Recovery High School Student Perseverance:

Variables Supporting Sustained

Enrollment

by

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A dissertation accepted and approved in partial fulfillment of the

requirements for the degree of

Doctor of Education

in Educational Methodology, Policy, and Leadership

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Spring 2024

ABSTRACT

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Doctor of Education in Educational Methodology, Policy, and Leadership

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Substance use disorder (SUD) among adolescents has a significant impact on families and communities. It can lead to criminality, poor school performance, chronic use over a lifetime, high risk behaviors, and even premature death. Recovery from SUD is more than physical abstinence from alcohol and other drugs. Mental health and emotional well-being are also central to recovery. Individuals in recovery from SUD can learn to navigate life's ups and downs without the physical or emotional craving for using mind-altering substances, living self-directed and fulfilling lives.

As an ecological model, Recovery Capital (RC) includes an individual's social networks as well as the financial and physical resources they have available to aid and bolster them in their recovery (Granfield & Cloud, 1999; White & Cloud, 2008). The Recovery Capital Adolescent Model (RCAM) was introduced by Hennessey et al., (2019) who determined higher levels of certain RCAM elements increase the likelihood of students enrolling in a Recovery High School (RHS) after some form of initial treatment (Hennessy & Finch, 2019).

Among other recovery-related outcomes, students who attend an RHS are more likely to be abstinent from substance use than their non-RHS peers after 6+ months attendance (Finch et al., 2018). In this mixed-methods study, I sought to explore potential predictors of sustained RHS attendance among students for 6+ months after enrollment, first by identifying variables of interest within the current RCAM construct (Hennessey et al., 2019) and subsequently by

introducing novel constructs for consideration as possible sub-components within the RCAM framework.

Prior to this study there was a lack of research analyzing variables that might be associated with, or even predict, an RHS student's attendance for 6+ months after initial enrollment. This study produced evidence of certain RCAM-related constructs having statistically significant association with ongoing RHS attendance. The four predictor variables in this study included Twelve-Step Recovery (TSR) and three novel constructs, including Educator Rapport and Support (ERS), Peer Support Reciprocity (PSR), and engagement in Ongoing Mental Healthcare (OMH). Qualitative data analysis validated and extended quantitative results. Mixed methods data integration produced evidence that RCAM-related constructs produce emotional responses in students that support them as they progress from initial enrollment through graduation.

Keywords: adolescent substance use disorder, recovery capital, adolescent recovery capital model, recovery high school, adolescent recovery outcomes

ACKNOWLEDGEMENTS

DEDICATION

To those who have taught me the most –

my parents,

my wife,

and my children.

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CHAPTER I

INTRODUCTION

Parents dream of their children before they are born. Mothers and fathers often imagine those children and their futures before they unfold. Sadly, dreams can quickly become nightmares for adolescents with substance use disorders and their loved ones. Without the right help, such young people often struggle to thrive, unwillingly becoming burdens to their community. Ultimately, they are at risk of criminal behavior, failure to earn a living wage, and even worse, death before adulthood. With the right help, however, young people with substance use disorder (SUD) can find recovery and thrive in community, as individuals and families move from desperation to hope.

The Crisis is Real: Unmet Needs for Adolescents with SUD

In the United States in 2021, 14.3% of adolescents reported using illicit drugs during the past year, and 6.8% reported using alcohol in the last month. According to the 2022 National Survey on Drug Use and Health, an estimated 1.2 million adolescents qualified for a substance use disorder (SUD), and nearly half of those experienced a major depressive episode during the previous year (SAMHSA, 2023). An SUD diagnosis justifies personalized mental healthcare treatment somewhere within the SUD continuum of care (SAMSHA, 2016). Furthermore, since the pandemic, nearly 30% of high school students who were already using substances prior to 2020 indicated their substance use increased in 2021 (Brener et al., 2021).

Clinical treatment of adolescent SUD began taking hold in the late 20th century (White et al., 2002), and the need for expanded treatment options for adolescents experiencing SUD was declared a national priority a decade later by Columbia University's National Center for Addiction and Substance Abuse (Columbia CASA, 2011). Since then, the percentage of

adolescents with an SUD doubled from 4.3% in 2015 to 8.7% in 2022 (SAMSHA, 2016; SAMSHA 2023). Furthermore, the percentage of adolescents needing but not receiving treatment has remained staggeringly high. In 2021, 1.3 million adolescents needed SUD treatment but didn't receive it, leaving those teens and their families alone to navigate a chronic, life-threatening health condition without care (SAMHSA, 2023).

Promising practices in healthcare and education alike have been developing, but research on effective supports for adolescent recovery from SUD remains in its infancy (Finch et al., 2020). The crisis of chronically prevalent SUD among adolescents and its devastating consequences requires research and policy change to create a larger ecosystem of support (Feinstein et al., 2012). Such an ecosystem has gained traction in some regions, and efficacy research is beginning to point to positive recovery outcomes as cross-sector efforts work to replicate and expand effective systems of care (Finch et al., 2018; Nash & Collier, 2016).

Financial Impacts

Columbia University's National Center for Addiction and Substance Abuse (Columbia CASA, 2011) detailed the preventable financial impact of adolescent substance use in 2011. The report declared adolescent substance use the top public health problem in the United States and defined the related financial toll paid for teen violence, traffic tragedies, high-risk sex, property crime and emergency healthcare. With an economic impact estimated at $68 billion annually in 2011, U.S. Bureau of Labor and Statistics inflation rates imply a likely cost of $83 billion ten years later (Columbia CASA, 2011).

Addiction is a progressive disease with impacts compounding over a lifetime unless the disease is arrested, amplifying the cost-benefit imbalance when recovery is not sought until adulthood. The full economic consequences of SUD for all ages combined in the United States

was estimated at \$467 billion (about \$1,400 per person) annually in 2011 (Columbia CASA, 2011). Adjusted for inflation, the cost moved well above half a trillion dollars by 2023.

