

Impact of Brief Intervention performed by nursing on psychoactive substance consumption

Fernanda Pâmela Machado¹, Marcos Hirata Soares², Jaqueline Fatima de Souza³, João Vitor Alves Coutinho⁴

ABSTRACT

Objective: to assess the impact of the Brief Intervention (BI) performed by nursing with patients who consumed psychoactive substances. **Method:** this is a descriptive, quasi-experimental study, with intragroup design, carried out with 34 users of psychoactive substances in an extra-hospital mental healthcare service in Paraná-PR, in the period from 2018 to 2019. The instruments used for data collection were the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) and the Life Orientation Test (TOV-R). **Results:** the total study population was 34, consisting of 24 men (61.5%) and 10 women (25.6%), aged between 18 and 64 years. The result of the paired t-test calculation indicated that there is statistical significance when compared to initial and final means of psychoactive substance consumption. That is, at the time of the first contact with the patient and at the end of their follow-up, there is a difference in the mean scores, meaning that there was a significant decrease in psychoactive substance consumption. **Conclusion:** the proposed practices resulted in a medium impact for reduction in psychoactive substance consumption. It is noteworthy that mental healthcare nurses have shown to significantly contribute to the reduction of psychoactive substance consumption through BI application.

Descriptors: Substance-Related Disorders; Brief Psychotherapy; Psychiatric Nursing; Psychiatric Rehabilitation.

- 1 Enfermeira. Doutoranda. Universidade Estadual de Londrina. Bolsista CAPES. Londrina, Paraná, Brasil. fer.machado3@hotmail.com. ORCID iD: 0000-0002-2446-1341
- 2 Enfermeiro. Doutor. Universidade Estadual de Londrina. Docente. Londrina, Paraná, Brasil. mhirata@ueł.br. ORCID iD: 0000-0002-1391-9978
- **3** Enfermeira. Mestre. Centro Universitário Filadélfia UNIFIL. Docente. Londrina, Paraná, Brasil. jaquef.souzajp@gmail.com. ORCID iD: 0000-0002-9619-3091
- 4 Enfermeiro. Mestrando. Universidade Estadual de Londrina. Londrina, Paraná, Brasil. enfermeirojoaocoutinho@hotmail.com.ORCID iD:0000-0002-6409-0143

Corresponding author

Marcos Hirata Soares. Adress: Av. Robert Koch, 60 - 86038-390 - Londrina-PR-Brasil. Email: mhirata@uel.br.

Submission date: 29/01/2021 Approval date: 19/07/2021

How to cite this article:

MACHADO, P.M; et al. Impact of Brief Intervention performed by nursing on psychoactive substance consumption. Advances in Nursing and Health, v. 3, p. 83-93, Londrina, 2021.

INTRODUCTION

Psychoactive substance abuse disorder is a multifactorial syndrome, caused by the desire to ingest substances that cause physical and mental deterioration (1) Among the various existina comorbidities, depressive disorder is considered to be the one with substantial improvement, if treated in conjunction with alcohol dependence. When this does not occur, improvement is considered modest (2)

Among the various disorders potentiated by the use of psychoactive substances, alcohol is considered the most prevalent in the world. In Brazil, it is estimated that the prevalence is 4.1 to 6%, in which, also, the low socioeconomic level increases the risk of dependence ⁽¹⁾. This socioeconomic and cultural context, which involves this disorder, has given rise, for more than 40 years, to the use of strategies to prevent dependence and/or reduce consumption, using motivation as the foundation for behavioral change.

One of the strategies considered to be of low cost and with optimal effectiveness is Brief Intervention (BI). BI is based on the application of a motivational technique, in which, from various attitudinal components, self-efficacy and self-change are stimulated as a key element to interrupt or reduce psychoactive substance consumption, aiming at harm reduction. The technique, strategy, duration and context of application may vary depending on the professional⁽³⁾.

It is noteworthy that the effects of BI application suggest the efficacy and usefulness in public health praxis, when compared to no or minimal intervention, in order to prevent the harmful use of alcohol by young adults⁽⁴⁾, and moderate to low, when compared to illicit substances and other types of group interventions ⁽⁵⁾.

