Published in final edited form as:

Alcohol Treat Q. 2016 ; 34(4): 415–424. doi:10.1080/07347324.2016.1217709.

Important Activities Among Justice-Involved Individuals with Substance Use Disorders in Posttreatment Aftercare Settings

Yvita Bustos, Ronald Harvey, PhD, and Leonard A. Jason, PhD

Department of Psychology, DePaul University, Chicago, Illinois, USA

Abstract

This study gathered data using the Important Persons and Activities instrument to record changes in popular activities over a 2-year study of 270 justice-involved individuals randomized into three aftercare conditions: self-run Oxford Houses, a staffed therapeutic community (TC), or usual aftercare (UA). Participants listed important activities during the 2-year study at baseline and at four subsequent 6-month intervals. Categorization of these activities and a descriptive analysis were conducted for Wave 1 (baseline), at Wave 3 (Year 1), and Wave 5 (Year 2). Standardized scores were computed to test differences in proportions of the #1 most favored activity across conditions. Descriptive results also demonstrated that Reading/Writing activities, and Exercise/Sports activities, were most reported at baseline. By Wave 5, Education/Work and Interacting with Others were the most reported activities. These findings indicated that solitary activities, such as Reading/Writing, may play a predominant role in early aftercare whereas Work/Education and social activities increase later on. Implications for future research of changing activities during recovery trajectories are discussed.

Keywords

Important People and Activities Inventory; justice-involved; substance use disorders; aftercare; Oxford House; recovery capital

Substance use disorders (SUDs) among justice-involved individuals leaving jail or prison is a leading cause of reincarceration (Jason, Olson, & Foli, 2008). In-prison treatment programs as well as posttreatment aftercare settings can be effective in remission of SUDs (Jason, Davis, & Ferrari, 2007). Research suggests that engaging in ordinary daily activities may be helpful for preventing SUDs before treatment and preventing relapse after treatment (Moos, 2003). Meaningful everyday activities may provide the structure needed by the individual in recovery after transitioning out of an inpatient treatment program (Baldwin & Duffy, 2013).

Few studies have examined the self-reported activities of former substance users in aftercare to determine what activities might be helpful to sustain recovery. Persons addicted to opiates who increased leisure activities such as reading, exercise, and watching television increased

CONTACT Ronald Harvey, ron_harvey@sbcglobal.net, Center for Community Research, DePaul University, 990 W. Fullerton Ave., Ste. 3100, Chicago, IL 60614.

All authors approved the manuscript and this submission. The authors report no conflict of interest.

engagement with people who did not use drugs and had more positive outcomes over time after treatment (Simpson, Crandall, Savage, & Pavia-Krueger, 1981). A study conducted by Sinyor, Brown, Rostant, and Seraganian (1982) examining exercise as an adjunct to treatment for alcoholism found that 69% of participants in treatment with an exercise program had remained abstinent compared to 38% who did not exercise. A study of adolescents who engaged in physical activity had reduced alcohol, tobacco, and marijuana use compared to nonactive peers (Bardo & Compton, 2015). Read and Brown (2003) propose that exercise may be a natural pleasure and an alternative to alcohol use as exercise activates the dopamine reinforcement mechanism that is related to substance use.

People with SUDs are twice as likely as the general population to suffer from mood or anxiety disorders such as anxiety and depression (National Institute on Drug Abuse, 2015). Qualitative studies in which playful activities involving drama and laughter indicated that these activities may improve mood and be effective therapeutic tools for people in SUD treatment (Ramseur & Wiener, 2003). In a review of exercise and mood states, 90% of studies reviewed support that exercise decreased anxiety and depression (Byrne & Byrne, 1993). Taylor, Sallis, and Needle (1985) also support that exercise reduces symptoms of depression, anxiety, and stress and may offer other psychological benefits such as increased self-control, independence, and emotional stability.

The purpose of this study is to describe the activities of a sample of former substance users using the Important People and Activities instrument (IPA: Clifford & Longabaugh, 1991). Although the IPA is frequently used to assess the important persons in a participant's social network, very few studies to our knowledge report data from the Activities portion of the instrument (Kelly, Stout, Magill, & Tonigan, 2011), and no studies to our knowledge have used the IPA to track the activities of justice-involved individuals with SUDs over time. This study seeks to gain insight into the activities of justice-involved individuals after SUD treatment. We propose no specific hypotheses; our goal was to explore the potential of the IPA instrument to illuminate changes in activities and recovery trajectories over time.