Just Saying "No" Didn't Work

In the United States, the "Just Say No to Drugs" campaign launched nationwide in 1983 to prevent adolescents from initiating use of illegal substances. School and community-based initiatives emphasized prevention as a strategy for curbing the long-term negative effects of adolescent drug and alcohol use. Most notable among them was Project DARE (Drug Abuse Resistance Education). Originally piloted by the Los Angeles Police Department in 1983, DARE became the most widely implemented drug and alcohol prevention program in the country (Clayton et al., 1996).

In collaboration with local law enforcement, school districts implemented Project DARE, typically with 6th graders, in the decades that followed. In a meta-analysis of experimental and quasi-experimental studies looking at the effects of DARE, Ennett et al. (1994), some association with participant knowledge regarding drugs and alcohol was identified. Specifically, the effect size on non-use related outcomes such as *knowledge of* drugs was relatively high (ES = .42) while the effect size associated with *drug use* was small across studies for alcohol (ES = .06), tobacco (ES = .08), and marijuana (ES = -.01). Additionally, the CI for mean drug use effect size overlapped with zero, meaning the influence was not significantly different from zero (Ennett et al., 1994).

A similar conclusion was reached in a longitudinal study by Lynam et al. (1999) who reported on the drug-related attributes of 1,002 individuals in their early 20's. Some had participated in DARE programing as 6th grade students, and some had not. Comparing these two

groups, researchers determined the DARE program produced no measurable impact on substance use for those who had participated in the program.

Promising Research-Supported Prevention Initiatives

As DARE fell out of favor, prevention activity in schools shifted to focus on research-supported school-based health curricula as the pathway to affect change. Federal grants driven by the Substance Abuse and Mental Health Services Administration (SAMHSA) targeted the adoption and implementation of evidence-based curricula in the decade that followed. Nationally among school districts, frequently adopted curricula promoted activities encouraging parent-child communication regarding substance use (Schinke, 2002). These prevention efforts appear to be associated with a decrease in substance use among adolescents.

In the years that followed, the percentage of adolescents aged 12-17 reporting alcohol use during the previous month declined nationally from 16.7% in 2005 to 9.6% in 2015 (SAMSHA, 2016) and further to 7.0% in 2021 (SAMSHA, 2022). Furthermore, the percentage of 10th graders reporting alcohol use during the last 12 months dropped from nearly 72.3% in 1991 to 31.3% in 2022 (Miech et al., 2023), and this is reflected even more broadly in data on the percentage of 12th graders who reported using alcohol during the previous year dropping from consistently above 80% between 1975 and 1990 to regularly below 60% after 2015 and an all-time low of 51.9% in 2022.

Marijuana use during these same time periods fell from a high in 1975, when 40.0% of 12th graders reported using in the last 12 months, to a low in 1992 of 21.9%. It climbed, however, in recent years, reaching 35.2% of 12th graders reporting marijuana use over the previous twelve months in 2020 (Miech et al., 2023).

Shifting to Focus on Recovery

      Healthcare professionals attending to addiction treatment have historically focused on diagnosis of SUD followed by pathology-specific treatment with primary attention paid to arresting substance use (White & Cloud, 2008). However, among experts in the field of behavioral health and diagnosis and treatment of SUD, attempts to define recovery by consensus have been challenging (Ashford et al., 2019; Costello et al., 2020; Schwarzlose, J. et al., 2007, White & Cloud, 2008).

      Researchers seeking to understand recovery based on the experiences of individuals with SUD (Costello et al., 2020) define it as a process. Generally, definitions emphasize abstinence while recognizing abstinence alone is not sufficient. Instead, recovery is seen as a non-linear progression and change process requiring ongoing commitment (White & Cloud, 2008).

      Among the attempts at defining recovery, there appears to be an emphasis on the cause-effect relationship between an individual's willingness and ability to act in ways that influence behavior change, all with the primary goal of generally improved health, wellbeing, and self-efficacy. Recovery is also generally understood as a multidimensional change process wherein individuals improve their health and wellness, live a self-directed life, and strive to reach their full potential (SAMHSA, 2012).

      Recent research has sought ways to identify variables predictive of recovery success with the goal of long-term abstinence. Instead of focusing solely on diagnosis and problem mitigation, addiction treatment professionals have come to look intentionally at the conditions predictive of long-term recovery and abstinence from mind-altering substances (Groshkova et al., 2013; White & Cloud 2008).

CHAPTER II

LITERATURE SYNTHESIS

Foundational Concept: Recovery Capital

Within the literature on factors aiding sustained recovery from problematic substance use there exists a foundational construct introduced by researchers with a primary focus on adult addiction treatment. Known as *Recovery Capital* (RC), the construct is defined as "the breadth and depth of internal and external resources that can be drawn upon to initiate and sustain recovery" (Granfield & Cloud, 1999, p. 1).

As an ecological model, RC includes an individual's social networks as well as the financial and physical resources they have available to aid and bolster them in their recovery (Granfield & Cloud, 1999; White & Cloud, 2008). RC is commonly understood to include five domains, including personal, familial, social, community, and cultural capital (Granfield, 1999; White, 2008).

Bronfenbrenner's social ecological model (see Figure 1) also provides an understanding of factors within systems large and small influencing a young person's wellbeing. At the microsystem level, Bronfenbrenner recognizes there are dynamics between individuals with two-way influences (Bronfenbrenner, 1979, p. 56). He also affirms an imbalance in power can affect the degree to which the influences go two ways (Bronfenbrenner, 1979, p. 57)

However, his socio-ecological model provides for only an imperfect understanding of risk and resilience factors associated with adolescents experiencing SUD and their access to recovery systems of support. Generally, the model suggests hierarchical influence of variables over which the individual has little or no influence (Bronfenbrenner, 1979).

