Published in final edited form as:
*J Groups Addict Recover*. 2009 January 1; 4(1/2): 42–50. doi:10.1080/15560350802712389.

# Hope and Substance Abuse Recovery: The Impact of Agency and Pathways within an Abstinent Communal-living Setting

**Glen M. Mathis**, **Joseph R. Ferrari**, **David R. Groh**, and **Leonard A. Jason**
DePaul University

## Abstract

Hope is commonly divided into two constructs: agency, defined as goal-directed energy, and pathways, defined as the ability to create paths to a goal. To date, only two studies have examined the utility of hope in substance abuse recovery, and the present investigation buildings on this small literature by assessing hope beliefs within a larger and more diverse sample of adults in recovery. This study examined how two hope constructs of agency and pathways related to substance use abstinence among 90 new residents of communal-living recovery homes (i.e., Oxford Houses) who completed two waves of data assessment. Results indicated that agency scores significantly predicted alcohol use at Wave 1 but pathway scores failed to predict drug or alcohol use at this time point. Additionally, agency and pathway scores predicted drug (but not alcohol use) at an 8-month follow-up assessment. These findings indicated that participants' hope may be linked to substance use at later stages of recovery. In addition, these results suggested a stronger relationship between hope and drug as opposed to alcohol use at this time point. Implications for substance abuse recovery are discussed.

### Keywords

hope; substance abuse recovery; Oxford House

The concept of hope became popular with psychologists in the in the late-20th century (Lopez, Snyder, & Pedrotti, 2003). Since then, hope has been conceptualized in a variety of ways. To start out with, hope can be viewed as a *dispositional* or a *state* construct. *Dispositional* measures of hope view hope as a long-term trait, whereas *state* measures of hope conceptualize hope as a short-term, temporary construct. Although state and trait measures may differ conceptually, an individual's score on measures of dispositional and state hope do not vary greatly, as state hope typically fluctuates within a limited range around a person's level of dispositional hope (Snyder et al., 1996).

In addition, most theories of hope fall into two categories: *emotion*-based or *cognition*-based (Snyder, Harris, Anderson, Holleran, Irving, & Sigmon, 1991). Of the few *emotion*-based hope theories that exist, most of these include some sort of cognitive element (Lopez et al., 2003). Beginning with Mowrer (1960), hope was an emotional form of secondary reinforcement. More recently, Averill, Catlin, and Chon (1990) described hope as an emotion governed by cognition. In their model, individuals were most likely to experience hope when they possessed goals that were realistically within their reach, personally important to them, and socially and morally acceptable (Averill et al.).

Correspondence should be sent to Joe Ferrari, Ph.D., at the Department of Psychology, 2219 North Kenmore Avenue, Chicago IL, 60614; jferrari@depaul.edu.

Portions of this paper were based on a Masters Thesis by the first author under the direction of the second author.

In contrast to the emotion-based models, the models based on *cognition* receive much more attention by researchers (Lopez et al., 2003). For example, Godfrey (1987) viewed hope as the belief in the possibility of a pleasant outcome. In Gottschalk's (1974) theory, hope was defined by positive expectancy or the level of confidence that a particular pleasurable outcome was likely to occur. Furthermore, according to Erikson's (1964) theory of hope, hope is part of healthy cognitive development and is defined as an enduring belief in the attainability of primal wishes in spite of the anarchic urges and rages of dependency (Erikson). Finally, Staat's (1989) theory of hope combined Erikson's model with expectancy theories and posited that hope is the relationship between wishes and expectations. Hope is a mediator that calculates expectations of success and the emotional intensity of the wish or desire.

Currently, the most accepted model of hope considered the construct to be much more complex (Snyder, 1994; Snyder, Harris, Anderson, Holleran, Irving, & Sigmon, 1991). Snyder's model consisted of three interrelated cognitive components, identified as *goals*, *agency*, and *pathways* (Snyder, Ilardi, Michael, & Cheavens, 2000). This hope theory assumed that human actions were *goal-oriented*, and that goals were targets of mental action sequences (Snyder et al., 2000). Snyder (1994) proposed that goals must be sufficiently important to motivate people and that unclear goals do not provide the mental spark for adequate motivation (Snyder et al.; Snyder, 1994). Also, goals that motivate people should be within reach and contain some inherent uncertainty. Finally, goals do not have a time restraint and may vary from short to long term (Irving, Snyder, Cheavens, Gravel, Hanke, & Hillberg, 2004).

