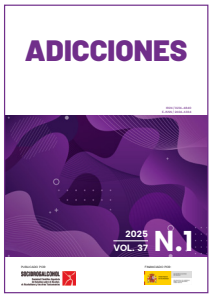
SOCIDROGALCOHOL
Sociedad Científica Española de Estudios sobre el Alcohol, el Alcoholismo y las otras Toxicomanías

ADICCIONES
2025 ■ VOL. 37 ■ N. 1 ■ PAGES 73–84
www.adicciones.es



ORIGINAL

Healthcare professionals' perception of prolonged-release buprenorphine in opioid use disorder. FOLIPRO Study

Percepción de los profesionales sanitarios sobre la buprenorfina de liberación prolongada en el trastorno por consumo de opioides. Estudio FOLIPRO

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Abstract

The aim of the FOLIPRO study was to determine the satisfaction and expectations of healthcare professionals with experience in opioid use disorders (OUD) with prolonged-release buprenorphine (PRB). FOLIPRO was designed as an anonymous, cross-sectional, multicenter survey aimed at professionals from addiction centers (AC) and penitentiary centers in Spain. The survey collected characteristics of the AC and the healthcare professionals. Possible barriers associated with the prescription of PRB in OUD treatment were also identified. Seventy-four questionnaires were received from 45 different centers. More than half of the centers, 51.1%, were outpatient methadone (MTD) dispensing centers and 31.1% were penitentiary centers. 68.5% of the participants had experience with PRB, which exceeded 6 months in 58.3% of the cases. 31.5% stated that they had no experience, 40% of them mainly due to reimbursement criteria for PRB. Regarding prescribing/administration issues, professionals reported greater satisfaction with PRB compared to MTD and buprenorphine/naloxone (SL-BPN/NX). According to healthcare professionals, bureaucracy, lack of knowledge of some prescribers, and patient refusal due to fear of opioid withdrawal were the main barriers described in for prescribing PRB. The results of the study show high satisfaction among healthcare professionals with PRB, positioning PRB as a valuable treatment option.
Keywords: Opioid Use Disorder, opioid substitution treatment, satisfaction, expert opinion, prolonged-release buprenorphine

Resumen

El objetivo del estudio FOLIPRO fue determinar la satisfacción y expectativas de profesionales sanitarios expertos en el trastorno por consumo de opioides (TCO) con las formulaciones de buprenorfina de liberación prolongada (BLP). Diseñado como una encuesta transversal y multicéntrica en la que participaron de forma anónima profesionales pertenecientes a centros de adicciones (CA) y centros penitenciarios de España, incluyó preguntas sobre las características de los centros y sobre las características laborales de los profesionales sanitarios. Igualmente se identificaron las posibles barreras asociadas a la prescripción de la BLP en el tratamiento del TCO. Se recibieron 74 cuestionarios de 45 centros diferentes. El 51,1% y 31,1% fueron centros ambulatorios de dispensación de metadona (MTD) y centros penitenciarios, respectivamente. El 68,5% de los profesionales sanitarios tenían experiencia con BLP que superaba los 6 meses en el 58,3%. El 31,5% afirmó no tener experiencia señalando como principal causa (en un 40%) los criterios de financiación de la BLP. En todos los aspectos relacionados con la prescripción/administración, los profesionales transmitieron una mayor satisfacción con BLP en comparación con MTD y buprenorfina/naloxona sublingual (BPN/NX SL). La burocracia, el desconocimiento por parte de los prescriptores y el rechazo del paciente por temor al síndrome de abstinencia a opioides, fueron a juicio de los encuestados las principales barreras descritas a la hora de prescribir la BLP. Los resultados del estudio evidencian una alta satisfacción de los especialistas con BLP que podría posicionarse como una alternativa de tratamiento con respecto a las disponibles en el TCO.
Palabras clave: Trastorno por consumo de opioides, tratamiento sustitutivo de opioides, satisfacción, opinión de expertos, buprenorfina de liberación prolongada

■ *Received: November 2023; Accepted: March 2024.*

■ ISSN: 0214-4840 / E-ISSN: 2604-6334

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Opioid use disorder (OUD), recognised as a serious health problem, is a chronic and multifactorial disease involving a loss of control in the use of opioids (Bell & Strang 2020; Dematteis et al., 2017). Opioid dependence treatment (ODT) is considered the basis of treatment alongside psychosocial therapy (Cioe et al., 2020; Dematteis et al., 2017). Methadone (MTD) and buprenorphine in monotherapy or in combination with naloxone (NX) are the most frequently used ODT in Europe, with percentages of 63% and 35% of all ODT, respectively (Marco et al., 2013; Pascual et al., 2022; Pascual Pastor et al., 2023). It is estimated that in 2021, approximately 524,000 people in the European Union, equivalent to half of the patients with high-risk opioid use, received treatment with opioid agonists. Restrictive policies, the shortage of specialists able to prescribe them due to lack of knowledge, the limited number of pharmacies dispensing them and the associated costs have been identified as possible barriers to treatment access (EMCCDA, 2021, 2023).