Figure 1

Bronfenbrenner's Socio-Ecological Model
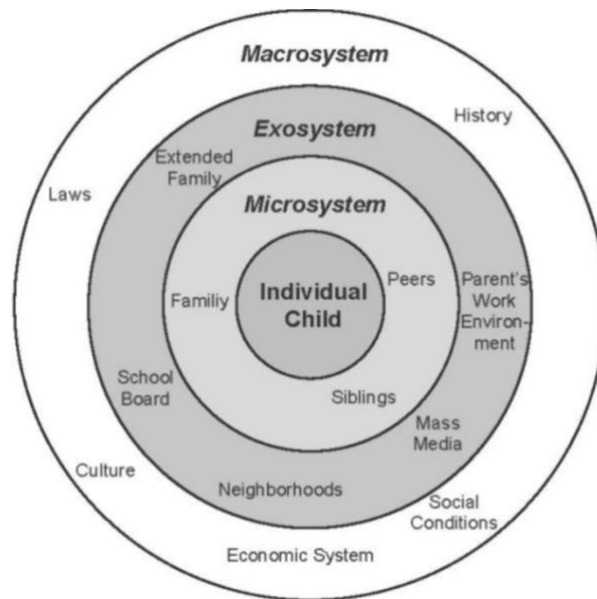
Note. Open access from www.openi.nlm.nih.gov

Contrasted with Bronfenbrenner's social ecological model, *Recovery Capital* (RC) balances risk and prevention of relapse within an ecological construct where the individual in recovery has a certain level of agency and self-efficacy within the construct. Furthermore, unlike Bronfenbrenner's model, RC more clearly suggests a fluidity across domains instead of a rigid hierarchy. As such, there can be a dynamic flow where an individual's cultivation of capital in one domain can influence another dynamically (Best & Nisic, 2022).

Like adults in recovery, adolescents are influenced by friends, family, and the school or work setting where they spend much of their day. At every recovery stage, an adolescent's cultivation of personal recovery capital is influenced by relationships and communities (Finch et al., 2018; Hennessy et al., 2019; Nichols et al., 2021). These influences impact whether they develop further risk or newfound resilience in early recovery.

Substance Use Disorder Treatment and the Recovery "Continuum of Care"

Within healthcare systems, a recovery-oriented system of care has become the standard framework for SUD recovery treatment and support, from initial treatment to a focus on long-term abstinence (Anthony, 2000). SAMHSA (2006) defines this as a "continuum of care" in which individuals progress through care levels aligned with the stages of recovery, including (a) early recovery, (b) recovery maintenance, and (c) community support. Clinical treatment intensity, duration, modality, and setting vary based on stage. Individuals step up to more intense assistance or down as needed. Progression through the stages is not always linear, as regression within the recovery continuum is common, particularly among adolescents (Best & Nisic, 2022). The hallmark of an effective recovery-oriented continuum of care is the seamless transfer of care between levels (SAMHSA, 2006).

Non-Clinical Recovery Support

According to White et al. (2012), in North America, mutual aid support among individuals in recovery can be traced back to Native American tribes as early as the early 19th century, taking root in Euro-American communities sometime thereafter. In the 20th century, non-clinical mutual aid groups such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) organized to bolster recovery from SUD, employing what has come to be known as traditional 12-Step programs. Like these, other forms of non-clinical programs provide assistance for those with similar lived experiences (Richert, 2018, Aug. 6). With an emphasis on mutual aid within a community of individuals with similar lived experiences with SUD and recovery, groups like Self-Management and Recovery Training (SMART), and culturally specific recovery communities, such as Wellbriety supporting Indigenous People, serve individuals nationally.

More recently, White et al., (2012) described a breadth of recovery support institutions emerging in the addiction-recovery landscape. From the early abstinence-focused, self-contained religious and cultural groups, a new addiction-recovery movement has been growing since the early 1990s, with grassroot recovery community organizations (RCOs). Similar to programs such as AA, NA, SMART and Wellbriety, RCOs are constructed around peer recovery supports formally delivered. Professionally trained recovery mentors, sometimes called recovery coaches, deliver services in RCOs (Ashford, 2021; White et al., 2012). RCOs provide these services in non-clinical settings, including recovery residences, recovery schools, recovery industries, and recovery ministries (White et al., 2012). Each of these RCOs primary purpose is supporting individuals in recovery as they build recovery capital (Ashford 2021).

Non-clinical SUD mutual-aid groups like these share many attributes and provide benefits supplementary to traditional counseling and therapy. These groups promote practices that help individuals develop new life skills. These often include mentorship, spiritual activities, and mindfulness and meditation routines that help develop a mental model for effectively managing daily emotional stressors. All of this is believed to add to the set of protective factors supporting recovery from SUD (Tracy & Wallace, 2020; White, 2008).

Together, treatment and recovery support in clinical and non-clinical settings combine to increase the protective factors associated with abstinence and long-term recovery. The full breadth of voluntary experiences can influence the recovering person's social identity during their recovery journey (Best et al., 2016).

Although little research exists regarding adolescent involvement in community-based groups such as AA/NA, a survey of 19 studies reported in 2010 that participation in 12-step communities was associated with at least a doubling in abstinence rates at follow-up (Sussman,

2010). Additionally, although adolescents may not easily identify with experiences of typical adults attending at 12-step meetings, for those who maintain regular engagement in a 12-step program, their attendance has a positive association with abstinence (Hennessy & Fisher, 2015).

Seeds of Hope

Two seismic shifts took place in the world of adolescent addiction and recovery in 2016. One was the publishing of Surgeon General Vivek Murthy's first-of-its-kind report titled Facing Addiction in America (U.S. Department of Health and Human Services, 2016). The report asserted the shame and stigma associated with addiction have prevented many from seeking help and others from believing help was warranted.

Social stigma has long been a barrier for those who might need recovery support, negatively impacting their willingness to seek medical and long-term treatment care (Ashford et al., 2019; Best et al., 2016; Facing Addiction, 2016). Individuals who feel stigma and shame associated with their chronic substance use also have less recovery capital and lower self-esteem than those who do not hold those beliefs and feelings (Wu et al., 2017). Activism working to remove cultural stigma associated with SUD rose during the time following the Surgeon General's 2016 report.

