Increasing the Effectiveness of Electronic Monitoring
Editor's Introduction

It is probably fair to say that most community corrections practitioners with knowledge of the history of electronic monitoring would trace its origins to New Mexico in the late 1970s. A judge in Albuquerque by the name of Jack Love was inspired by a Spiderman cartoon and envisioned an electronic system to monitor offender movements and activities. Judge Love engaged a local electronics expert, Mike Goss, to help him in this endeavor. It took a while, but in 1983, Judge Love sentenced the first offender to house arrest using electronic monitoring. The concept caught the imagination of many jurisdictions that were suffering from serious jail and prison crowding, and electronic monitoring quickly became the "next big thing" in community corrections.

While this was indeed the beginning of the widespread use of electronic monitoring, it came some twenty years after the first operational version of an electronic monitoring system for offenders. The authors of this article, Robert S. Gable and R. Kirkland Gable were the principals in the early work on electronic monitoring. R. Kirkland Gable headed the Harvard research group in the 1960s that developed the first offender location monitoring system. He holds the original patent for offender monitoring technology, along with William S. Hurd (U.S. Patent # 3,478,344, issued November 11, 1969). R. Kirkland Gable's twin brother, Robert Gable, participated in the initial research. and then became the principal investigator of several federally-funded research projects at UCLA and the Claremont Graduate University in California that involved radio telemetry with offenders.

It is interesting to note that the purpose of the original monitoring system was for providing positive reinforcement for pro-social behavior by offenders. Electronic monitoring was not for imposing confinement and determining non-compliance, but rather for supporting rehabilitative efforts and rewarding positive behavior change. This reflects the correctional ideology of the decade of the 1960s, when this pioneering development was done. Rehabilitation was still the predominant purpose of corrections, and the new technology was oriented to assist in achieving that goal.

In the intervening years between the pioneering work of the Gables and the development of Mike Goss's version in 1983, the correctional landscape of the United States shifted markedly. Rehabilitation was discredited and the punitive "get tough" ideology also entered center stage. Electronic monitoring was used to monitor offender compliance with restrictions on movement. It became the essential tool in making house arrest or home confinement programs work. Little, if any attention was paid to rehabilitation in this context.

With the passage of time, the prevailing correctional ideology has once again begun to shift. Rehabilitation, as embodied in the what works' literature and evidence-based practices has returned to play an important, if not yet predominant role in correctional policy. In their article, the authors explore how electronic monitoring could be recast to provide positive reinforcement for offenders who are changing their behavior. The potential for expanding the ability of probation and parole officers to provide increased positive reinforcement for prosocial behaviors is significant.

Readers should note that the Gables have a small nonprofit research trust (Life Science Research Group, Inc.) that wants to support an Electronic Monitoring program using positive reinforcers. Interested parties should email Dr. Robert Gable at robert.gable@cu.edu.

We are very pleased and proud to present this article by the true pioneers of electronic monitoring. We hope that it will stimulate the readers to explore the possibilities of electronic monitoring in an evidence-based practices model.

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1 R. Kirkland Gable and Robert S. Gable are brothers, whose family name was originally Schweitzgebrel. The original work was published under the names Ralph K. Schweitzgebrel and Robert Schweitzgebrel. The family name was illegally changed to Gable in 1982.
The difficult work of probation and parole personnel often goes unrecognized and unacknowledged by the general public. Unfortunately, most media attention occurs after instances of a violation by a supervised offender.

Given this social reality, many officers have reasonably come to view their primary task as supervising offenders in a manner that focuses on the enforcement court or parole board orders. Two electronic technologies have helped in that task: radio-frequency (RF) monitoring of offenders sentenced to home detention and global positioning satellite (GPS) systems for real-time tracking offenders in the community.

The appropriate use of electronic monitoring (EM) varies by type of offender. Among first-time low-risk offenders, EM is not likely to reduce recidivism beyond that normally expected with traditional probation. Many of these probationers need only minimal supervision and can be "banked" to receive only periodic visits. For low-to-moderate risk offenders, monitoring increases compliance beyond customary supervision in a manner that emphasizes social disapproval of the crime. This situation was illustrated in 2005 by the highly publicized case of entrepreneur Martha Stewart. Generally, if monitoring is used with these offenders, it should be applied sparingly and briefly.

