

The Birth of Electronic Data Transmission Systems: Technology to address prescription drug crime

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Abstract

Oklahoma was the first state to address prescription drug crime using computers to monitor drug prescriptions rather than solely using traditional methods; e.g. multiple-copy paper prescriptions, investigations, and tips. The importance of understanding the role Oklahoma played in this technological breakthrough is important in that it set the tone for what is now, Circa 2012, industry standard in terms of how states track the prescription of scheduled drugs in America. At the core of this reality exists the influence of policy-makers and criminal justice professionals as they worked to address how they should address the diversion of prescription drugs into the illegal drug market. This study used two phases to interview actual stakeholders from this time period, Circa 1990, who created and implemented this prescription drug monitoring program, were interviewed.

Key Words: electronic data transmission systems, prescription drug crime, prescription drug monitoring

Word Count: 7966

Introduction

This study chose Oklahoma as a case study of focus based on the fact that Oklahoma was the first state to create a computerized program known as an electronic data transmission system (EDT). Essentially, Oklahoma was “ground zero” for understanding how and why this important criminal justice administrative decision was made. The Oklahoma EDT program is administered by the Oklahoma Bureau of Narcotics, a law enforcement agency and what will be clear at the end of this study, is how several stakeholders influenced the creation of this program using what was then “uncharted waters” in terms of technology. These uncharted waters included the “occupational socialization” of work-related realities influencing how and why professionals in the public service areas make the decisions they make. Therefore, the importance of this study then is two-fold. First, it helps provide nuances about the history of prescription monitoring programs (PMPs) in terms of technology. Second, this study adds to the work of Wang and Christo (2009) in terms of helping to ensure that PMP research provides a balance of focus which is fair to the interests of both law enforcement professionals as well as health professionals.

The theoretical grounding for this study was no different than that applied to other criminal justice realities using technology such as arming airline pilots to stop terrorists, or whether to use radio frequency tags in order to discover the authenticity of documents, to name a few examples. Indicators of the severity of prescription drug crime, as a serious form of white collar crime, abound; one such example is the survey of college students in which the majority of respondents acknowledged using prescription medication illicitly, rather than for its intended use (McCabe et al., 2006). White-collar crime is often considered unique in its complexity, making it more difficult to understand or address; this complexity reaches far-enough to impact how society considers punishment appropriate (Braithwaite, 1982). White-collar drug crime is in fact different from street drug crime, but not so much in its complexity, or its negative impact on society (Joranson and Gilson, 2005). It is important to keep an open mind with respect to how the complexity of prescription drug crime actually works and not merely presume what constitutes this criminality, e.g. solely prescribers (Inciardi et al., 2007). Our societal perception about white-collar drug crime, i.e. the prescription drug world, might be the key to how we address this public problem. According to Gitchel (1991,153):

Unlike dealing with illicit drugs of abuse, in attacking pharmaceutical diversion, we don't have to deal with helicopters, foreign diplomacy, and jungle laboratories. The sources of these drugs are here in this country,

listed in the “yellow pages,” and we give them a Federal and State license. Preventing the diversion of pharmaceutical drugs is the one abuse problem that is within our direct ability and jurisdiction to control in the United States, if we have the necessary resolve.

In terms of saliency today, prescription drug diversion has become a more serious problem than ever before; so much so, that youth today openly talk about their use of diverted pharmaceuticals, e.g. Xanax and OxyContin, and adults commonly joke about their use of drugs to relax, e.g. Valium and Librium (Murguia et al., 2007; Zacny et al., 2003; Friedman, 2006). According to recent Drug Abuse Warning Network statistics, the use of opiates, commonly used in pain relief medications, were stated as being used by seventeen percent of individuals during hospital emergency room visits (Drug Abuse Warning Network, 2004). In fact, the National Institute on Drug Abuse’s Monitoring the Future Study estimates that roughly 9.5 percent of High School Seniors have used Vicodin without a prescription in a one year period (National Institute on Drug Abuse, 2005). Matched with continual examples in newspapers across the United States of deaths and date rapes, the diversion of prescription drugs into the illegal drug market is a serious problem.

Prescription monitoring programs provide greater access to data at the retail level which identifies what drugs physicians, and other authorized prescribers, write for and what is actually filled by the pharmacies (Gilson et al., 2004). Prescription monitoring programs have impacted the automation of prescription data in that less human power to physically investigate/audit pharmacies is required (Fishman, 2004; Brushwood, 2003). Without them, government representatives would have to utilize antiquated methods such as physically visiting each pharmacy or prescriber’s office to obtain the same data; a process which could seriously damage identification and investigation of drug diversion impacting public safety (Alliance of States with Prescription Monitoring Programs, 1999). Many states currently operate prescription monitoring programs using differing models, e.g. public health or law enforcement, to administer them (National Alliance for State Model Drug Laws, 2007). The fact that many states now recognize the role of such programs is important and most states with such programs use computerized prescriptions in some manner to collect, process, and analyze prescription writing data received from pharmacies. When first implemented in the United States, many stakeholders questioned how such access to patient, physician, and pharmacy information might be used. However, documentation substantiating patients are dealt with “judiciously” has prompted many more states to adopt this technology (Holsinger, 2004).

