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Hope as a Predictor of Reincarceration Among Mutual-Help Recovery Residents

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Abstract

Given the rates of reincarceration in the U.S., it is important to understand criminal justice risk and protective factors. Hope is a potentially important factor with two components—agency (goal-directed determination) and pathways (planning to meet goals) (Snyder et al., 1991). We conducted a secondary data analysis ($n = 45$) of a longitudinal survey of mutual-help recovery home residents. As hypothesized, greater global hope and agency significantly predicted lower odds for reincarceration, and lower levels of pathways was not predictive. We relate these findings to hope theory and potential community applications.

An estimated 22.1 million Americans aged 12 or older meet the diagnostic criteria for substance dependence or abuse (SAMHSA, 2011). Additionally, there are more than 2 million people in American prisons and jails, with approximately 25 % incarcerated for a drug offense (Justice Policy Institute, 2008). Between 1974 and 2001 the prevalence of imprisonment increased by about 3.8 million, with about 1 in every 37 U.S. adults having served time in prison (Bonczar, 2003). Furthermore, in a 15 state study, 67.5 % of individuals were rearrested within three years (Langan & Levin, 2002). Given the prevalence of incarceration in the U.S. and risk for reincarceration, it is important to understand factors related to these criminal justice outcomes. Hope is one potentially important concept for the treatment and prevention of substance abuse (Mathis, Ferrari, Groh, & Jason, 2009), criminal behaviors (Marshall, Anderson, & Fernandez, 1999), and risk for reincarceration (Martin & Stermac, 2010).

The construct of hope has bases in both emotional and cognitive theories. Cognitive theory describes global hope as having two components: *agency*, which is a person's goal-directed determination, and *pathways*, which is a person's plan to meet their goals (Snyder, Harris, Anderson, Holleran, Irving, Sigmon, et al. 1991). Additionally, past research has shown that self-competency and resistance to impulsivity are significantly related to global hope, and constructs of self-liking and self-confidence were shown to have strong associations with agency within a sample of Oxford House residents (Ferrari, Stevens, Legler, & Jason, in press). Emotional-based theories suggest that hope is used to strengthen an emotive state

that is used to push people to complete goals, and it may also be used as a coping mechanism (Lopez, Snyder, & Teramoto-Perotti, 2003). Other emotional based theories of hope (Averill, Catlin, & Chon, 1990) have analyzed the construct culturally through linguistic forms and suggest that hope is context specific due to the high personal importance that one may have invested in an outcome combined with the self-perceived amount of control the individual has over the situation. Averill et al. (1990) conceptualize this emotion-based theory as four different rules: prudential rule (probability of goal being accomplished is realistic), moralistic rule (the goal is personally or socially acceptable), priority rule (outcomes and events are deemed to be important), and action rule (one is willing to take necessary action to accomplish the goal).

Hopeful thinking also plays a role in preventing problems and enhancing strengths (Snyder, Feldman, Taylor, Schroeder & Adams, 2000a). Additionally, these authors also state that one way to enhance an individual's psychological happiness is to increase involvement in roles that are valued, and if more opportunities exist then an individual is more likely to be placed in a role that is valued. Snyder and his colleagues (2000a) believe that beneficial changes occur in people during psychotherapy because they learn to think more effectively about how to plan and complete their goals. In addition, Snyder et al. (2000b) help us understand how to increase hopeful thinking through psychotherapy. This is done by dividing up goals presented by a client into sub goals. The therapist should link these sub goals to clearly defined strategies (pathways) that will lead to the client accomplishing their major goal. Although increasing pathways is not the main goal of cognitive-behavior therapy, it is important to familiarize a client with the process of creating pathways. When a therapist helps a client create pathways for their sub goals, the client will be more able to independently create their own pathways for their final goal. Establishing rationale for the pathways that the therapist has presented to the client is imperative in reassuring the client that their initial choice of seeking psychotherapy (pathways thought) was well worth it. In helping clients acknowledge that they have already shown the capabilities of creating, a pathway thought will also make them more hopeful in their abilities. According to cognitive based hope theory, if this process continues and is reinforced with rationale, agentic thoughts should increase as the treatment continues.

