

Drug Use or Abstinence as a Function of Perceived Stressors Among Federally Supervised Offenders

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THE DRUG EPIDEMIC in American society does not escape persons under criminal justice supervision in the federal system. In fact, persons on probation, parole, or supervised release supervision often violate the conditions of their supervision by using drugs (Mecham, 2000). According to Mecham, almost 28 percent of persons revoked from federal supervision during 2000 committed technical violations of supervision, the most serious of which was drug use. The Administrative Office of United States Courts (2002) reported that 17 percent of offenders under federal supervision were revoked or removed from supervision in 2001 due to technical violations involving drug use.

In 1998, the Administrative Office of the United States Courts conducted research to identify drug issues relevant to persons in the federal criminal justice system in hopes of responding to the needs of drug abusers at the earliest point of contact, thereby breaking the relationship between drugs and crime. The first part of the research involved over 7,000 federal defendants who were asked to submit to drug testing prior to their initial appearance in court. These defendants consisted of those in custody as well as those appearing of their own volition in response to the issuance of a summons. The results of this exploration revealed a positive drug test rate of 29 percent. Even with such a high incidence rate of positive tests, this percentage may underestimate the scope of drug abuse among federal offenders, since 23 percent of all requested defendants failed to submit to testing.

The second part of the research required drug testing of nearly 2,000 federal defen-

dants who were released on bond supervision pending trial. This part of the study excluded defendants who were in custodial status. The rates of positive drug tests were high, ranging from 12 percent to 38 percent of all tests. The average positive rate across all districts was 17 percent. Relatedly, Gurley (1999) found that 35 percent of federal offenders in the Northern District of Alabama's drug treatment program reverted to drug use following completion of treatment. The majority (5 percent) of offenders who reverted to substance abuse did so with cocaine. Marijuana accounted for another 30 percent of the drug use violations, while amphetamine/methamphetamine-using offenders comprised 5 percent of the total violators.

Preventing drug use could positively impact the quality of life for many persons under criminal justice supervision, as well as their families (National Institute on Drug Abuse, 1999). Consequently, American society would benefit by circumventing the crimes that often accompany drug use, thus reducing the increasing costs of incarceration. The Administrative Office of the United States Courts (2002) provided figures that show disparities between the costs of incarcerating or supervising federal offenders. Specifically, annual costs for incarceration were estimated to be \$22,176.18, whereas those for supervising an individual in the community were estimated to be \$3,247.10. The large gap between these amounts provides ample room for prevention and intervention efforts. The National Institute on Drug Abuse (1999) reported that offenders who participate in treatment are 70

percent less likely than non-participants to return to drug use or to be rearrested.

Stress and Substance Abuse

Stress, perhaps the most common of human experiences, acts as a defense mechanism to protect against emotional or physical danger. Stress, however, is often a prelude to substance abuse. The National Institute on Drug Abuse (2001) reported that stress contributes to both the initiation and continuation of substance abuse. Even after extended periods of abstinence, stress is a powerful trigger for relapse (Agnew & White, 1992; Maisto, Pollock, Lynch, Martin, & Ammerman, 2001). Many authors (Boardman, Finch, Ellison, Williams, & Jackson, 2001; Bruns & Geist, 1984; Hawkins, Catalano, & Wells, 1986; Newcomb and Harlow, 1986; Snell, Belk, & Hawkins, 1987; Young, Boyd, & Hubbell, 2000; Vaux & Ruggiero, 1983) concluded that drug use often results from inadequate attempts to deal with stress.

Several researchers have explored the relationship between stress and substance abuse in attempts to understand how various domains of stress may influence substance abuse. Dembo, Blount, Schmeidler, and Burgos (1985) concluded that the causes of substance abuse occur in four domains: a) personal, b) intrapersonal, c) interpersonal, and d) environmental/contextual. Within these dimensions are issues pertaining to family, peer, and social stressors, which have been linked to substance abuse by other researchers. For example, Vaux and Ruggiero (1983) found that increases in social, peer

group, employment, and financial stressors resulted in increased risk for substance abuse. This finding was supported by Bruns and Geist (1984), who found that as perceived stress increased, so did the likelihood of substance use. Muncer, Epro, Sidorowicz, & Campbell (1992) concluded that interpersonal problems and desire for acceptance by peers also contribute to substance abuse.

Veneziano, Veneziano, & Fichter (1994) found that DWI offenders are more likely to experience certain stressors, and more total stressors overall, during the year preceding the DWI incident than the average person in the population. Furthermore, over one-third of the DWI offenders studied by Veneziano et al. shared common stressors relating to employment, financial, family, and interpersonal difficulties with family and friends. Koch and Denman (1987), Lachance (1994), and Bempechat (1989) offered the observation that problem drinkers are often inundated with family stressors. Kilpatrick et al. (2000), in a study of adolescents and substance abuse, determined that increased negative affect following exposure to stressors could lead to drug use as a coping mechanism. Ames and Janes (1987) added that job-related stress is also strongly correlated with substance use.