Despite sufficient available evidence regarding their effectiveness in reducing opioid use and reducing morbidity and mortality in patients with OUD (Cioe et al., 2020; Pascual Pastor et al., 2023), these treatments may be limited by poor adherence to treatment recommendations, probably linked, among other factors, to the need for daily administration, and high relapse and dropout rates (Bell & Strang 2020; Pascual Pastor et al., 2023; Strang et al., 2020). Alongside these problems, other issues such as diversion of the drugs and illegal sales have prompted interest in focusing the treatment of OUD on other types of formulations that could mitigate these aspects (Andrilla et al., 2020; Lin et al., 2018; López-Briz & Giner García, 2021). Prolonged-release buprenorphine (PRB) formulations in the form of an implant or subcutaneous injections that provide drug release over weeks or months are considered an alternative to traditional ODT (Pascual et al., 2022; Vorspan et al., 2019). Nevertheless, they are underused, and this may be associated with professional and institutional barriers preventing their promotion (Yarborough et al., 2016).

Tackling addictive behaviours requires a multidisciplinary approach in which the treatment decision is agreed between doctor and patient (Cioe et al., 2020; Yarborough et al., 2016). To this end, it is necessary to understand and appreciate all aspects relating to pharmacotherapy. The knowledge and beliefs of the professionals involved in caring for these patients are essential when selecting the treatment and can consciously or unconsciously affect the decision of the patient and, therefore, the effectiveness of the treatment. Professionals need to guarantee that the information they provide is complete and free of the myths surrounding this type of medication to educate and communicate to patients the different treatment options available without any type of bias. Knowing and understanding the needs and preferences of patients with OUD, as well as those of the professionals involved in their care, are thus key to ensuring successful treatment (Cioe et al., 2020; Roncero et al., 2016; Yarborough et al., 2016).

Although different studies have been carried out in recent years presenting the perception of professionals caring for patients suffering from addictions regarding ODT (BUP, MTD, NX and BUP/NX), describing possible barriers related to treatment access (Andraka-Christou et al., 2022; Andrilla et al., 2020; Cioe et al., 2020; Lin et al., 2018), evidence in real clinical practice in Spain is limited. In a recent systematic review of studies from different countries (none from Spain) regarding the preference of patients and professionals for OUD, it was clear that dependent patients are most concerned about stigma and misinformation, while health care professionals (HCP) see the lack of training and resources as the main barriers to ODT (Cioe et al., 2020).

In Spain, the most recent studies assessing perceptions of OUD treatment are fundamentally based on the opinions of patients (Pascual et al., 2022; Pascual Pastor et al., 2023). In the authors' opinion, the FOLIPRO study [Spanish acronym: FOrmulaciones de LIberación PROlongada, i.e., prolonged-release formulations] is the first to explore and attempt to understand the perceptions of the different profiles of HCP involved caring for OUD patients with PRB and their opinion when comparing to MTD and SL-BUP/NX, the most used ODTs in Spain (Roncero et al., 2015). Likewise, the study identified the possible barriers that exist around the prescription of PRB.

Method

Study design

The FOLIPRO study is an anonymous cross-sectional remote (online) survey aimed at Spanish HCP with experience in managing patients with OUD in addiction centres (AC) or prisons. The Euskadi Drug Research Ethics Committee (CEIm-E) approved the study, which was endorsed by SOCIDROGALCOHOL (the Spanish Scientific Society for the Study of Alcohol, Alcoholism and Other Drug Addictions), the Spanish Society of Dual Pathology (SEPD). and by the Spanish Society of Prison Health (SESP).

Study objectives

The main objective was to determine the expectations and satisfaction of healthcare professionals with PRB in the treatment of patients with OUD. As secondary objectives, the characteristics of the HCP and their centres were described. In addition, the opinion of the experts on certain aspects of PRB and its comparison with MTD

and SL-BPN/NX was valued, as was their appreciation of the barriers that may exist to the prescription of PRB and possible advantages that it could contribute with in the treatment of OUD.

As a requirement, participants had to have experience in managing patients with OUD and knowledge of PRB formulations, regardless of whether or not they had experience in prescribing and using the medication.

Specialists in psychiatry, family medicine, nursing and experts in addiction medicine were contacted by email through administration staff at SOCIDROGALCOHOL, SEPD and SESP. The survey was circulated to members of the three societies. Three reminder emails were sent to encourage participation.

As an essential requirement for completing the survey, the instructions attached to the email specified the need to have experience in managing patients with OUD. Experience in prescribing and/or administering PRB was not an exclusion criterion, but all participants had to know its characteristics.

Survey and data collection

Between October 2022 and February 2023, the specialists were sent a link to the survey once they had accepted the study invitation email. The survey was completed on the basis of the professionals' knowledge, experience or expectations regarding PRB formulations. Hospital records or patients' clinical histories were not accessed at any time.

The survey questions were structured in five blocks based on the objectives of the study: characteristics of the participating centres, characteristics of the HCP, satisfaction of HCP with PRB, description of the PRB characteristics that would improve the approach to OUD, and description of the barriers associated with PRB prescription.

To know the degree of satisfaction of professionals with experience in prescribing and/or administering PRB and their opinion regarding its effectiveness, two numerical scales were used in which these aspects were rated from 0 to 10 (0 = Not at all satisfied/Not at all effective, and 10 = Totally satisfied/Totally effective). All participants, irrespective of whether they prescribed or administered PRB, answered a battery of questions assessing their perception, based on their knowledge, of different aspects related to the prescription/administration, efficacy/effectiveness and safety of PRB compared to MTD and SL-BPN/NX.

Statistical analysis

A descriptive analysis was carried out to calculate the means and standard deviations for quantitative variables. For qualitative variables, frequency distributions with their respective percentages were calculated from the professionals' valid answers. All analyses were carried out with Jamovi 2.3.16 software.

