Published in final edited form as:
J Subst Abuse Treat. 2008 June ; 34(4): 456–459. doi:10.1016/j.jsat.2007.05.009.

Nurse practitioner and physician assistant interest in prescribing buprenorphine

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Abstract

Background—Office-based buprenorphine places healthcare providers in a unique position to combine HIV and drug treatment in the primary care setting. However, federal legislation restricts nurse practitioners (NPs) and physician assistants (PAs) from prescribing buprenorphine, which may limit its potential for uptake and inhibit the role of these non-physician providers in delivering drug addiction treatment to HIV patients. This study aimed to examine the level of interest in prescribing buprenorphine among non-physician providers.

Methods—We anonymously surveyed providers attending HIV educational conferences in six large United States cities about their interest in prescribing buprenorphine.

Results—Overall, 48.6% (n=92) of non-physician providers were interested in prescribing buprenorphine. Compared to infectious disease specialists, non-physician providers (AOR=2.89, 95%CI=1.22–6.83) and generalist physicians (AOR=2.04, 95%CI=1.09–3.84) were significantly more likely to be interested in prescribing buprenorphine.

Conclusions—Nurse practitioners and physician assistants are interested in prescribing buprenorphine. To improve uptake of buprenorphine in HIV settings, the implications of permitting non-physician providers to prescribe buprenorphine should be further explored.

Keywords

buprenorphine; opioid dependence; substance abuse; HIV; nurse practitioners

1. Introduction

In the United States, different types of providers deliver HIV care. In addition to infectious disease specialists, general internists and family physicians often care for people with HIV. Nurse practitioners (NPs) and physician assistants (PAs) also deliver HIV care as part of a multidisciplinary team or as independent providers. As a substantial proportion of HIV-infected individuals are drug users (Centers for Disease Control and Prevention, 2003 and 2005; Bing et al., 2001), the recent approval of buprenorphine for the office-based treatment of opioid dependence places providers in a unique position to combine HIV and drug treatment

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in the primary care setting (Sullivan and Fiellin, 2005; Altice et al., 2006). There is evidence to suggest that the integration of HIV and drug treatment can improve outcomes for both conditions (Sullivan et al., 2005).

However, although NPs and PAs have been shown to provide high quality HIV care (Wilson et al., 2005) and can prescribe other controlled substances in most states (United States Department of Justice, 2006), federal legislation restricts them from becoming certified to prescribe buprenorphine. There is concern that this restriction is limiting potential buprenorphine uptake and inhibiting the role of NPs and PAs in delivering drug addiction treatment to HIV patients.

The role of these non-physician providers in the United States has increased dramatically in the last decade. Between 1994 and 2004, the annual number of outpatient visits treated by a non-physician provider increased by 39%, to nearly 90 million, representing 11% of all visits (Centers for Disease Control and Prevention, 2006). In HIV settings, the rates are even higher. In 2000, non-physician providers represented over 25% of clinicians in Ryan White-funded HIV clinics (Hirschhorn et al., 2005), and were the primary provider for 20% of the patients (Wilson et al., 2005; Landon et al., 2004).

Yet little is known about whether NPs and PAs generally want to expand their role in treating opioid dependence. Similarly, there have been no studies comparing interest in prescribing buprenorphine between physicians and non-physician providers. The purpose of this study is to examine interest in prescribing buprenorphine among non-physician providers who deliver HIV care.

2. Methods

2.1 Study population

Self-administered anonymous questionnaires were distributed to physicians, NPs, and PAs attending six HIV clinical education conferences, sponsored by the International AIDS Society-USA (IAS-USA), between February and May 2006. The conferences took place in New York, Chicago, Atlanta, Los Angeles, San Francisco, and Washington, DC. The study was approved by the Institutional Review Board at Montefiore Medical Center.

2.2 Instrument

The questionnaire was modified from previously validated measures (Chappel et al., 1985; Saitz et al., 2002; Turner et al., 2005) to focus on buprenorphine and to allow for self-administration. Questions included provider and practice characteristics (age, race, gender, training, location, and years providing HIV care), experience with prescribing buprenorphine, and interest in prescribing buprenorphine. The main independent variable, type of provider, was categorized as infectious disease specialists, generalist physicians (family physicians and general internists), and non-physician providers (NPs and PAs). The main dependent variable, interest in prescribing buprenorphine, was defined as indicating agreement with the statement “I am interested in treating patients with buprenorphine” using a five category response scale ranging from strongly agree to strongly disagree. We categorized this variable as either “interested in prescribing buprenorphine” (responding strongly agree or somewhat agree) or “not interested in prescribing buprenorphine” (responding neutral, somewhat disagree, or strongly disagree).