Lang and Belenko (2000) advised that treatment must address substance abuse issues as well as factors pertaining to employment, financial, family, and social aspects of participants' lives. Dembo et al. (1995) studied drug use among juvenile offenders in order to evaluate the effectiveness of a family empowerment intervention program and found that improvement in the family atmosphere reduced drug use and accompanying criminal activity, such as drug sales. Carr and Vandiver (2001) reported that counteracting stress through improvements in the quality of familial and peer relationships can act as protective barriers to substance abuse, thus differentiating between juvenile offenders who succeed and those who reoffend. Probation officers were advised to become involved in the family support system of offenders. The National Institute on Drug Abuse (2001) concurred by adding that support from family and friends plays an integral role in the recovery process.

The National Institute on Drug Abuse (1999) reported that a central element of any drug treatment regimen is to proactively identify and anticipate the difficulties or stressors that participants are likely to face. Once these stressors are identified, the goal is to

help treatment participants develop effective coping strategies. The purpose of this study was to determine if federal offenders who either used drugs or refrained from drug use while under supervision differed when compared by levels of financial, family, employment, peer, and social stressors experienced within the six months preceding participation in the study.

Methodology

Participants

Participants were criminal offenders under federal supervision in the Northern District of Alabama who were subject to drug testing. The Probation and Pretrial Services Automated Case Tracking System (PACTS) showed approximately 900 offenders under federal supervision in the district at the time of the study. Of these, approximately 375 were subject to drug testing. Offenders were excluded if they had been under supervision for more than one year. The remaining offenders were identified as either refraining from (no positive drug tests in the last 6 months) or using drugs (at least one positive drug test in the last 6 months). The primary researcher had access to all drug test results, which were positively matched to specific offenders by following standard chain-of-custody procedures.

One hundred and eighteen (118) offenders participated in the study, 59 of whom had refrained from drug use and 59 of whom had used drugs. Offenders who tested positive for at least one controlled substance were purposively selected for participation. Roysse (1995) argued that purposive sampling is justified when respondents must have something in common to be selected for participation. In this instance, the commonality was a minimum of one positive drug test within the last six months. The comparison group of offenders who had refrained from drug use was randomly selected, using a random digit table, from the total number of offenders subject to drug testing who met the one-year exclusionary criterion and who had no positive drug tests.

Data regarding characteristics of the participants were gathered from presentencing reports. The participants were predominately male (81 percent), with African Americans (64 percent) comprising the largest racial group. Whites (35 percent) and Other (1 percent) accounted for the remaining racial composition. Fifty-two percent (52 percent) of the offenders had received prior drug treatment at the time of sentencing. The primary

drugs used at the time of sentencing were marijuana (43 percent), cocaine (25 percent), amphetamines (4 percent), and opiates (3 percent). Twenty-five percent (25 percent) of the offenders reported no drug use at the time of sentencing.

A majority of the sample (46 percent) was over 36 years of age. Specific age categories and the corresponding percentages were ages 18 to 25 (11 percent), ages 26 to 30 (24 percent), and ages 31 to 35 (19 percent). Types of offenses resulting in supervision were, in decreasing order, drugs (59 percent), fraud (24 percent), other (14 percent), and violence (3 percent).

Instrumentation

Data was gathered from the offenders using the Stress in My Life survey, which was developed by the primary researcher (see Table 1). This instrument assesses five dimensions of stress: a) family, b) financial, c) employment, d) peer, and e) social stress. All items were grounded in the professional literature pertaining to stressors, drug use, and the criminal justice system. Further, the items in each dimension appear to represent their respective domains.

Originally cast as a 25-item survey, the psychometric properties of the Stress in My Life instrument were assessed as part of a pilot study completed in the fall of 2001. The participants in the pilot study were 25 federal offenders. Internal consistency was confirmed using item-to-total correlations. Twenty-two of the items correlated significantly ($p < .05$) with total instrument scores, resulting in three items being deleted from the instrument. Reliability analysis of the final 22-item instrument yielded a reliability coefficient of .93.

Participants respond to each item of the survey using a Likert-type scale ranging from 1 (*definitely disagree*) to 5 (*definitely agree*), with higher responses indicating greater agreement that the item was a source of perceived stress during the past six months. The instrument is summative, with possible total scores ranging from 22 to 110. Possible scores for the employment and family dimensions range from 5 to 25, and possible scores for the financial, peer, and social dimensions range from 4 to 16.

Procedures

Following identification of selected participants, the researcher, along with assistance from fellow probation officers, asked offenders to complete the Stress in My Life survey

during the summer and fall of 2002. Office contacts were used in most instances, since this minimized any inconveniences for the offenders who are required to visit the office on a routine basis anyway. Participation was strictly voluntary; no sanctions were imposed or liberties withheld for refusal to cooperate.