Results

During the study period, 74 surveys were received from 45 different centres in Spain (Canary Islands, Cantabria, Castilla La Mancha, Balearic Islands, Castilla y León, Andalusia, Valencian Community, Madrid Community, Galicia, Catalonia and the Basque Country). The Basque Country, Catalonia and Galicia were the autonomous communities with the highest participation rate, with 39.2%, 17.6% and 10.8% of responses, respectively, of the total number of surveys sent out.

Characteristics of the participating centres

As shown in Table 1, a little more than half (51.1%) of all the treatment centres for patients suffering from addiction were public and outpatient centres for dispensing MTD, treating an average of 177 OUD patients during the year prior to the study. Prison centres represented 31.1% of the total, with an average of 380 patients treated in the previous year. In relation to the treatment provided during the previous year, 69%-74% of patients received MTD, 21%-24% SL-BPN/NX and 3%-7% PRB, according to the professionals surveyed (Table 1).

Characteristics of health care professionals

Approximately 60% of the HCP who completed the study survey were psychiatrists, with an average experience in treating OUD of 18.9 years (Standard Deviation [SD]: 10.9), as shown in Table 2. The group with the second highest participation was nursing staff (25.7% of responses received), with an average of 18.5 (SD: 10.9) years of experience in managing patients with OUD. According to the professionals, the average number of patients with OUD treated in the previous year in the participating centres was 95.1 (SD: 110.9). For 69% of these patients, MTD was the most frequently dispensed treatment, followed by SL-BPN/NX for 24% and PRB for 8% of patients (Table 2).

Experience with prescribing and/or administering PRB was reported by 68.5% of HCP, with 58.3% of them for more than 6 months. While 31.5% of the HCP had no experience, they were familiar with the drug and its properties. For 40% of them, the main reason behind the lack of experience in using the drug was the lack of patients who met the reimbursement criteria of the Ministry of Health (patients being treated with oral BPN/NX, inadequately stabilized or with treatment adherence problems). Moreover, 20% of HCP indicated that they had not received training in the use of PRB (Table 2).

Healthcare professionals' satisfaction with prolonged-release buprenorphine

The average score on the scale (0-10) assessing the professionals' degree of satisfaction with the experience of prescribing/administering PRB was 8.7 points. The average score on the numerical scale assessing effectiveness was 8.8

Table 1
Characteristics of the healthcare centres where the participating professionals work

Variable	**Centre / %**		
Type of healthcare centre	**N= 45 (100)**		
Outpatient, dispensing MTD	23 (51.1)		
Outpatient, not dispensing MTD	3 (6.6)		
Treatment centre	2 (4.4)		
Prison centre	14 (31.1)		
Hospital detoxification unit	3 (6.6)		
Patients with OUD treated in the year prior to the study	**Mean (SD)**		
Outpatient, dispensing MTD	177.09 (177.96)		
Outpatient, not dispensing MTD	380 (4.42)		
Treatment centre*	5 (-)		
Prison centre	380.07 (472.4)		
Hospital detoxification unit*	30 (-)		
Patients with OUD treated by centre in the previous year, by type of treatment	**MTD (%)**	**SL-BPN/NX (%)**	**PRB (%)**
Outpatient centre	69%	24%	7%
Treatment centre	74%	21%	5%
Prison centre	73%	21%	6%
Hospital detoxification unit	74%	22%	3%

Note. PRB: prolonged-release buprenorphine; BPN: buprenorphine; SL: sublingual; SD: standard deviation; MTD: methadone; NX: naloxone; OUD: opioid use disorder.
*Of the total number of responses, only one provided a valid response; this value is presented.

Table 2
Characteristics of the participating health care professionals

Variable	**Centre / %**
Health care professional specialty	**N (%)**
Psychiatry	44 (59.5)
Addiction	3 (4)
Nursing	19 (25.7)
Family doctor	5 (6.8)
No specified specialty	3 (4)
Years of experience	**Mean (SD)**
Psychiatry	18.9 (10.9)
Addiction	16.0 (10.2)
Nursing	18.5 (10.9)
Family doctor	17.6 (10.3)
Patients with OUD treated per specialty in the year prior to the study	**Mean (SD)**
Psychiatry	90.57 (110.1)
Addiction	102.96 (107.0)
Nursing	87.40 (109.9)
Family doctor	100 (102.3)
Patients with OUD treated by a health care professional in the last year	**Mean patients (SD)** **95.1 (110.9)**
Patients treated with MTD	69%
Patients treated with SL-BPN/NX	24%
Patients treated with PRB	8%
Professionals with experience of PRB formulations (N=73)	
Yes	50 (68.5)
No	23 (31.5)
Time prescribing/administering PRB in experienced HCP (N=48)	**N (%)**
Under 6 months	12 (25)
Approximately 6 months	8 (16.7)
Over 6 months	28 (58.3)
Reasons for lack of experience in HCP (N=20)	**N (%)**
Non-availability or limited availability at AC level	2 (10)
Lack of training or knowledge regarding PRB use	4 (20)
Lack of patients meeting the Ministry of Health criteria	8 (40)
Other reasons	6 (30)
Knowledge of PRB characteristics in inexperienced HCP (N=21)	**N (%)**
Yes	19 (90.5)
No	2 (9.5)

Note. PRB: prolonged-release buprenorphine; BPN: buprenorphine; SL: sublingual; SD: standard deviation; AC: autonomous community MTD: methadone; NX: naloxone; OUD: opioid use disorder.

