Resistance to Innovation Among US Drug Abuse Treatment Providers:
When Organizational Knowledge Interferes With Organizational Learning

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Organizational learning is generally considered the basis for organizational knowledge. However, psychologists have known for decades that prior knowledge can often interfere with the acquisition of new knowledge.[1, 2] "You cannot teach an old dog new tricks." as the saying goes. Organizational development professionals help organizations learn new, more efficient or effective business practices that will eventually become part of an organization's knowledge base. Methods for overcoming resistance to change have been well studied at the individual, organizational, and even corporate levels, and the effect of changes in work structure, compensation, performance management, etc., seem to be fairly well understood.[3] This paper discusses a somewhat more challenging, and less-studied phenomena -- resistance to innovation at an field's level.[4] Specifically, the drug abuse treatment field in the United States (US) will serve as the focal point for reviewing a case in which organizational knowledge seems to be interfering with organizational learning.

Despite over a decade of discovering more effective treatments and service delivery strategies for drug abuse and addiction, provider organizations in the US have been slow to incorporate innovations into their services. This is a situation that has been frequently lamented by leaders in the drug abuse treatment field.[5, 6] Despite enhancements proven to be cost-effective in field studies, treatment provider organizations have been resistant to changing therapeutic and business practices that could enhance affordability, efficiency, and quality of treatment. Several hypotheses have been advanced to explain provider resistance to change. However, experts seem to attribute the root problem to an organizational culture[7] that interferes with learning and applying new approaches.[8,9]

This paper describes how the organizational knowledge (OK) that constitutes a significant part of the organizational cultures (OC) of most US drug abuse treatment organizations can create resistance to the organizational learning (OL) necessary to adopt innovative therapeutic and business practices. The paper begins by clarifying our use of the OK, OL, and OC concepts. It then overviews the evolution of OK and OC among drug abuse treatment provider organizations. Next, the OK associated with each of the major treatment modalities is described and associated with potential barriers to innovation. Building on the modality factor, the paper will try to explain how OK has interfered with the OL necessary to adopt new therapeutic and business practices. Finally, the paper will discuss new initiatives intended to change the OCs of drug abuse.

OK, OL, OC, and Resistance to Change

According to Martin Schulz,[10] OK consists of that knowledge or information which is widely shared within an organization and is frequently stored in standard operating procedures, routines, or rules. OL is the process by which OK is acquired. According to Edgar Schein,[11] OC is a system of shared meanings, assumptions, attitudes, and underlying values that manifest

themselves in business practices. The two concepts of OK and OC are distinguishable. At the very least, one can view OK as a key component of OC.[12] Our preference is to acknowledge a dynamic connection between the two constructs, and to attribute distinctions mainly to different research perspectives. Broadly speaking, OK and OL research tends to examine the process by which organizations integrate learning and form a corporate consensus about organizational practices,[13] whereas OC studies seem to examine the socio-motivational basis for sustaining the influence of OK on organizational practices.[14]

Regardless of conceptual distinctions, there seems to be consensus in the OK, OL, and OC literatures that both OK and OC are a) commonly held, b) socially reinforced, and therefore, c) resistant to change. This very resistance to change is ironically both the primary foe of innovation, while also being the ally of sustained change. Once OL takes place, and an innovation is assimilated into an organization's culture, the new OK enjoys broad influence via the socially sustained reinforcement of the OC on organizational behavior.[15,16]

The Evolution of Current OK and OC in Drug Abuse Treatment

Current organizational knowledge and culture found in most US drug abuse treatment provider organizations are rooted in their formative history. These formative roots were nurtured in a) a context of evolving social mores and social awareness, b) scientific interest in addiction knowledge, c) resource and other constraints on what could be learned about addiction, as well as d) on-the-job discovery and e) shifting influence among helping professionals.

During the first half of the 20th Century, society generally viewed addicts and alcoholics to be moral weaklings, and thus addiction was viewed to be more a criminal than a medical problem.[17] In this context, the treatment role of the medical community was confined to detoxification followed by an addict's self-imposed abstinence. Once detoxified, relapsing addicts were seldom offered any alternative but imprisonment, which is where the vast majority of US addicts wound up from time to time.[18] Post-release addiction aftercare participation was rare, and relapse was the norm. Medical science had little to offer addicted patients beyond analgesic detoxification, and resources to support addiction research and treatment were scarce. The fledgling field of psychology had limited theories relevant to addiction, so like medicine, neither profession was equipped to assert much leadership in the quest for OK about effective treatment models. The apparent leadership vacuum in drug abuse treatment created openness to a broad range of influences including nursing and social work as well as to paraprofessional groups and recovering addicts. Consequently, an OC of self-reliant pragmatism emerged during these formative early years, which tended to diminish the dominance of medical and behavioral science on both the formation of OK and the associated OC of treatment provider organizations.