In a longitudinal study conducted by Mathis et al. (2009), agency predicted alcohol abstinence at baseline and, at an eight-month follow-up, agency and pathways scores predicted reported drug abstinence. Moreover, in an evaluation of hope after a six week day camp for inner-city youth, evaluators found that an increase of hope scores was attributed to their sense of success in achieving their goals (agency) rather than their sense of being able to create their goals (pathways) (Kirshman, Roberts, Shadlow, & Pelley, 2010). However, there is a limited amount of research that has examined the relationship between global hope and actual criminal recidivism. A study involving 50 females and 50 males found that global hope was an important factor to consider for risk and treatment in correctional populations (Martin & Stermac, 2010). They also found that the higher one's sense of agency, the lower the risk for recidivism. However, their findings on pathways did not show it to be a significant risk factor. Additionally, they found that females had lower levels of hope than males. Although, this study shows the relationship of global hope and agency to risk factors criminal recidivism, more research is needed to demonstrate how these constructs are related to actual reincarceration rather than risk factors.

One setting that may promote global hope in formerly incarcerated individuals with addictions can be found is the Oxford House network of democratically run, self-governed recovery homes. Oxford Houses are generally located in mid- to high-socioeconomic settings away from much of the temptation to abuse drugs or alcohol. House residents are required to earn or have a source of income, and are, most importantly, required to abstain

from drugs and alcohol (Jason, Ferrari, Davis, & Olson, 2006; Jason & Ferrari, 2010a; Jason & Ferrari, 2010b). Increased levels of global hope may be obtained in an Oxford House by establishing a plan for recovery (Oxford House World Services, 2011), being able to hold house positions, and engagement within their communities (Jason, Schober, & Olson, 2008). Also, Ferrari et al., (in press) found a strong association of global hope to both self-regulation and self-esteem, with the two components of hope having differential relationships to self-regulation and self-esteem components. For example, agency and pathways were strongly associated with resistance to impulsivity, while only agency was associated with self-liking.

The current study builds upon the research that Martin and Stermac (2010) conducted by examining longitudinal global hope and reincarceration data of Oxford House residents to assess actual risk for reincarceration rather than the relationship between global hope and other potential recidivism risk factors. In this study, we hypothesized that lower levels of global hope and agency would significantly predict the odds of reincarceration among a sample of residents that have resided in an Oxford House, but that pathways would not significantly predict these odds. Lastly, we extend Martin and Stermac's (2010) research on gender differences for hope in incarcerated individuals with an exploratory analysis of such gender differences in our sample.

Methods

Participants

To test these hypotheses, a secondary data analysis was conducted on data collected between 2001 and 2003 (for an overview of previous findings, see Jason, Davis, Ferrari & Anderson, 2007). Oxford House residents participated in a longitudinal series of surveys during the original study, with four surveys administered every three months over the course of a year. Because the secondary data analysis focused on reincarceration, only residents who had been incarcerated in jail or prison in the 90 days prior to baseline were included in the analysis ($n = 66$). Out of the 66 participants contacted for the baseline survey, 45 completed follow-up surveys for the final wave. There were not any significant differences in global hope scores ($t(64) = -1.41, p = .16$), agency ($t(64) = -1.10, p = .28$), or pathways ($t(64) = -1.41, p = .17$) at baseline between individuals who completed the study and those who did not. Similarly, there were no significant differences in hope ($t(43) = -2.09, p = .97$), agency ($t(43) = -2.66, p = .61$), and pathways ($t(43) = -1.12, p = .88$) between participants who were reincarcerated and participants that weren't (see Table 1 for descriptive statistics). Of the final 45 participants, 13 (28.89%) were reincarcerated during the final wave of the study. The final sample of 45 participants, included 26 males (57.8%) and 19 females (42.2%). The mean age of residents at baseline in this sample was 32.57 years of age ($SD = 7.5$; Range = 26.22). In this sample ethnicity was categorized as either White ($n = 35, 77.8\%$) or non-White ($n = 10, 22.2\%$).

Measures

The Hope Scale—(Snyder et al., 1991) is a 12 item 8 point Likert-type self-report inventory of global hope, and four of the items were used as diversionary fillers. The instrument has 2 subscales that measure two components of global hope—agency and pathways. An example of questions that assess the agency component of hope is, “I energetically pursue my goals,” and an example of questions that assess the pathways component is, “I can think of many ways to get out of a jam”. The total score for this measure ranges from 8–64, with higher scores indicating higher levels of hope. The summation of the two subscales of agency and pathways is the global hope score. The authors reported that the test-retest reliability for global hope ranged from .82 to .85 over a

ten-week period, and that the internal consistency for the global hope scale ranged from .74 to .84. Furthermore, the internal consistency for the pathways component ranged from .63 to .80, and the internal consistency for the agency component ranged from .71 to .76. In this study the internal consistency for global hope was good ($\alpha = .82$), and the internal consistency for the pathways ($\alpha = .76$) and agency ($\alpha = .71$) components were both moderate. Moreover, the participants on average scored 45 points on the global hope scale ($SD = 9.2$; Range = 23–64). All of the hope scores were collected at baseline.

