

5-2023

MINORITIZED GROUPS AND SOCIAL INTEGRATION AND RECOVERY CAPITAL DEVELOPMENT IN MUTUAL AID FELLOWSHIPS

Kaelyn Doyle
CSUSB

Benjamin Wahl
CSUSB

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/etd>



Part of the [Social Work Commons](#)

Recommended Citation

Doyle, Kaelyn and Wahl, Benjamin, "MINORITIZED GROUPS AND SOCIAL INTEGRATION AND RECOVERY CAPITAL DEVELOPMENT IN MUTUAL AID FELLOWSHIPS" (2023). *Electronic Theses, Projects, and Dissertations*. 1575.

<https://scholarworks.lib.csusb.edu/etd/1575>

This Project is brought to you for free and open access by the Office of Graduate Studies at CSUSB ScholarWorks. It has been accepted for inclusion in Electronic Theses, Projects, and Dissertations by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

MINORITIZED GROUPS AND SOCIAL INTEGRATION AND RECOVERY
CAPITAL DEVELOPMENT IN MUTUAL AID FELLOWSHIPS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Social Work

by
Kaelyn Doyle
Benjamin Wahl
May 2023

MINORITIZED GROUPS AND SOCIAL INTEGRATION AND RECOVERY
CAPITAL DEVELOPMENT IN MUTUAL AID FELLOWSHIPS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

by
Kaelyn Doyle
Benjamin Wahl
May 2023

Approved by:

Anissa Rogers, PhD, MA, MSW, LCSW, Faculty Supervisor, Social Work

Yawen Li, MSW, PhD, Research Coordinator, Social Work

© 2023 Kaelyn Doyle and Benjamin Wahl

ABSTRACT

The aim of this study was to examine the relationship between the level of engagement in recovery oriented mutual aid self-help groups one has, and the development of Recovery Capital (RC), an important variable in the recovery process from substance use disorders (SUDs). This study further assessed the correlation between self-help engagement and RC development for persons from minoritized groups. Results of this study can help social workers understand the efficacy of referrals to free, community-based mutual aid recovery programs for individuals from different demographic backgrounds, particularly those from minoritized groups, who often face barriers to treatment. A survey of a non-probability sample of 215 individuals who self-identify as in recovery was utilized to collect information on demographic characteristics, level of engagement in self-help recovery groups, and level of recovery capital. Quantitative analyses were conducted to compare correlation coefficients between self-help involvement and recovery capital development amongst minoritized groups. The results of this study support the correlation between self-help engagement with RC, as well as the findings indicate that there is no significant difference in results with varying ethnic backgrounds. This study provides evidence that self-help groups such as 12 step meetings are a valuable resource regardless of being from an ethnically minoritized group.

DEDICATION

This project is dedicated to Victor and Dio for your unwavering support through this process.

And this project is dedicated to Lisa, the kids Kyden, Josh, Emma, Betharoo, and my family for all of their love, encouragement, and being the motivation for me to always be better.

TABLE OF CONTENTS

ABSTRACT	iii
LIST OF TABLES	vi
CHAPTER ONE: INTRODUCTION	1
Problem Formation	1
Purpose of the Study	3
Significance of the Study for Social Work Practice	5
CHAPTER TWO: LITERATURE REVIEW.....	7
Introduction.....	7
Substance Abuse Issues, Treatment Access, and Mutual Aid.....	7
Recovery Barriers	9
Mutual Aid Groups	10
Theoretical Framework Guiding Conceptualization	12
Recovery Capital (RC)	12
Past Studies.....	14
Summary	16
CHAPTER THREE: METHODS	17
Introduction.....	17
Study Design	17
Sampling.....	19
Data Collection and Instruments.....	20
Procedures	22
Protection of Human Subjects	23

Data Analysis.....	23
Summary	26
CHAPTER FOUR: RESULTS.....	27
How Data Was Cleaned.....	27
Demographic Description.....	29
Analysis	32
CHAPTER FIVE: DISCUSSION	34
Unanticipated Results	38
Limitations of the Study.....	40
Suggestions for Further Research	41
Implications for Social Work Practice.....	42
Conclusion	44
APPENDIX A SURVEY QUESTIONNAIRE.....	45
APPENDIX B INFORMED CONSENT	53
APPENDIX C IRB APPROVAL LETTER.....	57
REFERENCES	59
ASSIGNED RESPONSABILITIES.....	69

LIST OF TABLES

Table 1 – Sociodemographic Characteristics	29
Table 2 – Means and Standard Deviation of Self-Help Involvement Scale and Short Recovery Capital Scale.....	32
Table 3 - Difference Between Kendall Tau Correlations between Ethnic Groups.....	33

CHAPTER ONE

INTRODUCTION

Problem Formation

In the United States one of the most apparent and arguably mitigatable public health issues faced by our society relates to substance use disorders (SUD). According to the Substance Abuse and Mental Health Service Administration (SAMHSA) in the 2019 National Survey on Drug Use and Health, (NHDUH), an estimated 14.8 million people (5.4 % of the total US population) met the DSM-5 criteria for alcohol use disorder and 8.1 million people (3% of the total US population) had an active illicit drug use disorder ([SAMHSA], 2019). The Department of Health and Human Services (HHS) in the *Surgeon General's Report on Alcohol, Drugs, and Health* reported that these unaddressed substance use disorders cost society roughly \$422 billion a year, including \$120 billion in health care costs ([HHS], 2016). In addition, in 2017, the Centers for Disease Control (CDC), reported that 72,000 people in the US died of a substance overdose (Ahmed et al., 2020). These numbers illustrate that substance abuse is a costly and far-reaching public health issue that affects many people, either directly or indirectly, and one that social workers will be confronted with in practice.

Though the number of people struggling with substance use disorders is high, people do recover. Mutual aid support groups, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), play a crucial role in curbing

substance abuse related issues in the US and in reducing both the individual and social cost and consequences. According to Kelly et al. (2017), 9.1% of American adults (22.35 million people) had resolved a significant drug or alcohol problem; the most prevalent recovery pathway reported was through mutual aid support groups (45.1%), with only 27.6% of recovering persons reporting having any formal treatment. One of the primary functions of social networking in recovery communities is helping people to develop “recovery capital” which fosters the person’s ability to integrate into society and develop normative functioning (Cloud & Granfield, 2008; Castillo & Resurreccion, 2019; Wood, 2020).

The concept of recovery capital is defined as the culmination of social, physical, human, and cultural capital that aids a person in the recovery process (Cleveland et al., 2021; Cloud & Granfield, 2008; Whitesock et al., 2018). The concept utilizes a strength-based and empowerment approach to understanding SUD “recovery.” The concept further emphasizes the role of engaging diverse systems in the recovery process, the importance of social and emotional bonding, building bridging support networks with others in recovery from diverse backgrounds, and the importance of the development of social norms in the recovery process (Cloud & Grandfield, 2008, Hennessy, 2017). Mutual aid meeting attendance is often an important precursor in the development of recovery capital, but the degree to which individuals develop positive social norms and networks that lead to positive outcomes is dependent upon successful

integration and involvement in the recovery community (Castillo & Resurreccion, 2019; Kelly et al., 2014).

Though mutual aid support groups, such as AA and NA, are probably the best known and accessible ways people seek social support and begin to develop recovery capital, membership in such fellowships is overwhelmingly White. Narcotics Anonymous' World Service Committee (2018) and Alcoholics Anonymous (2014) reported, respectively, that 74% and 89% of their members were White. Though SAMHSA (2019) does report greater incidence of substance use disorders among Caucasians, one would be naïve to minimize the impact and prevalence of substance use issues in racially minoritized groups. With the responsibility to foster equity in practice, not understanding how race affects a person's ability to build critical social networks and develop recovery capital in mutual aid fellowships creates a problem for the social worker.

Purpose of the Study

The purpose of this study was to provide preliminary analyses on the variability of experiences between Whites and minoritized groups in their development of Recovery Capital (RC) through mutual aid group participation. The research question guiding this study was, does being a member of a minoritized group affect a person's ability to integrate into and develop RC in mutual aid fellowships?

These recovery groups often foster environments that help individuals move out of the conditions that both contribute to SUDs and create barriers to

long term recovery maintenance. Research has demonstrated that self-help involvement plays an important role in the modeling of esteem and self-efficacy that, in turn, empower its members to make holistic positive change (Kelly et al, 2012). Further, one could anecdotally attest to the role that these groups play in their members' recovery journey through supportive efforts such as helping connect individuals to resources, assisting members in developing better habits such as mindfulness, reaching out for assistance, patience and reasoning instead of acting in impulsivity or compulsion, abstaining from substances, taking care of health, developing personal goals, helping members with transportation to job interviews and physician appointments, and creating employment opportunities. The aim of this study was to further the understanding of the role that mutual aid engagement plays in helping people to develop these often-unrecognized benefits of self-help involvement covered in the RC framework. A goal of the study was also to evaluate whether being of a minoritized group affects an individual's access to these resources due to lower levels of social identification and difficulty in building social networks in mutual aid groups.

A one-shot cross-sectional method of data collection was utilized, and data was self-reported through a survey of persons who identified as members in mutual aid fellowships by utilizing non-probability snowball sampling through social media. This study utilized a comparison of coefficients to determine if there was a correlation between recovery group engagement and RC development and if there was a statistically significant difference in the correlation when

comparing White's to person from minoritized groups. For this quantitative study, self-help was measured by the Self-Help Involvement Scale (SHIS) and recovery capital was measured using the Short Recovery Capital Scale (Dennis et al, 2003; Hanauer et al, 2019). The survey questionnaire was developed by incorporating demographic questions about age, gender, ethnic or racial identification, marital status, family household income to describe the sample along with the short form self-help involvement inventory (SHIS) and the shortened recovery capital scale (SRCS-10) to run correlational analyses.