The report came at a time when many high-profile public figures openly began identifying themselves as living in long-term recovery (Facing Addiction, 2016). This had a normalizing effect on the perception of many in the public regarding addiction and recovery. Aligned with the Surgeon General's report, public understanding of SUD as a chronic condition of the brain for which a solution exists, not a moral failing, is thought to be central to addressing barriers created by shame and stigma (Ashford et al., 2020; Facing Addiction, 2016).

The second seismic shift focused specifically on adolescents in recovery. Namely, the release of documentary film titled *Generation Found* provided viewers with hope known by few at the time (Williams & Reilly, 2016). Focused on a cohort of students attending a school designed to fulfill the academic and recovery-oriented needs of adolescents with SUD, the film provided an understanding of the problem as well as a vision of a solution. The principal of Archway Academy, a Recovery High School (RHS) in Houston, Texas, declared in the opening scene that the community had come together to revolutionize care for adolescents with SUD primarily because the community was tired of watching kids die (Williams & Reilly, 2016).

Recovery High Schools

Recovery high schools (RHS) provide education and recovery-related non-clinical assistance, typically after some form of initial treatment. Upon discharge from either in-patient or intensive out-patient treatment, adolescents are encouraged to enroll in an RHS (Finch et al., 2018; Weimer et al., 2019). Their enrollment may be strongly encouraged, but typically it is voluntary, as a willingness to engage in recovery is a pre-requisite for enrollment (Tanner-Smith et al., 2018b). RHSs award state-sanctioned high school diplomas while sustaining student engagement in a structured program of recovery that includes positive peer influences (Association of Recovery Schools, n.d.).

The Surgeon General's 2016 report suggested there were some early indicators of recovery high school (RHS) effectiveness, yet a larger rigorous outcomes study had not yet reached completion at the time of publication. Shortly thereafter, the first-of-its kind seminal research on RHS effects was published by a Vanderbilt University team (Finch et al., 2018).

Researchers have begun providing evidence of RHSs and other peer-influenced innovations mitigating risk for school failure, substance use relapse, and criminality (Finch et al.,

2018; Karakos, 2014; Nash & Collier, 2016; Tanner-Smith et al., 2018a; Weimer et al., 2019). In their ground-breaking research, Finch et al. (2018) provided evidence of RHS attendance positively influencing adolescent recovery outcomes, asserting from an ecological perspective RHSs greatly influence the development and expansion of an individual's recovery capital, especially given the percentage of waking hours adolescents spend in school. One such outcome is the predicted probability of abstinence from all substances after 6-months attendance. Namely, in the Finch et al. study (2018), abstinence probability at 6-months was measured at .58 for RHS attendees compared with .30 for those students who completed initial SUD treatment and returned to their neighborhood high school or some other form of education.

Later research published by Weimer et al. (2019) affirmed and extended this promising effect, showing a statistically significant relationship between RHS attendance and abstinence at the 12-month follow up, measuring .55 for RHS attenders, compared with .26 for non-RHS students. Despite the effect affirmed by Finch et al. (2018) and Weimer et al. (2019), there were still only 42 recovery high schools nationwide in 2024 (Association of Recovery Schools, n.d.).

Tanner-Smith et al., (2018b), studying the same data set, noted 90% of participants in the study reported having received some form of mental healthcare treatment prior to enrollment. Though the study found no statistically significant difference in mental health measures at the 6-month follow-up when comparing participants who attended an RHS after treatment with those who attended some other form of schooling, the study did not consider whether students continued to engage in ongoing mental healthcare treatment during the 6 months following baseline data collection. The study did suggest, however, RHSs may want to include access to mental healthcare services during the school day as part of the holistic approach to supporting students in early recovery.

Recovery Capital Adolescent Model (RCAM)

Among the research born from the Finch et al. study (2018) is an emerging construct pointing to variables supportive of recovery outcomes for teens. Following a similar theoretical framework and aligned with the RC ecological model introduced by Granfield and Cloud (1999) and White, (2008), Hennessy et al. (2019) proposed the Recovery Capital for Adolescents Model (RCAM). In this model, an individual's cultivation of capital in one domain can influence another, and the overall influence of various forms of RC compounds dynamically, meaning 1+1 no longer equals 2, but 1+1 =3 (See Figure 2).

Figure 2

RCAM: Recovery Capital Adolescent Model
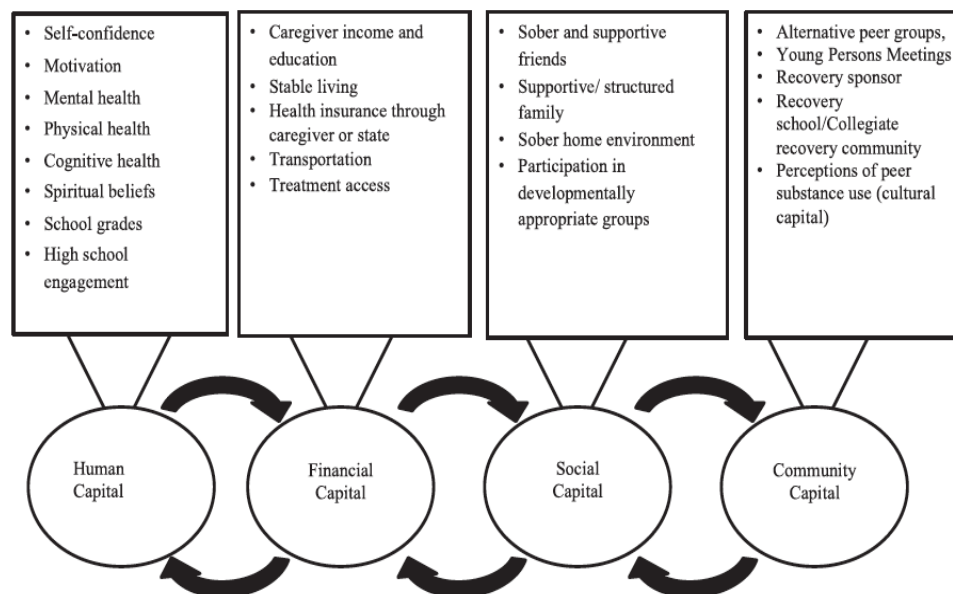
Note. Hennessy et al., (2019) *Recovery Capital Adolescent Model* used with permission

