents with less use of psychoactive substances⁽²⁴⁾. Among the studies found, only 5 were performed in Brazil. Among them, three studies investigated the use of alcohol^(2,18,22). Only one study investigated the use of drugs by adolescents⁽²⁴⁾, and another⁽²⁷⁾ investigated common mental disorders and identified use of psychoactive substances among the population studied.

Conclusion

It is important to emphasize that the studies pointed out that, among people who presently use, abuse or have a dependence on psychoactive substances, there seems

to be a consensus in the self-perception of damages to health and quality of life. It is observed that some domains of the SF-36 instrument are more sensitive in the assessment of the quality of life of these people in the Mental Health dimension. This fact leads us to believe that the use, abuse or dependence on SPAs may be associated with mental health problems. It is thought that studies are necessary to better understand the mental health of people who present an affected quality of life due to the use of psychoactive substances. It would be interesting to understand what the evaluation of this domain could indicate and how it can help in the elaboration of evaluation and intervention measures within this population.

It is observed that the use of psychoactive substances seems to offer more harm in the mental health spheres than in the physical health dimension, since it is possible to verify that the dimensions of functional capacity and physical aspects are less affected than mental health in the dimensions of quality of life measured by the instrument. This finding goes against the fact that the damage to physical health and the interference in daily and work activities manifested in the medium are long term and are not perceived by users.

In conclusion, there are few Brazilian studies that deal with the issue of quality of life and use of psychoactive substances. In light of this, it is necessary to invest in new research that helps in understanding the quality of life and intervention needs for the Brazilian population. However, the studies indicate that the use of the SF-36 instrument demonstrates acceptable levels of reliability and validity and seems to be useful for assessing the quality of life of individuals using psychoactive substances in the Brazilian population.

References

1. Ciconelli R. Tradução para língua portuguesa e validação do Questionário Genérico de Avaliação da Qualidade de Vida SF-36 (BRASIL, SF-36). Tese [Doutorado]. São Paulo: Universidade Federal de São Paulo; 1997. 120 f.
2. Lima A. Qualidade de vida em pacientes do sexo masculino dependentes de álcool. [Dissertação]. Faculdade de Medicina de Botucatu da Universidade Paulista Júlio de Mesquita Filho; 2002.
3. Campolina AGaCRM. Qualidade de vida e medidas de utilidade: parâmetros clínicos para as tomadas de decisão em saúde. Rev Panam Salud Pública. 2006;19(2):128-36.