*Agency* was a sense of goal-directed energy and determination in meeting one's goals (Snyder et al., 1991). It was a mental energy that pushed a person toward the goal and a driving force in hopeful thinking (Snyder, 1994). Agency was the willpower and commitment that enabled people to pursue and maintain a goal they were attending at any given moment. Some examples of agency thoughts were "I know I can do this," "I've got what it takes," and "I will get this done". *Pathway* was an ability to create alternate routes or paths to the goal, especially when a goal was hindered (Snyder et al., 1991). To initiate an imagined goal, people believed that they were competent of producing practical routes to the goal or generating alternate paths when the original fails (Irving et al., 2004). People with high levels of pathway thinking often perceive that they can come up with multiple ways to attain their goals (Snyder et al.).

Although agency and pathway thinking were associated, each represents a distinct construct (Babyak, Snyder, & Yoshinobu, 1993; Snyder, Sympson, Ybasco, Borders, Babyak, & Higgins, 1996). Therefore, the popular expression "Where there is a will there is a way" is not wholly accurate. People who possessed a successful sense of agency ("the will") may or may not perceive the pathways ("the way") to their goals (Snyder et al., 1991). One may possess the motivation (agency) to complete a goal, but cannot clearly see the route to accomplish the goal (pathways). Alternatively, one may see many routes to a goal (pathways) without possessing drive to accomplish the goal (agency). To successfully obtain goals in one's life, both a sense of agency and pathway must be present (Snyder et al., 1991; 1996).

## The Role of Hope in Substance Abuse Recovery

A hopeful style of thinking was associated with adaptive coping and greater adjustment when faced with stress (Snyder, 1994; Snyder et al., 1996). Substance abusers in treatment may attempt to reach the challenging goal of long-term abstinence but must remain highly determined to the process of recovery (Irving, Seinder, Burling, Pagliarini, & Robbins-Sisco, 1998). Hope may be an important component of recovery from substance abuse, a

goal that must be pursued with incredible willpower given repeated challenges (Marlatt, 1998; Miller & Rollnick, 1991). Persons who perceive recovery as attainable and within their control may remain more committed to recovery over time despite repeated challenges to that goal (Irving et al.).

Individuals who pursue recovery from substance abuse must be prepared to generate pathways as strategies to cope with obstacles and skills to handle "triggers" that may lead to relapse (Marlatt, 1998). People with strong hope beliefs were well prepared to deal with situational threats, able to generate a greater number of strategies for attaining goals (Snyder et al., 1991), and increased their commitment to appropriate adaptive strategies in the face of threats (Irving et al., 1998). Persons with strong hope beliefs may be more adept at generating and implementing strategies prevent relapse and resuming their commitment to recovery following a relapse.

Currently, only two studies investigated the utility of hope in the area of substance abuse recovery. Jackson, Wernicke, and Haaga (2003) examined dispositional (trait) hope as a predictor of entering a voluntary substance abuse treatment program for federal prison inmates ($n$ = 1001). Contrary to predictions, increased hope was actually associated with a lower probability of entering treatment. Jackson et al argued that in the context of incarceration and substance abuse, high levels of hope may indicate excessive self-reliance and an underestimated need for professional treatment. In the second study, Irving et al. (1998) examined the relationship between state (current) hopeful thinking about goals and recovery from substance abuse among residents and graduates of a residential treatment program for substance-dependent homeless veterans ($n$ = 90). As predicted, higher state hope was related to longer lengths of abstinence. Unfortunately, Irving et al's study was limited by a small sample lacking in diversity. The present investigation extends that project by assessing hope beliefs within a larger and more diverse sample of adults in recovery. As done by Jackson and colleagues, the current study investigated the relationship between dispositional hope and substance abuse recovery.

The current study used a sample of adults residing in one of a national network of *Oxford Houses (OH)*, a substance abuse recovery program that applied principles of supportive mutual-help to addiction treatment (Ferrari, Jason, Olson, Davis, & Alvarez, 2002; Jason, Davis, Ferrari, & Bishop; 2001). Each communal-living setting was a rented, multi-room dwelling for same sex occupants, located in low-crime areas, and operated democratically by majority rule by occupants electing house officers every 6 months (see Jason, Ferrari, Davis & Olson, 2006, for details). Presently, there are over 1,200 dwellings throughout the USA (Jason et al., 2007).