Significance of the Study for Social Work Practice

For the social worker, understanding how the hegemonic Whiteness in mutual aid fellowships affects others' ability to integrate into these communities and build RC is important. One can safely assume that social workers, working in any domain, would potentially want or need to make a referral to one of these mutual aid organizations. Due to this likelihood of referral, understanding the efficacy of such a referral for people from different racial and ethnic backgrounds is critical and could affect organizational policies and accepted best practices. This study hopes to provide useful information that can inform social work practice at both the implementation and termination stage of the generalist intervention process, as mutual aid referral is common both as a complement to treatment and as part of aftercare planning.

The social work profession's ethical principles of justice, the importance of human relationships, the dignity and worth of all persons, and competence are all

addressed through this study making it a research-worthy topic. By utilizing a RC approach to assess mutual aid groups' efficacy, this research aligns with a strengths-based approach to addressing and understanding SUDs and their treatment. Moreover, it fits nicely within the social work paradigm as an ecological approach to understanding the recovery process, specifically recognizing not only the role of the individual in their recovery but the role that other systems play in a person's ability to be successful from individual, family, community, and cultural levels (Hennessy, 2017). This study also touched on the concept of intersectionality as it strives to identify if there are significant additional barriers to mutual aid involvement due to being a part of a minoritized group that pose as barriers to recovery capital development. Though prior research examines the role that mutual aid support groups play in the building of recovery capital, information is limited regarding the effect being from a minoritized group has on social integration and recovery capital development in said fellowships (Hennessy, 2017). In addition, it is important for social workers to understand the RC framework with respect to strengths-based approaches, and incorporating the systems of support for the recovering person.

CHAPTER TWO

LITERATURE REVIEW

Introduction

In this chapter the literature surrounding the experiences of individuals from minoritized groups in the recovery ecosystem is explored. It is broken into two main sections. The first section discusses the scope of substance abuse issues in the US, treatment access for substance abuse issues, and the role of mutual aid groups for recovery. The second section provides information about the recovery capital (RC) framework that guides the conceptualization of this project as well as pertinent research surrounding minoritized groups, recovery group participation, and recovery capital.

Substance Abuse Issues, Treatment Access, and Mutual Aid

A substance use disorder (SUD) is defined as being a clinically significant impairment and source of distress due to recurrent use of alcohol and/or drugs ([APA], 2013). Data from the 2019 National Survey on Drug Use and Health (NSDUH) indicated that in the US 60% of people over the age of 12 used a substance within that past month and 20.4 million people met criteria for a SUD. Of those who met the criteria for a SUD, 71.1% had a past-year alcohol use disorder, 8.3% had a drug use disorder, and 11.8% had both ([SAMHSA], 2019). Rates of use vary across demographic groups, with rates of SUDs being highest amongst men and within the young adult population. SUD rates among the three

major demographic groups of Black, White, and Latinx are comparable to the national average of 3% ([SAMSHA], 2020).

Though rates of SUDs across these three minoritized groups are similar to the national average, the consequences of SUDs for minoritized groups are much higher. Minoritized groups experience higher rates of imprisonment due to substance-related crimes, more severe health consequences, higher mortality rates, and higher rates of SUD related violence than people in non-minoritized groups, making access to recovery support that much more imperative (Chartier et al., 2013; Martinez et al., 2017; Matsuzaka & Knapp, 2020; Mennis & Stahler, 2016). Though treatment access rates are greatest amongst Blacks, access is correlated to social coercion and involvement with the criminal justice system. This is the case for those in Latinx communities as well. (Cook & Alegria, 2011; Martinex et al, 2017; Mulvaneay-Day et al., 2012). When criminal justice referral is controlled, treatment access decreases for Black and Latinx individuals; it is likely that treatment for these individuals is often a condition of probation or parole and thus treatment could be viewed as dehumanizing and coercive, decreasing engagement and investment in the treatment process (Cook & Alegria, 2011).

Although criminal justice involvement increases accessibility to treatment, there are significant barriers to engagement, lower levels of completion, and less satisfaction reported amongst these subgroups than for Whites. (Matsuzaka & Knapp, 2020). Coercion as opposed to self-initiation towards the recovery

process could help explain why the rates of engagement in mutual aid groups remain low amongst Black and Latinx individuals but also highlights the important role that mutual aid groups could play in initiating and fostering lasting recovery. With treatment being presented as punitive versus restorative, social peer group support could prove to be a crucial factor in increasing personal investment and countering barriers present at time of introduction.

Recovery Barriers

SUD's are already a highly stigmatized issue and when they intersect with the stereotypes and inequalities faced by minoritized groups, these populations become increasingly vulnerable. The same socioeconomic and structural issues that contributed to substance abuse become the same barriers to treatment and positive recovery outcomes (Martinez, et al., 2017). Some of the many barriers to treatment and positive recovery outcomes highlighted in the literature include a need for substances to manage the stress of lower incomes and living in socially disadvantaged communities, issues related to access to insurance and providers, micro aggressions and discrimination, and delayed access to treatment leading to higher problem severity (Acevedo et al, 2013, Chipps, 2012; Mennis et al., 2019; Matsuzaka, S & Knapp, M., 2020). Throughout US history, race and ethnicity have created issues for access to health care, and SUD treatment is no different (Shavers et al, 2012). Blacks are 1.5 times less likely to be insured than Whites and Hispanics 2.5 times as unlikely. Among the insured, minoritized groups are twice as likely to have publicly funded insurance such as Medicaid,

limiting treatment options as publicly funded options are historically sparser and of lower quality than treatment options offered through private insurance, and their presence continues to decline in communities of color ([Artiga et al., 2020](#); Cummings et al., 2014; Cummings et al., 2016). In addition, lack of cultural and language considerations create access and completion issues, and economic issues create additional barriers (Mennis et al., 2019). It typically takes Blacks and Hispanics longer to complete outpatient treatment, and they have lower rates of treatment retention (Mennis et al., 2019; Saloner & Le Cook, 2013). These access issues further support the need for free community-based referrals such as to AA and NA.

Mutual Aid Groups

Whatever the means of referral to SUD treatment, and despite the barriers for treatment of minoritized groups, a key component in helping people maintain substance-free lifestyles is engagement in mutual aid groups (Kelly, et al, 2020). Mutual aid groups are just as effective as other treatment modalities such as cognitive behavioral therapy and motivational enhancement therapies, and mutual aid groups create better outcomes than formalized therapies at helping people maintain sobriety, at a significantly lower cost to the individual and society (Kelly et al., 2020). As a free community-based program, 12 step referral is a constant for most SUD treatment modalities. They are independent from treatment and not hindered by treatment access issues (Chipps, 2012), yet minoritized groups are severely underrepresented within these groups, with only

26% on NA's members being non-white and 11% of AA membership ([AA], 2014; [NA], 2016).

The twelve-step community has long understood the stigma related to SUDs and the important role of free, community-based support in the recovery ecosystem, recognizing that people who suffer from substance use disorder are less likely to have the resources available to obtain help through more traditional means as a direct result of their use. Thus, mutual aid groups are potentially a great recourse for persons with significant barriers to change. In addition to providing support for substance use issues, mutual aid group engagement has the potential to support the development of resources that mitigate treatment barriers and contributing factors towards use (Cheney et al., 2016; Granfield & Cloud, 2001). Kelly (2012) suggests that 12 step groups are successful because they foster the development of social networks, norms, and self-efficacy. Further, recovery support for minoritized groups is highlighted as having extra importance for the development of a social identity in recovery within their own cultural framework (Collins-Henderson, 2012). Social networks of minoritized groups from low-income communities are primarily kinship relationships rather than consisting of persons from diverse social and economic backgrounds. This lack of diversity from different socioeconomic groups can result in limited access to resources and opportunities, and their vestment in a conventional life may be hindered (Cheney et al., 2016; Granfield & Cloud, 2001). As meetings are typically neighborhood based but also in network with a larger recovery

community, mutual aid participation could play an important role in the development of RC through the development of a more diverse network while also supporting the cultural framework of the local community.

Theoretical Framework Guiding Conceptualization

Recovery Capital (RC)

Granfield and Cloud (1999) originally defined RC as “[...] the breadth and depth of internal and external resources that can be drawn upon to initiate and sustain recovery from AOD [alcohol and other drug] problems” (p 179). This strengths-based approach focuses on the strengths and capacities of the individual versus their deficits (Cloud & Granfield, 2008; Hennessy, 2017; Kelly & Hoepfner, 2015). Born out of the idea of social capital and Bourdieu’s (1986) forms of capital, the concept of RC expands past the need for social relationships to support recovery and identifies at least four forms of capital, social, physical, human, and cultural, that have a strong influence on a person's capacity to change. The model suggests that even with a high problem severity index, a person with high RC will have better recovery outcomes than those with lower problem severity but lower RC (Cloud & Grandfield, 2008; White, & Cloud, 2008). The RC model recognizes that recovery pull factors are more important than avoidance-oriented reasoning, as individuals are drawn towards a more conventional life, with a desire to restore or maintain relationships, start a family, have a career, and forge new identities (Granfield, & Cloud, 2001). The social context and availability of resources play an important role in the RC model, as

those with higher access to resources due to social networks have greater ability to maintain recovery due to more options and stake in a conventional life than those with fewer social networks (Granfield & Cloud, 2001).

Cloud and Granfield (2009) expanded upon their original conceptualization by attesting that there are four key components to RC: 1. Social Capital- The totality of the resources from social relationships both in the form of support and obligations including family, friends, and relationships that connect people to larger social institutions and that are both bonding and bridging; 2. Physical Capital- tangible assets such as money or property that increase options for the individual to better support their recovery including such things as health insurance, safe shelter, clothing, food, and transportation; 3. Human Capital- skills, aspirations, hopes, health, education, intelligence, self-esteem, self-efficacy, and problem-solving capacity that can help the individual be successful in recovery; and 4. Cultural Capital- the values, beliefs and attitudes that link to normative behavior and social conformity, increasing the recovering person's ability to fit in with and navigate the dominant society (Cloud & Granfield, 2008; Hennessy, 2017; White & Cloud, 2008). In a meta-analysis of the literature around RC, Hennessy (2017) identified five key properties consistent across the RC literature: 1. Recovery is ongoing with opportunities to gain resources and lose them; 2. The amount of RC a person has will vary over time due to a variety of factors; 3. Greater or lower levels of RC are created by resources interacting with one another; 4. The location, environment, and resources available within

that environment must be taken into consideration as well as individual, micro, and mezzo level resources in determining RC; and 5. Socioeconomic position has a direct effect on how much RC one has.

