A Limited Literature Review of Predictors of Retention in the Treatment of Opiate Dependent
Clients Receiving Methadone

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Introduction

Methadone maintenance therapy is a harm reduction model that delivers methadone in a controlled setting to opiate-dependent clients as part of the treatment of opiate-related drug addiction. Methadone is a medication that provides relief against the powerful withdrawal and craving symptoms commonly associated with abstinence from opiates in dependent clients that makes recovery so challenging (Kelly, O’Grady, Mitchell, Brown, & Schwartz, 2011). This mode of treatment has been shown to be successful in reducing heroin and prescription opiate use and risky behaviors commonly associated with use, particularly around the intravenous administration of opiates. Because the individual and societal costs of opiate addiction are so detrimental, and because participation in methadone maintenance therapy has been shown to successfully reduce these costs, retention of opiate addicted clients in recovery presents a major health concern to society (Magura, Nwakeze, & Demsky, 1998; Villafranca, McKellar, Trafton, & Humphreys, 2006).

Retention of clients in methadone maintenance is also crucial because drop-out from treatment is particularly dangerous for opiate users. According to Villafranca et al. (2006), “Treatment dropout can lead to overdose, HIV and Hepatitis C infection or transmission, dangerous criminal behavior, and premature mortality” (p. 218). For this reason, it is vital to understand the variables that contribute to client retention in, and drop-out from, recovery. A full examination of these variables and the vast amount of literature published both in the United States and internationally around the issue of retention in methadone maintenance therapy is beyond the scope of this piece. Here, the goal is to begin looking specifically at predictors of retention as evidenced by four particularly interesting articles.
A host of variables undoubtedly inform client retention in methadone maintenance treatment, which makes a conceptual framework through which these variables may be organized and understood particularly useful and valuable. Kelly et al. (2011) offers such a framework by suggesting that retention factors can be organized into three categories: patient factors, program factors, and community factors. The articles examined here seek to understand pertinent variables related to these three types of factors.

The work of Kelly et al. (2011) seeks to address variables from all three types of factors that inform client retention in methadone maintenance therapy. To do this, the authors analyzed a sample of 351 clients newly enrolled in methadone maintenance therapy to understand factors related to termination prior to 90 days (the minimum time necessary to address behavior change, as previously indicated by research) and prior to 365 days (in those who lasted in treatment at least 90 days).

The research of Kelly et al. (2011), discovered that highest rates of drop-out prior to 90 days were associated with being male and low scores on the Treatment Readiness scale (a seven item, 5-point Likert scale questionnaire given at the onset of treatment). For those clients who remained in treatment for 90 days or more, the factors associated with retention “included lower severity of legal problems and higher severity of medical problems at baseline, as well as higher levels of patient satisfaction and methadone dose measured 3 months after treatment entry” (Kelly et al., 2011, p. 173). Interestingly, for these clients, gender was not a decisive factor. Also, upon further examination the only significant variable related to client satisfaction was treatment program location (Kelly et al., 2011). The factors that seem primarily pertinent to this discussion...
are those of legal problems, level of dose, and treatment program satisfaction and location, as these factors emerge repeatedly in the various articles examined here.

In specifically considering the role of treatment program location in regards to client retention, the work of Greenfield et al. (1996) is particularly salient. In this study, the researchers compared retention rates of clients receiving methadone treatment services from a fixed-site location with those receiving similar services from a mobile-site location all within the greater Baltimore municipality. In this study, data from 349 clients receiving services from a mobile site was compared with data from 665 clients receiving services from a fixed site in the same zip code, as well as with 924 clients receiving fixed-site services in different zip codes in the region.

The results of this study are striking in that they reveal significantly greater lengths of retention in the clients receiving services from mobile sites versus fixed sites. The median retention length for clients receiving mobile-site services was 15.3 months, whereas the median length for clients receiving fixed-site services in the same zip code was 3.9 months and 6.27 months for fixed-site services in other zip codes (Greenfield et al., 1996). What seems to be embedded in both the results of this study as well, as those of Kelly et al. (2011), is that greater convenience and lower costs associated with accessing methadone maintenance treatment are associated with greater lengths of retention, and thus understanding these factors in regards to individuals receiving treatment provides a useful lens for predicting client retention and success.

In regards to the factors of client satisfaction and methadone dose, the research of Villafranca et al. (2006) is particularly interesting. In this study, the researchers examined data collected from 258 veterans receiving methadone from 8 locations. They discovered that the strongest predictors of client retention in treatment were methadone dose and treatment satisfaction. Specifically, higher dosage levels and higher levels of treatment satisfaction were
associated with longer retention in treatment. The researchers discovered that older age was also predictive of increased retention length, as was having fewer non-violent arrests. While these patient-related variables of age and arrest record are important, the fact that the program-related variables of dosage level and treatment satisfaction are the most predictive seems to shed additional light on the importance of how we deliver methadone maintenance treatment and the effects this has on client retention length.