Incarceration—A modified version of Miller and Del Boca's (1994) *Form 90* was administered to residents at each wave. This instrument measures general health care utilization and residential history, as well as past 90-day alcohol and drug use. In addition, respondents were asked to construct a calendar within the past 90 days marking health care utilization, incarceration, employment, drug use, and other important days and events. The full version of the Form 90 is an internally consistent and temporally stable instrument (Tonigan, Miller, & Brown, 1997). In this study, we only utilized the incarceration data from this instrument that was self-reported by the participants in the calendars that they kept, and the incarceration data was collected in the final wave. Because we did not have sufficient data on whether participants committed new crimes, we examined reincarceration rather than recidivism.

However, we were able to control for whether participants' legal statuses might result in future incarceration with the commission of a new crime.. We assessed this control variable using a question from McLellan, Cacciola, and Zanis' (1997) *Addiction Severity Index-Lite* (ASI-lite). The questions asked participants to report whether or not they were awaiting new charges, trial for existing charges, or sentencing for existing charges. However, this question did not specify which of the three categories the participant identified with.

Analyses

To examine our hypotheses of lower levels of global hope and agency at baseline predicting reincarceration in the final wave, we used logistic regression. Logistic regression is used to generate models that predict the likelihood of an event occurring. In these logistic regression models, global hope, agency, and pathways were the predictor variables used to predict the likelihood of reincarceration. In our initial analysis we also included demographic control variables of age, gender, and ethnicity, as well as a control variable of whether or not our participants were awaiting charges, trial, or sentencing at baseline.

Results

We found no main effects on the likelihood of reincarceration for any the control variable of age, gender, and ethnicity. Similarly, awaiting charges, trial, or sentencing did not have a significant main effect on the likelihood of reincarceration (see Tables 2–4).

Global hope significantly predicted the odds of reincarceration (see Table 2). This suggests that hopefulness was related to the risk of reincarceration. For each 1-unit increase in hope scores, recently incarcerated residents were 10% less likely to be reincarcerated in the next year.

In a separate logistic regression, both the agency and pathways components of hope were included together in a model predicting reincarceration, and agency significantly predicted reincarceration, but pathways did not (see Table 3) so the pathways component was removed from a final model to ensure parsimony and increase statistical power. The final model with only agency as predictor of reincarceration was significant (see Table 4). This suggests that agency was related to the risk of reincarceration. For each 1-unit increase in

agency, recently incarcerated residents were 24% less likely to be reincarcerated in the next year.

We also ran an exploratory independent samples t-test to determine whether gender differences in hope scores existed in our sample of participants. In our sample we found that there was no difference in hope scores between males and females ($t(64) = .14, p = .11$). The small-sized effect size ($r = .02$) associated with this t-test suggest that the mean hope scores would not be significantly different even with a larger sample size.

Discussion

The current study supports past research on global hope and reincarceration which found that global hope and agency were both related to risk for criminal recidivism (Martin & Stermac, 2010). The current findings build on this body of research by demonstrating the relationship between global hope and actual risk of reincarceration rather than the relationship of global hope to other factors related to reincarceration. Because Snyder et al.'s (1991) cognitive based theory of hope is the most commonly accepted and studied theory, we will relate our findings to their theories on hope and the role that it plays in preventing problems and enhancing strengths (Snyder et al., 2000a) and cognitive-behavioral therapy (Snyder et al., 2000b) to examine possible options to help individuals reintegrate into society after being released from prison or jail.