Past Studies

Significant gaps in the research exist around RC development for minoritized groups through mutual aid participation. Though studies touch on the experiences of minoritized groups in 12 step fellowships, few have directly explored that experience through a RC framework. Further, studies that do explore race and social networking in recovery are limited, contradictory, and often solely qualitative or dated (Hennessy, 2017; Pouille et al., 2020). For example, Hillhouse & Fiorentine (2001) identify an ecological effect in meetings. They believe that though 12 fellowships are primarily male and Eurocentric, individual meetings demographics vary from one community to another, which makes integration for people of different socio-cultural demographics easier and that persons leaving treatment are just as likely to go to 12 step groups independent of race. This study, however, did not discuss an individual's level of involvement and RC development within those meetings. Chipps (2012), on the other hand, did not identify this ecological effect, and though social integration was achieved by her study participants, it was at the cost of family relationships and culture of origin. Though this study explored the 12-step integration experience of minoritized individuals, the sample size was limited and solely focused on Black women in AA. Another study identified a history of racism and

prejudice as creating barriers for deep integration for minoritized women throughout the history of AA (Sanders, 2019).

For Latinx populations, the literature contends that though there are equal referrals to AA compared to other groups, AA groups have trouble attracting and retaining Latinx persons within the US (Anderson, & Garcia, 2015), again raising the question of the integration experiences of minoritized groups. Anderson and Garcia (2015) identified Spanish speaking AA groups as the most prevalent pathway for recovery for this population. This presents a contradiction both against social integration and supporting an ecological explanation that groups will develop based upon locality to address the needs of the community (Anderson & Garcia, 2015).

The role mutual aid groups play in creating social networks and RC has been highlighted as important for developing lasting recovery and better quality of life for minoritized groups, but much of this research utilizing small samples and/or does not compare to other demographic groups (Cheney et al., 2016; Chipps, 2012; Collins-Henderson, 2012; Pouille et al., 2020, Sanders, 2019). Other important research about minoritized groups in 12 step recovery is dated and does not discuss these experiences through a RC framework (Caldwell, 1983; Caetano, 1993).

In addition to the limitations of studies on the RC development of minoritized groups, much of the literature does not directly explore development of RC in mutual aid groups. There has also been significant research surrounding

the role that 12-step engagement plays in developing social support and social norms. However, most of these studies focus solely on the role of social and cultural capital and there is little discussion on the role that self-help mutual aid groups play in helping individuals to develop some of the other forms of capital discussed in the RC model (i.e., physical and human capital) (Best et al., 2015; Best et al., 2016; Bliuc et al., 2019; Mawson et al., 2015; White & Cloud, 2008).

Summary

In summary, substance abuse issues in the United States are far reaching. There are significant barriers that affect people from minoritized groups from accessing treatment for SUDs. These access issues create a need for strong community-based support for addressing SUDs yet 12 step meetings, the most prominent mutual aid groups, are overwhelmingly White. One of the primary methods that 12 step meetings utilize to foster recovery is by helping people to develop RC through self-help involvement, but there is limited research on self-help involvement and recovery capital development in mutual aid groups for those in minoritized groups.

CHAPTER THREE

METHODS

Introduction

This study sought to identify if being from a minoritized group affects a person's access to RC resources through mutual aid engagement by providing a preliminary analysis on the variability of experiences between Whites and minoritized groups in their development of Recovery Capital (RC) through mutual aid group participation. The research question guiding this study was, does being a member of a minoritized group affect a person's ability to integrate into and develop RC in mutual aid fellowships? This chapter offers details on how this study was designed and conducted. This chapter is broken into six sections: study design, sampling, data collection and instruments, procedures, protection of human subjects, and data analysis.

Study Design

The purpose of this correlational, cross-sectional, pre-experimental design study was to assess if membership in a minoritized group affects an individual's ability to develop RC through mutual aid fellowships engagement. This study first looked for a correlation between a person's level of self-help involvement by utilizing the short form Self-help Involvement Scale (SHIS) and the amount of RC that they have by using the SRCS-10 and then compared the strength of this correlation between ethnic groups (Dennis et al., 2003; Hanauer et al.,

2019). This study utilized a survey of non-probability sampled individuals who have current engagement with mutual aid fellowships. An online questionnaire was utilized to obtain a large sample, while allowing for insight into the first-hand experiences of persons engaged in such fellowships by asking questions about their levels of engagement and qualitative questions regarding their subjective perceptions of their personal resources as outlined in the recovery capital framework. Due to the anonymous nature of the mutual aid fellowships, an anonymous questionnaire was the best way to protect participants' anonymity and to access individuals who would like to remain anonymous.

There were several motivations for utilizing this method of inquiry. The strength of utilizing a quantitative method with the survey of mutual aid fellowship members is that it allowed for a greater number of responses. This allowed for insight into trends and patterns in experiences instead of limiting the discussion to the experience of a few individuals. Also, as social workers recognize the importance of viewing clients as experts in their own lives, data surrounding the variability of a person's experiences with mutual aid meetings is important for understanding the efficacy of such fellowships. This makes a survey of mutual aid meeting participants a great resource in understanding the role recovery fellowships play in the development of recovery capital for people of different demographic groups.

Despite this questionnaire's strengths there remain limitations. Using a quantitative model of inquiry with close ended questions means that there is a

limited number of answers that a person can provide. Therefore, nuances of experiences may be overlooked. Though the questionnaire aimed to identify key elements of the RC framework, it was by no means exhaustive. For instance, a respondent may have varying degrees of feeling engaged or connected at different points of time in their recovery, but that variance would not have been captured by the questionnaire. The questionnaire was only presented in English thus excluding many potential study participants. As this survey was primarily distributed through social media and online platforms, individuals without access to such platforms were not represented. Also, the use of snowball sampling implies some level of social networking is in place, so characteristics of individuals who were willing to respond to a survey distributed this way may also have skewed results.

Sampling

The sampling technique utilized in this study was purposeful non-probability snowball sampling. The sample contained persons from multiple ethnic groups including Latinx, Black, Asian, White, Native American and other. In addition, the sample was drawn specifically from individuals who self-identify as being engaged in mutual aid groups. This study sought to obtain a sample that is somewhat diverse in terms of demographics including age, gender, income, and education, but the primary focus of the study is on minoritized groups. There were 269 people who responded to the questionnaire and after

excluding unusable data the final sample size for this study was N=215 respondents.

Data Collection and Instruments

The questionnaire utilized in this study included questions on demographic variables such as age, gender, household income level, education, and minoritized group membership. The key piece of demographic information collected was minoritized group membership. For the purpose of this study, minoritized group is defined as belonging to an ethnic group that has a common national or cultural tradition informed by identifying with a shared language, ancestry, practices, and beliefs that is labeled as a “minority” by a dominate group that is numerically larger than the ethnic group (in this case Whites).

The independent variable of self-help involvement was measured by the 11-item short form Self-Help Involvement Scale (SHIS). For the purpose of this study, we defined self-help involvement as the level of engagement, social interactions and personal relationships developed in a mutual aid group community. Conrad et al. (2015) conducted validity and reliability testing on the short form SHIS and found the scale to be unidimensional, valid, and reliable. The SHIS met Rasch criteria of being a valid measurement for self-help involvement with a Rasch Person reliability score of .77 and a Cronbach’s alpha of .83. The score had no misfit nor differential item functioning by substance of choice and only minor differential by age. The short form was also found to be more efficient than the long form SHIS. The full valid and reliable 21-item and 11-

item short form were also highly correlated with $r = .97$. The questionnaire included questions about the number of recovery group affiliations, number of meetings attended in past 90 days, and if the individual worked with a sponsor, had a home group, asked for help from others, engaged in recovery events, for example. (See appendix A)

The questionnaire also included the Short (10 item) Recovery Capital Scale (SRCS-10). The dependent variable of recovery capital is defined by Granfield and Cloud (1999) as “[...] the breadth and depth of internal and external resources that can be drawn upon to initiate and sustain recovery from AOD [alcohol and other drugs] problems.” The SRCS-10 is a 10-item measure drawn from William White’s unpublished Recovery Capital Scale. The SRCS-10 was tested for reliability and validity and compared to the valid and reliable BARC-10 confirming one-dimensionality (Hanauer et al, 2019). Hanauer (2019) utilized exploratory factor analysis (EFA) and CFA and found the “SRCS-10 has a large first to second eigenvalue ratio and had a CFI and TLI close to and above .9 with an SRMR of below .05 and omega of .85” (p 254) as well as only minor changes in the CFI and RMSEA across gender, race, and sexual orientation providing evidence that the SRCS-10 is a valid and reliable assessment of recovery capital across race, gender, and sexual orientation. The SRCS-10 consist of more qualitative questions than the SHIS-10. Some of the questions include, “Today I have a clear sense of who I am,” “I know that my life has a purpose,” “I have recovery rituals that are now part of my daily life,” “I now have goals and great

hopes for my future,” and “I have an active plan to manage any lingering or potential health problems.” (See appendix A).