Figure 1
Satisfaction questionnaire results

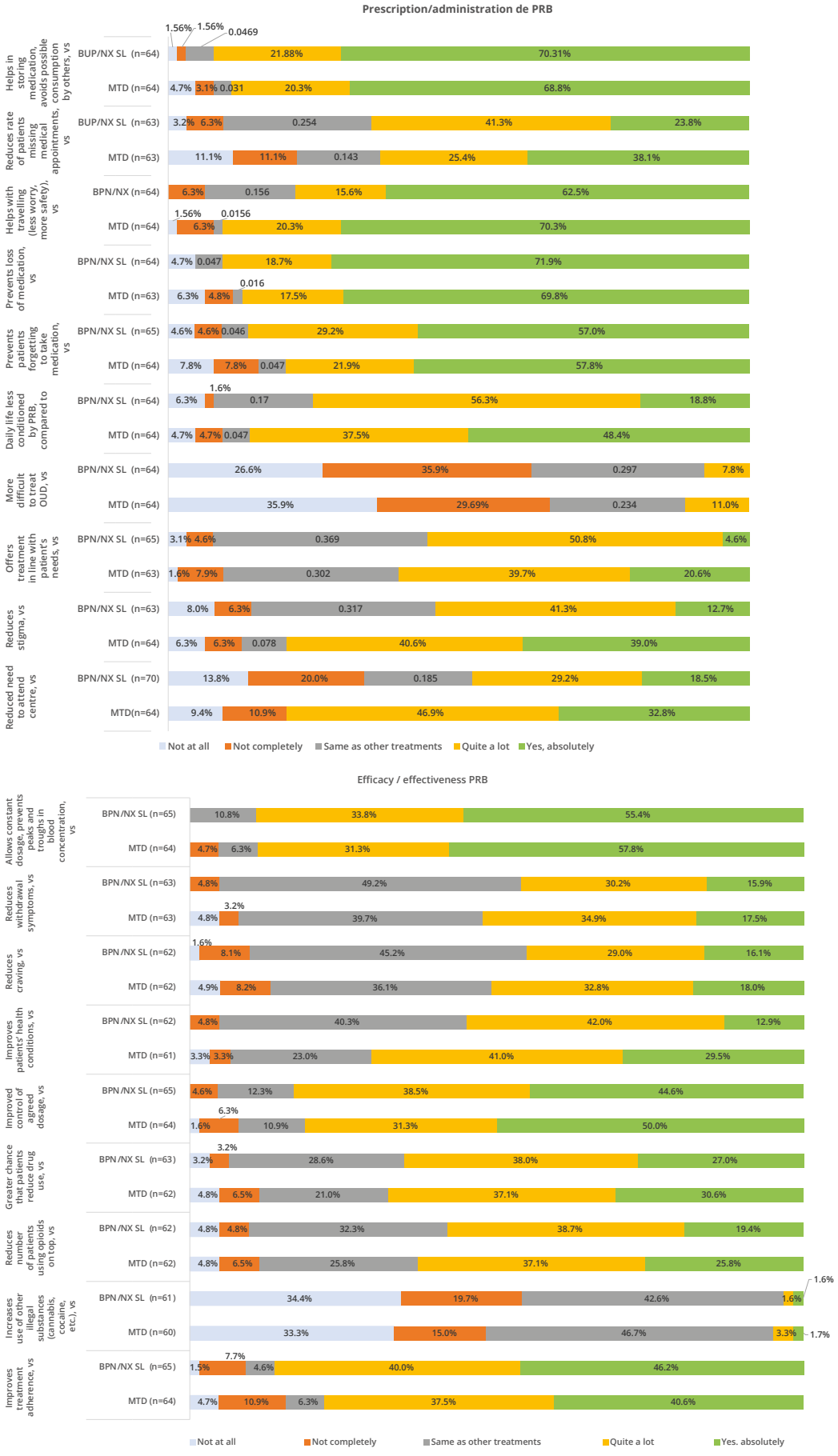
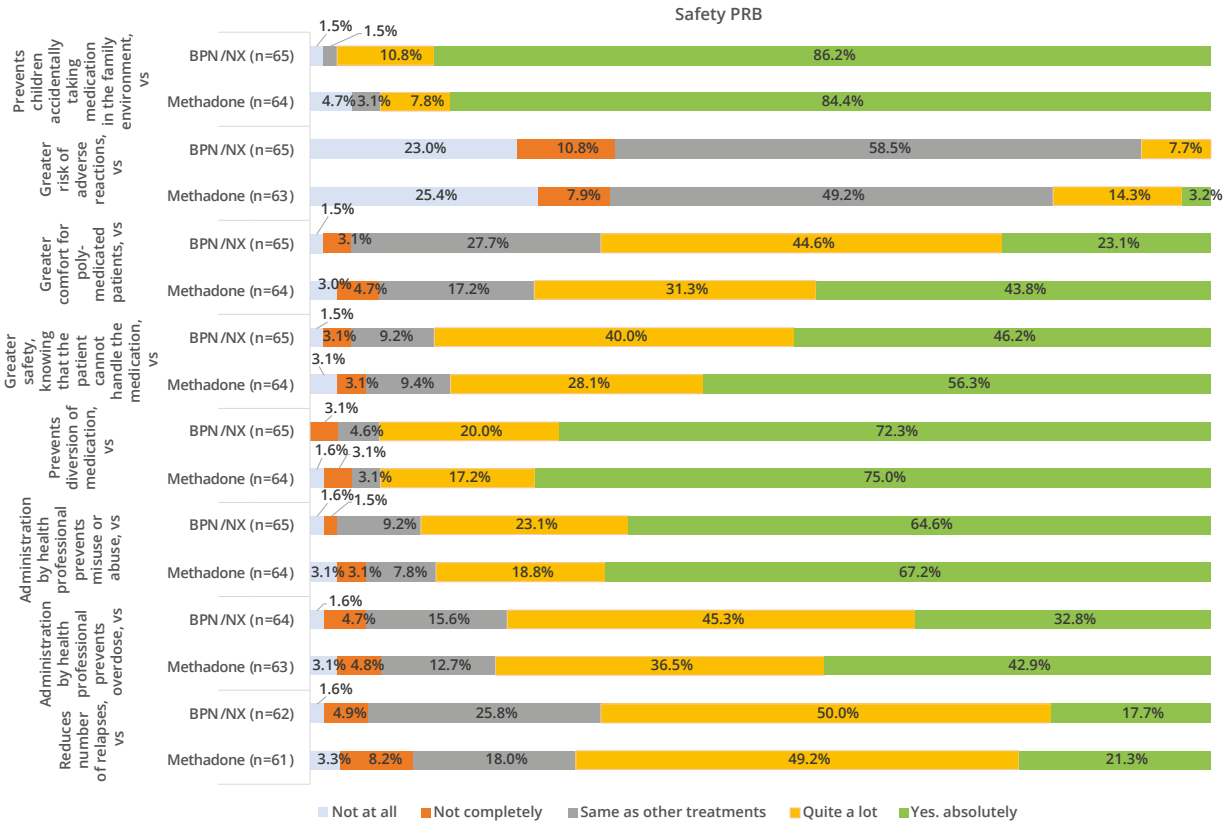