The RCAM components are similar to adult RC, including (a) financial recovery capital, which includes material protective factors such as family income and access to health insurance and treatment; (b) human capital, comprised of the personal knowledge, skills, and predispositions that assist in goal attainment; (c) social recovery capital, including an adolescent's bond with family, peers, and community and the resources that come through those

relationships; and (d) community recovery capital, which includes community level, culturally appropriate resources reinforcing sobriety and behavioral patterns, such as participation in mutual aid groups.

RCAM's Utility Predicting Initial RHS Enrollment

In the Finch et al. (2018) study, participants were entirely free to choose enrolling in an RHS or their neighborhood high school after completing some form of specialty substance use treatment. At baseline, participants responded to surveys and interviews, providing data on a wide scope of variables including religious activity, social support, school and work-related problems, physical and mental health, crime and violence, life stress, substance use history, tobacco use, and general demographic information.

Given the statistically significant effect of recovery high schools on recovery-related outcomes found in the Finch et al. (2018) study, additional research sought to identify factors likely to predict whether a student would enroll in an RHS after completing treatment (Hennessy & Finch, 2019). They determined RHS enrollment after treatment was associated with certain elements within the RCAM components, including adolescents' problem-solving skills, the frequency of their participation in 12-step meetings, and their financial resources. Data aligned with the RCAM provide a foundation upon which research can assess the likelihood RHS students persevere in RHS enrollment long enough to experience those positive recovery-related outcomes.

Critical Research Gap

Much is understood in the literature regarding risk-factors associated with adolescent drug and alcohol use (Ashengrau et al., 2021; Cabanis et al., 2021). In contrast, less is known about variables supportive of recovery-oriented behaviors known to improve outcomes for

adolescents in recovery from SUD, particularly the conditions supportive of sustained attendance in an RHS. As researchers have sought to understand the full nature of adolescent recovery, we have learned RHS enrollment can lead to positive recovery outcomes (Finch et al., 2018; Karakos, 2014; Nash & Collier, 2016; Tanner-Smith et al., 2018a; Weimer et al., 2019). Following this, research has helped us understand what might predict RHS enrollment (Hennessey & Finch, 2019), and yet practitioners providing direct service have little, if any, influence on a student's initial decision to consider enrolling in an RHS.

A clear gap exists in the research literature. To date, I find no research designed to elucidate the mechanisms or contextual influencers behind RHS student perseverance and sustained RHS enrollment. Although Finch et al. (2018) affirmed students who remain enrolled for 6+ months in an RHS experience statistically significantly higher recovery-related outcomes, practitioners will benefit from knowing which RCAM-related variables have the greatest influence on RHS student perseverance and sustained enrollment to 6-months. Because RHS enrollment is voluntary, meaning students can choose to return to a traditional high school for their education, the benefits of RHS attendance will remain elusive unless research can better understand what keeps an RHS student willing to persevere in attending an RHS.

In this mixed-methods study, I sought to explore predictors of student perseverance in sustained RHS enrollment, first by identifying variables of interest within the current construct of RCAM (Hennessey, 2019) and subsequently by introducing novel constructs for consideration as possible sub-components within the RCAM framework. It was my hope that this study would begin to fill this important gap in research. Having a robust understanding of variables that may predict sustained enrollment in RHS is of critical importance to practitioners and policy makers

alike. Having students exposed to an RHS at enrollment is one thing; ensuring RHS students remain enrolled and persevere in early recovery is quite another.

Research Questions

This study evaluated the potential association between certain RCAM-related variables and a student's perseverance in RHS attendance. These variables included a student's recovery-supportive relationships with peers, their continued engagement in any mental healthcare services, rapport with educators and recovery-related support from adults in the school, and engagement in 12-step recovery activity.

High school engagement is a variable within RCAM's human capital domain. Unique to this study, however, is a variable reflecting students' self-reported rapport with educators and the support received from those educators. Educator rapport and support (ERS), as a professional connection between adult and student, is relational at its core. As such, I propose this unique variable situated in the RCAM social recovery capital domain.

Participation in ongoing mental healthcare (OMH) fits within the RCAM financial capital domain, as it requires access to the resources needed to pay for such services. However, access to services alone is not a consideration of this study. Instead, a possible association between students' active engagement in mental healthcare services and RHS perseverance measured as 6+ months RHS enrollment is of interest.

Having recovery-supportive friends is part of the RCAM framework, yet the variable in this study requires a participant be willing to both receive assistance from such peers and demonstrate willingness to be supportive themselves to their peers. Such peer support reciprocity (PSR) is a novel construct of interest within this study, and I propose it be situated within the RCAM's social recovery capital domain.

Finally, community recovery capital includes social support from others with similar lived experience or supportive attitudes toward recovery. As such, it is appropriate to consider engagement in a Twelve-Step recovery (TSR) program as a subcomponent of community recovery capital within the RCAM framework.

This research study was designed as an exploratory sequential mixed-methods study with hope of adding to the knowledge base regarding adolescent recovery from SUD and variables that enhance sustained RHS attendance. Four specific predictors are the primary variables of interest: educator rapport and support (ERS), peer support reciprocity (PSR), ongoing engagement in mental healthcare services (OMH), and participation in twelve-step recovery groups (TSR).