Procedures

Data was collected using a Qualtrics’s questionnaire distributed through social media. An online post was made with instructions for participants to anonymously complete a questionnaire through Qualtrics. This post provided both a hyperlink and QR code for respondents to easily access the questionnaire. No identifying information such as names were collected. All data was collected and analyzed by the student researchers. The survey was open to respondents from January 2022 until April 2022. The questionnaire was available in English. Data was collected utilizing a cross-sectional one-shot method utilizing self-administered questionnaires. The initial social media accounts used were the student researchers’ Facebook and Instagram pages and were shareable from there, allowing for snowball sampling to occur. The original post of the survey link was shared from the researchers’ Facebook pages 20 known times and was also picked up by the California Consortium of Addiction Professionals weekly newsletter. The questionnaire was also posted on Reddit under R/sober, R/stopdrinking, R/redditorsinrecovery. The researchers also reached out to their personal network of individuals who identify as being “in recovery” and asked them if they would be willing to complete the questionnaire and to share with individuals in their personal networks. Though it would have been convenient to go directly to meetings to obtain this data, to respect AA and

AA's 12 traditions which states that "we have no affiliations with outside organizations, hence, the AA name not be drawn into public controversy" responses were not directly collected at AA or NA group locations (Alcoholics Anonymous World Services, Inc., 1989).

Protection of Human Subjects

Ethical approval for the study was obtained from the local Research Ethics Committees of California State University, San Bernardino. Digitalized informed consent was obtained from all participants prior to them being able to begin the questionnaire. This study was fully anonymous and no identifying information was collected. In addition, measures to maintain the confidentiality of all participants were taken as Qualtrics data was stored in the secure CSUSB drive under a password-protected account and any additional data pulled was stored on the students' home computers, which are password and fingerprint protected. All data is stored for three years before being destroyed. As this survey was conducted fully online, no additional COVID-19 precautions were necessary for the protection of survey participants.

Data Analysis

All data analysis was done utilizing SPSS software, and several statistical tests were utilized in this study. Though initially 269 participants responded to the questionnaire, 54 responses were excluded from final analysis due to extreme outliers, excessive missing data, incomplete questionnaires, or respondents not

meeting requirements for participation in the study. Thus, the final N was 215. The data was cleaned and analyzed for normal distributions. Minimal missing data points were replaced with the mean. Several individual variables were regrouped to make new variables including the variables in the SHIS and SRCS.

The new variable, SHIS Total was obtained by following the parameters set forth by the SHIS protocol. There were 10 dichotomous questions regarding self-help involvement behaviors that were each given a score of 0 for no and 1 for yes. The number of meetings attended in the past 90 days was recoded to no attendance (0 days = 1); quarterly to monthly (1-3 days = 1); less than 1-2 times/week (4-24 days = 2); most days of the week (25-85 days = 3); and daily (86-90 days = 4). The number of affiliations checked was scored as 0 to 5 affiliations, with any additional affiliations still counted as 5. The SHIS is then the sum of the recoded days attended item, the behaviors endorsed, and the number of affiliations (maxed at 5). The new variable, SRCS Total, was obtained by computing the value of the total of the scores of 1 (strongly disagree) to 5 (strongly agree) of the 10 individual variables in the SRCS-10 portion of the questionnaire. Ethnicity was also regrouped into a new nominal dichotomous variable of Minoritized Status, where all groups other than whites were regrouped together into one value. These new variables were then used in the correlation analysis.

Descriptive univariate statistics were utilized on demographic information establishing the mean, median, and mode, the standard deviation of the

demographic variables, as well as the percentage of individuals who identify as different genders and minoritized groups. Univariate analysis was also utilized to determine the mean and standard deviation for the scores of the short form SHIS and the SRCS-10, and each individual measure within the two scales.

Correlation analysis was utilized to determine the strength of the correlation between the independent variable of recovery group involvement measured by the new variable SHIS Total and the dependent variable of RC as measured by the new variable SRCS Total amongst all survey participants and again when separated by minoritized group individually and as a group as measured by the new variable Minoritized Status. The correlation coefficients were determined for each minoritized group, Whites, and minoritized groups (as a whole). In order to determine if there was a statistically significant difference in the correlation between the level of self-help involvement and recovery capital development due to being a part of a minoritized group Fisher z-scores and statistical significance was derived using the equation $Z_{\text{observed}} = (z_1 - z_2) / (\text{square root of } [(1 / N_1 - 3) + (1 / N_2 - 3)])$. This calculation was completed manually as SPSS is not equipped to do this analysis. In this set of statistical tests, the independent variable was the nominal variable of minoritized group and the dependent variables were the z-scores for each of the correlation coefficients. Bivariate analysis utilizing T-test for independent samples was also utilized to assess for any variability in ethnicities' effect on self-help group involvement and on RC. Univariate and bivariate statistical testing was utilized at

the researchers' discretion to explore certain variables within the two scales and were discussed further during the final rendering of this project.

Summary

In summary, the aim of this study was to determine if there was a statistically significant difference in the correlation between mutual aid involvement and RC by White versus minoritized groups. Data was collected utilizing a one-shot cross-sectional survey and respondents were obtained using non-probability purposeful snowball sampling via a social media survey. Measures were taken to protect human subjects and the project was reviewed and approved by the CSUSB IRB committee. All data collected was anonymous and stored in a password protected computer. A battery of statistical tests were utilized to assess for statistical significance of various measures around minoritized groups, mutual aid involvement and RC.

CHAPTER FOUR

RESULTS

How Data Was Cleaned

All data was collected utilizing Qualtrics, and most of the coding was completed within the Qualtrics system. The data was transferred into SPSS to be cleaned and regrouped into new variables for computations. The original data set imported to SPSS had 269 responses. Twenty responses were excluded due to people self-reporting they did not qualify for the study on the informed consent or due to not having moved past the informed consent question, bringing the total to 249 responses. An additional 31 responses were removed due to respondents not having completed the portions of the survey discussing self-help involvement or recovery capital, three responses were excluded for excessive missing data, and one response was excluded due to being an obvious outlier. Specifically, although the scores for the SHIS were high for this particular respondent, this person also reported the lowest possible responses for all of the SRCS questions, which was inconsistent with the rest of the data set. That is, high scores on the SHIS were significantly correlated with high scores on the SRCS for this sample. Thus, it is likely that this respondent mistakenly reversed the responses on the SRCS. These exclusions brought the final N to 215. Missing data for the variable “clean time,” variables in the SHIS and SRCS, and the number of meetings attended in the past 90 days were all replaced with the mean score obtained for the total sample for their respective scales.

After deleting all ineligible or incomplete cases, several variables needed to be regrouped and recoded to complete the correlation analysis between the Self-Help Involvement Scale and the Short Recovery Capital Scale. All responses regarding “clean time” were changed to month format as people had the option of reporting months, years, and days clean in Qualtrics. All reports of the number of days meetings were attended were regrouped to reflect the SHIS protocol and provided with a value of 1 = 1-4 with no attendance (0 days) and quarterly to monthly (1-3 days); 2 = less than 1-2 times/week (4-24 days); 3 = most days of the week (25-85 days); and 4 = daily (86-90 days). A total for recovery group affiliations was also obtained by adding all reported group affiliations together. These totals were then changed to a scale from 0-5 (any number over 5 scored as a 5). A total of the other 11 SHIS dichotomous questions were coded as 1 for yes and 0 for no. To find the SHIS total, the 1-4 scale for days attending meetings, the total number of group affiliations and the 11 dichotomous answers were totaled providing a range of 1-20 for the SHIS portion of the questionnaire. SRCS totals were also calculated by finding a total for the 10 variables that made up the SRCS questionnaire, creating a range for the SRCS of 10-50. The variable ethnicity was also regrouped into Whites and Other Ethnicity to complete statistical testing as there was an insufficient number of study participants from individual ethnic groups to run the statistics otherwise.

Demographic Description

Descriptive statistics regarding age, ethnicity, gender, household income, time in recovery, and the number of substances used were generated for the analysis. Correlation tests and a test of difference were run on the scale variables to assess for any differences in self-help involvement and recovery capital correlations between the two groups (White/ Other Ethnicity). Table 1 provides an overview of the demographic characteristics of our sample. The table illustrates the number of respondents and percentage of respondents who identified with different characteristics within the two samples, Whites and Other Ethnicities, as well as totals and percentages for the whole sample.

Table 1 – Sociodemographic Characteristics

	White N (%)	Other Ethnicity N (%)	Total N (%)
Gender			
Female	99 (67)	48 (70)	147 (68)
Male	46 (32)	20 (30)	66 (31)
Non-binary	2 (1)	0 (0)	2 (1)
Total	147 (100)	68 (100)	215 (100)
Age			
18-29	4 (8)	0 (0)	4 (5)
30-39	17 (33)	7 (30)	24 (32)
40-49	16 (31)	5 (22)	21 (28)
50-59	11 (21)	8 (35)	19 (25)
60-69	4 (8)	2 (9)	6 (8)
70+	0 (0)	1 (4)	1 (1)
Total	52	23	75
Income			
Less than \$25,000	14 (10)	9 (13)	23 (11)

\$25,000-\$34,999	18 (12)	10 (14)	28 (13)
\$35,000-\$49,999	26 (18)	14 (21)	40 (19)
\$50,000-\$74,999	21 (14)	10 (15)	31 (15)
\$75,000-\$99,999	23 (16)	10 (15)	33 (15)
\$100,000-\$150,000	27 (19)	9 (13)	36 (17)
\$150,000+	16 (11)	6 (9)	22 (10)
Total	145	68	213
Marital Status			
Single	42 (29)	26 (38)	68 (32)
Married	61 (41)	23 (33)	84 (39)
Separated	3 (2)	3 (4)	6 (3)
Widowed	4 (3)	1 (1)	5 (2)
Divorced	37 (25)	15 (22)	52 (24)
Total	147	68	215
Number of Substances Used			
1	31 (21)	14 (21)	45 (21)
2	36 (24)	17 (25)	53 (25)
3	29 (18)	15 (22)	44 (20)
4	17 (12)	10 (15)	27 (13)
5	17 (12)	6 (9)	23 (11)
6+	17 (12)	6 (9)	23 (11)
Number of Recovery Group Affiliations			
0	4 (3)	0 (0)	4 (2)
1	103 (70)	57 (84)	160 (74)
2	31 (21)	8 (12)	39 (18)
3	6 (4)	3 (4)	9 (4)
4+	3 (2)	0 (0)	3 (1)
Ethnicity			
African American			12 (7)
Asian			2 (1)
Hispanic			38 (18)
Native American			11 (5)
Other			5 (2)
White			147 (68)
Total			215 (100)

Within the sample most participants were female (67%), between the ages of 30-39 (32%), married (39%), and reported an income between \$35,000-\$49,000 (19%). Further, most reported using one to three substances (66%) and had one recovery group affiliation (74%). Analyses also demonstrated that although the number of White respondents was significantly greater than Other Ethnicity, the percentages for all characteristics remained relatively similar. The most prevalent recovery pathway reported was Narcotics Anonymous at 59%; 51% of respondents reported affiliation with Alcoholics Anonymous; other reported group affiliations included Cocaine Anonymous (4%), Celebrate Recovery (3%), Smart Recovery (1%). Additionally, at least one person reported that they attended Adult Children of Alcoholics, Alanon, Recovery Dharma, Overeaters Anonymous, Pills Anonymous, Marijuana Anonymous and Refuge Recovery.