Figure 1
Satisfaction questionnaire results



Note. PRB: prolonged-release buprenorphine; BPN: buprenorphine; SL: sublingual; MTD: methadone; NX: naloxone. Percentages were calculated based on the total responses indicated by the researchers. Missing values were not considered.

points; both scores reflect a high degree of acceptance of PRB among specialists who use PRB.

The results of the satisfaction questionnaire on HCP's opinion of PRB compared to MTD and SL-BPN/NX are presented in Figure 1. Regarding prescription and administration, the three main factors were being able to travel more safely and with less worry (70.3% of those surveyed), preventing the loss of medication (69.8%) and not having to store the medication, preventing possible use by third parties (68.8%). With the rating "quite a lot", greater satisfaction was perceived with PRB than MTD in aspects related to the reduction of the care burden (for 46.9% of the professionals), the reduction of stigma (for 40.6% of the respondents) and the possibility of offering a treatment more in line with patients' needs (for 39.7%) (Figure 1).

Compared to SL-BUP/NX, professionals perceived greater satisfaction with PRB, which they rated with the factor "Yes, absolutely" in aspects related to loss of medication (for 71.9%), storage conditions (for 70.3% of respondents) and likelihood of travelling more safely and with fewer worries (for 62.5%). The rating "quite a lot" was given to aspects compared to SL-BUP/NX, related to the limitations patients may have in their daily lives (for 56.3%), the possibility of offering a treatment more in line with the patient's needs (for 50.8%) and that it could reduce stigma and the rate of patients who do not attend scheduled visits with the doctor (both aspects reported by 41.3% of respondents).

In relation to efficacy and effectiveness, the factor that healthcare professionals indicated as "absolutely more satisfactory" with PRB compared to MTD and SL-BUP/NX was being able to achieve a constant dose, thus avoiding concentration peaks and troughs (57.8% of HCP were more satisfied with PRB than with MTD, and 55.4% preferred PRB to SL-BUP/NX). Allowing better monitoring of the prescribed dose with PRB was the second factor in which respondents indicated greater satisfaction (with the "absolutely" rating) compared to MTD (50% of respondents) and compared to SL-BUP/NX (44.6%). The third highest rated aspect was in the improvement of adherence with PRB compared to MTD (for 40.6%) and to SL-BUP/NX (for 46.2%). In reducing craving, the majority of professionals reported that they thought PRB had the same efficacy as MTD (according to 36.1% of professionals) and SL-BUP/NX (for 45.2% of respondents). Similarly, they thought that PRB was equally

effective as MTD and SL BPN/NX to reduce withdrawal (39.7% and 49.2% of respondents respectively). (Figure 1).

With regard to safety, the three variables with the highest percentage of responses indicating a greater preference for PRB compared to MTD and SL-BUP/NX, scored with the rating "yes, absolutely," were the possible reduction in accidental consumption by children, 84.4% versus MTD and 86.2% versus SL-BUP/NX; the possibility of avoiding substance diversion (75% compared to MTD and 72.3% compared to BUP/NX) and the possibility that with PRB, treatment misuse or abuse would be avoided simply by the fact that administration was carried out by a HCP (67.2% of HCP indicated a preference for PRB over MTD and 64.6% over SL-BUP/NX). Regarding relapses, 49.2% of professionals showed a preference for PRB, rating the reduction as "quite satisfactory" compared to MTD and 50.0% compared to SL-BUP/NX. Regarding the possibility of the patient suffering some type of adverse reaction with ODT, for the majority of respondents thought PRB had the same probability as MTD (for 49.2% of respondents) and SL-BUP/NX (58.5% of respondents) (Figure 1).