Method

Participants

We recruited 270 participants from inpatient treatment centers for SUDs in the Chicago, Illinois, area from March 2008 through May 2011 (Jason, Olson, & Harvey, 2015). For inclusion in the study, participants were required to be age 18 years or older, be in recovery from a SUD (either alcohol or drug dependence), and were released from jail or prison within the past 24 months. After obtaining consent, we randomized participants into one of three aftercare conditions: Oxford House (OH), a therapeutic community (TC), and usual aftercare (UA). OHs are a network of self-run, small-scale abstinent homes for individuals recovering from SUDs. Residents can remain in these settings as long as they pay their rent, which is about US \$100 a week, abstain from any alcohol or drug use, and comply with assigned weekly chores (Jason, Olson, Ferrari, & Lo Sasso, 2006).

The TC condition was a licensed, private organization providing a structured sober living residential program with staff for persons in recovery. As in most TCs, residents in the TC

we selected occupy a two- or three-person unit that is fully furnished by the organization and residents must follow a program of recovery supervised by trained staff. All TC residents must attend five self-help meetings per week, make a minimum of four “recovery-related” phone calls per week (through which they receive a sponsor’s support), and obtain full- or part-time employment. During later months, residents can serve as role models and help orient newer residents, attend four 12-Step meetings a week, and move toward financial stability. After 12 months, residents can move to independent living arrangements that are owned by the TC.

The UA condition involved what occurred naturally after completing treatment. Those in the UA condition were discharged and went to a variety of places, including staying with friends or family members, their own house or apartment, homeless shelters, or other settings. All participants were compensated with \$40.00 for baseline interviews and on completion of interviews for each wave at 6-month intervals. Participants were also given passes to use public transportation from the interviews.

The final sample consisted of 224 men and 46 women. The majority of participants in the sample were African American (74%) with Caucasian (21%), Hispanic/Latino (3.3%), multiracial (1.1%), and American Indian (.4%) ethnicities included. The OH condition consisted of 68 men and 22 women. The TC condition consisted of 76 men and 14 women. The UA condition consisted of 80 men and 10 women. Those assigned to the OH condition stayed in these settings a mean of 91.61 days ($SD = 141.99$), and those assigned to the TC resided in their facility for a mean of 60.61 days ($SD = 79.29$).

Measures

Demographic survey—Demographic questions were created to assess personal information including age, race/ethnicity, gender, and date of birth. Additional questions were also included to assess current treatment setting.

Important people and activities inventory—This study focused on the IPA. This measure assesses how participants have spent their time over the past 6 months. Questions for this measure include the importance of the activity, hours spent on each activity, and level of enjoyment while participating in the activity. This measure also assesses whether the participant was using while engaging in the activity. This measure has criterion and construct validity, and test–retest reliability (Clifford & Longabaugh, 1991).

Procedures

After baseline interviews, interviews were conducted every 6 months over a 2-year period at 6 months, 12 months, 18 months, and 24 months creating five separate intervals for longitudinal assessment. Participants gave interviewers tracking information to stay in contact for subsequent interviews. If a participant was unable to be located during for an interview during a given wave, attempts were made to regain contact and interview the participant for other follow up waves. Follow-up interviews were conducted on site when possible but also were conducted through telephone interviews and off-site locations when necessary.

Data categorization and statistical analyses

Important activities were assessed at each wave using the IPA, but this study examined important activities at baseline, Wave 3 (Year 1), and Wave 5 (Year 2). Although participants could list up to 10 activities, the vast majority (98.3%) of participants listed four activities important to them. Activities were examined and coded into categorical variables to facilitate analysis. These were categorized into Education/Work (attending), Art/Music, Reading/Writing/Solitary, Exercise/Sports, Recovery-oriented (i.e., meetings, talking to a sponsor), Spiritual (i.e., going to church, praying), Chores/Errands, Cook/Eat, Entertainment (i.e., movies, television, computer games), Interacting with Others (i.e., time spent with family or friends), and Self-improvement (i.e., job searching).