4. Seidl EMF, Universidade de Brasília B, Brasil, Zannon CMLdC, Universidade de Brasília B, Brasil. Qualidade de vida e saúde: aspectos conceituais e metodológicos. *Cad Saúde Pública*. 2004;20(2):580-8.
5. Fleck MPdA, Universidade Federal do Rio Grande do Sul PA, Brasil. The World Health Organization instrument to evaluate quality of life (WHOQOL-100): characteristics and perspectives. *Ciênc Saúde Coletiva*. 2000;5(1):33-8.
6. Fleck MPdA, Lima AFBdS, Louzada S, Schestasky G, Henriques A, Borges VR, et al. Associação entre sintomas depressivos e funcionamento social em cuidados primários à saúde. *Rev Saúde Pública*. 2002;36(4):431-8. <http://dx.doi.org/10.1590/S0034-89102002000400008>.
7. World Health Organization Quality of Life assessment (WHOQOL): position paper from the World Health Organization. *Soc Sci Med*. 1995 Nov;41(10):1403-9. PubMed PMID: 8560308. Epub 1995/11/01. eng.
8. Initial steps to developing the World Health Organization's Quality of Life Instrument (WHOQOL) module for international assessment in HIV/AIDS. *AIDS Care*. 2003 Jun;15(3):347-57. PubMed PMID: 12745402. Epub 2003/05/15.
9. WHOQOL (World Health Organization's Quality of Life Instrument) and HIV Group. Initial steps to developing the World Health Organization's Quality of Life Instrument (WHOQOL) module for international assessment in HIV/AIDS. - PubMed - NCBI. *AIDS Care*. 2003 Jun;15(3):347-57.
10. Anderson RT, Aaronson NK, Bullinger M, McBee WL. A review of the progress towards developing health-related quality-of-life instruments for international clinical studies and outcomes research. *Pharmacoeconomics*. 1996 Oct;10(4):336-55. PubMed PMID: 10163577. Epub 1996/09/04. Doi: 10.1080/0954012031000105405
11. Nedjat S, Montazeri A, Holakouie K, Mohammad K, Majdzadeh R. Psychometric properties of the Iranian interview-administered version of the World Health Organization's Quality of Life Questionnaire (WHOQOL-BREF): a population-based study. *BMC Health Serv Res*. 2008 Mar 21;8:61. PubMed PMID: 18366715. PMCID: PMC2287168. Epub 2008/03/28.
12. Dantas RAS, Sawada NO, Malerbo MB. Pesquisas sobre qualidade de vida: revisão da produção científica das universidades públicas do Estado de São Paulo. *Rev Latino-Am. Enfermagem*. 2003;11(4):532-8.
13. Avila LA, de Araujo GM Filho, Guimaraes EF, Goncalves LC, Paschoalin PN, Aleixo FB. [Characterization of the pain, sleep and alexithymia patterns of patients with fibromyalgia treated in a Brazilian tertiary center]. *Rev Bras Reumatol*. 2014 Sep-Oct;54(5):409-13. PubMed PMID: 25627308. Epub 2015/01/30.
14. Pucci GC, Rech CR, Fermino RC, Reis RS. Association between physical activity and quality of life in adults. *Rev Saúde Pública*. 2012 Feb;46(1):166-79. PubMed PMID: 22249758. Epub 2012/01/18.
15. Almeida-Brasil CC, Silveira MR, Silva KR, Lima MG, Faria C, Cardoso CL, et al. Quality of life and associated characteristics: application of WHOQOL-BREF in the context of Primary Health Care. *Cienc Saúde Coletiva*. 2017 May;22(5):1705-16. PubMed PMID: 28538939. Epub 2017/05/26.
16. Gonzalez-Saiz F, Rojas OL, Castillo, II. Measuring the impact of psychoactive substance on health-related quality of life: an update. *Curr Drug Abuse Rev*. 2009 Jan;2(1):5-10. PubMed PMID: 19630733. Epub 2009/07/28.
17. Falck RS, Wang J, Carlson RG, Siegal HA. Crack-cocaine use and health status as defined by the SF-36. *Addict Behav*. 2000 Jul-Aug;25(4):579-84. PubMed PMID: 10972449. Epub 2000/09/06.
18. Payá R, Figlie NB, Turisco JL, Ronaldo L. Como é a qualidade de vida dos dependentes de álcool. *J Bras Psiquiatr*. 2002;51(1):39-45.
19. Neale J. Measuring the health of Scottish drug users. *Health Soc Care Community*. 2004 May;12(3):202-11. PubMed PMID: 19777710. Epub 2004/05/01.
20. Connor JP, Saunders JB, Feeney GFX, Katschnig H, Freeman H, Sartorius N. Quality of Life in Substance Use Disorders. In: Sartorius HKHFN, editor. *Quality of Life in Mental Disorders*. 2 ed. UK: John Wiley; 2006. p. 199-208.
21. Chen CY, Storr CL. Alcohol use and health-related quality of life among youth in Taiwan. *J Adolesc Health*. 2006 Nov;39(5):752.e9-16. PubMed PMID: 17046514. PMCID: PMC2278239. Epub 2006/10/19.
22. Menezes C. A qualidade de vida de dependentes de álcool. [Dissertação]. Faculdade de Medicina de Botucatu da Universidade Estadual Paulista Júlio de Mesquita Filho; 2006.
23. Costenbader EC, Zule WA, Coomes CM. The impact of illicit drug use and harmful drinking on quality of life among injection drug users at high risk for hepatitis C infection. *Drug Alcohol Depend*. 2007 Jul 10;89(2-3):251-8. PubMed PMID: 17320314. PMCID: PMC1974852. Epub 2007/02/27.
24. Benincasa MaCEM. Avaliação da qualidade de vida em adolescentes do município de São Paulo. *Bol Psicol*. 2011;61(134):31-42. PubMed PMID: Benincasa2011.

25. Richter D, Eikelmann B, Berger K. Use of the SF-36 in the evaluation of a drug detoxification program. *Qual Life Res.* 2004 Jun;13(5):907-14. PubMed PMID: 15233504. Epub 2004/07/06.
26. Freeman K. Health and well-being outcomes for drug-dependent offenders on the NSW Drug Court programme. *Drug Alcohol Rev.* 2003 Dec;22(4):409-16. PubMed PMID: 14660130. Epub 2003/12/09. eng.
27. Jansen K, Mondin TC, da Costa Ores L, de Mattos Souza LD, Konradt CE, Pinheiro RT, et al. Transtornos mentais comuns e qualidade de vida em jovens: uma amostra populacional de Pelotas, Rio Grande do Sul, Brasil Mental common disorders and quality of life in young adulthoods: a population-based sample. *Cad Saúde Pública.* 2011;27(3):440-8.

Received: Sept 25th 2017

Accepted: July 31st 2018

Corresponding Author:
Patricia Ucelli Simioni
E-mail: psimioni@gmail.com
 <https://orcid.org/0000-0002-6951-5040>

Copyright © 2019 SMAD, Rev. Eletrônica Saúde Mental Álcool Drog.
This is an Open Access article distributed under the terms of the Creative Commons (CC BY-NC).

This license lets others remix, tweak, and build upon your work non-commercially, and although their new works must also acknowledge you and be non-commercial, they don't have to license their derivative works on the same terms.