

## **A Day in the Life: Time-use, Employment, and Drug Access among Opiate Addicts in Ukraine**

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### **Abstract**

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Time use data have become prevalent in the social sciences, particularly in the areas of work/life balance, gender disparities in domestic labor, and adolescent delinquency. Little social science research has been done, however, on time-use among opioid addicts. Reasons for this include an underlying assumption that for the opioid dependent, time is only organized around access to opioids and their use. Addict's organization of time and attention around access and use tells an incomplete story. Given the important role of paid work, as well as other essential activities of daily living, improved understanding of time-use among addicts has policy implications for any nation. From a sample of 673 self-identified opiate addicts in Ukraine, 650 provided time-use data using 24-hour scales. The data reveal that time devoted to daily drug-related activities among addicts varies significantly, and that legitimate resources mitigate criminal activity. Among the activities are means by which self-identified addicts finance drugs, time allotted to accessing opiate drugs, and a mitigating relationship between drug-dedicated activity and employment.

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**Keywords:** opiate, intravenous, drugs, time use, paid work, Ukraine

### **1. Introduction**

A literature has emerged on time-use data that focuses on work/life balance (Gershuny, 2008; Man Yee 2011; Michelson 2011), gender disparities (Pacholok, 2009; Philp, 2011; Van der Lippe et al, 2011) and even delinquency among adolescents (McGloin, 2012; Zick, 2007).

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The connection between time allotment and the structuring of activities and all three of these phenomena are clear on their face. There has long been hypothesized a relationship between the structuring of time among adolescents, and opportunities for delinquency afforded them (Barnes, 2006; Chen, 2009) as well as the social controls exercised by engagement in community and school activities.

Little time-use research has been conducted in the social sciences, however, with known drug-users, and none with those self-identified as chemically dependent. Rossi et al (2011) discovered differences in time-use among drug users in poor neighborhoods following the 2001 political transition in Argentina. Also, in studies on social correlates of drug use, we've learned the context of urban versus rural environments has an influence on drug related activities among drug users. Young, Havens, and Leukefeld (2012) documented a significant difference, for example, between onset of use among urban opiate users and rural users in Appalachia. In Ukraine, rural opiate users are more likely to grow their own poppies, while urban opiate users were more likely to be dependent upon a commoditized distribution of a readily injectable product. The current data show significant variation in how time is structured within a sample of self-identified addicts.

## 1.2. The Demands of Chemical Dependency

Chemical dependency not only implies but requires that dependent individuals obtain and use the substances on which they are dependent. Failing to do so results in withdrawal distress, possible medical complications or, in circumstances where high dosages are followed by an abrupt halt in use, risk of death. Since addictive drug use, by definition, dictates a socially deviant lifestyle, it must also have an effect on how the drug user spends his or her time, which must be organized to accommodate regular and systematic use. The addict's time and attention must be managed in such a way as to accommodate time under the influence of a substance, manage access the substance, and recover from use (American Psychiatric Association, 2013).

The reorganization of time and attention around these activities is a hallmark of the condition of substance dependence (Shaffer & Albanese, 2005). However, one must ask if there are other activities in which addicts engage that are errantly attributed to chemical dependency.

More specifically, are lifestyle outcomes of addiction uniform, or is there variation in the time attributed to a range of behaviors associated with chemical dependency?

Very little social science has explored, quantitatively, how active, self-identified addicts use their time with respect to drug related activity. The current study explores how addicts in a predominantly urban region of Ukraine spend their days with specific attention to employment and drug finance. How much time do they spend securing access to drugs? How much time are they spending under the influence of these drugs? Are they financing all of their drug use illegally, or are there legitimate means by which addicts are also financing drug use? And does gainful employment, itself a time structuring factor, significantly affect time allotted to drug-related activities?

Interpreting time-use data can be tricky. From a time-use perspective, multiple tasks fill time-spaces, and the division of an individual's focus is difficult to discern (Kenyon, 2010). For example, one can be "on the clock" at one's place of legitimate employment and still spend time trying to locate and purchase illicit drugs, just as one can drive children to activities while quizzing them on homework. While the practice is most often illegal, drug users are also known to work while under the influence of illicit substances. The only time use activity that is mutually exclusive of other activities is sleep, and so it is logical to examine time allocated to sleep in time-use analyses.

