Dosage: Knowing When and How Much

The 8 Evidence-Based Principles

Dosage: Knowing When and How Much

Inexact Science Requires P.O.s’ Careful Consideration

DJJ has established a goal to ensure that the right youth receives the right interventions at the right time. The Targeted Interventions principle includes the components of the Risk-Need-Responsivity model, which provides clarity on identifying the right youth and the right intervention. The component of “right time” is most relatable to the evidence-based principle of dosage. This issue will explore dosage as it relates to the most utilized intervention: probation services.

DJJ and the health care field operate in similar ways. Each system uses an assessment process to identify the extent and nature of a presenting concern, including its root causes and the individual’s unique characteristics. The next step for both systems is identifying the ranges of effective interventions and deciding upon a course of action. In the health care field, the selected intervention is implemented according to an optimal amount, frequency, and duration to achieve the desired outcomes. The intervention is selected based on a wealth of research available. The research available to the juvenile justice field is significantly less and makes it more difficult to define the right dosage when prescribing the amount, frequency and duration of probation services.

To achieve the dosage principle consistently, we must first clearly identify the desired outcomes of probation. Research on juvenile probation and other programs defines the desired outcome as significant reduction in the rates of re-arrest, re-convictions or re-incarcerations of participants. Identifying the primary goal of reduction in one or more recidivism measures as the desired outcome is essential to becoming an evidence-based organization. This will allow the department to then more clearly and consistently define probation services according to dosage and further reduce “justice by geography.”

Research findings should guide how much, how often and for how long probation services are provided across the Commonwealth. Available research helps us shed some light on (1) the optimal amount of time a probation officer should spend in each probation session and what he/she should be doing in that session; (2) how often sessions should

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Dosage Target</th>
<th>Likely Duration</th>
<th>Dosage Hours Delivered By Corrections Professionals</th>
<th>Dosage Hours Delivered Through Referral Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderate</td>
<td>100 Hours</td>
<td>52 Weeks of Supervision with 52 Weeks of Services</td>
<td>45 Minutes/2 weeks + 12 Months Total Hours: 19.5</td>
<td>90 Minutes/week For 12 Months Total Hours: 78</td>
</tr>
<tr>
<td>Moderate/ High</td>
<td>200 Hours</td>
<td>78 Weeks of Supervision with 65 Weeks of Services</td>
<td>45 Minutes/week for 12 Months + 45 minutes/2 weeks for 6 Months Total Hours: 49</td>
<td>3 Hours/week For 9 Months + 90 Minutes/week For 6 Months Total Hours: 156</td>
</tr>
<tr>
<td>High</td>
<td>300 Hours</td>
<td>104 Weeks of Supervision with 78 Weeks of Services</td>
<td>45 Minutes/week For 24 Months Total Hours: 78</td>
<td>6 Hours/week or 24 Hours/4 weeks for 6 Months + 90 Min./week or 6 Hours/4 weeks for 12 Months Total Hours: 234</td>
</tr>
</tbody>
</table>
occur, and (3) how long a youth remains under supervision. As you will notice, a significant portion of the research focuses on the adult population.

In examining the first point (i.e. session length and content), much of the research on dosage focuses on the interaction between a probation officer and probationer during an individual appointment. Probation staff that spend between 16 to 39 minutes with adult offenders (Bonta et al., 2011) focusing on primarily criminogenic needs significantly reduces re-arrest rates (Lowenkamp, et al., 2010). When a probation officer spends too little time (below 16 minutes) in a session, no reduction in re-arrest rates occurs. The brief sessions are most associated with contact purposes that are compliance monitoring focused, which has proven not to decrease recidivism rates. When probation officers attempt to address multiple criminogenic needs during one session, this can also be counterproductive and lead to a higher recidivism rate (Bonta et al., 2011).

The second element of dosage concerns the frequency of contacts. However, research on exactly how frequently sessions should occur is lacking. Instead, dosage research defines this in terms of hours a youth receives and practices cognitive behavioral interventions (CBI) and other proven approaches from a trained provider (i.e., probation staff or community agencies) (Robinson, et. al., 2012). DJJ currently defines frequency in terms of face-to-face contacts with probationers each month, regardless of the purpose of contact. However, not all of those contacts should count as dosage.

DJJ also has adopted, but not defined, the research findings that frequency should also increase as risk levels increase (Lowenkamp, et al., 2006). Dosage is not an exact science. In consultation with the University of Cincinnati Corrections Institute (UCCI), we offer the

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**QUESTIONS TO BE ASKED**

- How do we manage offenders assessed as low risk to reoffend?
- Does our assessment tool assess for criminogenic need?
- How are criminogenic risk and need information incorporated into offender case plans?
- How are offenders matched to treatment resources?
- How structured are our case-plans for offenders, especially during the three to nine month period in the community after leaving an institution?
- How are staff held accountable for using assessment information to develop a case plan and then subsequently using that caseplan to manage an offender?
following recommendations:

• Optimal dosage of services for a low risk juvenile offender is below 100 hours of CBI and exceeding that amount results in an increased re-offend rate. We should work hard not to overdose low-risk youth. We should not provide low-risk youth with services for which there is not a clear need.

• Moderate risk youth should be provided between 100 and 150 hours of CBI and high risk offenders should receive 200+ CBI hours.

• To be effective with higher risk populations, probation officers need to rely on other service providers to reach the optimal frequency levels (Makarios Sperber, & Letessa, 2014).

Lastly, we must consider the length of supervision. The duration of probation services are generally defined by the court either formally through a court order or informally through the practice of approval for release from supervision. Research has shown that once an offender reaches his/her optimal amount and frequency of probation services, there is no need for further probation services. Defining the optimal amount is a key step in this process.

A study involving federal probation services determined that early release from supervision for individuals achieving their targeted dosage and other behavioral measures resulted in lower recidivism rates (Baber & Johnson, 2013). As such, once a youth has achieved the case plan objective, court requirements and optimal dosage, probation services should be concluded.

Sources

This article was written in consultation with Carrie Sullivan, Senior Research Associate in the Center for Criminal Justice Research and the Corrections Institute at the University of Cincinnati. The National Institute of Corrections has published a document that provides additional information on dosage. DJJ also has consulted with Dr. Brian Lovins, a principal for Justice System Partners, regarding the Department’s implementation of risk-based supervision. Dr. Lovins has received the Dr. Simon Dinitz Award for his work and dedication in helping correctional agencies adopt evidence-based programs.


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The information you are reading in the CSUnity is being crafted by your editors, Vince Butaitis, CSU 15–Fredericksburg director, and CSU 15 Probation Supervisor Natasha Cheek. Our goal is to ensure that every time you receive the CSUnity, it contains information regarding the eight evidence-based principles that will be useful to you in your daily work. We want to hear your ideas about what should be included! Also, we are expanding our team and have two positions available. If interested, please contact us at vince.butaitis@djj.virginia.gov or natasha.cheek@djj.virginia.gov. We can’t wait to hear from you!