More intense and prolonged use of EM is appropriate for offenders presenting a moderate or high level of risk. An extensive review of the effectiveness of EM among this group of offenders found that the rate of offending can be significantly reduced during monitoring. However, no well-controlled studies have shown a reduction in recidivism following EM greater than the rate following incarceration or prison diversion programs (Renzema & Mayo-Wilson, 2005).

This result should not be a surprise for two reasons: First, EM is only a tool and not, in itself, a "program" that provides services necessary for rehabilitation or re-entry into the community. Second, although EM has allowed the criminal justice system to punish offenders more humanely and inexpensively than incarceration, contemporary system configurations have not been designed (with appropriate software) to document prosocial behavior and to encourage the use of incentives.
Strategies for Intervention

From a psychological perspective, the primary role of probation and parole officers is to serve as a "contingency managers." That is, in their interaction with offenders, officers develop plans and administer punishments and rewards intended to prevent crime and increase socially desirable behavior. There are only four basic punishment and reward strategies for changing behavior. Every action of a officer can be interpreted as using one of the following strategies:

- **Punishment.** Reduces unwanted behavior by applying sanctions (recommending a fine or incarceration).
- **Extinction.** Reduces unwanted behavior by withdrawing rewards (restricting criminal activities by placing a person on monitored home confinement).
- **Positive reinforcement.** Increases desired behavior by applying positive consequences (sending a letter of commendation to an offender).
- **Negative reinforcement.** Increases desired behavior by allowing the person to escape negative consequences (reducing hours of a community work assignment).

Punishment is widely used in the criminal justice system because this strategy can immediately stop unwanted behavior and at least temporarily increase public safety. However, sanctions often fail to have a long-term effect because alternative prosocial behavior is not reinforced. To be most effective, sanctions should be applied immediately after criminal activity and before the rewards of the activity can be enjoyed. Also, punishment should occur after each infraction at a relatively high intensity in an environment where escape is unlikely.

Negative reinforcement is a more practical behavior-change strategy than punishment, assuming that the threat of a sanction remains in effect. In this situation, a person has the option of avoiding an unpleasant consequence by taking action toward an acceptable goal (e.g., avoiding a penalty by paying income taxes on time). When the threat is removed, the previous behavior is likely to return. Consider, for example, the tendency of automobile drivers to increase their speed when a patrol car behind them turns off the highway. The threat must not only be present, the potential offender must also be aware of its presence.

EM allows more frequent detection of rule violations than conventional probation or parole; and hence, has the advantage of increasing the possibility of more immediate punishment. However, one persistent dilemma faced by officers is deciding when to apply additional sanctions (e.g., a curfew or more frequent drug testing) when a rule violation is observed, particularly in situations where such a violation would not have been detected with traditional supervision. A rigid schedule of predetermined sanctions for rule violations is usually unnecessary, ineffective, or surreptitiously ignored. Consider, for example, the difficult situation where a violation may actually be a genuine exception to a steady pattern of improved behavior.

Sanctions are best administered, not in proportion to the severity of the violation, but in proportion to the reasonably presumed effect on the behavior of the offender. Some probationers or parolees respond well to a very mild threat of punishment. In contrast, other individuals who get only a "slap on the wrist" become, over a period of time, increasingly immune to threats of severe punishment. Because EM home confinement is itself quite demanding (Roberts, 2004), there are very few more severe sanctions that can be imposed. Excessively severe punishment is legally prohibited, but even moderate punishment or the threat of punishment can elicit a range of undesirable side-effects such as lying, avoidance, resentment, depression or overt hostility that interfere with rehabilitation. Officers know this all too well, and should have flexibility to exercise professional judgment based on a offender's history and their experience with the individual.

Positive Monitoring

More than 60 years of behavioral research has established the principle that providing variable positive consequences for desired behavior is the most effective way to produce lasting results. When training a new behavior, rewards should be given initially for what can be objectively described as a "poor" performance of the desired behavior. New behavior is shaped in the same way that music teachers often give encouragement to a person learning to play a musical instrument.