Although still little used in Brazil, this technique has shown positive results, especially in places that apply it daily. According to some studies, the patient who arrives at the Basic Health Unit, because he is not under such advanced chemical dependency, can respond more effectively to BI in these scenarios ⁽⁶⁻⁷⁾.

Even though BI is considered a technique with low application cost and supported by the World Health Organization (WHO), its use by health professionals is still small, which may be related to the lack of training of these professionals in the care of users of alcohol and other drugs, in addition to the fact that many services do not have human resources considered sufficient to meet the demand ⁽⁸⁾.

Despite all these impasses, nursing professionals are the ones who most apply the BI technique, as they constitute the majority of professionals working in health services, and together with the multidisciplinary team, they can create strategies for greater applicability of BI in primary care and mental healthcare services ⁽⁹⁾.

Thus, this study was justified by the need to assess the impact of the BI performed by the nurse associated with the offered treatment already at the Psychosocial Care Center (CAPS - Centro de Atenção Psicossocial), since CAPS, as it is a community mental healthcare service, and therefore extra-hospital, is considered an important space, as it contributes to the reduction and duration of psychiatric hospitalizations. Such an opportunity can be constituted, then, as another experience of

great value to benefit users, as well as for nursing, in order to strengthen the profession in this issue, which so afflicts the Brazilian population.

Given the above, the study aimed to assess the impact of the BI performed by nursing with patients who consumed psychoactive substances.

METHOD

This is a quasi-experimental, intragroup study carried out in the countryside of Paraná State-Brazil. Data collection started in September 2018, ending in August 2019.

The research sampling was nonprobabilistic. Respondents were selected through an active search, which was carried out by the project nurse with professionals from a CAPS. The nurse reviewed the medical records and the list of all patients who had been diagnosed with disorders related to psychoactive substance (PAS) abuse. Medical diagnoses were represented using the ICD-10 (International Classification of Diseases and Related Health Problems), namely: F10.2 – covering mental and behavioral disorders due to alcohol use, such as addiction syndrome; F19.2 - which classifies mental and behavioral disorders due to the use of multiple drugs and the use of other PAS, such as addiction syndrome.

In addition to these, all patients who participated in the "Projeto de Inclusão Social de Pessoas com Problemas Decorrentes de Drogas" in a unit specialized in the care of patients with mental disorders. The oldest patients started treatment in early 2016, and the most recent in September 2018.

Through active search, more than 60 patients with PAS were identified, all being invited to participate in the activities of the aforementioned project. In the week scheduled for the beginning, 47 patients attended, for whom the nurse explained the project activities, its duration and objectives.

The inclusion criterion was to be classified as an abusive user of alcohol by the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), with a score of \geq 4 for marijuana and crack/cocaine and \geq 11 for alcohol, of both sexes, over 18 years old, be part of the group of patients assisted by the service and participate in all research stages.

The instruments used for data collection were ASSIST, validated in Brazil and used worldwide(10) and the Life Orientation Test (TOV-R), validated in Brazil(11), both with acceptable reliability indices (0.80 and 0.78). The choice of TOV-R was determined by the fact that BI, hypothetically, offers hope and motivation to individuals who wish to stop or reduce PAS consumption, thus constituting an instrument that could measure perceptible change, given that it also optimism opposes the depressive states(12) so common in alcohol users.

BI was applied by a nurse at both times (beginning and end of the project), with a duration of 30 to 40 minutes, and for each patient, a day and time was scheduled for individual application, which was added to the that was normally offered in the service.

Even though there were two moments (initial and final) for BI, during the project nurse's contact in the workshops with patients, the attitude of motivation and welcoming was adopted in each meeting held with patients in the workshops, continuing what was started in the BI performed by the nurse, individually.

When patient follow-up began,

screening by the ASSIST test was performed as part of the service's routine, applied by the unit nurse upon admission. Based on the test results, if they met the inclusion criteria, patients were invited to participate in the research, which consisted of the TOV-R test application and the BI initial application by the nurse exclusively assigned to the project. The subjects participated in the workshops in the morning period from Monday to Thursday. In the last contact, new data collections were carried out through the application of the instruments. During this period, 12 participants abandoned the project because they changed residence or returned to the labor market and one was admitted to a psychiatric hospital. Thus, the sample consisted of 34 participants.