In summary, because substance abuse is such a devastating affliction, any further knowledge about specific traits that may increase the chances of a successful recovery would be greatly beneficial to the field. Dispositional hope may be a useful mechanism for understanding the common process in psychological change (Snyder et al., 1998). Hopeful thinking might relate to success in achieving goals, and might relate to successful recovery from substance abuse. Irving et al (1998) suggested that levels of hope may positively relate to substance abuse recovery. Because Snyder et al.'s (1991) hope theory focused on a goal-oriented process, and because attaining long-term substance abuse abstinence is tremendously challenging, it was hypothesized in the present study that dispositional levels of hope would positively predict abstinence.

## Method

### Participants

The data analyzed for the present study was based on participants of a larger national study on Oxford House who completed self-report measures at baseline and again eight months later. Initially, the sample consisted of 897 current OH residents (292 women, 604 men). Of this sample, 588 participants also completed the second 8-month measurement wave, indicating a 65.55% retention rate. In order to control for the fact that participants had varied lengths of stay in OH at baseline, we only included participants that lived in a house for a month or less at baseline and who were retained eight months later ($n$ = 96). The average age of this sample was 35.5 years ($SD$ = 8.2), and the average education level was 12.5 years ($SD$ = 1.8). The majority of the sample was European-American (58.3%), single/never married (55.3%), and employed full-time (64.6%) with an average monthly income of $630.4 ($SD$ = 706.6). Participants on average had used alcohol for 16.3 years (SD = 9.5), and the illicit drugs of choice within this sample included cannabis (average of 9.8 years, $SD$ = 9.6) and cocaine (average of 7.9 years, $SD$ = 7.7), among others. Finally, participants on average were poly-substance users for 9.7 years ($SD$ = 9.4).

### Procedure

Participants were recruited and surveyed using two strategies. Most participants (88.9%) were recruited by an announcement published in the monthly OH newsletter distributed to all of the established Oxford Houses. Other individuals filled out baseline questionnaires at an annual OH Convention. Analyses of data collected by these two methods did not reveal significant differences in outcome variables. For all participants, staff members explained that participation was entirely voluntary and confidential, and withdrawal without consequence was possible at any time. In addition, participants filled out a telephone contact sheet for future waves of data collection. The length of completing these measures was on average > 90 minutes. For the 8 month follow-up wave, research staff contacted participants based on the telephone contact sheet. Once contacted, surveys were administered in person, via phone, or by mail. After completing each wave of data collection, participants were given a check for $15. This investigation was approved by an institutional review board.

### Measures

Demographic information was obtained from the 5th Edition of the *Addiction Severity Index-lite* (ASI; McLellan, Kushner, Metzger, Peters, Smith, Grissom et al., 1992), used extensively in substance abuse studies over the past 15 years and has excellent test-retest reliability ($r$ > 0.83; McLellan et al., 1992). The *ASI* assessed common problems related to substance abuse: medical status, drug use, alcohol use, illegal activity, family relations, and psychiatric condition. In addition, questions in the *ASI* measured the number, extent, and duration of problem symptoms in the person's lifetime and in the past 30 days. For the present study, pertinent demographic and background information included age, sex, ethnicity, years of drug use, and whether participants abused alcohol, drugs, or both alcohol and drugs.

Participants also completed Miller and Del Boca's (1994) *Form 90 Timeline Follow-back*, which measured general health care utilization, residential history, and past 90 day alcohol and drug use. Form-90 has good reliability for all key summary measures of alcohol consumption, psychosocial functioning, and frequently used illicit drugs. The alcohol and drug use outcomes were assessed using items from this measure: *90 days consumed any amount of alcohol* and *Number of Days Using [Type of Substance] in Past 90 Days* (Miller & Del Boca, 1994).

Finally, participants completed Snyder et al's (1991) 12-item *Adult Dispositional Hope Scale*, a goal-oriented measure of dispositional or trait-like hope including *agency* thinking (4 items: *I energetically pursue my goals*; alpha = 0.71 to 0.76; *M* score = 22.01) and *pathways* thinking (4 items: *I can think of many ways to get out of a jam; M* score = 23.79; Cronbach's alpha = 0.63 to 0.80). The scale has shown internal consistency within and across factors (Babyak et al., 1993) along with good test-retest reliability over a 10-week period (Cronbach's alpha = 0.82; Snyder et al.), suggesting that the construct being measured is truly dispositional in nature, as opposed to state. Each item is rated along an 8-point Likert Scale (1 = *definitely false*: 8 = *definitely true*), with scores ranging from 8 to 64.