The current study presents five time-use activities related to drug-use: 1) time spent obtaining opioid drugs; 2) time spent under the influence of opioid drugs; 3) time spent engaged in legal activities intended to finance drug-use; 4) time spent engaged in illegal activities intended to finance drug use; 5) time spent sleeping. The findings should be useful in several ways. First, they have the potential to challenge assumptions about how an addict's time is spent on drug use. Of course we expect addicts' time to be organized around use, but evidence of variations in time-use between addicts as well as similarities to non-addicts, would have implications for intervention and harm reduction.

Such evidence would demand discussions about the potential role of paid work and how to introduce change, proving useful for both treatment practice and public policy.

Second, as the data indicate, many self-identified addicts are employed. Gainful legitimate employment structures time and competes with drug related activities for individual attention. The purpose of the current study is to present time-use data collected from active narcotic addicts in Ukraine, examining their variations first, and then examining differences in time-use associated with employment status to determine, if there are significant variations in time-use among addicts, the impact of employment on how time is allotted.

## **2. Methods**

Survey data were gathered information from 673 self-identified narcotic addicts. The sampling frame included self-identified addicts who voluntarily enlisted in Ukraine's Addict Registry. As a result the sampling frame is made up of respondents who receive home visits from social workers, who systematically inform clients about services available and check in on client's health and global functioning (Adams, 2012). Respondent participation was solicited randomly. Those who participated completed questionnaires during home visits from social workers. In addition to information about frequency of use and high-risk behaviors, participants were presented with a series of scales representing twenty-four hour days. Each scale had an extension of six hours on either side, allowing for continuity across nights, so that each contained a total of 36 hours. Respondents were asked to identify the portions of the day, using the graphs, that they were under the influence of opiate drugs, working on obtaining access to that drug (sourcing), engaged in legal activities to finance their drug use, engaged in illegal activities to finance use, and sleeping.

The times that were collected from the respondents were used to calculate the approximate beginning and ending times of the reported activities. They were also used to estimate the amount of time afforded the activities daily. Respondents reported, for example, that they went to sleep at 11:55 each night, on average, and awoke at approximately 8:50 each morning, again on average. The variation in sleep patterns was wide and accommodated a variety of drug use regimens.

Notwithstanding, the time afforded sleep and their accompanying hours do not appear, on their face, to be significantly different from the non-drug using population in a comparison with western time-use data (Bureau of Labor Statistics, 2011).

In the current study, beginning and ending times are presented for five activities. These included sleep, time under opiate influence, paid work at a legitimate job, criminal activities to finance drug use, and time spent securing access to drugs. Information was collected about the about employment status of the respondents. Respondents were identified as being employed or not. Among the 343 who reported being unemployed, 166 reported regularly finding licit work in order to finance drug use and reported this activity on their time use scales.

**Table 1. Age by Gender**

<i>Age Categories</i>	<i>Men</i>	<i>Women</i>	<i>Total</i>
Under 20 years	35	14	49
20-22 years	96	33	129
23-25 years	145	44	189
26-30 years	140	41	181
31-35 years	43	18	61
Over 35 years	30	11	41
Total	489	161	650

Table one shows the age distribution of the sample, distinguished by gender. With one exception, there were almost no significant differences between men and women in the sample in any respect. That exception was the amount of time spent engaged in illegal activities to finance drug use, consistent with criminological literature on crime and gender (Jacobsen, 2012). The illegal activities variable differed significantly, with an average of 7 hours reported by men, daily, and 5.76 hours reported by women. Furthermore, due to the racial and ethnic homogeneity of the region there were no significant variations according to race or ethnicity. Respondents identified as either being "Slavic" or "White" with no differences in outcome variables between the two.

### 3. Findings

The data collected provide insight into the drug related activities and sleep. In this section, I present a sample description in terms of specific time use findings. Next, understanding that employment status is both a cause and a consequence of drug related time use, I examine how employment both structures and is structured by the addict's use of time with respect to drug use.

Table–2 contains the mean starting times, mean ending times, and the mean hours spent on each activity for which time use data were collected. The sleep patterns are not significantly different from sleep patterns of US citizens, who report sleeping 8.7 hours per night, in similar fashion (Bureau of Labor Statistics, 2013). Among the 396 respondents who reported engaging in legal work to fund their drug use, work activity was reported from 8:35 a.m. to 5:30 p.m. on average. Also among these 396 respondents are those who reported being unemployed but who reported that they regularly found some legitimate paid work to help finance drug use.