For data analysis, the Kolmogorov-Smirnov test was first performed to determine the sample normality. All tested variables were normally distributed. Thus, the paired t-test and Cohen's r effect magnitude were performed for optimism and consumption of alcohol, tobacco, marijuana, cocaine and crack. Data were analyzed using the Statistical Package for the Social Sciences (SPSS)TM, version 26.

The research was conducted in compliance with the assumptions of Resolution 466/12 of the Brazilian National Health Council (Conselho Nacional de Saúde). It was approved by an Institutional Review Board, under CAE (Certificado de Apresentação para Apreciação Ética -Certificate of Presentation for Ethical Consideration) 03471218.9.0000.5231. The manuscript was written in accordance with the recommendations of Standards for Quality Improvement Reporting Excellence (SQUIRE 2.0).

RESULTS

Of the 34 study participants, 24 (61.5%) were men and 10 (25.6%) were women, aged between 18 and 64 years, with 24 single and 10 married, with a mean of 1 to 5 children; all users were in the precontemplation phase of BI. As for clinical history, they were hospitalized in mean 2.15 times, ranging from 1 to 14 times. The beginning of alcoholic beverages ranged from 8 to 26 years, with the mean being 15 years old. The medical diagnoses represented by the categories of disorders described in the ICD-10 were F-10.2 in 6 (17.6%) participants, F-19.2 in 12 (35.3%) participants, F-10.2 and F.19-2 in 2 (5.9%) participants, in addition to diagnoses associated with other functional conditions in 14 (41.2%) participants.

Table 1 presents the initial and final means in relation to PAS consumption of

participants submitted to BI. The result of the calculation of the paired t-test indicated that there is statistical significance when compared to the initial and final means of PAS consumption. That is, at the time of the first contact with participants and at the end of their follow-up, there was a difference in the mean scores, meaning that there was a significant decrease in PAS consumption.

Table 1 - Initial and final mean of psychoactive substance use in patients receiving BI.
Paraná, Brazil, 2018 - 2019

	Cohen's r	Initial mean	Final mean	Sig (p>0,05)
Alcohol	0,68	24,71	9,32	,000
Tobacco	0,66	21,44	8,24	,000
Marijuana	0,42	6,38	1,88	,011
Cocaine	0,48	11,50	2,97	,003
Optimism	0,47	15,14	17,61	,004

DISCUSSION

Sociodemographic characteristics corroborate current studies^(1,13) regarding sex, marital status and age as the prevalent profile of alcohol users. The calculation of the measure of effect, by Cohen's r, resulted in values of median clinical significance for all variables of this study. However, it is possible to bring the values obtained for the reduction of alcohol and tobacco consumption to 0.70, which would classify the effect as large.

Table 1 shows that the measures of effect on illicit drugs were lower when compared to licit drugs. A randomized controlled study⁽¹⁰⁾ presents similar data, in which the licit drugs presented higher measures of effect (alcohol, 7.9%; tobacco, 16.4%), and illicit drugs, minor measures (marijuana, 1.2%; hypnotic, 1.4%; cocaine/crack, 0.9%), denoting that this combination of BI allowed a lower score in ASSIST, corroborating the present study, in which the application of ASSIST associated with the practice of BI was effective.

A study of 370 patients undergoing hospitalization highlights that BI was effective in 84% of the cases that were hospitalized ⁽¹⁴⁾. Young people found it easy to talk about the feelings and problems caused by alcohol; however, patients who were older than 60 years and who were positive by means of the AUDIT test were the ones who had the most difficulties in talking about the problems caused by alcohol ⁽¹⁵⁾.

When compared to other studies, it can be seen that the BI and the follow-up after six months were able to effectively reduce drug use, denoting that the BI can be more complete when compared to simple interventions ⁽³⁻⁴⁻¹⁷⁻¹⁸⁻¹⁹⁾.

Thus, the present study may also constitute further evidence, besides providing an effect measurement score, which was not identified in the aforementioned studies.

BI, linked to the results of ASSIST,

showed its efficacy in a randomized controlled study conducted by psychologists from Primary Care services in Australia, Brazil, the United States and India, pointing out that participants who received a BI for PAS use significantly reduced use, since 584 (80%) participants reported their intention to reduce drug use by making positive comments about the impact of BI on their health behavior ⁽¹⁹⁾.