Understanding prescription drug crime, compared to “street” drug crime, requires careful attention to detail within the literature; attention spanning criminal justice and public health sources (Cooper et al., 1991). The documented historical dimension of drug use dates back to the 15th century and brings with it a sordid account of how drug policy has changed over time (Casey, 1978). Society has traditionally had a difficult time in providing uniformly equitable policy to address what has been perceived drug-related crime; the problem has been that other variables, such as class, race, and culture have been powerful components in how society has viewed what drug behavior should be either regulated or deregulated (Walker, 2005). Prescription drug diversion control systems, e.g. monitoring programs, differ in their approach and purpose while addressing the reality that “The actual and potential demand for controlled substances exceeds legitimate need...” (Haislip, 1991). Various methods of prescription drug diversion exist and debate about their reality surrounds these methods (Gitchel, 1991); prescription forgery is one such method.

Prescription forgery is similar in theory to the counterfeiting of currency, police credentials, or anything else requiring stringent authoritative guidelines (Vivian, 2005; Brinks, 1989). This is not to say that these crimes necessarily occur with the same frequency level, but simply that there is a certain level of expertise

needed in order to actually commit these crimes. What qualifies as a forged prescription can vary from either written on a stolen form, to the inappropriate modification of information on a prescription form (e.g. to increase quantity), to even prescribed based on non-medical need (Lapeyre-Mestre et al., 1997). Many forgers of prescriptions steal prescription pads from physicians' offices or hospitals and simply forge the prescriber's name and DEA number onto the prescription (Kedia, 2007). The DEA registers all those authorized to prescribe under each specific drug schedule. The use of drug scheduling this is considered a control mechanism, in that most states without prescription monitoring mandate the use of state-issued serialized prescription forms. Some pharmacists abuse their authority to dispense controlled drugs. Selling out-of-date medication "under the table" and engaging in prescription scams with physicians are just some of the ways rogue pharmacists engage in diversion, yet this activity is up for debate by some as to whether or not government can dictate what constitutes "legitimate medical purpose" (Brushwood, 2005).

On one hand, some assert "doctor shopping" is a process engaged in by those without legitimate ailment who develop elaborate networks involving certain physicians they deem easily fooled, incompetent or corrupt in order to illegitimately obtain controlled substances (National Drug Intelligence Center, 2005). On the other hand, some assert:

...doctor shopping can also be a sign of what is called pseudo-addiction: the efforts to obtain drugs look on the surface like drug addiction, but in fact represent the patient's attempt to attain an adequate level of pain control. Once that is achieved, the patient no longer presses for more narcotics (Satel, 2004).

Finally, the indiscriminate prescriber is someone who is either easily fooled, incompetent, apathetic or corrupt and allows this behavior to result in the illegitimate issuance of a prescription to the patient (Martino, 1998).

Numerous types of models are used to address prescription drug diversion; some are official public policy and some are internal programs employed by advocacy and professional associations as stakeholders (Horgan et al., 1991). Key to deciding which model(s) to use is the reality that a continuum exists between law enforcement and public health in terms of the fundamental professional views on the use of opioids, resulting in a difference of views generally between law enforcement and public health professionals (Portenoy, 1991). The term "opioid," refers to either whole, part or synthesized substances stemming from the poppy plant. This substance is found in numerous substances, but is the basis for most medications that ease severe pain. Portenoy asserts law enforcement professionals prefer a reduction in opioid use, while public health professionals prefer an increase in opioid use, if such use is accompanied by education on appropriate use (Ibid). The process(es) associated with these control models do not provide a certification about the level of training all stakeholders have on the proper use of opioids and crime related to opioids, i.e. the ability of government to effectively and uniformly assess appropriate use. Hence, just as debate exists generally over the appropriate method to implement and evaluate almost any government program (Horst et al., 1974), the debate over which model(s) might be appropriate will and should continue.