Characteristics of prolonged-release buprenorphine formulation

Given the characteristics related to weekly or monthly subcutaneous administration, 87.7% of HCP thought that PRB provided greater comfort compared to MTD and 81.3% compared to SL-BPN/NX in aspects related to adherence, satisfaction, retention and security, as shown in Figure 2. The transition from SL-BPN/NX to PRB was considered easy for 96.9% of professionals, while the transition from MTD to PRB was considered complex for 62.9%.

In relation to the question whether the HCPs considered that patients with OUD had sufficient information regarding different therapeutic options for their disease and the characteristics of each of the drugs, 59.4% stated that there was a lack of knowledge amongst patients (Figure 2).

Barriers associated with the prescription of prolonged-release buprenorphine

Figure 3 shows the barriers associated with the prescription of PRB. Fear of opioid withdrawal syndrome (OWS),

Figure 2
Healthcare professionals' assessment of the characteristics of prolonged-release buprenorphine versus methadone and buprenorphine/naloxone

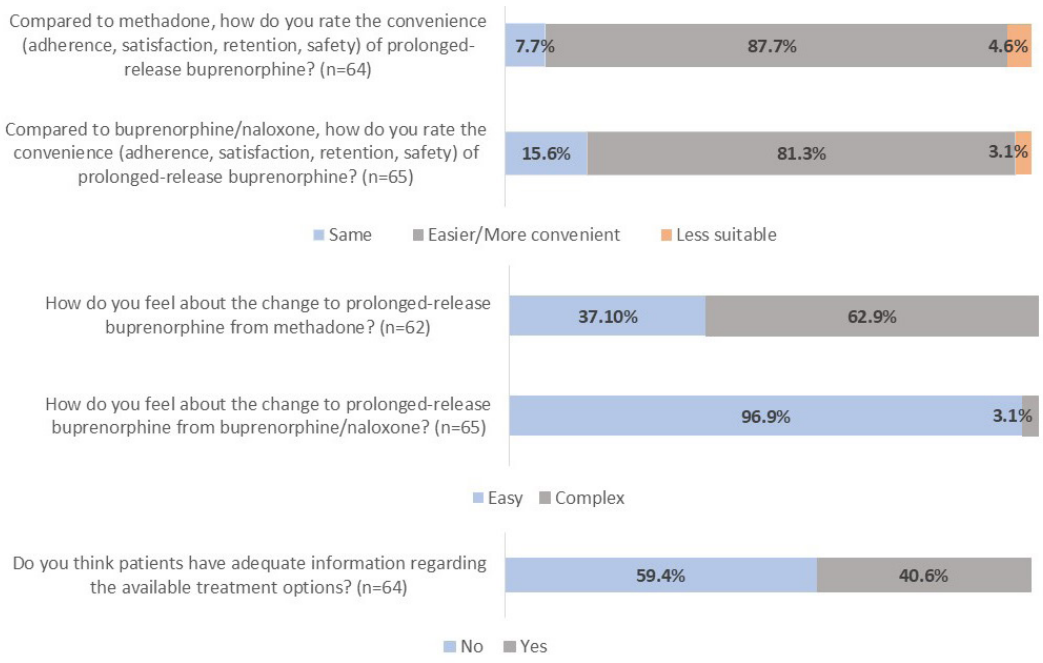
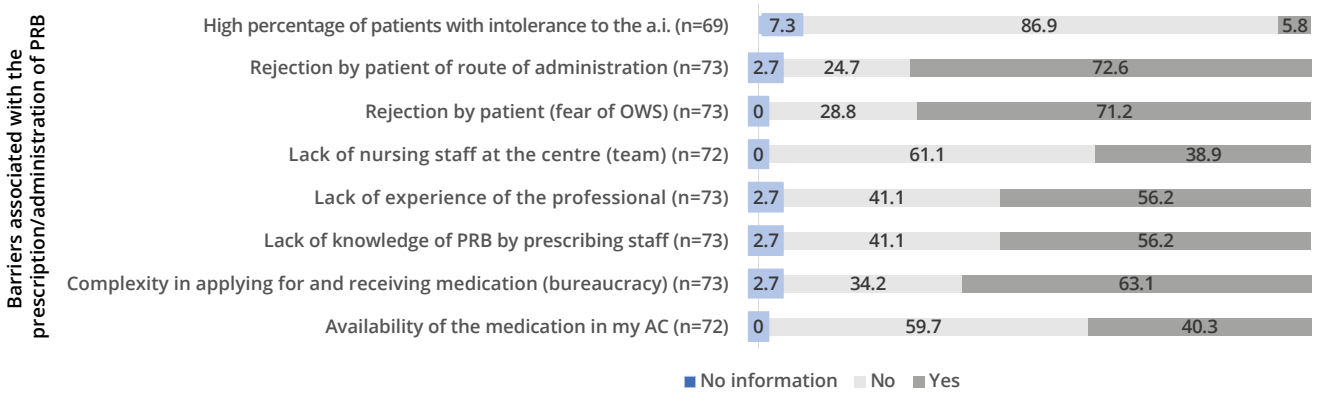
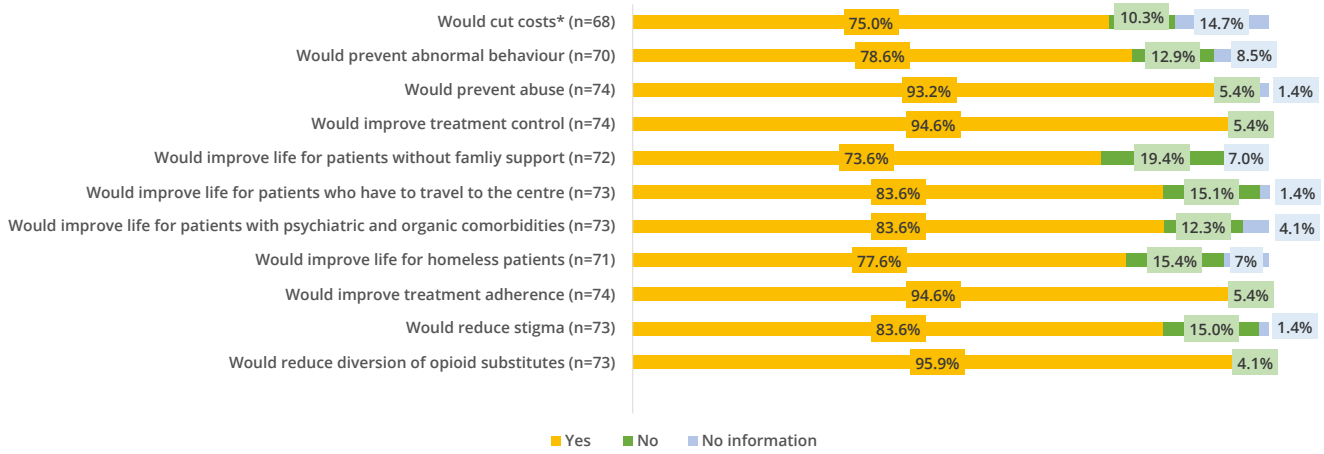