BI has some pillars and one of them is to provide the motivation for the abandonment or reduction of PAS use. In a study conducted by psychologists at CAPS-AD in Porto Velho - RO - Brazil with 120 individuals referred for therapeutic treatment imposed by judicial force, it was concluded that the treatment model focused on motivational intervention is efficient for both people referred compulsorily and for people with voluntary search for treatment ⁽²⁰⁾.

A meta-analysis study conducted with randomized clinical trials ⁽⁷⁾ corroborates the need identified in the present study, focusing on continuing health education, not least because there is the possibility that, although motivational approaches, such as BI, can actually motivate the abandonment or reduce alcohol consumption, they may not improve the acceptance of treatment in services specialized in chemical dependence, often stop drinking on their own ⁽¹⁹⁾ and have prejudice, possibly from entering mental healthcare services, given the stigma surrounding the user of alcohol and other drugs. This fact deserves to be highlighted, given that the health service in which the present study was conducted also treats patients with other primary diagnoses, such as schizophrenia and bipolar affective disorder.

Even though alcoholism is a chronic disease, the results of BI in these users are significant and impressive, denoting that, in the long term and continuously, it is favorable as an intervention. As an intervention that requires monitoring, Primary Health Care needs to continue so that BI is effective, as expected. In addition to BI, there is the Unique Therapeutic Project (PTS - Projeto Terapêutico Singular). When associated, they allow patients who present similar situations to know how to deal with feelings, to be inserted in society again, in addition to minimizing suffering and anxiety (21).

The limitation of this study is the rare national experiences of nurses who

conducted practical studies with BI and/or motivational approaches, as well as it was not possible to perform a separate analysis of the impact of each type of psychosocial intervention performed on community mental healthcare services, since the subject receives them as a whole.

The practice of BI by nurses in the present study suggests that this professional is able to contribute to the reduction/cessation of PAS consumption as well as other healthcare professionals also do. The present experience demonstrated the potential of nurses in a health area in which they have not yet consolidated their practice, when compared to other health specialties as well as the adoption of BI and its principles in CAPS' daily work.

Having a nurse specialist in mental healthcare in Basic Health Units would be of great importance, but it is known that this is not a reality. Given this situation, it is worth highlighting the importance of continuing health education for professionals working in primary care, aiming at the functioning of the Psychosocial Care Network (RAPS - *Rede de Atenção Psicossocial*), which directly influences the psychosocial rehabilitation of these individuals. Thinking about these improvements, as a supporter, psychiatric nurses could help in the training of professionals working in primary care. Primary Health Care, enabling the nonspecialized nursing staff to also perform actions and apply BI in these units.

CONCLUSION

The study presented a significant finding, i.e., that the use of BI performed by nursing is effective, which suggests that this practice needs to be more applied in Primary Care and CAPS.

BI applied together with the PTS showed moderate efficacy in reducing/cessation of substance abuse. In other words, BI as part of treatment contributed to making patients more optimistic and less willing to consume alcohol and other drugs, since the results of the present study indicated that mental healthcare nurses were also able to perform the BI technique with results satisfactory, according to scores obtained, taking PAS consumption as a reference, which changed positively after a year of follow-up.

Finally, we highlight the importance of psychiatric nurses providing support to other nurses, especially those who work in

REFERENCES

1. Carvalho AF, Connor JP, Haber PS, Hall WD. Alcohol use disorders. Lancet. 2019; 394 (10200):781-792.

2. Foulds JA, Adamson SJ, Boden JM, Williman JA, Mulder RT. Depression in patients with alcohol use disorders: systematic review and meta-analysis of outcomes for independent and substanceinduced disorders. J Affect Disord. 2015; (185):47-59.

 Sobell LC, Sobell MB. Terapia de grupo para transtornos por abuso de substâncias: abordagem cognitiva-comportamental motivacional. Porto Alegre: Artmed; 2013.

4. Kaner EFS, Beyer F, Dickinson HO, Pienaar E, Campbell F, Schlesinger C, et al. Effectiveness of brief alcohol interventions in primary care populations (review). Cochrane Database Syst Rev. 2018; (2).