Results

Table 1 lists the top activities of all participants at Wave 1 (baseline), Wave 3 (Year 1), and Wave 5 (Year 2). Table 2 is a descriptive list of frequencies and percentages for each condition and time period. The test of proportions was used to determine whether the proportions of participants favoring a particular activity category were the same across the settings and across time. A *z*-score calculator for population proportions (<http://www.socscistatistics.com/tests/ztest/Default2.aspx>) was used to calculate differences of proportion between OH, TC, or UA and within groups across the three time periods.

At baseline, there were few differences in activities among the three conditions. A significantly fewer proportion of participants in the OH condition listed Entertainment as an important activity (4.6%) compared to the proportions of participants in the TC (13.6%), $z = -2.07$, $p = .038$. and UA (18.2%), $z = -2.82$, $p = .005$.

At Wave 3 (Year 1), a significantly higher proportion of OH participants (20.9%) reported Interacting with Others as an important activity compared to TC participants (7.3%), $z = 1.98$, $p = 0.048$. Also, a significantly higher proportion of OH participants (14.0%) reported Recovery as an important activity compared to UA participants (1.9%), $z = 2.26$, $p = .024$. At Year 1, a higher proportion of participants in the TC condition (12.7%) reported Recovery activities compared to participants in UA (1.9%), $z = 2.15$, $p = .032$. A significantly lower proportion of OH participants (4.7%) indicated Exercise/Sports as an important activity compared to participants in TC (21.8%), $z = -2.41$, $p = .016$.

At Wave 5 (Year 2), a significantly higher proportion of OH participants (27.4%) listed Education/Work as an important activity compared to TC participants (11.3%), $z = 2.45$, $p = .014$. A higher proportion of UA participants (26.1%) also reported Education/Work as more important compared to TC participants, $z = -2.25$, $p = .024$. At Year 2, a significantly lower proportion of OH participants (4.1%) reported Entertainment as an important activity compared to participants in TC (14.1%), $z = -2.09$, $p = .037$.

The proportion of OH participants who listed Reading/Writing/Solitary as an important activity decreased significantly between baseline (31.0%) and Wave 5 (6.8%), $z = 3.81$, $p = .000$. There was a significant increase in the proportion of OH participants who listed Education/Work as an important activity between baseline (13.8%) and Wave 5 (27.4%), $z =$

$-2.14, p = .032$. There was also a significant increase in the proportion of OH participants who listed Interacting with Others as an important activity between baseline (2.3%) and Wave 3 (20.9%), $z = -3.59, p = .000$, and baseline (2.3%) and Wave 5 (15.1%), $z = -2.94, p = .003$. There was a significant decrease in the proportion of OH participants engaged in Exercise/Sports between baseline (8.4%) and Wave 3 (4.7%), $z = 2.13, p = .033$.

There was a significant decrease in the proportions of TC participants reporting Reading/Writing/Solitary as an important activity between baseline (25.0%) and Wave 3 (7.3%), $z = 2.67, p = .008, z = 3.49, p = .000$. There was a significant decrease in the Recovery category for TC between Year 1 (12.7%) and Year 2 (2.8%), $z = 2.14, p = .032$. There was a significant increase in the interacting with others category for TC between baseline (3.4%) and Year 2 (12.7%), $z = -2.20, p = .028$.

There was a significant decrease in the proportions of UA participants reporting Reading/Writing/Solitary as an important activity between baseline (31.8%) and Wave 5 (8.7%), $z = 3.49, p = .000$. There was a significant increase in the proportion of UA participants who listed Education/Work activities as important between baseline (8.0%) and Wave 5 (26.1%), $z = -3.08, p = .002$. Finally, there was a significant increase in Interacting with Others between baseline (1.1%) and Wave 3 (13.2%), $z = -3.00, p = .003$, and between baseline (1.1%) and Wave 5 (11.6%), $z = -2.80, p = .005$.

Discussion

This study found that participants' most important activities changed across time. We propose that justice-involved clients just leaving inpatient care at baseline may not have freedom of movement, have fewer opportunities for socializing, or lack an established social network in which to integrate. Thus, it is expected that more solitary Reading/Writing activities are an important activity for all participants at baseline.