The law enforcement community and criminal justice professionals generally have fluctuated between punishment and treatment for several decades and many in the law enforcement community assert that rehabilitation and treatment as goals of crime-related policies have been tried and exhausted (Gottfredson and Hirschi, 1990). Essentially, emphasis on either punishment or treatment is a matter of specific historical context (Miethe and Lu, 2004). As early as the 1950s, the counterfeiting of legitimate prescription drugs was enticing enough that elaborate schemes were developed to deceive drug manufacturers, government regulators, pharmacists and the public (Kreig, 1967). The manufacture of counterfeit pharmaceuticals was so prevalent during the 1970s especially, that well established companies outside the United States, modified their

authentication and security protocols on prescription drugs exported to the United States. In terms of severity, this particular method of diversion domestically forced many foreign nations to place diversion control methods, higher on their policy agenda. The severity of this counterfeit medication phenomenon subsided during the 1980s, after more stringent regulations were employed in the United States. Local, state, and federal drug crime officials were aware of the changing realities of prescription drug criminality in terms of gaps in the regulated chain during the early 1970s. Demonstrating that a shift in focus and technology was needed, the U.S. House of Representatives, Subcommittee on Crime (1983) stated:

By the mid 1970s, the pattern of diverted pharmaceuticals had shifted from the manufacturer/distribution level to the practitioner level...In December 1975, DEA initiated Project Dart as an experiment to reduce prescription drug abuse for the San Francisco Bay area...Project Dart confirmed what had been suspected: that is, the primary source of diverted drugs in the area was physicians writing prescriptions for profit...The inability of state governments to curtail this problem was attributed to inadequate state laws, lack of resources and little or no state authority to govern and monitor practitioners.

Another example of how technological shift, i.e. using investigators, in focus has been used to address prescription drug diversion is the diversion investigation unit (DIU) program. In 1972, members of the law enforcement community were troubled that the bulk of the units with investigators specializing in drug enforcement, were instructed to focus more on street drugs, than white-collar, i.e. prescription drugs (Bulla, 1991). With the help of funds from Congress, the diversion investigation unit (DIU) program, circa 1972, enabled three states to focus on prescription drugs of significant abuse at the time, e.g. Dilaudid; five years later, DIUs had been established in 17 states (U.S. Department of Justice, 1977). There is a long-held understanding that white-collar drug cases are more difficult to investigate and even more difficult to prosecute. In most jurisdictions, white-collar drug offenders are given lower sentences compared to street drug offenders, giving street drug crimes more appeal to both law enforcement, policy-makers and to the public generally.

Prior to the adoption and implementation of prescription monitoring in Oklahoma, prescription drug crime in that state was a serious issue (Dodd, 1991). Based on the severe level of forgery, fraud and prescribers involved in diversion, Oklahoma adopted an electronic prescription-tracking program to "...curb the great numbers of licit drugs diverted to street use" (Ibid.). Occupational socialization and its relationship to organizational culture is an important concept for those interested in the administration of justice. With respect to understanding the background behind why certain criminal justice activities happen, an understanding and appreciation of how the orientations of professionals, e.g. police officers, attorneys, physicians, politicians, and pharmacists, are crafted based on numerous variables. The term organizational culture refers to the set of values that transcend not only individuals within an organization, but the environment of the entire organization itself (Stojkovic et al., 2003). Occupational socialization was important to this study in that it helped explain the "realities" of informal behavior within many of the stakeholders needed to create the program. On the other hand, occupational socialization was important to this study in that it helped ground understanding of the process by which professionals faced the decision whether to help formulate, adopt, and implement this new technology to address crime and how they might have been influenced by various variables, e.g. education, peers, politics, media, public perception, and self-perception. The very essence of values, response patterns, policies, and flexibility to new ideas and technology, all represent an organization's culture. The debate surrounding the appropriateness of technology use as it is introduced within an organization's culture is a serious one. Government agencies having to choose who should administer a new crime policy, e.g. an EDT

system, will either use either a conservative approach, i.e. punishment, or a liberal approach, i.e. rehabilitation (Lester and Stewart, 2008). These approaches do not generally overlap and can make their evaluation difficult.

Political elasticity theory (Werlin, 1998), is a construct recognizing that even though stakeholders may have differing views, goals and resources, at some level, commonalities might exist. This theory is used by authoritative decision-makers to find common ground between these stakeholders in order to address a public problem, but is used by these decision-makers in the adoption, application and evaluation of public policy (Clements, 2001). Important to this theory, is “*political software*” which accounts for the political and cultural nuances associated with making and implementing government services, i.e. a monitoring program. Werlin (1998) uses this concept in order to help explain “the psychological predispositions” about realities within organizations. With respect to this study, it applies to the set of predispositions on prescription drug diversion held by stakeholders, which in turn might have influenced the creation and implementation of the world’s first EDT system. One of the issues associated with implementing new technology, is that concern over “how much” information are available to government might equate to overzealous use of authority, “Big Brother”. As Garfinkel (2000) asserts, as the use of computer technology increases, society shall see more instances of data being used for different purposes than initially intended.