Also included in Table 1 is a description of the actual number and percentages of those respondents who identified as African American, Asian, Hispanic, White, Native American, or Other. The greatest number of participants responded as White (68%) with the remaining 68 (32%) identifying from another ethnic group.

Analysis

Table 2 compares the means of the Self-Help Involvement Scale and Short Recovery Capital Scale of White and Other Ethnic groups.

Table 2 – Means and Standard Deviation of Self-Help Involvement Scale and Short Recovery Capital Scale

	Self-Help Involvement Scale*	Short Recovery Capital Scale**	N
	M(SD)	M(SD)	N
White	11.02	44.94	147
Other Ethnicity	11.05	44.23	68

* $t = -.052$ $p = .479$ ** $t = .903$ $p = .184$

When comparing ethnic groups (White vs. Other Ethnicity) on the SHIS and SRCS, the means and standard deviations were similar. Indeed, t-tests indicated there were no significant differences between the two groups.

Due to the skewness of the distribution of the data for the two scales, the data was analyzed utilizing non-parametric statistics to look at the correlations between the two scales (SHIS and SRCS) and to compute any difference in correlations. Past studies have utilized nonparametric statistics when handling skewed data (Long & Cliff, 1997). We utilized Kendall's Tau as it is one of the most used statistical tests when looking at correlation comparisons with nonparametric statistics. A formula was then used to determine if there was a significant difference between the two correlation coefficients for the two ethnic groups using a Z-score. The table below provides the sample size for each variable, the obtained correlation score (Kendall's Tau) for our two groups (White

vs Other Ethnicity), and the computed z-score, which is a computation of the difference between the two r-scores.

Table 3 - Difference Between Kendall Tau Correlations between Ethnic Groups

	N	Kendall's Tau
White	147	.224
Other Ethnicity	68	.402
Total	215	

Z-score = -1.326, p = .092

We determined through the results of the analyses obtained by utilizing Kendall's Tau input into a calculator for z-scores that there was no statistically significant difference ($p=.092$) in the correlation between self-help involvement and recovery capital based upon identifying as White or from another ethnic group. However, nonparametric correlational analyses confirmed a significant positive correlation between reported self-help involvement and recovery capital for the sample as a whole ($r =.288, p <.001$).

CHAPTER FIVE

DISCUSSION

To answer the research question of “does ethnicity affect access to recovery capital development through self-help involvement” we looked at the correlational differences between White and Other Ethnicity on two scales measuring these constructs. Analyses indicated no significant differences between the two groups on the correlations of their scores. Findings from this study suggest that mutual aid group participation creates a springboard for all people independent of minority status, for developing components of recovery capital, as indicated by the significant correlation between the two for the whole sample. This significant correlation further suggests that mutual aid group engagement could in turn reduce some of the barriers that contribute to lower investment in the recovery model and keep people in a cycle of use experienced by minoritized groups. The fact that these mutual aid groups are free to the member, negates the barriers of cost and adding stress to lower-income families, or access to insurance. Also, the correlation data demonstrates that the barrier of discrimination is overcome as these groups are available and accessible by all, and despite being in a minoritized group recovery capital is similarly achieved. The results from this study provide evidence contrary to the idea that lower levels of social integration and social identification within recovery mutual aid fellowships by minoritized groups would lead to lower levels of recovery capital development.

The existing literature around the role of mutual aid engagement being effective for the recovery of minoritized groups is supported by the results of the study that there is no significant difference in the correlation between SHIS and SRCS regardless of ethnicity. The findings from this study provide support to Collins-Henderson (2012) attributing the importance of recovery support for minoritized groups in the development of social identity. Social identification plays an important role in the development of the valuable resources available in recovery communities, and social identity congruence based upon attributes such as race or ethnicity can have profound effects on group integration and affect the feelings of trust or distrust someone experiences in a particular setting (Purdie-Vaughns et al., 2008). Thus, persons from minoritized groups would benefit from finding representation within these groups to be better able to develop the socialized identity of being part of a recovery group. This concept, when coupled with the results of this study, suggests that though overall demographics of recovery communities are overwhelmingly White, this is not necessarily true for individual meetings. As there was no significant difference between the two groups' correlations between self-help involvement and recovery capital, but the two scales significantly correlate, using ecological and social identity theories, this suggests that it is important that individual meetings are couched in their particular community identity. It is important for the demographics of the recovery community to reflect the people participating. Our suggestion is that one of the key reasons that mutual aid support has been

shown to be such an effective intervention is in part due to this demographic reflection as meetings milieus are self-selected by the persons attending.

An understanding of social identity theory is important to this discussion. Social identity theory contends that people derive meaning and esteem from meaningful social identities and as they internalize the norms associated with these identities their behaviors and thinking patterns change to maintain the identity and fulfill a sense of belonging. Further, greater levels of identification, based on intersectional characteristics, within a particular group will lead to more significant behavioral modifications (Bliuc et al., 2019). Identity change plays an important role in the recovery process as people move away from their identity as a person in active use. These identity changes are socially negotiated through both social control and social learning, as recovery is transmitted within social networks through social influence (Best et al, 2016). Mutual aid group participation plays an important role in this shift in social identification and the development of socially normative behaviors, and thus better recovery outcomes, and has been linked either directly or indirectly to the development of recovery capital (Best et al., 2015; Best et al., 2016, Bliuc et al., 2019; Mawson, et al, 2015; White & Cloud, 2008). Further, studies similar to this have already demonstrated that those who attend 12-step meetings regularly and actively engage have positive abstinence outcomes due to large social networks and a socialized recovery identity (Davey-Rothwell et al., 2008; Kelly & Greene, 2014).

Kelly et al. (2012) suggest that 12-step groups are successful because they foster the development of social networks, norms, and self-efficacy.

Results of this study also support the idea that mutual aid group engagement progresses the development of resources mitigating barriers to the stress of low income or discrimination with minoritized groups. (Cheney et al., 2016; Granfield & Cloud, 2001). With findings from this study, one can infer that mutual aid engagement would be an effective referral and intervention for people from minoritized groups struggling with substance use disorders. This is not only due to the social support that lies within these mutual aid groups but also the role engagement can play as a mechanism to develop forms of capital that help dissolve the barriers to a successful recovery, as outlined by the recovery capital framework. It is important to understand that “recovery” expands beyond the idea of abstinence and is a more global or holistic construct, as the concept is not just focused on “non-use.” The concept of recovery includes an emphasis on mental and physical well-being, lifestyle change, citizenship, health, home, purpose, and community (Kelly & Hoepfner, 2015). Recovery happens within a real-life setting, outside of a clinical setting, focuses on empowerment, hope, choice, and freedom, and is experienced as a dynamic, ongoing process leading to more stable remission of use, resulting in increased life quality (Best & Laudet, 2010; Kelly & Hoepfner, 2015). This lack of significant difference in the correlation between self-help involvement and recovery capital development for persons

from minoritized groups supports the idea that there is an ecological effect in mutual aid communities.

Unanticipated Results

The scores on both the SHIS and SRCS were highly negatively skewed and showed positive kurtosis, meaning respondents predominantly rated their self-help involvement and recovery capital as high. The mean score for the Self-Help Involvement Scale was 11.02 with a standard deviation of 3.35 for our White sample and a mean of 11.05 with a standard deviation of 3.66 for our Other Ethnicity sample which when interpreted utilizing the parameters of the measure indicates a moderate level so of self-help involvement for both groups. The mean score for the Short Recovery Capital Scale for our White sample was 44.94 with a standard deviation of 4.43 and 44.23 with a standard deviation of 5.73 for Other Ethnicity indicating high levels of recovery capital within both subgroups of our sample. This skewness could be attributed to the fact that the mean length of time for our respondents in recovery was 125 months, which would allow for recovery capital to develop naturally over time. This skewness could also be caused by characteristics of people who were open to responding to a survey of this nature. Persons with high levels of investment in the recovery paradigm may be more open to engaging in this type of study. Likewise, people with lower levels of investment may be less willing to volunteer their experience without incentive. Respondents to our survey also had to be directed to the survey through snowball sampling, which also implies that a certain level of

social capital (part of the recovery capital framework) was already in play and could have contributed to the skewed data.