During the second half of the 20th Century, an explosive growth in drug abuse led to major changes in social mores and public support for treatment.[19] In addition to opiates, drugs like marijuana, hashish, LSD, and cocaine became popular amidst a growing trend among American youth of questioning social norms and experimenting with alternative lifestyles. In 1966, the US Congress passed that Narcotic Addict Rehabilitation Act, which was intended to focus more resources on treatment. The Act made illegal the use of most mood altering, hallucinogenic, and addictive drugs. It also authorized the civil commitment of addicts in an attempt to encourage or coerce treatment and aftercare participation.[19] From these initial attempts at coerced treatment, today's modern network of treatment provider organizations began to emerge as local communities attempted to cope with drug addiction.[8]

By the mid 1960s three general treatment modalities dominated the delivery of drug abuse treatment services. These are a) residential therapeutic community treatment,[20] b) outpatient behavioral treatment, and c) outpatient pharmacological treatment.[21] Each modality is

associated with unique OK and OCs derived from developmental histories, founders, and the various treatment models employed.

The residential therapeutic community treatment modality has been heavily influenced by and modeled after Synanon.[22] Therapeutic communities generally emphasized egalitarian OCs that enforced complete abstinence from alcohol and drugs of any kind. Staff consisted mainly of recovering addicts who helped community members learn self-reliance by adhering to and enforcing rigid rules for behavior and passing along their knowledge and experience to new members.[23] Outpatient behavioral treatment has been heavily influenced by the self-help orientation popularized by Alcoholics and Narcotics Anonymous (AA/NA), and often includes programs such as the so-called 12-Steps to Recovery program.[24] Outpatient OCs promoted the mutual social support of members as key to abstaining from alcohol and drugs. Group and individual psychological counseling is common in both the therapeutic community and outpatient behavioral modalities. Many therapeutic community and outpatient behavioral programs also include faith-based elements to help overcome hopelessness and depressed mood.[25]

Finally, the opiate agonist methadone and a longer acting similar drug LAAM have dominated the pharmacological modality. Neither methadone nor LAAM has been widely employed as a treatment modality except in large urban areas. Methadone programs may employ limited behavioral interventions such as group counseling. Their OCs tend to focus on compliance with legal prescriptive requirements imposed by state and federal authorities. It is widely held by pharmacotherapy providers that once free of the craving for drugs most patients can and will return eventually to normal lifestyles. Thus, they place a relatively small emphasis on the use of behavioral interventions favored by therapeutic community and outpatient modalities.[24]

Coincident with the emergence of a national treatment network in the 1960's and 70's, medical science interest in addiction treatment began to grow. In1974, Congress established the National Institute on Drug Abuse (NIDA) to coordinate pharmacological, neurological, and behavioral research to better understand addiction and the treatment of drug abuse. However, research takes time, so publication of studies demonstrating the effectiveness and/or efficiency of innovations naturally lagged behind the pace of treatment program development. In 1992, the pace of federally supported research began a trend of steady budget growth when NIDA became affiliated with the prestigious National Institutes of Health. Today, NIDA administers a billion dollar annual budget that funds 85% of the world's drug abuse research. In the past decade, substantial advances have been made in both the pharmacological and behavioral treatment areas. Nevertheless, it is still commonly held that medical and other scientifically validated innovations (what Gibbons[26] calls Mode 1 knowledge) offer dubious practical value for treating addiction. However, that organizational knowledge is generally incomplete if not incorrect. NIDA's biggest challenge is how to get the nation's treatment provider system to incorporate innovations into their existing OK.[27]

OK and Barriers to OL

The previous section overviewed the evolution of OC and OK for the three dominant drug abuse treatment modalities in the US. This section will attempt to describe how the OC and OK of many provider organizations can create barriers to innovation-related OL. First, four OL-resistant beliefs embedded in the OK of many treatment provider organizations will be overviewed. Beliefs include: a) suspicion of medical science, b) culture of self-reliance, c) historical roots in social movements, and d) norms for abstinence. Second, OL-resistant beliefs that are somewhat modality-specific will be described.