Methodology

Due to the historical nature of this study, two central research questions (CRQs) connected directly to the two hypotheses for this study. The first hypothesis for this study asserted that “*The evolution, in Oklahoma, from using no direct form of prescription monitoring to using computerized prescription monitoring via data from pharmacies was based primarily on the desire of relevant stakeholders to make use of technology thought to more effectively address prescription drug diversion.*” In concurrence with the literature, even though a formal prescription monitoring system within Oklahoma did not exist prior to the adoption of the EDT system, law enforcement did have the authority to visit pharmacies or prescribers’ offices in order to inquire about any concerns with respect to prescription writing activity. This process in Oklahoma is of course impacted by the level of human power available and relies on other stimulus in many cases, e.g. tip/call received from someone observing possible prescription drug diversion. Therefore CRQ1 asked the question, “*How difficult was it to obtain “buy-in” from the most relevant stakeholders in Oklahoma needed to formulate, adopt, and implement the first EDT system?*” This question specifically addressed the reality of what obstacles, if any, impacted the ability to adopt this tool for law enforcement to address this type of crime.

The second hypothesis for this study asserted that “*The advent of implementing the Oklahoma EDT system in order to identify possible prescription drug diversion, the first-ever of its kind using computer technology, was seen as a supplemental (rather than replacement) tool by law enforcement in identifying possible prescription drug diversion.*” This hypothesis was grounded in the debate surrounding the appropriateness of technology use as it is introduced within an organization’s culture. CRQ2 asked the question, “*Did the advent of implementing the Oklahoma EDT system in order to identify possible prescription drug diversion, replace traditional law enforcement tips, or did the Oklahoma EDT system supplement traditional law enforcement in identifying possible prescription drug diversion?*” This question was valid in that it helped assess whether or not new technology was possibly seen as “the modern way” to address prescription drug diversion by law enforcement professionals.

In terms of a database, two qualitative data sets were used in order to understand the nuances associated with the creation of the world’s first prescription monitoring program using a computer. In terms of secondary

data, archival records were located which identified the actual Oklahoma law creating the program and the legislative documents providing insight on the steps, and hurdles, associated with the birth of the program. These documents were crucial in establishing a baseline for completing primary research in the form of interviews.

In terms of primary data, two research instruments, having passed Institutional Review Board approval, were used during this study. Phase 1 of this study involved using the first research instrument in order to obtain basic demographic questions, scenario-based questions, open-ended questions and, semi-focused questions. This research instrument specifically provided understanding from these respondents on how EDT data should be used, i.e. treatment or punishment. Based on the fact that very few Oklahoma government officials actually use the EDT system, it was administered to three available respondents who were the actual facilitators of the program during 1990 and 1991. The reason that there are just a few officials using the EDT system, is that the Oklahoma Bureau of Narcotics' agents, i.e. the ones who must make decisions based on reviewing those data, are only a finite group of criminal justice professionals. Their decision to work/not work a prescription drug diversion case might be impacted by what those EDT data indicate as possibly-needing attention by those professionals. At the time of this study, the number of OBN agents using/accessing such data was approximately 9, including the OBN chief. Four additional interviews were completed on respondents who currently administer the program in order to understand any changes since its inception. It is normal for several of the OBN agents to be out of the office during most business days in order to complete various investigative responsibilities. Therefore, only a few of the OBN agents, i.e. the respondents for this research, were available during this study.

Phase 2 of this study involved asking these same respondents about the historical beginning of using computer technology for this purpose. The second research instrument consisted of a preamble with basic information about the study along with one open-ended question asking the respondent to explain how Oklahoma developed the first EDT system. This phase was important in that these respondents had never been interviewed prior to this study about the nuances associated with this technology's creation to address crime.

The two data sets were collected and the discussions and interviews were coded using the constant comparison method for open-ended themes (Strauss & Corbin, 1998). Thematic data were then plotted on a qualitative data collection grid to fill-in the time line of how the prescription monitoring program was actually created, what influenced its actual creation, and the realities of initial implementation to address the crime of prescription drug diversion. This understanding in terms of the two central research questions and the hypothesis were answered by analyzing the collection grid for similarities and dissimilarities on the events. This process (Yin, 1995) produced findings and discussion of those findings in relation to this study's focus is provided below.

Discussion

How Discussion of Adopting an EDT System Began

In 1989, several states were making use of prescription monitoring programs. These programs were being used more and more widely across the country as another tool in the public "arsenal" to address prescription drug diversion. Other common tools were drug diversion investigation units and DEA's ARCOS. The Automated Reports and Consolidated Order System (ARCOS) is a DEA database used for auditing Schedule II controlled drug transactions at the manufacturing and distribution levels. No patient or physician data are involved. ARCOS has been credited with significantly reducing prescription drug diversion at the

retail level; however, since no patient or physician data are collected, ARCOS is limited in showing the full range of retail level diversion (Office of Diversion Control, 1997). States at that time with monitoring programs generally used serialized "duplicate" or "triplicate" paper prescription forms. These are similar to other types of legal documents having carbons that can be torn-off. For example, a triplicate prescription would have three sheets: one would remain with the prescriber, the other two would be carried by the patient to the pharmacy where the pharmacist would retain one for him/herself, and the final copy would be sent by the pharmacist to the state prescription monitoring program for data compilation. Oklahoma's discussion of adopting an EDT system began based on the denial of many relevant stakeholders about the reality of a significant prescription drug diversion problem, as indicated by the respondents who were interviewed and various documents that were obtained during this study. In fact, Oklahoma's monitoring program was not simply created and passed on to the Oklahoma Bureau of Narcotics. Rather, Oklahoma Bureau of Narcotics was the initiator of action in the development of the program and created the initial buy-in and momentum to make the Anti Drug Diversion Act of 1990. This fact alone is very interesting in that all of the literature found by this researcher indirectly indicated that OSTAR might have been simply passed to the OBN by the state legislature for implementation.