Participants were assured of the confidentiality of their responses. Signatures were required on the surveys to acknowledge that informed consent information was read and understood. These signatures were subsequently used to gather data from presentencing reports pertaining to each offender's gender, race, primary drug of abuse at sentencing, history of treatment, current age, and type of offense resulting in supervision. To protect the identities of the offenders, surveys were secured in a locked file in the researcher's office and were destroyed once the data had been coded and saved to a computer file.

Results

The data were analyzed using Multivariate Analysis of Variance (MANOVA). According to Hair, Anderson, Tatham, and Black (1995), MANOVA is an appropriate statistical technique to use when a researcher wishes to make comparisons across multiple dependent variables using a single, categorical, independent variable. Offenders who refrained from drug use and those who used drugs were compared across the five dimensions of stress measured by the Stress in My Life survey.

Six cases were removed from the analysis because of missing data. The MANOVA indicated overall significant differences between the two groups (Wilks Lambda = .857, $F(5,106) = 4.15$, $p < .05$). Univariate analyses revealed significant differences between offenders who refrained or used drugs while under supervision on all five dimensions of stress (see Table 2).

Offenders who used drugs reported higher levels of family stress ($M = 10.80$, $SD = 4.69$) than did offenders who did not use drugs ($M = 8.57$, $SD = 3.89$). Higher levels of financial stress were reported by drug users ($M = 11.73$, $SD = 4.84$) than by offenders who refrained from drug use ($M = 8.17$, $SD = 3.77$). Offenders who used drugs perceived more employment-related stressors ($M = 11.03$, $SD = 4.60$) than to those offenders who did not test positive while under supervision ($M = 8.71$, $SD = 3.47$). Peer-related stressors were more evident in drug-using offenders ($M = 10.16$, $SD = 4.33$) than in those who did not use drugs ($M = 7.87$, $SD = 3.49$). Social

stressors were perceived as more evident in the lives of drug-using offenders ($M = 9.75$, $SD = 4.12$) than in the lives of offenders who refrained from drug use while under supervision ($M = 7.89$, $SD = 4.00$).

Discussion and Recommendations

The offenders participating in this study who used drugs while under supervision appeared overwhelmed with stress in comparison to offenders who did not use drugs. With this knowledge in hand, probation officers can search for resources to help address specific issues in the lives of offenders who may be experiencing stress in the dimensions assessed by the Stress in My Life survey. Improving coping skills and developing stress and anger management techniques and marketable employment qualities may all help reduce stress in the lives of offenders.

Probation officers are encouraged to proactively identify and address stress in the lives of offenders, using the Stress in My Life survey, in hopes of preventing drug use and possibly recidivism. Training offenders how to cope effectively with stress may help to prevent drug use while under supervision.

Since this study utilized some nonrandom selection of participants, the generalizability of the results is limited. Replications of the study should be conducted in other districts to affirm or disaffirm the results found in the present study. Furthermore, the fact that the present study attempted to limit the canvassing of stress perceptions to the last six months of offenders' lives may have unintentionally affected the results of the study. Some offenders may have reported residual stressful perceptions pertaining to events experienced in the distant past, while other offenders may have lacked the insight to address perceptions more than several weeks in the past. Further studies should attempt to discern the lasting impact of stressful events on federal offenders' perceptions of stress at various intervals of the supervision term.

Finally, the present study restricted the sample to offenders who had completed one year or less of supervision. This restricted sample may have affected the results since it is possible that the first year of supervision may present unique stressors for offenders in and of itself. During the first year of supervision, offenders acquaint themselves with numerous supervision requirements, while establishing a relationship with their supervising probation officer. Further research

initiatives should examine the full range of the supervision period to determine the effects of different stages of supervision on perceptions of stress. In this regard, future studies should also explore the actual impact of the supervision process on offenders' perceptions of stress.

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Table 1*Items of Stress in My Life Survey*

Family Stress	I often argue with a member(s) of my family.
	My family just does not understand me.
	I have recently quit speaking with a family member(s).
	My family does not go to great lengths to support my goals.
	I am upset with a particular family member(s).
Financial Stress	I have difficulty paying my bills on time.
	I cannot seem to find an adequate source of income.
	No matter what I do, there is never enough money to make ends meet.
	I am currently in a bad financial situation.
Employment Stress	I have trouble finding stable employment.
	Employers often look down on me due to my conviction.
	I find it difficult to get along with my coworkers.
	I am passed over for promotions at work.
	I do not get paid adequately for the work I perform.
Peer Stress	My friends fail to understand the requirements of my federal supervision.
	I find it difficult to meet new people whom I can trust.
	My friends do not listen to my opinions.
	I am often tempted by friends to do things that could get me in trouble.
Social Stress	Most people look down on me due to my conviction.
	Other people will just not give me a chance to prove myself.
	I cannot convince others that I have changed.
	Society seems to want me to fail.

TABLE 2*Differences by Dimensions of Stress*

Dimension	<i>df</i>	<i>F</i>	<i>p</i>
Family	1	7.51	.007*
Financial	1	18.76	.000*
Employment	1	9.09	.003*
Peer	1	9.45	.003*
Social	1	5.86	.017*

**p* < .01