What are more interesting are the differences in activities that emerged one year later. At Year 1, OH participants reported that Interacting with Others, Education/Work, and Recovery activities were the most important activities. These findings compliment the main findings from Jason et al. (2015) that individuals assigned to the OH condition received more money from employment, worked more days, and achieved higher continuous alcohol sobriety rates, and had more favorable cost-benefit ratios than the TC and the UA conditions. As Connors, Tonigan, Miller, and MATCH Research Group (2001) found, recovery-orientated activities correlate with higher abstinence. Moreover, the current study's findings at Year 2, in which the most practical and necessary activities, participating in Education/Work, was the most important activities for the OH participants, appear to be consistent with the employment results of Jason et al. (2015). This is encouraging because previous studies found that employment is important for recovery (Baldwin & Duffy, 2013).

One way to think about the effects of meaningful activities is from the concept of "recovery capital," which are the cumulative physical and psychological resources needed to overcome addiction and promote recovery (Cloud & Granfield, 2008; Lyons & Lurigio, 2010; White & Cloud, 2008). Although an emerging construct, recovery capital is generally classified into

personal resources (self-efficacy, knowledge, personal health, education, hope, employment, financial assets, and life satisfaction), social resources (social capital in the form of supportive relationships with family and significant others, peer mentors, recovery and support groups), and community resources (treatment resources and support services, social acceptance and lack of stigma). Lyons and Lurigio (2010) emphasized the importance of bonding social capital (existing social relationships that may or may not be recovery enhancing) versus bridging social capital (which emphasizes new relationships and novel activities that enhance recovery) as being particularly important for justice-involved individuals. An early empirical study of recovery capital across time was conducted by Laudet and White (2008). This study examined the relationship of specific components of recovery capital and their relative importance among time periods of recovery: under 6 months, 6 to 18 months, 18 to 36 months, and more than 3 years. Laudet and White found that some increases in recovery capital (operationalized as measurements of social support, stress, spirituality, life meaning, 12-Step affiliation, and religiousness) were associated with fewer relapses in various stages of recovery. For the entire sample, increases in recovery capital in the form of 12-Step involvement and life meaning significantly predicted fewer relapse occurrences. Stress reduction was the only significant factor for the under 6 months group, 12-Step involvement only for the 6 to 18 month group, and general social support only for the greater than 3 years group. These findings suggest that settings must be flexible enough to meet the needs of heterogeneous groups who are at various stages of recovery but are directed enough to encourage activities that are meaningful. Future research is needed on differing activities in aftercare settings and how these settings may enhance recovery capital.

Limitations

A limitation of this study is that it could not determine whether the assigned settings may have had a long-term impact on activities later on. In a previous study, Jason, Davis, and Ferrari (2007) found that individuals who stayed at least 6 months in an OH had lower relapse rates and significantly better indicators of personal change such as employment, abstinence self-efficacy, and proportion of abstinent others in the personal “significant persons” network, compared with those staying fewer than 6 months. For example, OH environments require participation in house governance and employment to pay rent (Oxford House Inc., 2015). Past studies found that longer lengths of stay in OH and TC treatment led to better outcomes on employment (Jason et al., 2015). Because both of these settings require income or employment (in the case of OH, this is requirement on being accepted to live in their setting), it is not surprising that Education/Work increased over time at these settings. This may be reflected in the important activities or Interacting with Other and Education/Work 1 and 2 years after assignment, although the average length of stay in the OH setting was fewer than 6 months.

There were significant limitations for this study. Activities were self-reported by justice-involved individuals and may be influenced by social desirability that we did not control for. However, as mentioned earlier, the empirical results from Jason et al. (2015) do not appear to contradict these self-reports for Education/Work activities. In terms of sampling, there was a lack of women in the population sample therefore decreasing generalizability. After Year 1 data collection, there was a large portion of missing data; only 43 of 90 participants

in the Oxford house condition, 55 of 90 in the TC condition, and 55 of 90 participants in UA condition were interviewed. However, tracking and sampling increased dramatically by Year 2 follow-up, when we were able to reinterview the majority of the participants in each condition: OH (74/90 = 82%), TC (73/90 = 81%), and UA (70/90 = 78%).

This study did not examine if activities listed correlated with sustained sobriety periods, or if the activities themselves involved drugs or alcohol, as in Kelly et al. (2011). However, future research should examine whether activities effect on stress may be beneficial for sustained sobriety. Future studies may examine activities that increase self-efficacy in relation to recovery outcomes.