I hypothesized adolescents with higher levels of these four constructs would be more likely to persevere in RHS enrollment for 6+ months than those with less. I also hypothesized sustained RHS enrollment would be more uniquely associated with certain constructs than others within this study. To test these hypotheses, the following research questions were central to the quantitative phase of this study:

Primary Research Question

Do the four index variables (Educator Rapport and Support (ESR), Ongoing Mental Healthcare (OMH), Peer Support Reciprocity (PSR), and 12-Step Engagement (TSR) collectively predict the likelihood of students maintaining RHS enrollment for 6 or more months?

Follow Up Research Questions

- To what extent is ERS associated with sustained attendance above-and-beyond each of the other individual predictors?

- To what extent is OMH associated with sustained attendance above-and-beyond each of the other individual predictors?

- To what extent is PSR associated with sustained attendance above-and-beyond each of the other individual predictors?

- To what extent is TSR associated with sustained attendance above-and-beyond each of the other individual predictors?

Research Goals

Quantitative objectives in this study focus on the association between predictor variables and the binary outcome for RHS persistence with (0) being non-persistence and (1) reflecting the target of 6+ months attendance. Additionally, I sought to provide practitioners with evidence of recovery capital supportive practices and conditions that predict continued enrollment for 6+ months in an RHS for students after initial enrollment. Qualitative objectives in this study prioritized two types of learning: (a) providing illustrative nuance confirming, contradicting, or deepening findings from the quantitative phase, and (b) surfacing unexpected findings, not necessarily associated with the variables of interest from the quantitative phase in this study.

While I sought to explore the possibility of RCAM elements predicting perseverance through the quantitative phase, I sought to provide confirmatory evidence for an existing construct and three novel conceptual models within the RCAM framework during the qualitative phase. My intention in using mixed-methods was to establish certain RCAM-related constructs as important for practitioner understanding as RHSs expand and improve their practices. In the end, I sought to extend the knowledge base in this emergent field of adolescent recovery, to inform practice and suggest additional research needed, further expanding our collective capacity to save lives.

CHAPTER III

METHOD

This study included an initial quantitative phase using extant data (Phase I), followed by qualitative data collection and analysis (Phase II). Finally, using sequential mixed-method design, the study methods conclude with data integration and analysis (Phase III).

Research Design Overview

This mixed-method study prioritized quantitative data analysis in Phase I using extant data collected by Finch et al. (2018). The original study providing the extant data was funded by the National Institute on Drug Abuse (NIDA Grant R01-DA029785). Deidentified data from this longitudinal quasi-experimental study were the sole data source in Phase I.

As a phenomenological study, Phase II data collection and analysis were based on interviews with recent RHS graduates and provided first-person understanding of the phenomena of interest. These first-person experiences shed light on constructs within the larger study. Integration procedures during Phase III produced explanations and expansions of Phase I findings. The core sequential design (Creswell, 2018) allowed for the deepening of findings during Phase II and provided explanatory texture to the quantitative results.

The study introduced novel constructs and an understanding of their as-yet-unstudied influence on students sustaining RHS enrollment for 6+ months. These RCAM-related sub-components included (a) Educator Rapport & Support (ERS), (b) Ongoing Mental Healthcare Engagement (OMH), and (c) Peer Support Reciprocity (PSR). Additionally, the study included 12-Step Community Engagement as a possible influencer.

It was through my lens as an educational practitioner and school district superintendent that I selected these four variables, believing knowledge of variables predictive of sustained

enrollment might assist RHS practitioners in effectively supporting sustained student enrollment and higher levels of measurable student success. With each variable, RHS educators have some level of influence. For example, both ERS and PSR are variables within the routine daily context of the school. Additionally, school practices aligned with TSR principles are matters over which educational practitioners also have influence, encouraging students to seek out their own twelve-step community. Finally, though less proximal to the school day, practitioners are in an influential position to support students accessing outside providers and community agencies for mental healthcare services.

In all cases, based on my intuition as a career educator and the availability to access related data in the Finch et al., (2018) data set, I chose to construct variables of this nature believing they might provide RHS practitioners with knowledge of conditions and practices that might possibly be associated with student sustained enrollment to the 6-month follow up. Such knowledge, I believe, may further enhance the RHS efficacy for more students.

Setting

Phase I data were collected by Finch et al. (2018) in metropolitan areas selected by the researchers because of their proximity to an RHS. Phase II was conducted using a purposefully recruited group of recent RHS graduates, all of whom attended the same RHS located within driving distance from surrounding metropolitan and suburban communities.

Participants

Participants in Phase I were generally white and predominantly identified as male. All were high school age, ranging from 14 to 19 years, with a mean age of 16.57. Like Phase I, Participants in Phase II were predominantly white with half identifying as male and half female. They ranged from 17 to 21 years, with a mean age of 18.67 at the time of the study.

Participants in Phase I all completed some form of specialty treatment prior to enrolling in an RHS. In Phase II, participants demonstrated RHS enrollment perseverance for 6+ months prior to graduation; however, only half completed treatment before enrolling in the RHS.

Study Design: Phases, Steps, Aims, Data Collection & Analysis

This study included a series of aims and steps across phases (see Figure 3). Data integration provided a depth of understanding not accessible in a quantitative or qualitative study alone. Originating as a linear framework, it became more dynamic than rigid. Moving forward and backward through phases was imperative to fully appreciate the natural integration of concepts, particularly as they linked with novel constructs. Recognized by Creamer (2018) as both dynamic and interactive, fully integrated mixed methods research may anchor within an initial rigidly linear mindset while producing unexpected results and connections as the project evolves. Such fluidity was primarily present between Phases II and III, as developing representations of emergent constructs warranted, at times, data analysis fluidly across phases.

Phase I: Quantitative Episode

This study prioritized the initial quantitative phase. Core analyses in Phase I evaluated a single dichotomous outcome. Participants were identified as either demonstrating RHS enrollment perseverance for 6+ months or not demonstrating such perseverance.