Figure 3
Barriers associated with the prescription/administration of prolonged-release buprenorphine



Note. PRB: prolonged-release buprenorphine; CA: autonomous community; OWS: opioid withdrawal syndrome; a.i.: active ingredient. *In parentheses, the percentages of answers obtained for each of the variables with respect to the total number of professionals who answered the questionnaire (74).

Figure 4
Situations or type of patients in which health professionals believe the administration of prolonged-release buprenorphine would improve the approach to OCT replacement treatments



Note. *Cost savings for the health system (through possible increase in adherence and thus reduction in the number of relapses and overdoses).

the patient's rejection of the route of administration, the complexity involved in applying for and receiving PRB, and the prescriber's lack of knowledge were the main barriers identified by the HCP surveyed (Figure 3).

Perceived advantages of PRB

Figure 4 shows situations in which the characteristics of PRB could improve the treatment of OUD patients compared to MTD and SL-BUP/NX. Professionals believed that PRB could make it more difficult to divert opioid agonists to the black (or illegal) market (according to 95.9% of respondents), could improve adherence (according to 94.6%) as well as treatment control (for 94.6%) and avoidance of medication misuse (for 93.2% of professionals), among other aspects (Figure 4).

Discussion

The results obtained in the FOLIPRO study show good acceptance and satisfaction regarding PRB by the surveyed HCP involved in the management and care of OUD patients. The survey results illustrate the benefits that this type of formulation could provide in the treatment of OUD compared to two of the most widely used treatment options in Spain, while also outlining the possible barriers related to its prescription and administration.

The data obtained from this survey report greater satisfaction with PRB compared to MTD and SL-BPN/NX in practically all aspects relating to prescription/administration, efficacy/effectiveness and safety.

In the opinion of the professionals surveyed, when compared to MTD and BUP/NX SL, PRB has

characteristics that make it a treatment more in line with the needs of OUD patients, with less likelihood of losing the medication and its consumption by third parties due to storage issues, less stigma and a reduction in the need to attend treatment centres in person. These results are in line with those obtained by Pascual Pastor et al. (2023), who assessed the satisfaction and experience of Spanish OUD patients with their treatment. Patients, both those receiving MTD and SL-BUP/NX, reported feeling "very bothered" or "fairly bothered" by the need to pick up medication frequently (daily or weekly) and feeling shame or stigma because of the practically daily supervision of their treatments (Pascual Pastor et al., 2023). The social stigma surrounding dependent individuals is a well-known and reocurring theme, as reflected in one of the main conclusions in the systematic review by Cioe et al. (2020). Patients undergoing treatment with MTD sometimes feel reluctant to be open about their treatment with their family and social environment for fear of discrimination, and although MTD has afforded them a positive change in their lives, they feel stigmatized. Having to frequently pick up medication and have it monitored can be an aspect that makes work and other daily activities difficult for the patient, thereby limiting their quality of life (Cioe et al., 2020).

Together with the very nature of the addiction disorder, ODTs requiring daily administration increase the possibility of the drugs being diverted needed (Pascual Pastor et al., 2023). In the FOLIPRO study, the preference of health professionals (almost two thirds of those surveyed) for PRB is evident; due to that it can only be administered by expert health professionals, and therefore reduces the possibility of misuse compared to treatment with MTD and SL-BUP/NX, and so reduces or prevents its misuse (or abuse). Concern about diversion with SL-BUP/NX treatment is widespread among healthcare professionals (Cioe et al., 2020) since it can lead, even in a low percentage, to an increase in relapses and accidental overdoses (Cioe et al., 2020; Pascual Pastor et al., 2023).