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The most obvious types of behaviors to reward among offenders are those related to job-skill training and drug treatment. Prompt arrival at appointments, regular attendance to classes and consistently passing drug tests present a major challenge to many offenders. These accomplishments can be reliably measured. Rewards should be front-loaded during the learning process and then tapered-off, using a variable schedule, toward the end of the probation or parole term.

Rewarding the productive activities of probationers or parolees has not been viewed as a primary task of correctional staff. The situation is probably a result of the common perception that offenders should not be rewarded for behavior that is normally expected of the average citizen. The basic justification for rewarding offenders—as disagreeable and counter-intuitive as it may seem—is simply that it works better than any other behavior-change method. Long-term, cost-effective public safety requires it. Doing something "different" than the typical parent, school teacher, or employer may be the key to rehabilitating an offender.

Rewarding behavior that is merely rule-compliant is not an ideal program goal. A more optimal strategy is to reward seemingly spontaneous behavior that indicates a desirable change of attitude on the part of the offender. The focus on behavior is not because observable behavior is more important than a person's emotions and thoughts, but because overt behavior is what we can reliably measure and legally document.

One challenge to implementing a program of positive EM is selecting appropriate, low-cost incentives. Referral to community agencies for social services is an obvious possibility. Letters of commendation and certificates of accomplishment are also obvious options. As simple as letters might seem, it should be noted that most offenders have never received an official and unexpected acknowledgement of progress from a government agency. Letters, certificates, and celebrations after the satisfactory completion of a treatment program may be gratifying symbols, but do not shape (and probably do not sustain) an offender's accomplishments. Such recognition is a one-time event occurring too late in the behavior-change process to have the greatest effect. Incentives should be given multiple times during the learning process.

Other incentives that have been used by correctional agencies include: phone cards, hair cuts, clothing, movie passes, reduction in community work assignments, food coupons, increased flexibility of curfew hours, group ceremonies, merchant prizes, YMCA memberships, movie DVDs, brokered welfare services and bus passes. Inexpensive incentives can be effective if they are unique in a way that acknowledges the personal preferences of the offender. Unique incentives implicitly tell the offender that the officer was listening and remembered details of a conversation.

Creative planning may be needed to meet the cost of incentives. A probation program in Virginia purchased incentives for juvenile offenders from budgeted cost savings by using EM rather than confinement. Other programs have solicited donations, budgeted incentives into block grants, used proceeds from EM fees charged to offenders, or sequestered the proceeds from the sale of offender-manufactured goods. Sometimes the cost of an annual or semi-annual group event can be re-directed into an incentive fund to be dispersed during the course of a year. Raffles are a good way of spreading incentives across offenders at minimal cost. A drug court in Guam uses a fishbowl to draw and announce names of participants who have made outstanding progress. An EM program might arrange for the distribution of free raffle tickets to randomly selected offenders only when offenders are in a specified inclusion area such as a drug treatment center.

In order to sustain behavior after formal supervision ends, a reinforcement program should be designed to blend into natural social systems that reward behavior that competes with criminality (Sulzer-Azaroff & Mayer, 1991). A "community reinforcement approach" (Meyers and Miller, 2001) assumes that each offender has a unique configuration of rewarding and punishing influences that are provided by peers, family members, and acquaintances at school/work/ recreational environments. Ideally, incentives should be given under the direction of an officer by a community-based adult. For example, an EM offender might be permitted to go with a friend for a free pizza at a small local restaurant owned perhaps by a member of Alcoholics Anonymous who would act as an informal mentor. At least one study (Loeber and
Farrington, 1998) found that citizen volunteers with minimal training in contingency management had a significant impact of probationers’ attitudes, and produced recidivism rates generally equivalent to those obtained by probation officers. Electronic monitoring can be used in conjunction with the community reinforcement approach as a means of regulating and documenting offender activities with volunteers.

Occasionally the use positive reinforcement can have unwanted consequences. Unless incentives are given in a variable manner with respect to their timing and their value, offenders may come to expect a reward and show resentment when their expectations are not met. The best incentives have an element of surprise. A variable schedule of reinforcement for desired behavior has the advantage for officers of requiring less vigilance than the usual monitoring for violations.