Initial Views of Stakeholders

In Oklahoma, prescription drug diversion was not seen as a "serious" problem by many registrants. They considered "street drugs," e.g. cocaine, as "the problem." Essentially, registrants viewed prescription drug diversion as one of the anomalies of addiction, rather than an intentional series of efforts to skirt the regulated chain. Oklahoma registrants had to be convinced by a University of Oklahoma study assessing the depth of prescription drug diversion in that state (Dodd, 2001; Duncan, 2001). The OU study could not be found. All sources referring to this OU study were asked who they thought actually completed the work—all leads were exhausted. Brian Potter of the OBP provided the most information about the OU study, but the lead he provided, i.e. Dr. Elgene Jacobs), was not the correct person. Jacobs was interviewed and he completed a later study for OBN in 1997 of OSTAR—his study focused on the weaknesses of OSTAR data and the feelings of prescribers about OSTAR. Elaine Dodd (former OBN), Leslie Collum (at the State Legislature), and John Duncan (of OBN), all referred to the OU study of 1989, but could not provide information on obtaining a copy. Additionally, a search at the OU library was completed, with no success. Additionally, the DEA Library in Washington, DC was contacted to no avail, since DEA provided the grant funding for the OU study. Additional searches were completed using EBSCO-Host and Lexis, with no success. Finally, a search was completed at the Library of Congress in Washington, DC, with no success. Toward that end, indicators such as DEA ARCOS data were used, and the existence of a significant prescription drug diversion problem was undeniable. Certainly, registrants in Oklahoma were initially against the development of such a program. However, this fact had nothing to do with what was required to gain support for an EDT, i.e. buy-in.

In terms of stakeholder buy-in, a clear battle occurred in Oklahoma with respect to the creation of the program. The OBN used both public and private meetings with stakeholders, and involved Oklahoma government officials during the entire process. The Oklahoma Bureau of Narcotics and the Oklahoma Board of Pharmacy also held follow-up meetings with a strategic lobbying campaign involving phone calls and visits to key stakeholders to make them more comfortable with the idea. The Oklahoma Board of Pharmacy lacked promulgation authority, so it needed the support of other key stakeholders in order to create the Anti-Drug Diversion Act of 1990 which created the program.

Oklahoma Bureau of Narcotics agent Elaine Dodd worked with pharmacist Brian Potter, the Oklahoma Board of Pharmacy's executive director. They were in regular communication on this topic and one day, Potter visited Dodd's office with an unusual proposal. Potter suggested another meeting with the same opponents of a prescription monitoring program in order to more aggressively discuss creating "something" to address their concerns (Potter, 2001). Potter then suggested that one method of getting a prescription monitoring program created might be to find an appropriate manner to suggest using a computer to transmit prescription monitoring program data in "real-time." "Real-time," can be described as an almost instantaneous relay of information from one point to another. In this case, Brian Potter theorized that a computer could possibly eliminate the large amount of time needed to fill-out paper-based prescription forms and to ship them from the pharmacies to a state-level PMP system. The data could be collected in a way that might not burden prescribers (Dodd, 2001). Dodd and Potter decided that it might be wiser to hold-off on suggesting such a then "radical" idea. Instead, they would provide Oklahoma Governor Bellmon with whatever assistance he needed to get the legislature to act on this serious issue and use Brian Potter's suggestion as an alternative. Therefore, concerns that prescribers should be able to prescribe based on what they deemed medically appropriate was important to Potter and Dodd in their phone calls and visits with stakeholders (Collums, 2001). The concern that Potter and Dodd expressed to ensure that appropriate prescribing needs were not interfered-with by the EDT system they wanted went a long way in making stakeholders more comfortable with the administrative design that was proposed.