**Table 2: Starting Time, Ending Time, and Hours Spent in Each Activity**

<i>Activity</i>	<i>Mean start time</i>	<i>Mean end time</i>	<i>Mean hours spent</i>	<i>S.D.</i>	<i>n</i>
Sleep	11:55 p.m.	8:50 a.m.	8.9	2.1	596
Licit funding	8:35 a.m.	5:30 p.m.	8.9	2.93	396
Under influence	9:35 a.m.	6:50 p.m.	9.3	5.28	523
Illicit funding	9.30 a.m.	4:10 p.m.	6.7	4.75	313
Drug access	10:45 a.m.	4:15 p.m.	5.5	4.96	458

The finding that a significant portion of the sample is employed, and that an additional portion regularly engages in licit paid-work, should be particularly informative, especially where stigmatizing stereotypes of addicts are of interest. The study confirms significant participation in illicit/illegal activity to fund drug use. However, chemical dependency does not require illegal activity. It requires access to and use of specific chemical substances. The data suggest that while addicts are certainly among criminals engaged in property crimes, they are also among the legitimate working population.

Furthermore, while the data don't provide a distinction of specific respondents who both work and use drugs at the same time, the aggregation suggests that a significant portion of the sample does work while under the influence of opiates.

The last of the activity categories, drug sourcing, is also telling. 70.5% of the sample provided time use data in this category. They spent 5.5 hours each day managing access to opiates. While there are a variety of jobs that can accommodate these efforts, such drug-access activities must go well beyond the workplace. Assuming addicts are not only intent upon obtaining prohibited drugs but actually skilled at obtaining them, there is a significant opportunity cost involved.

Almost any activity would be preferable to those associated with accessing narcotic drugs, not only to the addicts but to the communities in which they live.

**Table 3. Hours Engaged in Activity by Employment Status**

Activity/employment	mean	SE	n	$P( T  >  t )$
<i>Sleeping</i>				
Unemployed	9.32	0.128	301	
Employed***	8.44	0.111	286	0.000
<i>Under opiate influence, or "high"</i>				
Unemployed	9.25	0.289	235	
Employed**	7.92	0.324	213	0.002
<i>Engaged in licit drug-financing</i>				
Unemployed	8.64	0.251	166	
Employed*	9.15	0.166	216	0.041
<i>Funding drug use via illegal activity</i>				
Unemployed	7.30	0.384	190	
Employed**	5.67	0.419	113	0.003
<i>Hours accessing opiates</i>				
Unemployed	5.73	0.346	243	
Employed	5.16	0.376	197	0.263

\*significant at  $\alpha \leq 0.05$

\*\*significant at  $\alpha \leq 0.01$

\*\*\*significant at  $\alpha \leq 0.001$

Even outside of addiction studies, there are perspectives that would identify employment as transformative. Nishikitani et al (2012) argue that “precarious non-regular employment” is responsible for a decline in health measures among workers. Kiernan et al (2011) found that for every rehabilitation effort among intellectually or developmentally disabled person, the objective of finding employment should be viewed as the beginning of a rehabilitation effort rather than an objective.

While the current study addresses drug related behavior among addicts rather than health measures, there appears to be a similarly negative outcome for those who identify themselves as unemployed but who still manage to engage in licit work to finance their drug use. For this portion of the sample, there were no statistically significant differences in any of the outcome measures when compared to those unemployed respondents who did not report engaging in licit work. The 166 unemployed respondents who engaged in licit work but identified themselves as unemployed (Table 3) reported working slightly less than those who reported being regularly employed. Taken as a whole, however, there were significant differences unemployed and employed respondents on each of the outcome areas except activities dedicated to drug access.

In the aggregate, employed respondents slept fewer hours than unemployed addicts. They spent significantly less time “high”. They spent more time engaged in licit work, and less time engaged in criminal activity to support drug use. Both groups, the employed and unemployed, spent significant time securing access to drugs, which I address further in the upcoming discussion.

#### **4. Discussion**

The difference between unemployed and employed self-identified addicts in the time allotted to drug related behavior is important. Given the nature of the problem, it is not surprising that the addicted condition itself is often the central component of the addict’s individual identity. Neither is it surprising that it is the central component of the addict’s social identity, as it affects family relationships, peer associations and work life (McIntosh, 2001). However, as these social dimensions suggest, addiction is not the only component of the addict’s life. Social perceptions, and even social policy, can affect the extent and manner in which the addict can participate in normal social life. The fact that a significant portion of the current sample engages in regular paid work speaks to such possibilities.