Similarly relevant to this discussion is the work of Magura et al. (1998), whose research examined data collected on a sample of 1206 clients admitted to methadone maintenance treatment over the course of two years. This research sought to specifically examine the differences between pre-treatment predictors of retention versus in-treatment predictors of retention. Interestingly, the researchers discovered that “only two of 16 pre-treatment variables, compared with five of six in-treatment variables, had significant effects on retention” (Magura et al., 1998, p. 57). This clearly highlights the importance of in-treatment variables over pre-treatment variables. Furthermore, Magura et al. (1998), go on to state that “this finding supports and extends earlier studies which indicated that patient characteristics at admission have less impact on treatment outcomes than program or treatment variables” (p.57).

Also interesting in regards to the research of Magura et al (1998), are the specific predictors of retention that were revealed. Involvement with the criminal justice system and continued illicit drug use were associated with shorter retention, whereas higher methadone dosage and constructive clinic responses to client problems were associated with longer retention in treatment. Like the other research examined here, the research of Magura (1998) highlights the importance of how services are delivered in regards to client retention in treatment.
Limitations

As one might imagine, all of these studies face a variety of limitations. First and foremost, it is predominantly males sampled in these studies, so further research would benefit from sampling greater numbers of women. Another limitation is the fact that these studies were all conducted in the United States, which means that the laws, treatment protocols, socio-systemic factors, clients, and cultural considerations associated with the treatment programs and research examined here need to be understood within the context of the United States. Generalizing these results to other countries and other cultures most likely would be limited and require careful analysis. The Villafranca et al. (2006) study is also specific to veterans, which presents a host of concerns, as we know little about their personal history and exposure to trauma.

Additionally, these studies tell us little about the terms under which the sampled clients entered treatment. For example, we do not know if the sampled clients were court mandated or entering on their own volition. Certainly, there are potential considerations regarding client buy-in to treatment specifically associated with the terms upon which clients are entering treatment. Future, research would potentially benefit from controlling this variable of how clients enter treatment.

Implications

What seems to stand out the most boldly from the research examined here is the fact that it is actually program variables rather than client variables that seem to inform the issue of treatment retention the most. This is hugely important for counselors and other mental health professionals, because it is impossible to affect who our clients are when they are entering treatment—they are coming to treatment to get help with this very issue. This means if client
variables are an issue, programs are often forced to become selective in whom they serve so as to manage their own resources effectively. However, in this case, because it is program variables that are the most predictive, program administrators can design their treatment services to reflect these research findings and offer these services to a diverse client population.

Another issue that stands out from this research is the fact that opiate addicted clients typically face numerable socio-systemic challenges in addition to their opiate dependence. Issues regarding lack of employment, housing, transportation, financial security, access to services, physical and mental health, and social support are just some of the many concerns facing this client population. Getting such needs met is vital to any person’s well-being, and when deficits in multiple of these crucial areas exist, the challenge associated with achieving progress and positive change becomes compounded. Therefore, it is crucial for counselors and mental health workers to remain continually vigilant to their clients from a systems perspective so that global change may be achieved and progress in one area of functioning is not undermined by crucial deficits in another area.

It also seems important to be careful in how we consider the stand-out factors of dosage level and treatment satisfaction. Specifically, it seems logical that opiate addicted clients would have greater incentive to stay in treatment longer if their methadone dose was higher and their satisfaction with treatment was higher. However true this reality may be, we cannot fully understand these factors by viewing them outside of the overall context within which dosage levels are set and treatment is delivered. There are very real and important reasons why people’s doses are at the level they are at and often times reduced or tapered, not the least of which is safety. Furthermore, client satisfaction needs to be teased apart from simply appeasing the wishes and demands of clients, because it seems that clients who are not in compliance with
treatment regulations, and thus receiving punitive consequences, would not be satisfied, and this must be weighed against the concerns of maintaining treatment regulations and of the considerations that inform the regulations. Ultimately, the point is that methadone treatment programs can’t simply raise dosage levels and satisfy their clients at any cost in order to retain them in treatment. A goal of future research would be to attempt to address how to increase these factors, while also addressing the multitude of other variables that limit their increase.

While clients receiving methadone maintenance treatment present a particularly serious and unique challenge for addictions counselors and other mental health providers, progress is being made in treating these individuals. Furthermore, as research continues to shed light on how this population may best be served, it appears that how services are delivered is crucial to the success of these clients. This is hopeful because it suggests that we can and are continuing to be more effective in our delivery of methadone maintenance treatment.
References