The most common complaint of incentive programs involves complaints by offenders who believe that they have not been treated “fairly” or in the same way as another offender (Marlowe, 2006). The complaint itself is an indication that a particular incentive has value and can be used as a positive reinforcer. Offenders should be informed in advance that everyone is eligible, but that incentives are given in an unpredictable manner because incentives depend on their availability and the particular situation of each offender at the time. Although this explanation will not satisfy most offenders, complaints will usually subside as an increasing number of offenders experience the thoughtfulness conveyed by the rewards.

Wizards Wanted!

Positive EM can be viewed as an amplification of activities that certain probation and parole staff members already perform on a routine basis. For example, some officers have an intuitive sense when to give an offender more freedom. These officers can be considered correctional “wizards.” Their appearance and interaction styles differ, but they always convey optimism that somehow—amid the complex interweaving of emotions, circumstances and self-evaluation—the offender will gradually construct a positive personal identity. Wizards often have a particular type of offender with whom they work best.

Although wizards enforce the conditions of parole or probation with the necessary application of punishment or negative reinforcement, their primary strategy is to reward behaviors that indicate offender initiative and resilience. They do not wait for an offender to “become motivated”; they make it happen. Generally, behavioral contracts with offenders should be avoided because contracts are promises contingent upon the offender’s future behavior. Reinforcers are given only after an approximation to a desired behavior has occurred.

Wizards occasionally enjoy making strategic moves that outmaneuver the offender’s old habit patterns. For example, a resistant probationer who reportedly boasted to friends that he never “sucked up to authority” was unexpectedly presented with two tickets to a Globetrotter’s basketball game after he (almost) completed a job resume. A short note attached to the tickets congratulated him on his progress and told him that he could accept the tickets, sell them, give them away, return them, destroy them or do nothing. There was no response the offender could make that would not follow these directions. After a few days of confusion, he went to the game.

If an officer has a sufficient knowledge of a particular offender’s neighborhood, a GPS contingency map can be constructed that pinpoints times and places where the offender usually makes an important decision. A critical decision point, for instance, might be a bus stop where one bus takes the offender toward home (an inclusion area), a different bus takes the offender toward a favorite pool hall (an exclusion area). Sometime before the probation or parole period ends, the offender should be allowed to practice decision-making at various decision points along this “digital pathway.” A monitoring bracelet can be conceptualized as a “social prosthetic device” similar to a walker that is down-graded to a crutch, then to a cane, and finally abandoned.

Correctional wizards are made, not born. Line staff can be expected to have a number of failures, simply because making errors is a natural component of any learning process. Wizards-in-training should start small with just one offender. Then expand slowly to allow room for a strategic retreat when a reward strategy is ineffective. Fortunately, inappropriate use of positive reinforcers is likely to have few deleterious effects, and be less controversial than inappropriate use of sanctions.

Officers need feedback on both positive and negative outcomes for their particular offenders similar to the way an entrepreneur or an athlete needs feedback on his or her performance. Over a period of time, the results themselves will shape the skills of staff members. In this way can a program become truly evidence-based. One director of operations of support services for a state court has outlined procedures that would redirect agency priorities toward offender outcome measures. He wrote: “I wonder what would happen if we told our staff that we were not going to measure on an ongoing basis any of their job activities? Rather, their performance was only going to be measured by the recidivism rates of the offenders they supervise” (White, 2006, p. 26).

Electronic monitoring was originally developed in the 1960s for the purpose of rehabilitation, not primarily for surveillance and detection of criminal activity (Note, 1966; Schwitzgebel, 1969). Unfortunately, contemporary electronic monitoring has become basically a misdirected technology that falsely promises long-term public safety by increasing surveillance and punishment. A more effective approach would be to use short-term electronic monitoring in a manner that acts in synchrony with basic human desires—the desire to be happy, to be free of pain and to be socially valued. If, and when, electronic monitoring taps into this reservoir of human aspiration, positive transformative social interactions
will emerge that can enhance the long-term safety and welfare of the community at-large.

References


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