Diversion may sometimes be linked when there is lack of clinic medication supply. The lack of resources (institutional, educational, economic) and the lack of training of health care workers could be causes related to the barrier of prescribing buprenorphine and the lack of its availability. In our study, although all the professionals surveyed were familiar with the characteristics of PRB, 31.5% reported not having any experience in prescribing and/or administering the drug, due to lack of training in 20% of the cases.

Training related to buprenorphine and its administration is essential for PRB to be considered another option alongside other ODT. In a cross-sectional analysis with specialists in psychiatry, it was observed that those who had not received training regarding the drug expressed greater reluctance when prescribing it compared to specialists who had been trained (Suzuki et al., 2014). Other studies (Louie et al., 2019; Mendoza et al., 2016) emphasize the importance of such training to avoid erroneous approaches or any scepticism that specialists may transmit to patients with OUD. In a study conducted with family physicians and experts in the treatment of patients with OUD, inadequate staff training, lack of access to addiction experts, and the perceived effectiveness of buprenorphine were identified as major barriers to prescribing buprenorphine (DeFlavio et al., 2015).

In any treatment decision, especially in OUD, it is essential that there is correct communication between doctors and patients and that both participate in making treatment decisions, aspects that could enhance adherence and thus the chances of treatment success (Yarborough et al., 2016). To do this, it is important that patients receive accurate and unbiassed information from specialists about each treatment option, debunking myths and educating them without prejudice (DeFlavio et al., 2015). More than half of the professionals surveyed in the study (59.4%) considered that patients with OUD do not have all the information they need regarding the different options.

Although professionals showed a high degree of preference for PRB and more than 80% found it more comfortable/convenient to use compared to MTD and SL-BPN/NX, the percentage of use is low considering the number of patients treated by respondents in the year prior to the start of the study who could have benefitted from it.

The main barriers to prescribing PRB reported in the study, and which could contribute to this underuse of PRB, were access at autonomous community level, the complexity involved in applying for and receiving the medication, and the paucity of patients who meet the criteria established by the Ministry of Health.

Knowing the preferences of specialists, as well as those of patients, their preferences for ODT, and identifying the factors that could improve the treatment and attitude of the ODT patient are essential for successful treatment of these patients (Knudsen et al., 2021; Yarborough et al., 2016).

A strength of this study is that the FOLIPRO is, to our knowledge, the first study carried out in real clinical practice with the same objectives comparing the three OAT options. A limitation of this study is the absence of information on the representativeness of the completed surveys received, given the large-scale distribution of invitations. We lacked precision regarding the total number of recipients to whom the participation survey was sent. Sending surveys by email could be influenced by external factors such as possible saturation of recipients' mailboxes, the email landing directly in the spam folder, as well as limitations related to the security of the health centre itself and the possibility of accessing the form on the centre's computers. It should also be noted that the study offered no type of incentive

for the participants, which may be considered a further limitation related to the number of surveys received. The very nature of the study and the exclusive use of surveys are other limitations. As in other studies based on surveys, responses have a strong subjective component and given this susceptibility, results should be read with caution before extrapolating to clinical practice. A further aspect to take into account is the failure to include clinical pharmacists among the professionals treating OUD patients. It would be interesting for future research to incorporate the views of pharmacists and their role, especially in the prison environment, and to carry out perception studies of HCP that combine quantitative and qualitative methodologies which also consider the perception and preferences of the OUD patient.

Conclusion

Based on the positive assessment offered by the HCP surveyed, PRB seems to be positioned as another alternative to the treatment of OUD alongside MTD and SL-BPN/NX. The reduced frequency of PRB administration thanks to the prolongation of the treatment effect could be beneficial in reducing the burden related to frequent collection of medication and could therefore also signify a reduction in the associated stigma, which could in turn improve treatment compliance and would achieve patient stabilization, thereby improving their quality of life.

Acknowledgements

The authors wish to thank the Spanish Scientific Society for Studies on Alcohol, Alcoholism and Other Drug Addictions (SOCIDROGALCOHOL), the Spanish Society of Dual Pathology (SEPD) and the Spanish Society of Prison Health (SESP) for their participation and support in the organization for carrying out the study.

Funding

The FOLIPRO study was funded by Camurus.

Conflict of interests

Carlos Roncero declares that he has received fees for lecturing for Janssen-Cilag, Indivior, Gilead, MSD, Exceltis, Abbvie, Takeda, Rubio, Casein-Recordati, Carnot, Angellini and Camurus. He has received financial compensation for serving as a consultant or board member for Lundbeck, Gilead, MSD, INDIVIOR, Exceltis, Camurus, Abbvie, Idorsia, Rovi and Recordati. He has carried out the PROTEUS project, funded by a grant from Indivior, and the COSTEDOPIA project, funded by INDIVIOR. He has also received two medical education scholarships from Gilead and Idorsia, as well as medical writing support from Abbvie.

Rodrigo Oraa Gil, Fracisco Pascual Pastor and Jose Joaquín Antón Basanta have received fees for lecturing for Camurus.

Diego Sucunza Guibert is employed by Camurus S.L, España.

María Yébenes Cortés and Miguel Ángel Casado are employees of Pharmacoeconomics & Outcomes Research Iberia (PORIB), an independent consultancy specialized in assessment of health interventions. For the development of this project, PORIB has received financing not conditional on results from Camurus S.L.

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