Phase I began with chi-square tests evaluating the possible association between two dichotomous predictor variables (OMH & TSR) and student enrollment perseverance. It also included independent sample t-tests to assess mean differences between student perseverance and two continuous predictor variables (ERS & PSR). Finally, Phase I concluded with all four predictor variables in a binary logistic regression, evaluating the possible influence of all four and each one independently while controlling for the others.

Figure 3

Sequential Mixed Methods Design

Sequential Mixed Methods Design

Variable Construction

Perseverance: Sustained RHS Attendance 6+ Months

Educator Rapport & Support (ERS)

Peer Support Reciprocity (PSR)

Ongoing Mental Healthcare (OMH)

12-Step Recovery (TSR)

Quantitative Extant Data Analysis

Descriptive Statistics

Assumptions Testing

Chi-Square Test

Independent Samples T-Test

Logistic Regression Statistics

Analysis and Findings

Qualitative Data Collection and Analysis

Participants engage in 1-1 interviews over three sessions.

Session 1: Open ended, loosely organized around Phase I predictors

Sessions 2 & 3: Open-ended moving toward probing & integrated member-checking

Descriptive Vignette captures each participant's experience

Data Analysis Confirming & Extending Phase I Results

Integration of Results

Findings Merger: Cross-thematic matrix

Confirmations, Expansions and Discordances

Aim 3. Explore, develop and summarize theories regarding the influence of RCAM-related subcomponents and their possible association with sustained RHS attendance among adolescents in recovery, while also introducing a construct within which the subcomponents are experienced by RHS students.

Aim 1. Identify the predictive weight of independent variables, collectively and individually, and their association with the likelihood of an RHS student sustaining enrollment for 6+ months after initial enrollment.

Aim 2. Explore the nature of RHS student experiences, seeking to explain Phase I results while adding texture, detail and nuance, listening for any unexpected concepts that may be associated with student perseverance.

Phase I: Quantitative Methods
(SPSS 29.0)

Phase II: Quantitative Methods
(Dedoose 9.0.1)

Phase III Mixed Method
Data Integration & Joint Display

Sources of Data

Phase I data were collected during in-depth assessments of youth who participated in specialty treatment for substance use disorder and their parents or caregivers. In this Finch et al., (2018) study, students and families decided between enrolling in an RHS after treatment or returning to a non-RHS. Because randomly selecting students into the intervention (RHS attendance) was neither practical nor ethical, the study was necessarily quasi-experimental.

Phase I extant data were collected in both survey and interview formats at baseline as participants exited specialty treatment for SUD. Participants also engaged in a combination of surveys and interviews during follow up intervals of 3, 6, and 12 months. These assessments included both in-person interviews and computer-assisted surveys led by a team of trained, Master's-level data collectors. Student assent and parent consent were secured during the study, and participants were given retail gift cards as an incentive for participation (Finch et al., 2018).

Analytic Sample

Using these extant data, I constructed an analytic sample, first by removing all participants where only parents, not students, were engaged in data collection. From there, I identified participants who were known to have at least six months of secondary schooling ahead of them after baseline enrollment, meaning these students had the opportunity to remain in an RHS during the six- or twelve-month follow-ups. This analytic sample was constructed using the original *rhsenrollmen*t variable.

The final step establishing the analytic sample involved constructing two membership groups: *(a) those who remained enrolled in an RHS for at least six months,* and *(b) those who attended an RHS but did not remain in attendance for six or more months*. The dichotomous measure was the outcome variable-of-interest in Phase I (see Figure 4).

Figure 4

Consort Diagram: Establishing the Analytic Sample
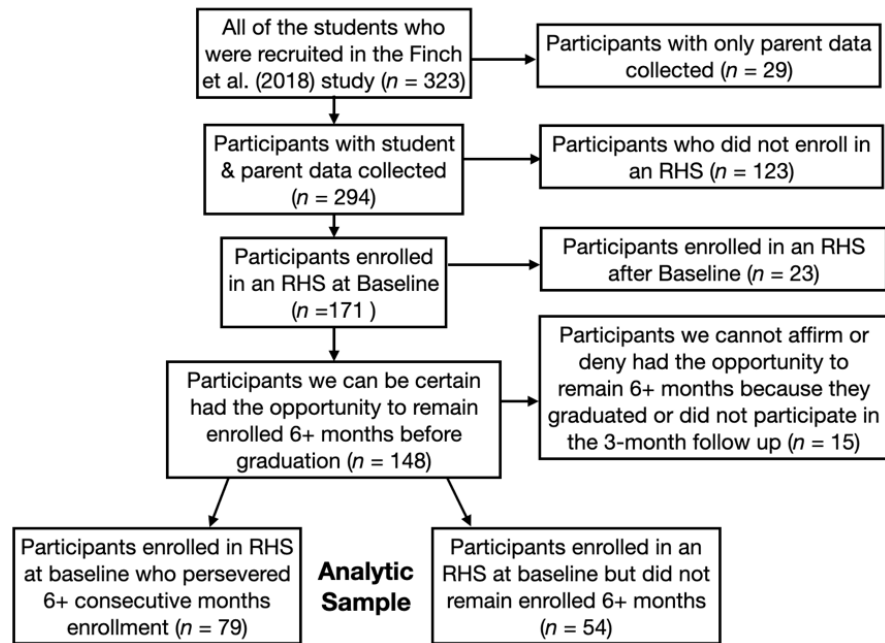
Independent Index Variable Construction

Next, I constructed the independent variables. One variable used, based on a single survey question, is already situated within RCAM Community Capital: 12-step recovery engagement (TSR). The other three, though aligned with RCAM, were novel constructs built using data from several specific variables in the original study. Like TSR, one of the novel constructs is based upon activity primarily experienced outside the RHS: engagement in Ongoing Mental Healthcare Services (OMH). The other two are based upon the nature of student relationships within the recovery high school setting where students spend a significant portion of their day. They are Educator Rapport and Support (ERS) and Peer Support Reciprocity (PSR). Aligned with Hennssey's RCAM framework, these constructs are situated in the community, financial, and social capital domains. (see Table 1).