2.3 Data analysis

Analysis of provider and practice characteristics and our main independent variable, interest in prescribing buprenorphine, was performed using chi square tests for categorical variables

and Mann-Whitney U tests for continuous variables that were not normally distributed. Multivariate logistic regression analysis was performed to test whether type of provider was significantly associated with interest in prescribing buprenorphine after adjusting for age, gender (male vs. female), race/ethnicity (white vs. non-white), and years providing HIV care. All independent variables were included in multivariate analysis. Generalized estimating equations were used to adjust for cluster sampling by geographic location.

All analyses were performed using SPSS 11.0 for Macintosh OS X (SPSS Inc., Chicago, IL). P-values <0.05 were considered statistically significant.

3. Results

Of the 1258 physicians, NPs, and PAs who attended the six IAS-USA conferences, 625 providers responded to the survey (49.7% response rate). Incomplete surveys (n=69) and surveys completed by unlicensed physicians (n=23) or physicians with previous experience prescribing buprenorphine (n=22) were excluded. Of the remaining 511 providers, the mean age was 46.9 years, and the majority were female (52.2%) and non-Hispanic white (69.3%). The largest proportion of providers was the nonphysician provider group (37%), followed by generalist physicians (34.6%), and infectious disease specialists (24.5%). Table 1 shows the demographic and practice characteristics of all included providers.

Overall, 206 providers (40.3%) reported interest in prescribing buprenorphine -- 27.2% for infectious disease specialists, 39.0% for generalist physicians, and 48.7% for non-physician providers. Providers in New York City (48.1%) and Chicago (50.0%) had the highest rates of interest in prescribing buprenorphine, followed by providers in San Francisco (36.4%), Atlanta (31.1%), Los Angeles (30.9), and Washington, DC (26.7%). Type of provider and location were significantly associated with interest in prescribing buprenorphine in bivariate analysis ($p<0.01$).

After adjusting for geographic location using general estimating equations, and age, race/ethnicity, gender, and years providing HIV care in multivariate analysis, non-physician providers and generalist physicians were found to be significantly more likely than infectious disease specialists to express interest in prescribing buprenorphine (adjusted odds ratio, AOR, for non-physician providers=2.89, 95%CI=1.22–6.83; AOR for generalist physicians=2.04, 95%CI=1.09–3.84) (see Table 2).

4. Discussion

This study suggests that NPs and PAs who care for HIV patients are interested in prescribing buprenorphine. Among 511 healthcare providers from six major United States cities, more than one-third reported interest in prescribing buprenorphine, with interest differing significantly by type of provider. Non-physician providers, who are prohibited from prescribing buprenorphine in the United States by federal legislation, were at least as likely to be interested in prescribing buprenorphine as generalist physicians and more likely to be interested than infectious disease specialists.

Potential limitations of our study include the low response rate, thus introducing the possibility for selection bias. The distribution of providers in our study was similar to those found in other nationwide samples of providers in HIV settings (Landon et al., 2002; Hirschhorn et al., 2006); however, there is insufficient data with which to adequately compare our entire sample. As a cross-sectional study, this study does not show causality but makes the case for an association between types of providers and interest in prescribing buprenorphine. It is not clear if these findings can be generalized to other provider populations.

Nonetheless, this study suggests that NPs and PAs are interested in expanding their role in treating opioid dependence by potentially prescribing buprenorphine. Many of these non-physician providers already specialize in the treatment of addiction, and they can prescribe other controlled substances, including narcotics, in most states. Buprenorphine is the only schedule III medication for which law explicitly mandates that only physicians can prescribe it (Drug Addiction Treatment Act, 2000). The rationale behind this policy is not clear.

Given the increase in opioid abuse and dependence in the U.S. (Office of National Drug Control Policy, 2003), and the low rates of opioid dependent patients who currently receive treatment, the implications of expanding policy to allow NPs and PAs to prescribe buprenorphine should be explored. Specific attempts to improve uptake of buprenorphine in HIV settings should consider allowing for additional treatment opportunities with non-physician providers.

Acknowledgments

We would like to thank Donna Jacobson and the staff of the International AIDS Society-USA, and Alexandra Bobadilla for their assistance with this project.

This study was supported by the Center for AIDS Research at the Albert Einstein College of Medicine and Montefiore Medical Center funded by the National Institutes of Health (NIH AI-51519) and the Health Resources and Services Administration, HIV/AIDS Bureau, Special Projects of National Significance, Grant #6H97HA00247-04-03. Dr. Cunningham is supported by the Robert Wood Johnson Foundation's Harold Amos Medical Faculty Development Program.

Human Participant Protection: This study was approved by the Institutional Review Board at Montefiore Medical Center.

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