In terms of the role of the Oklahoma Legislature, the legislature had been approached on numerous occasions prior to the decision by the Oklahoma Bureau of Narcotics to work through the governor's office. Once buy-in among the relevant stakeholders was established, the likelihood of the enactment of any program passing became more concrete. With this in mind, the Oklahoma Bureau of Narcotics and the Oklahoma Board of Pharmacy were able to work with the Oklahoma Senate and House in order to create a program via legislation. During the interview with former OSTAR director Elaine Dodd, it was indicated that in Oklahoma, aspects of public policy which many states address via regulatory modifications, are typically handled by the legislature itself in Oklahoma. Dodd's reasoning was that Oklahoma's state legislators generally like to take a "hands-on" approach with respect to any ground-breaking government activity. Dodd also indicated that since the OBN was trying to implement a "revolutionary" type of policy instrument, such an approach was considered "very important." Dodd made it clear that it is common for legislation to be the venue through which much government action takes place in Oklahoma, rather than via regulation. Dodd made a statement (similar to the following) with reference to the great care she and Potter used in trying to ensure proper care went into designing the EDT system:

I really think you had that question of [whether it] would it be a deterrent to appropriate prescribing...might they not prescribe when they should...I think that is where our education [component] came in because we would go out and say, you know, if someone has been diagnosed with chronic pain, to make sure they get it [the prescription] (Dodd, 2001).

Members of the legislature informally told Dodd during the creation of the legislation, that their preference was to see Dodd as the program administrator. This "suggestion" was based upon her intimate knowledge of how to carry-out the act, while responsibly dealing with the key stakeholders (Potter, 2001). The program's initial funding was derived from the normal registration fees mandated of all registrants having authority to handle controlled substances in Oklahoma (Duncan, 2001). Therefore, no additional administrative costs were passed-on to the prescribers. Additionally, no portion of the DEA's controlled substance registration

fees were used, therefore, the state-level government had sole authority over this policy instrument (Ibid). One problem which quickly became evident was that data received from pharmacies often was for all drug schedules and not simply Schedule II drugs as the Act mandated (Dodd, 2001). It is believed that many pharmacists either did not want the administrative burden of separating the data or they included all data in an effort to avoid complaints in terms of providing what was required (Duncan, 2001).

Findings

The findings of this study are significant in that they address the realities of “buy-in” and use of technology to address a criminological issue. The finding on CRQ1 informed the first hypothesis which asserted, *“The evolution, in Oklahoma, from using no direct form of prescription monitoring to using computerized prescription monitoring via data from pharmacies was based primarily on the desire of relevant stakeholders to make use of technology thought to more effectively address prescription drug diversion.”* The process to obtain “buy-in” from the most relevant stakeholders needed to formulate and adopt the program was arduous, even though most of the stakeholders had a generally decent working relationship. Elaine Dodd and Brian Potter used what Werlin calls political software to facilitate a common ground for the stakeholders in terms of meaningful discussion. Dodd and Potter used numerous methods to bring people from different occupational socializations together in a way which addressed a public problem of crime needing action by government.

Additionally, the finding on this question was mixed, in that the program was seen as less intrusive and to some degree, easier to implement than a paper-based version of prescription monitoring system. The respondents indicated that a computerized version of prescription monitoring was seen as both less intrusive and easier to implement than a traditional paper version of prescription monitoring. The key to obtaining stakeholder buy-in to both create Oklahoma’s first prescription monitoring system rested in the pharmacists. What is clear is that the possible creation of any prescription monitoring program in Oklahoma in paper form had very little chance of being supported, primarily based on administrative burdens on prescribers and pharmacists. It was this reality with respect to a paper-based form which prompted the idea to try something completely new which initially was thought to be both less intrusive and possibly easier to implement. Therefore, the first hypothesis was found to be flawed in that the creation of the EDT system using computers was not primarily associated with making best use of technology. Rather, it was simply a method to gain buy-in from those who would have been responsible for working within the system; it was simply seen as a convenience in terms of every day administrative red-tape. The primary “selling-point” of using a computerized system in Oklahoma was the fact that prescribers would not have to worry about sending a copy of a physical prescription to the Oklahoma Bureau of Narcotics and essentially, the “burden” of dealing with these data would be shared by pharmacists and the Oklahoma Bureau of Narcotics.

Appendix 1 reflects this reality by providing a “before EDT” and “creation of EDT” view graphically as where the needed buy-in was achieved to allow for the acceptance by those who were needed to effectively implement this criminal justice policy change. Though the Legislature clearly had the authority/power to create the EDT on their own, the allowance or work outside the legislature to address possible concerns prior to legislative action was important in helping make the implementation to address prescription drug diversion more meaningful. In essence, the key to gaining buy-in from pharmacists, prescribers, the legislature, and law enforcement, was the fact that the use of a computer made all the difference. To pharmacists, a possible EDT was seen as a reasonable responsibility given that most pharmacists already were required to enter prescription

data for insurance and regulatory record keeping. To prescribers, a possible EDT was seen as no additional responsibility since all the prescription data would be converted from a paper prescription to electronic format via pharmacists. To legislators, a possible EDT system was seen as controversial, but something which could be implemented with little friction from stakeholders to satisfy concerns about prescription drug diversion held by the Oklahoma Bureau of Narcotics and the Oklahoma Board of Pharmacy. Finally, to law enforcement, a possible EDT was seen as a tool to make their work more efficient. What comes out of this study is that the Oklahoma State Legislature was in essence “lobbied” by the Oklahoma Bureau of Narcotics, the Oklahoma Board of Pharmacy, and numerous other relevant stakeholders, to adopt the Anti-Drug Diversion Act of 1990 which created the world’s first such program using a computer (i.e. and EDT). Detail on the reaction of the “pharmacy community” in Oklahoma to the idea of implementing and EDT, will be explained in the methodology section.