To people familiar with addiction, as well as with the work of helping addicts, the findings presented here speak to a variety of ways in which the population could be better served.

First, the legal prohibition of opiates itself makes the activities associated with its use criminal.

As a result, individuals must dedicate more time and attention to access and use than if access was regulated. While opiate drugs are inexpensive to manufacture, the criminal market for narcotics means that the substances are less affordable. I am not referring to affordability from the perspective of a price point. They are also less affordable when considering the time that must be invested into obtaining and using a prohibited substance. The economic costs increase the need for many addicts—but not all—to engage in illegal activity to finance their drug use. However intuitive, the precise relationship between time spent engaged in illicit activity for drug financing and the frequency of criminal acts is unknown.

Second, the employment of known addicts, while not ideal on the surface, may provide a variety of benefits. The data presented in this study suggest a significant mitigating effect of regular paid work on illicit activities to finance drug use. Simply put, it reduces property crime among addicts. Regular paid work for the substance dependent can be exploitive, but it can also be transformative (Kiernan et al, 2011). It can provide additional components to the addict's identity. It can provide temporal structure which may minimize both criminal and high-risk behaviors. Combined, providing affordable access and paid work offers the effect of "bringing them in", meaning that addicts are brought within proximity to a variety of services that can improve their own lives as well as the lives of those in their immediate environments. Combining safe access and paid work for addicts in Ukraine suggests the following outcomes:

1. The quality, potency, and dosage of chemical substances can be controlled at significantly lower cost, including both the retail cost and costs such as law enforcement that targets drug sellers and users.
2. Self-identified addicts could gain access to an earned income that can be used to pay for the drugs they use, as well as a portion of the social services they need.

3. Addicts could be brought within closer proximity to health services and rehabilitation services they need.
4. The time addicts spend searching out and obtaining access to drugs, a social opportunity cost, could be eliminated.
5. Ideally, employers could be aware of specific circumstances of addicted employees and participate in tailoring work programs that benefit both addicts and employers.

## 5. Limitations

Among the limitations of these data is that they were collected using survey instruments rather than the preferred method of collecting daily diaries. The first argument for using diaries is that they have the benefit of parsing out some degree of those activities in which the respondents engage intermittently. Evidence suggests this challenge could be overcome by augmenting time-use data with qualitative inquiries among participants (Erkip & Mugan, 2010). The second argument is one of accuracy. Bonke (2005) demonstrated that there is a difference in the accuracy of time-use data collected through survey response and time-use data collected through diaries. In the case of the patterns observed in the current analysis, the sacrifice is likely to be one of precision rather than accuracy, as the survey responses failed to capture the intermittency of specific behaviors. Further research would be necessary to capture the latter, and to further test hypotheses based on these exploratory findings.

There is a final causal question as to whether the analysis captures the effect of employment on time-use or if time-use affects employment. The initial instrument had several employment measures. Among them was an indicator that measured the number of months since an unemployed respondent had regular employment. Also among them was an item that collected the respondents' assessments of whether their drug use had negatively affected their employment situation. In ordinary least squares models, all three measures, employment status, length of unemployment, and the effect of drug use on employment status had significant independent effects. In each of the models, effects of employment status occurred independently of negative consequences of drug use on employment (Adams, 2012).

While addicts' time use is likely organized around drug use, it is not organized uniformly across the self-identified addicts in Ukraine. Even while they continue use, they engage in a variety of behaviors associated with normal social life, and among these is regularly paid employment. That same employment has a mitigating effect on activities associated with harm. These include financing drug use criminally, behaviors associated with high risk of blood born infection, and drug sourcing, the time used to obtain prohibited substances (Adams, 2012). Each of these suggests improvements that can be made in social policy in order to mitigate harm caused by drug use. Policies that increase safe access and promote regular employment among those with chemical dependency should receive priorities.