Not unexpectedly most respondents for this study did identify as White (68.4%). This number is much lower than the demographics reported by some of these fellowships in their annual reports but as the majority of the study participants were located within the Southern California region some of those local regional demographics would be visible within the sample (Alcoholics Anonymous, 2014; Narcotics Anonymous' World Service Committee, 2018). Eleven of our respondents (5.1%) were Native American which considering that only 1% of the US population and 1.94% of Californians identify as Native Americans this is a large percentage to be represented within this study (Native American Population 2022, 2022). As this study utilized snowball sampling this could be attributed to the role of social networking fostered by social identity congruence amongst peer groups in meetings and could suggest that a network of Native American folks was introduced to the study through a smaller number of gatekeepers, thus opening the study to a specific subsystem of relationships within the larger recovery community. Another interesting finding, which is not specific to ethnicity but does pertain to a different type of minoritized group, is that the majority of study participants were female (n=147; 68.4%) although the 12-step ecosystem is predominantly male (Alcoholics Anonymous, 2014; Narcotics Anonymous' World Service Committee, 2018). This could further highlight the role of social networking and identity congruence within meetings,

as women most likely referred other women to the study through their own predominately female social networks. This could also be explained by the fact that the majority of referrals came from social media networking on Facebook and women may be more engaged on such platforms and/or more likely to respond to a survey of this nature. Also, only 75 people surveyed answered the age question; this could be attributed to people wanting to protect their anonymity or could have been an issue with the data collection instrument as it was the first question in the survey and was a fill-in response.

Limitations of the Study

This study had several limitations that could be addressed in future studies. The study's data was skewed because of the characteristics of the sample. That is, participants overwhelmingly scored rather high on both scales. The respondents were self-selected partly because of snowball sampling and were those who were doing well. Thus, the curve, or distribution of the two scales, is skewed to one side. Also, the data had positive kurtosis, as there wasn't a lot of variation in the sample, meaning everyone scored about the same. The sample lacked variance in experiences and because of the homogeneity of the sample and the sampling method, generalization of the results is limited. The sample was also obtained predominately through social media, implying that all respondents already had some sort of social network in place.

The average length of time in recovery was also high, 125 months (SD=100), with a range of 1 month to 480 months, which also may have had

profound effects on the results of this study and contributed to the skewness, as it would be safe to assume that the longer someone is in recovery the more connected they would be in the recovery community and the more recovery capital one would have. This is somewhat accounted for in the results as self-help involvement for the whole sample was still statistically significantly correlated to higher levels of recovery capital despite time in recovery. Future studies may want to limit time in recovery to the first year or two of recovery, as it would be safe to assume that the longer a person is in recovery the more recovery capital one would develop. Another limitation of this study is that there was an overwhelming majority of white and female respondents. This study also failed to look at the mechanism of recovery capital development in mutual aid groups and only looked to see if there was a correlation between self-help involvement and recovery capital.

Suggestions for Further Research

Future studies may want to account for some of the limitations of this study by being more purposeful in their sampling regarding ethnicity, gender, and time in recovery. This could be done by using a random sampling technique within mutual aid groups that did not rely on a snowball sample or referral but rather relied on cluster sampling to get more variation in experience, ethnic representation, and time in recovery. A qualitative approach could also be utilized to capture the individual experiences of people from different demographic groups experience with 12-step integration and how that may or may not have

been affected by demographic differences. Further, studies may also want to utilize a qualitative approach to explore the exact mechanisms for the development of the different forms of capital within mutual aid groups beyond the social and cultural capital often thought of when thinking of the benefits of mutual aid group support (i.e., identifying if people have received employment opportunities, housing resources, medical or financial help, etc.).

Implications for Social Work Practice

Social workers have long understood the importance of human relationships and the dignity and worth of all people, highlighting that people are experts in their own lives and the importance of social support in developing that expertise. This study helps to illuminate the role that peer-group interactions play in the development of resources for the sustainment of healing and health for people struggling with substance use disorders. The vast range in the amount of time in recovery reported by the participants in this study demonstrates the bridging capital available for persons new to the recovery paradigm. The high levels of both self-help involvement and recovery capital reported across our sample and the high correlation between the two further demonstrates the role that engagement in mutual aid self-help groups can play in helping persons find and connect with resources across multiple domains of health. As social workers, we have the responsibility to lead individuals toward resources that can help people to help themselves. Thus, understanding the efficacy of our community-based referrals is important for engaging in an equitable evidence-based practice

approach. Further, as social workers, we understand that all communities have strengths, and by helping people to connect to the communities with which they identify and see themselves, we are further helping those communities to develop their own strengths.

This study suggested that there is not a significant difference in the correlation between self-help involvement and recovery capital development based on ethnicity. This understanding can help to guide agency policy on referral and case management practices by providing evidence that mutual aid groups are equitable referrals for persons from minoritized groups. We would suggest that when making such referrals the social worker should be mindful to attempt to connect individuals to mutual aid groups within the community of residence or identity as they may be more reflective of their individual cultural background. By connecting people within their community, we are further building on the strength of that community, and creating growth and connection between and among individuals within that community. Additionally, as the study was looking at the correlation between levels of self-help involvement and recovery capital development and found a strong correlation between the two, it is important for the social worker to understand and promote deeper engagement within these mutual aid groups. This requires the social worker to have an understanding of the mechanisms of such organizations and their benefits through sponsorship (one member with more recovery experience guiding another), openness to sharing, regular attendance, the literature (texts and

workbooks for guidance, or pamphlets and printed excerpts of text for definitions and better understanding), commitments (service positions such as secretary, greeter, coffee maker, etc.), and events (conventions of collaboration, retreats, etc.) in order to promote deeper levels of engagement beyond passive attendance.

Conclusion

Results of this study suggest that there is a positive correlation between the level of engagement in mutual aid groups and recovery capital and that there is no significant difference between White and Other Ethnic groups. Thus, we can conclude that mutual aid groups would be an inexpensive benefit for those with substance use disorders regardless of ethnicity. Further, other resources are available to social workers treating those with substance use disorders; however, many of these resources are either costly and/or have limited accessibility, especially to those belonging to minoritized groups. This study supports the efficacy of utilizing mutual aid self-help groups, which are an internationally accessible and free resource for developing recovery capital. Moreover, the study provides evidence that this effective resource is not limited by any specific ethnic group. Also, with greater numbers in social work practice supporting and referring those in need of these resources, it would suggest that the greater the number of those getting involved and attending mutual aid self-help groups in their community, the more support they will have and effective in connecting with RC these groups would become.

APPENDIX A
SURVEY QUESTIONNAIRE

Survey Questionnaire

What is your age in years? _____

What Is Your Ethnicity? Please mark all that apply

- African American
- Asian
- Latinx
- Pacific Islander
- White
- Other _____
-

What is the highest degree or level of education you have completed?

- Less than high school
- High school graduate (includes equivalency)
- Some college, no degree
- Associate's degree
- Bachelor's degree
- Ph.D.
- Graduate or professional degree

What is your marital status?

- Single (never married)
- Married

- Separated
- Widowed
- Divorced

With what Gender do you most identify?

- Male
- Female
- Non-binary/third gender
- Prefer not to state

What was your total household income before taxes during the past 12 months?

- Less than \$25,000
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

What substances did/do you use? (choose all that apply)

- Alcohol
- Cocaine
- Opiate pills
- Heroin

- Fentanyl
- Benzodiazepines
- Methamphetamine
- Marijuana
- Hallucinogens
- Other

Length of time in recovery? (Please write in years or months or days)

What 12 step groups do you attend:(circle all that apply) AA NA CA Other

Short form SHIS: 11 items all but question 1. Dichotomous yes/no

During the past 90 days...

1. On how many days have you attended one or more self-help group meetings (such as AA, NA, CA, or Social Recovery) for your alcohol or other drug use? Days-SH

2. have you Spoken up (shared) during a self-help meeting? Shared at Meeting_2

- Yes
- No

3. Had a sponsor? Had Sponsor_3

- Yes

- No

4 Asked for help from your sponsor or another member? Ask Help_6

- Yes
- No

5. Actively worked the 12 steps? Work 12 Steps_8

- Yes
- No

6. Felt that other people in the meeting understood you and your problems?

Others Understood You_10

- Yes
- No

7. Gotten advice or ideas about how to handle your problems better from a meeting or meeting members? Received Advice_12\

- Yes
- No

8. Considered yourself a member of a home group? Member Home Group_14

- Yes
- No

9. Participated in conferences, dances, picnics, or other social activities sponsored by a self-help group? Participate SH Events_18

- Yes
- No

10. Had a spiritual awakening through meeting, working the steps, or reading 12-step related literature?

- Yes
- No

11. Considered participation in self-help meetings an important part of your life?

Meeting Important Life_20

- Yes
- No

White's SRCS-10 1-5, 10 to score of 50

1. Today I have a clear sense of who I am

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

2. I know that my life has a purpose

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

3. I have recovery rituals that are now part of my daily life

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

4. I feel like I have meaningful, positive participation in my family and community

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

5. I have friends who are supportive of my recovery process

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

6. I now have goals and great hopes for my future

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

7. I live in an environment free from alcohol and other drugs

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

8. I have an active plan to manage any lingering or potential health problems

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

9. I have established close affiliations with a local recovery support group

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

10. My personal values and sense of right and wrong have become clearer and stronger in recent years

5. Strongly Agree 4. Agree 3. Sometimes 2. Disagree 1. Strongly Disagree

Survey References

The demographic questions utilized in this survey were developed by the researchers.

Dennis, M., Titus, J., White, M., Unsicker, J., & Hodgkins, D. (2003). Global Appraisal of Individual Needs (GAIN): Administration guide for the GAIN and related measures. Version 5. Bloomington, IL: Chestnut Health Systems. <https://doi.org/10.1080/00952990701877086>

Hanauer, M., Sielbeck-Mathes, K., & Berny, L. (2019). Invariance of a recovery capital scale across gender, ethnicity, and sexual orientation in a substance use disorder treatment program. *American Journal of Drug & Alcohol Abuse*, 45(3), 254–263. <https://doi-org.libproxy.lib.csusb.edu/10.1080/00952990.2018.1558228>

APPENDIX B
INFORMED CONSENT

INFORMED CONSENT

The study in which you are asked to participate is designed to examine ethnicities' effects on self-help engagement and the development of recovery capital for individuals in recovery for substance use issues. The study is being conducted by Kaelyn Doyle and Benjamin Wahl, graduate students, under the supervision of Dr. Carolyn McAllister, Professor in the School of Social Work at California State University, San Bernardino (CSUSB). The study has been approved by the Institutional Review Board at CSUSB.

