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Acceptability of Technology-based Methods Substance Abuse Counseling in Office Based Buprenorphine Maintenance for Opioid Dependence

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INTRODUCTION

Although opioid dependence is known to be most responsive to pharmacotherapy when combined with behavioral interventions, ¹ clinical guidelines and federal rules governing the office-based prescription of buprenorphine recommend only that patients on maintenance are referred for counseling.² The optimal level and form of counseling for patients initiating buprenorphine treatment are unknown. Two recent studies found that fewer than 50% of patients who initiated buprenorphine treatment in the outpatient general medical setting reported ever attending substance abuse counseling.^{3,4}

Given that participation in substance abuse counseling has been found to be significantly related to retention in buprenorphine treatment,^{3,4} the lack of such participation raises critical issues for the effectiveness of buprenorphine treatment. Technology-based substance abuse interventions appear to be acceptable, particularly among the more educated, technology-familiar groups.⁵ There has been little research on counseling based on new technology in office-based buprenorphine maintenance. The aim of this exploratory study was to determine whether use of telephone or Internetbased substance abuse counseling would be feasible and acceptable alternatives to traditional face-to-face substance abuse counseling in a group of low-income buprenorphine maintenance patients.

METHOD

The study was conducted at two substance abuse clinics and was given an exempt status by the University of Maryland Baltimore Institutional Review Board. Opioid dependent patients (N = 24) over age 18, maintained on buprenorphine were invited to participate in a 15–20 minute, interview, using a structured, anonymous, survey instrument designed to address the study question. The survey collected information regarding basic demographics, buprenorphine treatment, participation in counseling, access to technology (eg, telephones, cell phones, computers, and Internet), and willingness to use these types of technology to receive substance abuse counseling. All approached agreed to participate in the study.

RESULTS

Table 1 describes sample characteristics. The dose of buprenorphine (n = 22) ranged from 2 mg to 32 mg daily (median=16 mg). The participants (n=23) had been maintained on buprenorphine for a mean of 9.3 months (SD 9.9, range 1 week–34 months). Nearly all participants (n=23) said that their buprenorphine prescribing physician had referred them for counseling, and 21 (91.3%) said that they did attend counseling, with frequency ranging

from five times weekly (n=9, 39.1%) to once or twice a month (1 participant each, 4.4%). Twenty participants (83.3%) said that they found the counseling helpful or very helpful. All participants had either a home (land-line) phone or a cell phone; 58% had both. Only 42% had a computer. Ninety percent of those with a computer had Internet access, and 70% of these had an email account. Only seven patients had access to both the Internet and e-mail. Very few (N=2) patients had an MP3 player.

Fifty-nine percent indicated a preference for non-office based counseling: 57% preferred phone only, 7% Internet only, and 36% either phone or Internet. Ninety-two percent of the participants said that they would be willing or very willing to receive counseling over the phone, while 55% were willing to do so over the Internet. Even among those who did not have a computer, Internet access, or an e-mail account, many expressed willingness to receive counseling via Internet (50%, 57% and 53% respectively). There were no significant differences in willingness to use new technology to receive counseling based on gender, race, education, income, or time in buprenorphine maintenance.

COMMENT

A majority of our participants indicated that they would prefer to receive counseling via a technology-based method compared to the traditional clinic based, face-to-face approach. Telephone-based counseling seems to be the most accessible and acceptable method to utilize among this patient population. Relatively low cost and wide reach of cell phones make it a particularly feasible method. Lack of resources was a prominent barrier to computer-based modes of counseling. MP3 players and podcasts were not as familiar or acceptable among these participants, perhaps reflecting their older age. The main limitations to this study are a small sample size, and overrepresentation of older patients, women and African-Americans limiting the generalizability of these findings. Also, most of these patients were participating in counseling, and therefore may differ from the group of patients that may most need alternative approaches to counseling. This study does suggest that buprenorphine patients may be willing and able to accept counseling using technology-based methods.

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Table 1**Major Study Findings**

Sample Characteristics	N=24
Age ($\pm$ sd) (years)	42.6 ($\pm$ 11.9)
Female	75% (n=18)
Black	66.7% (n=16)
White/Other	33.3% (n=8)
HS or less	75% (n=18)
Income <\$10 K	66.7% (n=16)
Homeless or family dependent housing	54% (n=13)
Buprenorphine treatment Dose($\pm$ sd) (n=22)	17.7mg ($\pm$ 8.5)
Median time on buprenorphine (n=23)	4 months
Ownership of technology	
Telephone	83.3%
Cell phone	75.0%
Computer	41.6%
Internet access	41.6%
E-mail account	29.2%
MP-3 player	8.3%
Willingness to use technology for substance abuse counseling	
Substance abuse counseling via Internet	54.2%
Substance abuse counseling via telephone	91.6%
Would prefer non-office based counseling (n=22)	59.1%