The second hypothesis was confirmed in that CRQ2 provided understanding about *“The advent of implementing the Oklahoma EDT system in order to identify possible prescription drug diversion, the first-ever of its kind using computer technology, was seen as a supplemental (rather than replacement) tool by law enforcement in identifying possible prescription drug diversion.”* In the case of Oklahoma, the use of an EDT system translated to a reduction in the amount of time needed by investigators to obtain these data; especially in situations when prescription drug diversion was happening based on elaborate schemes or served as a more urgent threat to a specific community. Due to the entirely new nature of technology used for a law enforcement purpose, the American Society for Automation in Pharmacy (ASAP) assisted Oklahoma in assuring industry standards were incorporated within the EDT, i.e. OSTAR. ASAP’s reasoning was that any automation dealing with prescription drugs must take the needs of the pharmacist into consideration so that public policies hopefully do not hinder the valuable work pharmacists do (Dodd, 1991). We note here that one might presume that all physicians are authorized to write/authorize prescriptions in all drug Schedules, as a normal part of their daily business. The reality is that some physicians do not register for all schedules, based on personal beliefs, areas of specialty not requiring certain drugs and many other reasons. Some physicians have been disciplined, and are not allowed to register in order to prescribe certain drugs, based on court orders and memoranda of understanding (MOU); particularly in the sales of Schedule II drugs. Appendix 2 illustrates how pharmacists prior to 1990 had to only provide assistance to law enforcement via traditional methods, potentially involving visits to countless retail-level controlled substance registrants.

One important administrative caveat to this finding is that even though part of the buy-in to create the EDT involved shared responsibility between Oklahoma pharmacists and the Oklahoma Bureau of Narcotics, once the program was implemented, it became clear that it was difficult to keep administrative costs of the EDT down. This was based on the fact many pharmacists were transferring data from all drug schedules combined, not just schedule II as required. The respondents within this study indicated that many pharmacists probably either did not want to deal with the task of separating those data, or were sending more data than required in an effort to avoid being accused of non-compliance. This became a problem for the Oklahoma Bureau of Narcotics in that agents of this agency would need to physically search through a potentially enormous number of data files in order to find schedule II prescriptions within. To understand why this was a problem, consider that this process would be similar to a fruit distributor being required to deliver apples-only to a state inspector and instead decides to provide a truckload of apples, oranges, bananas, pears, and strawberries. The inspector would then have to search to find the apples, since the distributor did not provide the fruit in the manner requested. Given that the literature indicates a suspicion of government having access to too much data as a

problem of being “Big Brother”, this particular study found that the law enforcement agency authorized to collect EDT data, viewed additional prescription data beyond what was required as extraneous, and essentially an administrative problem.

Conclusion

While many focus solely on “measurement” in terms of crime policy, this study provides a clear example of how the administrative realities of crime policy sometimes defy measurement and require an understanding of the people potentially, i.e. most relevant stakeholders, impacted by any policy adopted and implemented. Oklahoma was the first state to use an EDT system and this technology is now how most states implement prescription monitoring. Therefore, the how and why of prescription monitoring programs is important to understand; for if nothing else, we learned in this case that the real reasons for EDT creation were different than what the literature provides as stereotypes about government data collection, e.g. witch-hunts. The DEA and state agencies utilizing EDTs today, typically let the patterns of the data dictate the possible narrowing of scope toward a particular type of retail entity (i.e. pharmacy, physician, or patient), not the other way around. This is clearly indicated on the DEA website in which current detail about how prescription monitoring programs are used states this fact (http://www.deadiversion.usdoj.gov/faq/rx_monitor.htm#3). On the other hand, if there is an allegation about a specific retail entity, then EDTs are effective investigative tools in narrowing scope quickly, rather than having to travel as much or do large amounts of groundwork. This ability to properly understand how trends might work and when to follow up with field work in the investigative process, is obviously something which has become clearer since the inception of EDTs. Perhaps future research will examine this reality with respect to implementation of prescription monitoring technology in other states and with respect to crime technology issues generally.