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### **References**

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Adams, G. A. (2012) *Narcotic Addicts in Ukraine: Exploring Social Correlates of Addiction*. Lambert Academic Publishing. Saarbrücken, Germany.
- Barnes, G. M., Hoffman, J. H., Welte, J. W., Farrell, M. P., & Dintcheff, B. A. (2007). Adolescents' time use: Effects on substance use, delinquency and sexual activity. *Journal of Youth & Adolescence*, 36(5), 697-710. doi: 10.1007/s10964-006-9075
- Bonke, J. (2005). Paid work and unpaid work: diary information versus questionnaire information. *Social Indicators Research*, 70(3), 349-368.
- Bureau of Labor Statistics (2013) *US Time Use Survey Results 2012*. <http://www.bls.gov/news.release/atus.nr0.htm>.
- Chen, S. Y., & Lu, L. (2009). After-school time use in Taiwan: effects on education achievement and well-being. *Adolescence*, 44(176), 891-909.
- Erkip, F., & Mugan, G. (2010). Increasing the effectiveness of time-use survey with qualitative methods: The analysis of time-space interaction. *Innovation: The European Journal of Social Sciences*, 23(3), 181-198. doi: 10.1080/13511610.2010.543530
- Jacobsen, S. (2012). The Differential Representation of Women and Men in Crime, Victimization, and the Criminal Justice System. *Sex Roles*, 66(3/4), 293-295. doi: 10.1007/s11199-011-0065-7
- Kenyon, S. (2010). What do we mean by multitasking? -- Exploring the need for methodological clarification in time use research. *Electronic International Journal of Time Use Research*, 7(1), 42-60.
- Kiernan, W. E., Hoff, D., Freeze, S., & Mank, D. M. (2011). Employment First: A Beginning Not an End. *Intellectual & Developmental Disabilities*, 49(4), 300-304. doi: 10.1352/1934-9556-49.4.300

- McGloin, J. M. (2012). Delinquency Balance and Time Use: A Research Note. *Journal of Research in Crime & Delinquency*, 49(1), 109-121. doi: 10.1177/0022427810397947
- McIntosh, J., & McKeganey, N. (2001). Identity and Recovery from Dependent Drug Use: the addict's perspective. *Drugs: Education, Prevention & Policy*, 8(1), 47-59. doi: 10.1080/09687630150201011
- Michelson, W. (2011). What Makes an Activity Most Enjoyable? Alternative Ways of Measuring Subjective Aspects of Time-Use. *Social Indicators Research*, 103(1), 77-91. doi: 10.1007/s11205-010-9697-1
- Pacholok, S., & Gauthier, A. (2010). Non-Participant Fathers in Time-Use Studies: Uninvolved or Data Artifact? *Social Indicators Research*, 96(2), 249-266. doi: 10.1007/s11205-009-9475-0
- Philp, B., & Wheatley, D. A. N. (2011). Time Use, Exploitation, and the Dual-Career Household: Competing Perspectives. *American Journal of Economics & Sociology*, 70(3), 587-614. doi: 10.1111/j.1536-7150.2011.00784.x
- Rossi, D., Singh, D. Z., Pawlowicz, M. P., Touzé, G., Bolyard, M., Mateu-Gelabert, Friedman, S. R. (2011). Changes in time-use and drug use by young adults in poor neighbourhoods of greater Buenos Aires, Argentina, after the political transitions of 2001-2002: Results of a survey. *Harm Reduction Journal*, 8. doi: 10.1186/1477-7517-8-2
- Shaffer, H. J., & Albanese, M. J. (2005). Addiction's Defining Characteristics. In R. H. Coombs (Ed.), *Addiction counseling review: Preparing for comprehensive, certification and licensing examinations*. (pp. 3-31). Mahwah, NJ US: Lawrence Erlbaum Associates Publishers.
- Sonnenberg, B., Riediger, M., Wrzus, C., & Wagner, G. G. (2012). Measuring time use in surveys – Concordance of survey and experience sampling measures. *Social Science Research*, 41(5), 1037-1052. doi: 10.1016/j.ssresearch.2012.03.013
- Van der Lippe, T., De Ruijter, J., De Ruijter, E., & Raub, W. (2011). Persistent Inequalities in Time Use between Men and Women: A Detailed Look at the Influence of Economic Circumstances, Policies, and Culture. *European Sociological Review*, 27(2), 164-179. doi: 10.1093/esr/jcp066
- Young, A. M., Havens, J. R., & Leukefeld, C. G. (2012). A Comparison of Rural and Urban Nonmedical Prescription Opioid Users' Lifetime and Recent Drug Use. *American Journal of Drug & Alcohol Abuse*, 38(3), 220-227. doi: 10.3109/00952990.2011.643971
- Zick, C. D. (2010). The Shifting Balance of Adolescent Time Use. *Youth & Society*, 41(4), 569-596.