In sum, all work and no play can make for a dull recovery. We believe that further examination of the important activities of people in SUD recovery should be encouraged, particularly in relation to the concept of recovery capital. Such research could distinguish what sorts of activities are most helpful during various time periods after treatment, and could help clinicians and treatment professionals advise their clients and design more effective and meaningful activities in their programs.

Acknowledgments

Funding

The authors appreciate the financial support from the National Institute on Drug Abuse (Grants DA13231 and DA19935).

References

- Baldwin H, Duffy P. Recovery post treatment: Plans, barriers and motivators. *Substance Abuse Treatment, Prevention, and Policy*. 2013; 8(1):1–12.
- Bardo MT, Compton WM. Does physical activity protect against drug abuse vulnerability? *Drug and Alcohol Dependence*. 2015; 153:3–13. [PubMed: 26091750]
- Byrne A, Byrne DG. The effect of exercise on depression, anxiety and other mood states. *Journal of Psychosomatic Research*. 1993; 37(6):565–574. [PubMed: 8410742]
- Clifford, PR., Longabaugh, R. Manual for the administration of the important people and activities instrument. Providence, RI: Brown University, Center for Alcohol and Addiction Studies; 1991.
- Cloud W, Granfield R. Conceptualizing recovery capital: Expansion of a theoretical construct. *Substance Use & Misuse*. 2008; 43(12/13):1971–1986. DOI: 10.1080/10826080802289762 [PubMed: 19016174]
- Connors GJ, Tonigan JS, Miller WR. MATCH Research Group. A longitudinal model of intake symptomatology, AA participation and outcome: Retrospective study of the project MATCH outpatient and aftercare samples. *Journal of Studies on Alcohol*. 2001; 62(6):817–825. [PubMed: 11838919]
- Jason LA, Davis MI, Ferrari JR. The need for substance abuse after-care: Longitudinal analysis of Oxford House. *Addictive Behaviors*. 2007; 32(4):803–818. DOI: 10.1016/j.addbeh.2006.06.014 [PubMed: 16843612]
- Jason LA, Olson BD, Ferrari JR, Lo Sasso AT. Communal housing settings enhance substance abuse recovery. *American Journal of Public Health*. 2006; 96(10):1727–1729. [PubMed: 17008561]
- Jason, LA., Olson, BD., Foli, K. Rescued lives: The Oxford House approach to substance abuse. New York, NY: Routledge; 2008.
- Jason LA, Olson BD, Harvey R. Evaluating alternative aftercare models for ex-offenders. *Journal of Drug Issues*. 2015; 45(1):53–68. DOI: 10.1177/0022042614552019 [PubMed: 25641984]

- Kelly JF, Stout RL, Magill M, Tonigan JS. The role of Alcoholics Anonymous in mobilizing adaptive social network changes: A prospective lagged mediational analysis. *Drug and Alcohol Dependence*. 2011; 114(2/3):119–126. DOI: 10.1016/j.drugalcdep.2010.09.009 [PubMed: 21035276]
- Laudet AB, White WL. Recovery capital as prospective predictor of sustained recovery, life satisfaction, and stress among former poly-substance users. *Substance Use & Misuse*. 2008; 43(1): 27–54. DOI: 10.1080/10826080701681473 [PubMed: 18189204]
- Lyons T, Lurigio AJ. The role of recovery capital in the community reentry of prisoners with substance use disorders. *Journal of Offender Rehabilitation*. 2010; 49:445–455. DOI: 10.1080/10509674.2010.510769
- Moos RH. Social contexts: Transcending their power and their fragility. *American Journal of Community Psychology*. 2003; 31(1 & 2):1–13. [PubMed: 12741686]
- National Institute on Drug Abuse. Trends & statistics. 2015. Retrieved from <http://www.drugabuse.gov/related-topics/trends-statistics>
- Oxford House Inc. Oxford House Convention 2015: Celebrating 40 years. 2015. Retrieved from <http://www.oxfordhouse.org/userfiles/file/doc/conv2015.pdf>
- Ramseur, CA., Wiener, DJ. Rehearsals for growth applied to substance abuse groups. In: Wiener, DJ., Oxford, LK., editors. *Action therapy with families and groups: Using creative arts improvisation in clinical practice*. Washington, DC: American Psychological Association; 2003. p. 107-134.
- Read JP, Brown RA. The role of physical exercise in alcoholism treatment and recovery. *Professional Psychology: Research and Practice*. 2003; 34(1):49–56.
- Simpson DD, Crandall R, Savage LJ, Pavia-Krueger E. Leisure of opiate addicts at post treatment follow-up. *Journal of Counseling Psychology*. 1981; 28(1):36–39.
- Sinyor D, Brown T, Rostant L, Seraganian P. The role of a physical fitness program in the treatment of alcoholism. *Journal of Studies on Alcohol*. 1982; 43(3):380–386. [PubMed: 7121004]
- Taylor CB, Sallis JF, Needle R. The relation of physical activity and exercise to mental health. *Public Health Reports*. 1985; 9:195–201.
- White WL, Cloud W. Recovery capital: A primer for addictions professionals. *Counselor*. 2008; 9:22–27.