Lower levels of global hope were found to be related to later reincarceration. However, in examining the two components of global hope, goal directed motivation (agency) and their plan to meet their goals (pathways), only the agency component was found to be related to later reincarceration. This may be because agentic thinking is the first step that one takes in reaching their goal, and may have a greater impact in changing one's behavior (Geraghty, Wood, & Hyland, 2010). Presumably, individuals hold goals that would advance their personal growth upon leaving jail or prison. However, involvement in prior criminal behaviors may hinder their progress towards such goals. Specifically, if individuals feel that they are experiencing injustices that hinder their progress to achieve their goals, criminal activity may act as a coping mechanism that reduces the perceived severity of a particular injustice (Agnew, 2001). Consequently, perceived injustices may limit agentic thinking that would lead to pro social behavior because individuals may perceive pro social goals as unattainable but antisocial goals as attainable. Thus, efforts to enhance agentic thinking may promote pro social behavior.

One such mechanism for promoting hope is cognitive-behavioral therapy (Snyder, 2000b). This strategy may also be applied to various community programs to prevent reincarceration. Those assisting the individuals in their reintegration should consider helping the individual establish a framework of sub goals, which may increase the occurrence and levels of their agentic thoughts. Furthermore, Snyder et al. (2000a) suggest that global hope can be promoted by encouraging involvement in valuable roles, in turn providing individuals with a greater sense of success by accomplishing the tasks of a role. Reintegration activities for formerly incarcerated individuals should consider engagement in such opportunities. Perhaps, valuable opportunities can be sought for within communities. Increased community participation is useful in sustaining hopeful thinking because it confirms a person's sense of belonging (Snyder et al, 2000a).

Policy makers should consider the effects that policies may have on perceived injustices and resulting criminal behavior (Agnew, 2001). Policy can reduce the likelihood of criminal activity by reducing barriers to the pursuit of pro social goals that enhance personal growth. Similarly, in understanding that hopeful thinking can be sustained through community

involvement (Snyder, 2000a), policy should support programs to increase such involvement for people returning from prison or jail.

However, these results and interpretations need to be considered with study limitations in mind. For example, attrition in this study may have biased the final sample. Of the 66 participants in this study, we did not have wave 4 incarceration data for 21 participants (32% attrition). The inclusion of these 21 individuals may have increased the statistical power in our analyses and made the results more generalizable. Lastly, it is possible that residents may not have reported honestly about past criminal behavior.

In conclusion, this study examined global hope and agentic thinking as predictors of reincarceration and discussed the benefits of community-based supports that may promote global hope and agentic thinking in formerly incarcerated individuals. With the help of such supports, individuals will be more likely to achieve their larger goals. By fostering an environment in which individuals can learn the skills necessary to create agentic thoughts, individuals returning from jail or prison may be more likely to avoid reincarceration and implement these strategies when facing other barriers in life.

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Table 1

Means With Confidence Intervals (CIs) and Standard Deviations of Hope Scores for Participants Who Were Later Reincarcerated and for Those Who Were Not

Variable	Later Reincarcerated ^a			Not Later Reincarcerated ^b		
	<i>M</i>	<i>SD</i>	95% CI	<i>M</i>	<i>SD</i>	95% CI
Global Hope	40.62	8.61	[35.41,45.82]	46.72	8.97	[43.49,49.95]
Agency	18.63	5.17	[15.49,21.74]	22.81	4.64	[21.14,24.49]
Pathways	22.00	5.26	[18.82,25.18]	23.91	5.14	[22.05,25.76]

Note.

^a n=13.

^b n=32.

Table 2

Logistic Regression for Global Hope

	OR	95% C.I	<i>p</i>
Age	1.06	[0.95,1.17]	.30
Gender	2.03	[0.46,8.92]	.35
Ethnicity	0.50	[0.08,3.16]	.46
Previous Crime	0.92	[0.19,4.59]	.92
Global Hope	0.90	[0.82,0.99]	.04

Table 3

Logistic Regression for Agency and Pathways

	OR	95% C.I	p
Age	1.06	[0.95,1.18]	.29
Gender	2.44	[0.49,12.08]	.28
Ethnicity	0.28	[0.08,3.16]	.46
Previous Crime	0.77	[0.14,4.38]	.92
Agency	0.72	[0.55,0.95]	.02
Pathways	1.07	[0.89,1.29]	.49

Table 4

Logistic Regression for Agency

	OR	95% C.I	p
Age	1.06	[0.95,1.18]	.28
Gender	2.31	[0.48,11.20]	.30
Ethnicity	0.29	[0.04,2.19]	.23
Previous Crime	0.82	[0.15,4.51]	.82
Agency	0.76	[0.60,0.95]	.01