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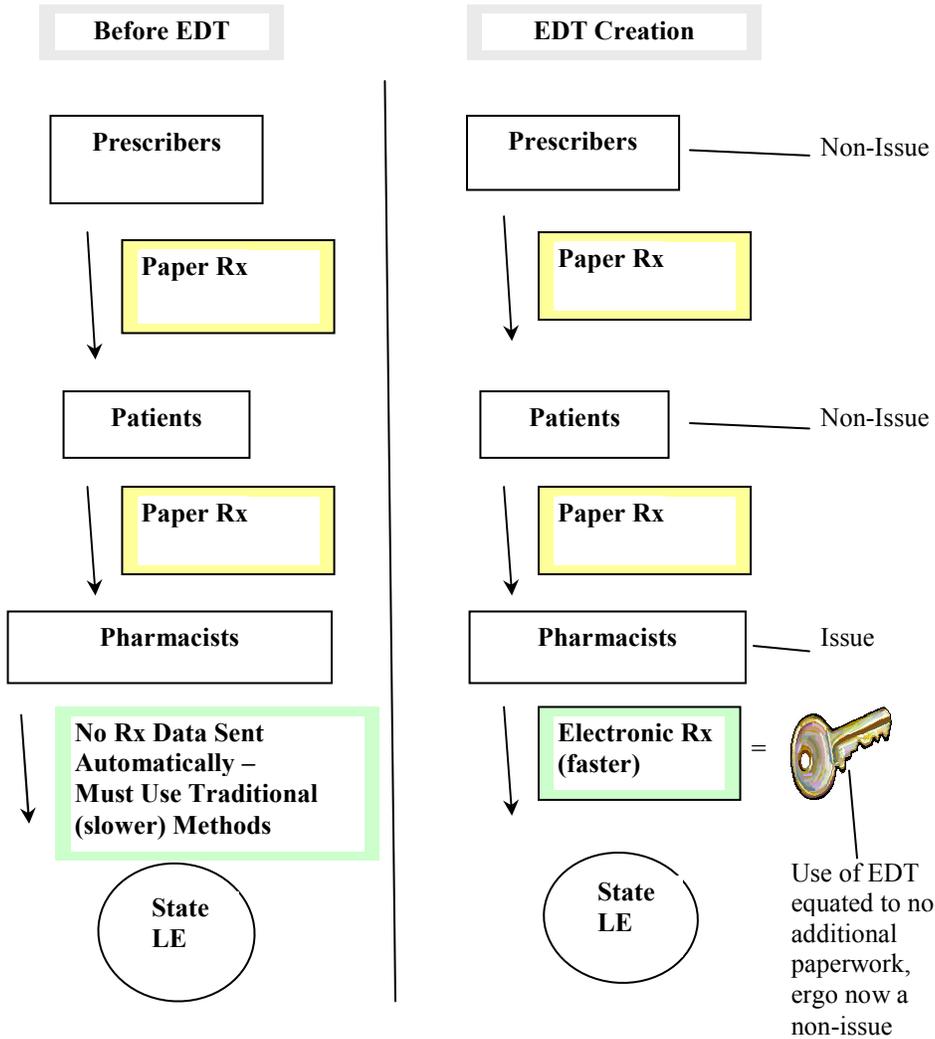
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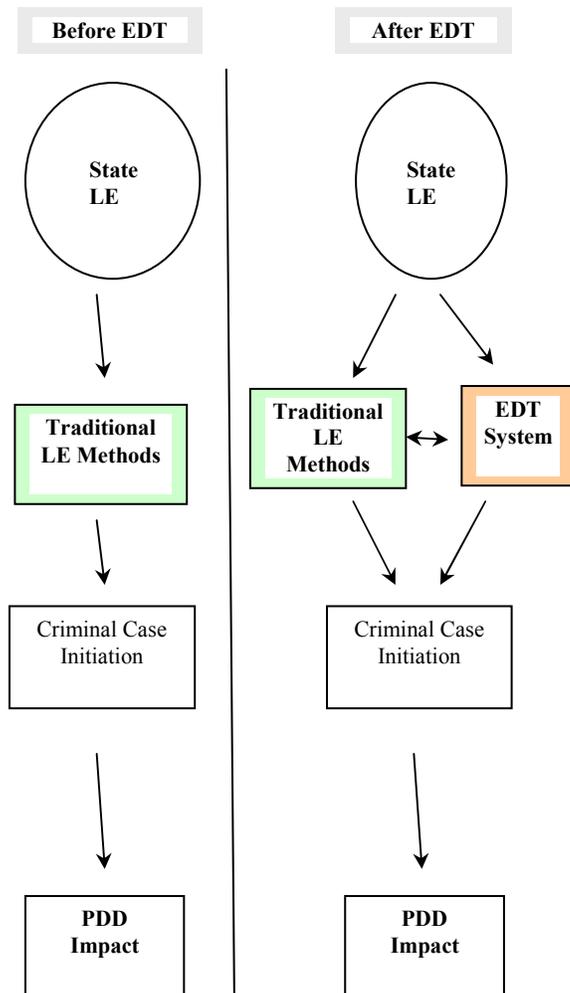
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Appendix 1. Central Research Question 1 Findings



Appendix 2. Central Research Question 2

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