5. Platt L, Melendez-Torres GF, O'Donnell A, Bradley J, Newbury-Birch D, Kane E, et al. How effective are brief interventions in reducing alcohol comsuption: do the setting practitioner group and content matter? 5. Findinds from a systematic review and metagression analysis. BMJ Open. 2016; 6(8).

 Pereira MO, Anginoni BM, Ferreira N, Oliveira MAF, Vargas D, Colvero LA.
Efetividade da intervenção breve para o uso abusivo de álcool na atenção primária: revisão sistemática. Rev bras enferm.2013; 66 (3): 420-428.

7. O'donnell A, Anderson P, Newbury-Birch D, Schulte B, Schmidt C, Reimer J, Kaner E. The impact of brief alcohol interventions in primary healthcare: a systematic review of reviews. Alcohol alcohol. 2014; 49 (1): 66-78.

8. World Health Organazation (WHO). Global status report on alcohol and health. Canadá 1990-2006. Geneva; 2011.

9. Anderson P, Kłoda K, Kaner E, Reynolds J, Bendtsen P, Pelgrum-Keurhorst MN, et al. Impact of practice, provider and patient characteristics on delivering screening and brief advice for heavy drinking in primary healthcare: Secondary analyses of data from the ODHIN five-country cluster randomized factorial trial. Eur J Gen Pract. 2017; 23(1):241-5.

10. Humeniuk R, Newcombe DAL, Dennington V, Ali R. A randomised controlled trial of a brief intervention for illicit drug use linked to ASSIST screening in a primary healthcare setting: results from the Australian componente of the World Health Organization Phase III ASSIST studies. Aust J Prim Health. 2018; 24(2):149-54.

11. Bandeira M, Bekou V, Lott KS, Teixeira MA, Rocha SS. Validação transcultural do teste de orientação da vida (LOT-R). Estud Psicol. 2002; 7(2):251-8.

12. Santos MC; Wechsler SM. Análise das publicações científicas sobre otimismo em saúde no último triênio. Psicologia Argumento. 2015. 33(83), 470-482.

 Soares J, Vargas D. Effectiveness of brief group intervention in the harmful alcohol use in primary health care. Rev Saude Públ. 2019; 53(2):1-10.

14. Kucmin T, Kucmin A, Turska D, Turski A, Nogalski A. Coping styles and dispositional optimism as predcitors of post-traumatic stress disorder (PTSD) symptoms intensity in paramedics. Psychiatr Pol. 2018; 52(3): 557-71.

15. Cunha SM, Carvalho JCN, Kolling MN, Silva CRDA, Kristensen CH. Social skills in alcoholics: an exploratory study. Rev bras ter cogn. 2007; 3(1): 31-9.

16. Glass JE, Hamilton AM, Powell BJ, Perron BE, Brown RT, Ilgen MA. Specialty substance use disorder services following brief alcohol intervention: a meta-analysis of randomized controlled trials. Addict. 2015; 110(9): 1404-15.

17. Schmidt CS, Schulte B, Seo HN, Kuhn S, O'Donnell A, Kriston L, et al. Meta-analysis on the effectiveness of alcohol screening with brief interventions for patients in emergency care settings. Addict. 2016 11(5).

 Vipond J, Menenga HA. Screening, brief intervention and referral to treatment by emergency nurses: a review of the literature.
J Emer Nurs. 2019; 45(2): 178-84.

19. Humeniuk, R.; Dennington, V.; Ali, R.L. The effectiveness of a brief intervention for illicit drugs linked to the ASSIST screening test in primary health care settings: a technical report of phase III findings of the WHO ASSIST randomised controlled trial. Genebra; 2008. 20. Junior IJF, Calheiro PRV, Crispim PTB. Motivation for Change in Substances Use among Drug Users Referred by the Justice System. Trends in Psychology. 2018; 26(3), 1363-1378.

21. Soares MH, Rolin TFC, Machado FP, Ramos LKF, Rampazzo ARP. Impact of brief intervention. and art therapy for alcohol users. Rev. Bras. Enferm. 2019; 72(6):1485-1489.

22. Shepard DS, Lwin AK, Barnett NP, Mastroleo N, Colby SM, Gwaltney C, Monti PM. Cost-effectiveness of motivational intervention with significant others for patients with alcohol misuse. Addict. 2016; 111 (5): 832–839.