Suspicion of Medical Science. As was mentioned earlier, when drug abuse treatment was in its infancy, Medical Science per se had very little to offer or simply opted out of the treatment milieu except of detoxification. Treatments organizations were left pretty much on their own to

experiment, invent, and sometimes fail. There was little scientific literature on the nature of addiction and ways to treat it. Some providers may harbor feelings of abandonment by mainstream medicine. Others may view the field of medicine, a source of many abused drugs, to be a cause of the problem they are combating. Regardless of the causes, resistance to innovation in many modern treatment provider organizations is bolstered by OCs that view the field of medical science with suspicion, resentment, and/or perhaps even anger.

Culture of Self-reliance. The underlying philosophies of many treatment organizations emphasize self-reliance. They also maintain strong norms for leading by example. This may lead to a spillover of cultural norms for independence from outside influences offering innovation.

Roots in Movements. A large number of treatment programs can trace their roots to what can best be described as social movements. That is, they were offshoots of programs led by charismatic figures who encouraged strong beliefs in the righteousness not only of the service provided, but the treatment methods employed[28]. Nowhere is this phenomenon more likely to be encountered than in therapeutic community programs. The Synanon movement still permeates a great many therapeutic communities in the US and Europe. The 2001 World conference of Therapeutic Communities opened its plenary session in a hail of rousing cheers with the words: "The movement lives!"[29] Such zealotry has led to strong cultural beliefs and norms for service providers. Resistance to innovation can be expected when the fundamental tenants of movements are questioned by new approaches to treatment service delivery.

The Norm of Abstinence. Providers outside the pharmacotherapy treatment modality generally view methadone and LAAM as an anathema to addiction treatment. The strength of this norm has led to resisting the use of psychiatric medications among mentally ill abusers. The OK held by many therapeutic community and outpatient providers views agonist treatment as substituting one euphoric drug for another. Ironically, there have been spillover effects even within methadone organizations. There is evidence that the abstinence norm has influenced methadone treatment providers to undermedicate, perhaps as a means for avoiding euphoria.[30]

Table 1 breaks down by treatment modality the presence of several commonly-held beliefs about drug abuse treatment as reported recently by Professor Rick Rawson at UCLA[7]. As can be seen, some of these beliefs appear to be mutually exclusive. Moreover, some are held by provider organizations in more than one modality.

Ways OK has interfered with OL and Innovation

Although Rawson's article presents evidence that debunks each of the notions in Table 1, they remain part of the OK of many provider organizations.   For example, one might rightly expect that modalities emphasizing OK expressed in table 1 belief #4, that opiate agonist treatments merely substitute one euphoric for another, have shown little interest in a new agonist, buprenorphine, which has negligible euphoric effect. However, to date, even clinics that already deliver the agonists methadone or LAAM have all but ignored this new agonist alternative.[31] Moreover, another new pharmacotherapy, naltrexone that is a euphoria antagonist has been by and large ignored despite the fact that it is not contrary to OK expressed in belief #4. Similarly, one rightly would anticipate resistance to using innovative pharmacotherapies among providers whose OK adheres to belief #7. However, many such organizations have a history of opposing even psychiatric medication to their mentally ill patients despite research showing significant improved outcomes for psychiatrically medicated drug abuse treatment patients.[25]

OK-related resistance is not confined to beliefs about medication. A number of new behavioral treatments have been shown to produce superior outcomes for various types of drug abuse patients. Examples include Matrix Treatment for stimulant abusers, Multi-Systemic Therapy for

Table 1

Widely Held Treatment Beliefs Broken Down by Modality[32]

	Therapeutic Community Treatment	Outpatient (Behavioral)	Outpatient (Pharmacological)
1. Narcotics Anonymous/Alcoholics Anonymous (NA/AA) is a religious cult.	Some	Some	Some
2. The 12-step treatment program advocated by NA/AA is most successful.	Many	Many	Some
3. Only ex-addicts or ex-alcoholics can successfully treat substance abusers.	Many	Many	
4. Methadone/LAAM treatment is simply substituting one drug for another.	Many	Many	
5. All addicts have serious underlying psychological problems	Many	Many	
6. Seriously addicted substance abusers require residential treatment.	Most		
7. Drug and alcohol abusers must achieve sobriety/abstinence without the aid of medications	Some	Many	

children and adolescent drug abusers, and Supportive-Expressive Therapy for heroin addicts. However, some of these new treatments require levels of training and experience that might require hiring staff with advanced degrees and/or specialized treatment experience. One might rightly expect resistance to innovation from provider organizations whose OK stresses the importance of recovery experience.