PURPOSE: The purpose of the study is to identify if there is variability by ethnicity on the relationship between self-help engagement and the development of recovery capital in 12 step model self-help groups. This information will help inform social work practice and provide valuable insight into the efficacy of 12 step referral for practitioners.

DESCRIPTION: In this short survey participants will be asked 25 questions on current levels of engagement in self-help groups, questions designed to assess for recovery capital including social, cultural, physical, and human capital and some demographic questions.

PARTICIPATION: Your participation in the study is totally voluntary. You can refuse to participate in the study or discontinue your participation at any time without any consequences.

ANONYMITY: No identifying information is being collected during this study and thus all responses are completely anonymous.

DURATION: It will take 10 to 15 minutes to complete the survey.

RISKS: Although not anticipated, there may be some discomfort in answering some of the questions. You are not required to answer and can skip the question or end your participation.

BENEFITS: There will not be any direct benefits to the participants. However, findings from the study will contribute to our knowledge in this area of research around 12 step communities.

CONTACT: If you have any questions about this study, please feel free to contact Dr. McAllister at (909) 537- 5501 or by email cmcallis@csusb.edu

RESULTS: Results of the study can be obtained from the Pfau Library ScholarWorks database (<http://scholarworks.lib.csusb.edu/>) at California State University, San Bernardino after July 2023.

***** I understand that I must be 18 years of age or older to participate in your study, have read and understand the consent document and agree to participate in your study.

Place an X mark here

Date

APPENDIX C
IRB APPROVAL LETTER

IRB-FY2022-32 - Initial: IRB Admin./Exempt Review Determination Letter

1 message

do-not-reply@cayuse.com <do-not-reply@cayuse.com>
To: 004204082@coyote.csusb.edu, Anissa.Rogers@csusb.edu, kaelyn.doyle2637@coyote.csusb.edu

Wed, Jan 19, 2022 at 10:54 AM



January 19, 2022

CSUSB INSTITUTIONAL REVIEW BOARD
Administrative/Exempt Review Determination
Status: Determined Exempt
IRB-FY2022-32

Anissa Rogers Kaelyn Doyle, Benjamin Wahl
CSBS - Social Work, Users loaded with unmatched Organization affiliation.
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Anissa Rogers Kaelyn Doyle, Benjamin Wahl:

Your application to use human subjects, titled "Ethnicity and recovery capital development through social engagement in 12 step fellowship" has been reviewed and determined exempt by the Chair of the Institutional Review Board (IRB) of CSU, San Bernardino. An exempt determination means your study had met the federal requirements for exempt status under 45 CFR 46.104. The CSUSB IRB has weighed the risks and benefits of the study to ensure the protection of human participants.

This approval notice does not replace any departmental or additional campus approvals which may be required including access to CSUSB campus facilities and affiliate campuses. Investigators should consider the changing COVID-19 circumstances based on current CDC, California Department of Public Health, and campus guidance and submit appropriate protocol modifications to the IRB as needed. CSUSB campus and affiliate health screenings should be completed for all campus human research related activities. Human research activities conducted at off-campus sites should follow CDC, California Department of Public Health, and local guidance. See CSUSB's [COVID-19 Prevention Plan](#) for more information regarding campus requirements.

You are required to notify the IRB of the following as mandated by the Office of Human Research Protections (OHRP) federal regulations 45 CFR 46 and CSUSB IRB policy. The forms (modification, renewal, unanticipated/adverse event, study closure) are located in the Cayuse IRB System with instructions provided on the IRB Applications, Forms, and Submission webpage. Failure to notify the IRB of the following requirements may result in disciplinary action. The Cayuse IRB system will notify you when your protocol is due for renewal. Ensure you file your protocol renewal and continuing review form through the Cayuse IRB system to keep your protocol current and active unless you have completed your study.

- **Ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.**
- **Submit a protocol modification (change) if any changes (no matter how minor) are proposed in your study for review and approval by the IRB before being implemented in your study.**
- **Notify the IRB within 5 days of any unanticipated or adverse events are experienced by subjects during your research.**
- **Submit a study closure through the Cayuse IRB submission system once your study has ended.**

If you have any questions regarding the IRB decision, please contact Michael Gillespie, the Research Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval number IRB-FY2022-32 in all correspondence. Any complaints you receive from participants and/or others related to your research may be directed to Mr. Gillespie.

Best of luck with your research.

Sincerely,

Nicole Dabbs

Nicole Dabbs, Ph.D., IRB Chair
CSUSB Institutional Review Board

REFERENCES

- Acevedo, A., Garnick, D.W., Lee, M.T., Horgan, M., Ritter, G., Ph, D., Panas, L., Davis, S., Leeper, T., Moore, R., & Reynolds, M. (2013). Racial/ethnic differences in substance abuse treatment initiation and engagement. *J. Ethnic Substance Abuse*, *11*, 1–17. Doi: 10.1080/15332640.2012.652516
- Ahmad, F., Escobedo, L., Rossen, L., Spencer, M., Warner, M., Sutton, P. (2020). Provisional drug overdose death counts. *National Center for Health Statistics*. <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm#source>
- Alcoholics Anonymous World Services, Inc. (1989). *Twelve steps and twelve traditions*. Alcoholics Anonymous World Services.
- Alcoholics Anonymous World Services, Inc. (2014). Membership survey. Retrieved January 20th, 2020, from Alcoholics Anonymous: https://www.aa.org/assets/en_US/p-48_membershipsurvey.pdf
- Anderson, B. T., & Garcia, A. (2015). “Spirituality” and “cultural adaptation” in a Latino mutual aid group for substance misuse and mental health. *BJPsych Bulletin*, *30*(4), 1-5. doi: 10.1192/pb.bp.114.048322
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.
- Artiga, S., Orgera, K., & Damico, A. (2020). Changes in health coverage by race and ethnicity since the ACA, 2010-2018. KFF. <https://www.kff.org/racial->

[equity-and-health-policy/issue-brief/changes-in-health-coverage-by-race-and-ethnicity-since-the-aca-2010-2018/](#)

- Best, D., Beckwith, M., Haslam, C., Alexander Haslam, S., Jetten, J., Mawson, E., & Lubman, D. I. (2016). Overcoming alcohol and other drug addiction as a process of social identity transition: The social identity model of recovery (SIMOR). *Addiction Research & Theory*, 24(2), 111-123.
- Best, D., & Laudet, A. (2010). *The potential of recovery capital*. London: RSA. <https://www.thersa.org/reports/the-potential-of-recovery-capital>
- Best D, McKitterick T, Beswick T, Savic M. (2015). Recovery capital and social networks among people in treatment and among those in recovery in York, England. *Alcohol Treat Q.*, 33, 270–282.
- Best, D., Vanderplasschen, W., & Nisic, M. (2020). Measuring capital in active addiction and recovery: The development of the Strengths and Barriers Recovery Scale (SABRS). *Substance Abuse Treatment, Prevention, and Policy*, 15(40). DOI: 10.21203/rs.3.rs-18789/v2
- Bliuc, A.-M., Doan, T.-N., & Best, D. (2019). Sober social networks: The role of online support groups in recovery from alcohol addiction. *Journal of Community & Applied Social Psychology*, 29(2), 121–132. <https://doi.org/https://doi.org/10.1002/casp.2388>
- Bourdieu, P. (1986). The forms of capital. In: Richardson, J., *Handbook of Theory and Research for the Sociology of Education*. Greenwood.

- Caetano, R. (1993). Ethnic minority groups and Alcoholics Anonymous: A review. In B. McCrady, & W. Miller (Eds.), *Research on Alcoholics Anonymous: Opportunities and alternatives*. 209-231. Alcohol Studies.
- Caldwell, F. (1983). Alcoholics Anonymous as a viable treatment resource for black alcoholics. In T. D. Watts, & R. Wright (Eds.), *Black Alcoholism: Toward a Comprehensive Understanding*, 85-99. Charles C. Thomas.
- Castillo, T, & Resurreccion, R. (2019). The recovery experience: stress, recovery capital, and personal views on addiction and recovery in posttreatment addiction recovery. *Philippine Journal of Psychology*, 52(1), 103-126.
https://www.pap.ph/file/pjp/castillo_resurreccion_june_2019.pdf
- Chartier, K., Hesselbrock, M., & Hesselbrock, V. (2013). Ethnicity and gender comparisons of health consequences in adults with alcohol dependence. *Substance Use & Misuse*, 8(3), 200-10. doi: 10.3109/10826084.2013.74774.
- Cheney, A., Booth, B., Borders, T., & Curran, G. (2016). The role of social capital in African Americans' attempts to reduce and quit cocaine use. *Substance Use & Misuse*, 51(6), 777–787.
<https://doi.org/10.3109/10826084.2016.1155606>
- Chipps, S. D. (2012). African American women and alcoholics anonymous. (Order No. 3523184). Available from ProQuest Dissertations & Theses Global: The Humanities and Social Sciences Collection; Publicly Available Content Database.

(1041092119).<http://libproxy.lib.csusb.edu/login?url=https://www-proquest-com.libproxy.lib.csusb.edu/dissertations-theses/african-american-women-alcoholics-anonymous/docview/1041092119/se-2?accountid=1035>

Cleveland, H., Brick, T., Knapp, K., & Croff, J. (2021). Recovery and recovery capital: Aligning measurement with theory and practice. *Emerging issues in family and individual resilience*, 109–128. https://doi.org/10.1007/978-3-030-56958-7_6

Cloud, W., & Granfield, R. (2008). Conceptualizing Recovery Capital: Expansion of a Theoretical Construct. *Substance Use & Misuse*, 43 (12-13), 1971-1986. DOI: [10.1080/10826080802289762](https://doi.org/10.1080/10826080802289762)

Collins-Henderson, M. (2012). Identity development's impact on peer-supported recovery among African American women. *Alcoholism Treatment Quarterly*, 30(3), 307-314.