Table 1

Frequencies and percentages of activities listed as the most important activity for all conditions for 3 time periods.

Wave	Activity	<i>n</i> (%)
Wave 1 (baseline)	Reading/Writing/Solitary	77 (29.3)
	Exercise/Sports	51 (19.4)
	Entertainment	32 (12.2)
	Education/Work	26 (9.9)
	Self-Improvement	22 (8.4)
Wave 3 (Year 1)	Entertainment	52 (31.0)
	Education/Work	21 (13.9)
	Exercise/Sports	20 (13.2)
	Reading/Writing/Solitary	20 (13.2)
	Interacting with Others	20 (13.3)
Wave 5 (Year 2)	Education/Work	46 (21.6)
	Interacting with Others	28 (13.1)
	Exercise/Sports	28 (13.1)
	Self-Improvement	28 (13.1)
	Reading/Writing/Solitary	21 (9.9)
	Entertainment	21 (9.9)

Table 2

Frequencies and percentages of activities listed as the most important activity per wave per condition.

Activity	OH	TC	UA
Wave 1	<i>n</i> = 87	<i>n</i> = 88	<i>n</i> = 88
Reading/Writing/Solitary	27 (31.0%)	22 (25.0%)	28 (31.8%)
Exercise/Sports	16 (18.4%)	20 (22.7%)	15 (17.0%)
Education/Work	12 (13.8%)	7 (8.0%)	7 (8.0%)
Self-Improvement	9 (10.3%)	5 (5.7%)	8 (9.1%)
Recovery	5 (5.7%)	6 (6.8%)	5 (5.7%)
Interacting with Others	2 (2.3%)	3 (3.4%)	1 (1.1%)
Entertainment	4 (4.6%) *	12 (13.6%)	16 (18.2%)
Wave 3	<i>n</i> = 43	<i>n</i> = 55	<i>n</i> = 53
Reading/Writing/Solitary	7 (16.3%)	4 (7.3%)	9 (17.0%)
Exercise/Sports	2 (4.7%) *	12 (21.8%)	6 (11.3%)
Education/Work	9 (20.9%)	5 (9.1%)	7 (13.2%)
Self-Improvement	3 (7.0%)	6 (10.9%)	4 (7.5%)
Recovery	6 (14.0%) *	7 (12.7%) *	1 (1.9%)
Interacting with Others	9 (20.9%) *	4 (7.3%)	7 (13.2%)
Entertainment	4 (9.3%)	7 (12.7%)	11 (20.8%)
Wave 5	<i>n</i> = 73	<i>n</i> = 71	<i>n</i> = 69
Reading/Writing/Solitary	5 (6.8%)	10 (14.1%)	6 (8.7%)
Exercise/Sports	7 (9.6%)	9 (12.7%)	12 (17.4%)
Education/Work	20 (27.4%) *	8 (11.3%)	18 (26.1%) *
Self-Improvement	8 (11.0%)	10 (14.1%)	10 (14.5%)
Recovery	5 (6.8%)	2 (2.8%)	3 (4.3%)
Interacting with Others	11 (15.1%)	9 (12.7%)	8 (11.6%)
Entertainment	3 (4.1%) *	10 (14.1%)	8 (11.6%)

Note. OH = Oxford Houses; TC = therapeutic community; UA = usual aftercare.

* *p* < .05.