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Developing CASPAR: A computer-assisted system for patient assessment and referral☆

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Abstract

A study was completed on the use of a computer-based system that provided counselors with resources for client referrals to free or low-cost services within the community based on problems identified with an Addiction Severity Index (ASI) assessment. That study, completed in Philadelphia, found that in comparison with clients whose counselors received a standard ASI assessment training, clients whose counselors also received brief training on the simple, easy-to-use computer-based resource guide (RG) had treatment plans that were substantially better-matched to their presenting problems and received significantly more and better-matched services. Because of these favorable results, the current article presents further data on counselor use of the RG and, to facilitate the implementation of these procedures by others, we provide access to the original RG database, describe the steps necessary to develop, and maintain an RG, and provide training suggestions.

Keywords: Assessment; Technology transfer; Problem services matching; Substance abuse treatment; Treatment planning

1. Introduction

According to Waltman's (1995) review of the substance abuse treatment literature, some of the key factors associated with successful treatment include: easy access to services, skilled therapists, and "matching treatment to salient patient variables." Research also indicates that problems in social and personal health areas such as family, legal, employment, and psychiatric problems are predictors of prognosis during addiction treatment as well as predictors of relapse to substance abuse following treatment (Fiorentine, Nakashima, & Anglin, 1999; Hser, Polinsky, Maglione, & Anglin, 1999; McLellan et al., 1997; Rounsaville, Dolinsky, Babor, & Meyet, 1987; Woody, McLellan, Luborsky, & O'Brien, 1985). Thus, it is reasonable to think that substance abuse treatment outcomes would improve if patients received services tailored to the specific needs identified in their assessment, as part of their treatment.

However, a comprehensive review of contemporary addiction treatment practices by the Institute of Medicine (1999) and a more recent study with a national sample of treatment programs (McLellan, Carise, & Kleber, 2003) showed that few treatment programs have professional staff available to provide additional services, that shrinking medical insurance funds rarely reimburse for services they categorize as "medically unnecessary," and that the rule is standardization of treatment, regardless of the many individual differences in patients problems at admission (see also Institute of Medicine, 1990). The ongoing decrease of funding for and provision of "ancillary" services, such as medical and social services, is well-documented in several longitudinal and national-level studies (D'Aunno & Vaughn, 1995; Etheridge, Craddock, Dunteman, & Hubbard, 1995; Etheridge, Hubbard, Anderson, Craddock, & Flynn, 1997).

☆ Portions of this work have been presented at the College on Problems for Drug Dependence (2003 and 2004), a CSAT Sciences to Services Meeting (2004), at the Office of National Drug Control Policy Symposium (2002 and 2003), at a World Health Organization meeting in Egypt (2004), and in DENS-ASI trainings in Wyoming, Delaware, California, Pennsylvania, Scotland, Thailand, and Sweden.

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Some of the factors preventing the delivery of supplemental, or "wraparound" services in community addiction treatment settings are organizational and include the lack of available on-site services, few professional staff, inadequate counselor training, and no reimbursement for referral to these services (Institute of Medicine, 1999). Assistance with locating public programs and agencies where patients can receive needed services for problems in areas such as employment, medical, or housing would be valuable to both clinicians and patients. To this end, we developed a software-based resource guide (RG) to all manner of wraparound services available in the Philadelphia area and randomly assigned 33 counselors working in outpatient substance abuse treatment programs to receive either a standard 12-hour Addiction Severity Index (ASI) assessment training or the standard 12-hour ASI assessment training plus an additional 2-hour training on using the RG to access services and provide referrals to patients based on the problems identified at assessment. In another article (see Carise, Gurel, McLellan, Dugosh, & Kendig, in press), we discuss the results of our study in detail. The purpose of this article is to present data on the successful use of the RG and to provide a "how-to" manual for the development and maintenance of a computer-assisted resource and referral guide to free or low-cost services in any community. The Institutional Review Board at this research center, as well as at each site where applicable, approved the study and signed informed consent forms were collected from both the counselors and the clients. All procedures followed were in accord with the Helsinki Declaration of 1975.

1.1. Background and purpose of the original study

It was reasoned that match between patient problems identified at assessment and services received (either at the treatment site or through referral) would improve if counselors were provided with and trained to use a directory or RG with information on local agencies delivering services in social and personal heath areas such as job skills training, housing, medical care, and so forth. These are the kinds of services that a prior study had shown to be those most desired by substance-abusing patients and that were thought to be most necessary for their rehabilitation by directors of substance abuse treatment programs (McLellan et al., 1998, 1999). With this as background, we developed and tested a computer-assisted RG designed for practical use by counselors in conjunction with a standard ASI admission assessment (McLellan et al., 1992) such as is widely used by treatment programs. Because training is expensive and because frequent counselor turnover is a common problem (McLellan et al., 2003), we designed the RG for easy, intuitive use, following a brief 2-hour training.

As stated earlier, counselors who used the RG had treatment plans that were substantially better matched to their presenting problems and their patients received significantly more and better-matched services. Encouraged by these results, we now describe the development of the RG, the RG training, the nature and extent of RG use by trained counselors (again, see Carise et al., in press, for more details on patient outcomes in the study) and procedures others can use to develop RGs for their communities.

2. Materials and methods: development of the resource guide

Our RG used the electronic edition of the United Way of Southeastern Pennsylvania's *First Call for Help* (FCH) directory as a foundation (Mackie & Walton 1998). The United Way of Southeastern Pennsylvania cooperated with Dorland's Directories to produce that directory and allowed for its use and modification in our study. The FCH directory was chosen to be the foundation because it was the most comprehensive source available and it had been adapted for electronic use, although we produced the modified RG in both electronic and paper versions.

2.1. Resource guide content

Our first goal was to ensure that the original information in the United Way services database was updated, relevant to the needs of our target population, and easy to access. The FCH directory included information on more than 5,900 human services agencies, sites, and programs in the greater Philadelphia area including numerous counties surrounding Philadelphia. We first deleted all programs that were not located in Philadelphia County. To get an estimate on the reliability of the information, a sample of 81 agencies in Philadelphia County were randomly selected and called approximately 6 months after receipt of the database to verify the information presented in the FCH. Of those 81 agencies, 77% (n = 62) had no change in their information and 23% (n = 19) had minor changes in either their location or in some detail of their operation and service availability, but all were easily contacted and updated during the verification telephone call. Because the majority of changes found did not hinder access to the agency, we were satisfied by this validation effort. It should be noted that we would suggest a random validation of the agency information on a biyearly basis. After this verification, the guide's organizational structure became the focus of our efforts.

2.1.1. Modifications

Our RG started with the FCH but reduced the listings to just those programs with services available in Philadelphia County (where we were conducting the study) and added some services that were thought to be of particular value to substance-abusing patients. We deleted auxiliary clubs and agencies that were not thought to be pertinent to the needs of substance abusers presenting for treatment (e.g., 4-H club, animal control, programs soliciting donations). Finally,