Conrad, K., Passetti, L., Funk, R., & Dennis, M. (2015). Validation of the full and short-form self-help involvement scale against the rasch measurement model. *Evaluation review*, 39(4), 395–427. <https://doi.org/10.1177/0193841X15599645>

Cook, B. L., & Alegría, M. (2011). Racial-ethnic disparities in substance abuse treatment: The role of criminal history and socioeconomic status. *Psychiatric Services*, 62, 1273–1281.

- Cummings, J. R., Wen, H. & Ko, M. (2016). Decline in public substance use disorder treatment centers most serious in counties with high shares of black residents. *Health Affairs*, 35(6), 1036–1044.
- Cummings, J.R., Wen, H., Ko, M., Druss, B.G. (2014). Race/ethnicity and geographic access to Medicaid substance use disorder treatment facilities in the United States. *JAMA Psychiatry*, 71, 190–196.
<https://doi.org/10.1001/jamapsychiatry.2013.3575>.
- Davey-Rothwell, M., Kuramoto, S., & Latkin, C. (2008). Social networks, norms, and 12-step group participation. *American Journal of Drug & Alcohol Abuse*, 34(2), 185–193.
- Dennis, M., Titus, J., White, M., Unsicker, J., & Hodgkins, D. (2003). Global Appraisal of Individual Needs (GAIN): Administration guide for the GAIN and related measures. Version 5. Bloomington, IL: Chestnut Health Systems. <https://doi.org/10.1080/00952990701877086>
- Granfield, R. and Cloud, W. (1999) *Coming clean: Overcoming addiction without treatment*. New York: New York University Press
- Granfield, R., & Cloud, W. (2001). Social context and “natural recovery”: The role of social capital in the resolution of drug-associated problems. *Substance Use & Misuse*, 36(11), 1543–1570. <https://doi-org.libproxy.lib.csusb.edu/10.1081/JA-100106963>
- Hanauer, M., Sielbeck-Mathes, K., & Berny, L. (2019). Invariance of a recovery capital scale across gender, ethnicity, and sexual orientation in a

substance use disorder treatment program. *American Journal of Drug & Alcohol Abuse*, 45(3), 254–263. <https://doi-org.libproxy.lib.csusb.edu/10.1080/00952990.2018.1558228>

Hennessy, E. (2017). Recovery Capital: A systematic review of the literature. *Addiction Research & Theory*, 25(5), 349-360. DOI: [10.1080/16066359.2017.1297990](https://doi.org/10.1080/16066359.2017.1297990)

Hillhouse, M. P., & Fiorentine, R. (2001). 12-Step program participation and effectiveness: Do gender and ethnic differences exist? *Journal of Drug Issues*, 31(3), 767–780. <https://doi.org/10.1177/002204260103100313>

Kelly, J. F., Abry, A., Ferri, M., & Humphreys, K. (2020). Alcoholics Anonymous and 12-Step facilitation treatments for alcohol use disorder: A distillation of a 2020 Cochrane review for clinicians and policy makers. *Alcohol and Alcoholism*, 55(6), 641–651. Doi: 10.1093/alcalc/agaa050

Kelly, J., Bergman, B., Hoepfner, B., Vilsaint, C., & White, W (2017). Prevalence and pathways of recovery from drug and alcohol problems in the United States population: Implications for practice, research, and policy. *Drug and Alcohol Dependence*. 181, 162-169. <https://doi.org/10.1016/j.drugalcdep.2017.09.028>

Kelly, J. F., & Greene, M. C. (2014). Where there's a will there's a way: A longitudinal investigation of the interplay between recovery motivation and self-efficacy in predicting treatment outcomes. *Psychology of Addictive Behaviors*, 28(3), 928.

- Kelly, J. F., & Hoepfner, B. (2015). A biaxial formulation of the recovery construct. *Addiction Research & Theory*, 23(1), 5–9. <https://doi-org.libproxy.lib.csusb.edu/10.3109/16066359.2014.930132>
- Kelly, J.F., Hoepfner, B., Stout, R.L. and Pagano, M. (2012). Determining the relative importance of the mechanisms of behavior change within Alcoholics Anonymous: a multiple mediator analysis. *Addiction*, 107, 289-299. doi:10.1111/j.1360-0443.2011.03593.x
- Kelly, J., Stout, R., Greene, M., Slaymaker, V. (2014). Young adults, social networks, and addiction recovery: Post treatment changes in social ties and their role as a mediator of 12-Step participation. *Drug and Alcohol Dependence*. 129 (1–2), 151-157.
<https://doi.org/10.1371/journal.pone.0100121>
- Long, J. & Cliff, N. (1997), Confidence intervals for Kendall's tau. *British Journal of Mathematical and Statistical Psychology*, 50: 31-41.
<https://doi.org/10.1111/j.2044-8317.1997.tb01100.x>
- Matsuzaka, S & Knapp, M. (2020). Anti-racism and substance use treatment: Addiction does not discriminate, but do we? *Journal of Ethnicity in Substance Abuse*, 19(4), 567–593.
<https://doi.org/10.1080/15332640.2018.1548323>
- Mawson, E., Best, D., Beckwith, M., Dingle, G. A., & Lubman, D. I. (2015). Social identity, social networks and recovery capital in emerging adulthood: a pilot study. *Substance Abuse: Treatment, Prevention & Policy*, 10(45).

Mennis, J., Stahler, G. J., El Magd, S. A., & Baron, D. A. (2019). How long does it take to complete outpatient substance use disorder treatment? Disparities among Blacks, Hispanics, and Whites in the US. *Addictive Behaviors*, 93, 158–165. <https://doi.org/10.1016/j.addbeh.2019.01.041>

Narcotics Anonymous World Services, Inc. (2016). Membership survey. Retrieved January 20, 2020, from Narcotics Anonymous: https://www.na.org/admin/include/spaw2/uploads/pdf/pr/MembershipSurvey_2016.pdf

Native American Population 2022. Native American population 2022. (2022). Retrieved October 5, 2022, from <https://worldpopulationreview.com/state-rankings/native-american-population>

Pouille, A., De Kock, C., Vander Laenen, F., Vanderplasschen, W. (2020). Recovery capital among migrants and ethnic minorities: A qualitative systematic review of first-person perspectives. *Journal of Ethnicity in Substance Abuse*:1-31. DOI: 10.1080/15332640.2020.1836698.

Purdie-Vaughns, V., Steele, C. M., Davies, P. G., Dittmann, R., & Crosby, J. R. (2008). Social identity contingencies: How diversity cues signal threat or safety for African Americans in mainstream institutions. *Journal of Personality and Social Psychology*, 94(4), 615–630. <https://doi.org/10.1037/0022-3514.94.4.615>

- Saloner, B., & Le Cook, B. (2013). Blacks and Hispanics are less likely than whites to complete addiction treatment, largely due to socioeconomic factors. *Health Affairs*, 32(1), 135–145.
- Sanders, J. (2019). An impressionistic account of diversity among women in Alcoholics Anonymous. *Alcoholism Treatment Quarterly*, 37(3), 315-327.
- Shavers, V. L., Klein, W. M. P., & Fagan, P. (2012). Research on race/ethnicity and health care discrimination: where we are and where we need to go. *American Journal of Public Health*, 102(5), 930–932.
- Substance Abuse and Mental Health Services Administration [SAMHSA]. (2019). Key substance use and mental health indicators in the United States: Results from the 2018 National Survey on Drug Use and Health (HHS Publication No. PEP19-5068, NSDUH Series H-54). *Center for Behavioral Health Statistics and Quality, Substance Abuse and Mental Health Services Administration*. <https://www.samhsa.gov/data/>
- Substance Abuse and Mental Health Services Administration [SAMHSA] (2020). Behavioral health barometer: United States, Volume 6: Indicators as measured through the 2019 National Survey on Drug Use and Health and the National Survey of Substance Abuse Treatment Services. HHS Publication No. PEP20-07-02-001. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- U.S. Department of Health and Human Services (HHS), Office of the Surgeon General (2016) Facing addiction in America: The Surgeon General's

report on alcohol, drugs, and health. *HHS*.

<https://addiction.surgeongeneral.gov/sites/default/files/surgeon-generals-report.pdf>

White, W. & Cloud, W. (2008). Recovery capital: A primer for addictions professionals. *Counselor*, 9(5), 22-27. www.williamwhitepapers.com

Whitesock, D., Zhao, J., Goettsch, K., & Hanson, J. (2018). Validating a survey for addiction wellness: The Recovery Capital Index. *South Dakota Medicine: The Journal of the South Dakota State Medical Association*, 71(5), 202–212.

Wood, L. (2020). "Everything I did in addiction, I'm pretty much the opposite now": Recovery Capital and pathways to recovery from opiate addiction. (*Electronic Thesis or Dissertation*). <https://etd.ohiolink.edu/>

ASSIGNED RESPONSABILITIES

This was a two-person project where authors collaborated throughout. However, for each phase of the project, certain authors took primary responsibility. These responsibilities were assigned in the manner listed below.

1. Data Collection:

Joint effort of Kaelyn Doyle and Benjamin Wahl

2. Data Entry and Analysis:

Assigned leader-Kaelyn Doyle

Assisted by-Benjamin Wahl

3. Writing Report and Presentation of Findings:

a. Introduction and Literature

Assigned Leader-Kaelyn Doyle

Assisted by Benjamin Wahl

b. Methods

Assigned Leader-Kaelyn Doyle

Assisted by Benjamin Wahl

c. Results

Assigned Leader- Benjamin Wahl

Assisted by- Kaelyn Doyle

d. Discussion

Assigned Leader-Benjamin Wahl

Assisted by-Kaelyn Doyle