Finally, resistance to innovation is not confined only to incorporation of new treatments. For example, several behavioral treatment studies have presented evidence that confrontational therapies such as commonly found in therapeutic community residential programs can produce anti-therapeutic effects.[8] To date, despite this evidence, the OC of many therapeutic communities continues to show resistance to change in their treatment approach.[33]

Hopefully at this point a convincing case has been presented that when the formative roots of an industry are similar, the resulting OCs can produce OK that interferes with the OL needed to innovate. The final section of this paper will discuss options being explored that might help to overcome resistance to innovation within the drug abuse treatment field.

New Initiatives to Change OC and OK

In an attempt to overcome OC resistance to innovation among drug abuse treatment providers several major initiatives have been started by the federal government. The Substance Abuse and Mental Health Services Administration charged with overseeing treatment service delivery in the US established 13 regional Addiction Technology Transfer Centers (ATTCs) in 1993 to:

> … develop and disseminate curricula and state-of-the-art addictions information, working toward the upgrading of standards of professional practice for addictions workers in multiple settings, preparing practitioners to function in managed care settings, and stimulating educational providers to address addiction in academic programs for relevant disciplines. [34]

Although the ATTCs seem to be upgrading provider therapeutic skills, little evidence exists that the ATTC program is spurring much innovation on a national level. NIDA has a research program addressing the degree to which ATTCs are promoting innovation in therapeutic and business practices.

In 2000, NIDA established a nationwide clinical trials network (CTN) consisting of 14 regional research and training centers conducting field trials in over 300 clinics to quickly amass large amounts of data on the efficiency and effectiveness of innovations in pharmacological, behavioral, and therapeutic community treatment settings. CTN program hopes for incidental regional spillover innovation to non-network provider organizations. Also, by partnering with associated clinics, CTN hopes to encourage participating providers to continue employing innovations after trials complete and federal funds go away. Although more than two years have passed and over $50 million dollars expended, NIDA is still several years away from completing its first CTN-based clinical trial. Recently, NIDA's Services Research Branch provided four grants to fund studies of the innovation implementation process within CTN clinics that might inform future public health policies and programs that promote drug abuse treatment innovation.

Lastly, NIDA's Services Research Branch has recently introduced a new research model called the Science-Community Partnership (SCP). Based upon the notions reviewed in this paper, the SCP was designed to augment the ATTC and CTN programs through low-cost augmentations of field research. The concept underlying SCP is that even though research proves the efficacy and effectiveness of innovations, and even though mechanisms exist to provide information and training about innovations, research seldom identifies the necessary systemic changes required to implement them at the public health system level.

Rather than challenging existing OK, the SCP approach tries to avoid conflict with the existing OC by offering to augment organizational knowledge with complementary knowledge. SCP creates a three-way partnership between researchers, provider organizations, and community public health administrators. Under SCP, the partners collaborate on treatment service related innovations to be addressed. NIDA will require researcher to collect operations data needed by provider and public health organizations in addition to those data needed to test scientific hypotheses. It is hoped that mandatory bimonthly progress meetings will:

- Reduce resistance to change by building ownership among treatment providers and public health officials.

- Produce new OL by identifying and quantifying time, money, and other resources needed by treatment provider organizations and public health agency officials to plan and budget for agency-wide change.

SCP is being field tested in research designed to examine criminal justice reforms[35] that mandate treatment for early drug abuse offenders in the state of California. NIDA has completed meetings in both northern and southern California that brought researchers, treatment providers, and public health officials together to discuss problems and challenges presented by the new state law called Proposition 36. Six grant applications have recently undergone peer review, and several more applications are ready for peer review. NIDA hopes to have grants in place before the summer of 2002. We hope that SCPs will overcome resistance to organizational learning brought about by interference from the organizational knowledge in existing treatment provider organizational cultures; and that, combined with other national programs, industry resistance to innovation will begin to erode.

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