## Results

*Linear regressions* explored the relationship between dispositional hope scores and responses on drug and alcohol use in the past 90 days. Although agency scores significantly predicted reported alcohol abstinence at baseline, $\beta = -.25$, $t$ (94) = 3.69, $p < .05$, the remaining linear regressions at the same wave were not significant (see Table 1). As evident in Table 2, hope scores predicted substance abstinence at the eight month follow-up, with agency scores, $\beta = -.35$, $t$ (94) = 4.18, $p < .001$, and pathway scores. $\beta = -.34$, $t$ (94) = 4.00, $p < .001$. Finally, *zero-order correlates* between hope scores and key demographic characteristics (gender, age, race/ethnicity, marital status, religious preference, years of education, employment status, length of sobriety, and length of stay in Oxford House) were not significant, suggesting that the relationship between hope and substance abstinence was not driven by these types of variables.

## Discussion

The current study examined how dispositional hope, reflected by both *agency* (goal-directed energy and determination) and *pathway* (ability to create routes or paths to a goal), related to drug and alcohol abstinence within a sample of adults residing in substance abuse recovery homes. It was expected that dispositional hope scores would predict positive substance abuse recovery, with "recovery" operationalized as the number of days abstinent. In order to investigate the ability of the hope beliefs to significantly predict substance abuse recovery, *linear regressions* were run at both measurement waves from a larger study of Oxford House (Jason et al., 2007). Agency scores significantly predicted reported alcohol abstinence at baseline. At an eight month follow-up, agency and pathway scores predicted reported drug but not alcohol abstinence.

Since all participants were new residents of this communal-living recovery program, these findings indicate that hope predicted substance abstinence at later stages of recovery. In addition, these results indicate a stronger relationship between hope and drug as opposed to alcohol use after an extended period of residence in a total substance-free setting. While our predictions were partially supported, results may be because participants were less likely to report drug than alcohol use. There are often harsh legal ramifications for being caught with drugs, and little to no illegal ramifications for being caught with alcohol. Still, substance abuse is such a major problem in the U.S. that increased knowledge on successful recovery seems important for clinicians treating people with substance abuse. Individuals entering substance abuse treatment programs with weak hopefulness beliefs may need to be closely monitored and supported as they are prone to relapse.

Regarding limitations, the current study's sample of Oxford House residents were required to be sober upon entry into the program; therefore, they might have been further along in their recovery compared to individuals in other treatment modalities. In the present study only 67.78% of participants were retained between the first and third waves. Although no

differences were found for dispositional hope variables between the continued participants and "drop-outs" at their baseline measurement, it is possible that adults who dropped out had shorter lengths of alcohol and drug sobriety within this communal-living substance-free setting. That limited time within Oxford House might have impacted on their acquisition of strong hope beliefs. Also, all data were self-reports of substance use and abstinence. Because any substance use was grounds for eviction from an Oxford House (Ferrari et al, 2002), it is possible that participants failed to report their actual substance use. Finally, this study only examined dispositional or trait measures of hope within a substance abuse recovery population, and it is suggested that future researchers also examine state or current measures of hope within this population. Nevertheless, the present study suggests that hope beliefs may play a positive and significant role in substance abuse recovery.

## Acknowledgments

Funding was made possible in part through National Institute on Drug Abuse grants #5F31DA16037 and #R01DA13231.

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## Table 1

Summary of Regression Analysis for Predicting Substance Abuse Recovery from Agency and Pathway Scores at Baseline

| | *B* | *SE B* | β |
|---|---|---|---|
| Predicting agency scores: | | | |
| 90 day alcohol use | −.77 | .31 | −.25* |
| 90 day drug use | −.03 | .56 | −.01 |
| Predicting pathway scores: | | | |
| 90 day alcohol use | −.26 | .38 | −.07 |
| 90 day drug use | −.14 | .66 | −.02 |

$n = 96$

* $p < .05$.

*Note*. Negative beta weights indicate greater abstinence.

**Table 2**

Summary of Regression Analysis Predicting Substance Abuse Recovery from Agency and Pathway Scores at Follow-up

| | *B* | *SE B* | β |
|---|---|---|---|
| Predicting agency scores: | | | |
| 90 day alcohol use | −.30 | .23 | −.14 |
| 90 day drug use | −.90 | .25 | −.35*** |
| Predicting pathway scores: | | | |
| 90 day alcohol use | −.43 | .25 | −.18 |
| 90 day drug use | −.97 | .27 | −.34*** |

$n = 96$

*** $p < .001$

*Note*. Negative beta weights indicate greater abstinence.