Table 1

Variables of Interest

Type	Variable Name	RHS Data Set Variable Elements	RCAM Domain
Independent	Educator Rapport & Support (ERS)	caii6 & hsqxbc13	Community
	12-Step Engagement (TSR)	hsqx15	Community
	Ongoing Mental Health Services (OMH)	hsqx13 & ss1	Financial
	Peer Support Reciprocity (PSR)	ca4, ca6, ca7 weighted equally with hsqxbc14	Social
Dependent	Recovery High School Perseverance	rhsenrollment	Human

Educator Rapport and Support Construct. The Educator Rapport and Support (ERS) variable was constructed using data from two different variables within the Finch et al. study (2018). One-half the value of the variable is based upon the student's perception of whether their teachers care about them. This is balanced with a variable value for the student's perception of teachers' support of student recovery. Table 2 illustrates how original variables from the Finch et al. study (2018) were converted to establish a value for the construct.

This ERS construct does not require the presence of both a value in "care from teachers" and a value in "recovery support from teachers." If a student responded to the question in only one-half of the construct, the data are included in the value for ERS in the current study.

Table 2

Constructing the Educator Rapport and Support (ERS) Variable

Prompt	Original Label	Scale	Revised Scale	Construct
My teachers really care about me.	caii6_6	1. Strongly Disagree 2. Disagree 3. Neither agree nor disagree 4. Agree 5. Strongly Agree	Unchanged	*ERS Construct =* *ERS_SUM/ ERS_Count*
My teachers support my recovery.	hsqxbc13_6	1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly agree	1. Strongly Disagree = 1 2. Disagree = 2 3. Agree = 4 4. Strongly agree = 5	

Ongoing Mental Healthcare Construct. The Ongoing Mental Healthcare (OMH) variable was constructed using data from two different measures within the Finch et al. study (2018). One-half the value is based upon students' self-reported participation in drug and alcohol counseling outside of school. This value was then added to the second half of the variable value which is self-reported engagement with a professional counselor during the prior three months.

This Ongoing Mental Healthcare (OMH) construct does not require value in both the receiving of "alcohol or drug mental health services" domain and a variable value in the "professional counseling" domain. In other words, the presence of one or both resulted in a value of "1" for the construct, and the presence of neither warranted a value of zero for the construct. Table 3 illustrates how original variables from the Finch et al. study (2018) were converted to establish a value for OMH.

Table 3

Constructing the Ongoing Mental Healthcare (OMH) Variable

Prompt	Original Label	Scale	Construct
Are you currently receiving any AOD or mental health counseling outside of your school?	hsqx13_6	0. No 1. Yes	*OMH Construct =* *hsqx13_6 + ss1_6*
Did you have a professional counselor to talk to during the last 3 months?	ss1_6	0. No 1. Yes	*(0 = 0 and 1 or 2 = 1)*

Peer Support Reciprocity Construct. I constructed the Peer Support Reciprocity (PSR) variable using data from four different survey questions within the Finch et al. study (2018). One-half the variable value is based upon the student's perception of whether other students in the school support their recovery. The second half of the variable value is derived from the mean score of three separate variables within the Finch et al. dataset, all of which suggest some form of a student's willingness to help others. Table 4 illustrates how original variables from the Finch et al. study (2018) were converted to establish a value associated with reciprocity of assistance between peers.

This Peer Support Reciprocity (PSR) construct depends upon the presence of a value in the domain "giving help to peers" and a value in the domain "recovery supported by peers." Accordingly, if a student responded to question(s) in only half of the construct, their data were coded as missing in the present study and not included in analysis involving PSR.

Table 4

Constructing the Peer Support Reciprocity (PSR) Variable

Prompt	Original Label	Scale	Revised Scale	Construct
How often have you helped out at your school during the past 6 months?	ca4_6	1. Never 2. Rarely 3. Sometimes 4. Often 5. Very Often	Unchanged	
How often have you been a peer mentor or peer advisor during the last 6 month? How often have you helped tutor someone during the last 6 months?	ca6_6 ca7_6	1. Never 2. Once or twice 3. 3-5x 4. 6-8x 5. Every month 6. Every week 7. Every day	1. Never = 1 2. 1 or 2x = 2 3. 3-5x = 3 4. 6-8x = 4 5. Every month = 4 6. Every week = 5 7. Every day = 5	PSR Construct = (Helper_Mean+ hsqxbc14_6R)/2
The students in this school support my recovery.	hsqxbc14_6R	1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree	1. Strongly Disagree = 1 2. Disagree = 2 3. Agree = 4 4. Strongly Agree = 5	

Twelve Step Recovery. The Twelve Step Recovery (TSR) variable was a single question response in the original Finch et al. study (2018) reflecting the student's self-reported dosage of 12-step meeting attendance. Student participation in TSR was reported on one of two levels ranging from never to almost daily. In their meta-analysis, Hennessy and Fisher (2015) encouraged researchers to measure and report upon dosage of at least one meeting per week instead of averages over longer periods of time to evaluate the possible influence of dosage. Aligned with Hennessy and Fisher's recommendations, I restructured the extant survey data into a binary variable labeled TSR to contrast frequency of attendance that is at least weekly with

attendance less than weekly. Table 5 illustrates how the original participant responses from the

Finch et al. study (2018) were converted to establish 0 and 1, with 1 as the target.

Table 5

Constructing the Twelve-Step Recovery (TSR) Variable

Prompt	Original Label	Scale	Revised Scale	Construct
How often do I currently attend AA, NA or other 12-step meetings?	hsqx15_6	0. Never 1. <1x/mo 2. 1x/mo 3. >1x/wk 4. Several times / wk 5. Daily/Almost daily	1. Never = 0 2. <1x/mo = 0 3. 1x/mo = 0 4. >1x/wk = 1 5. Several times / wk = 1 6. Daily/Almost daily = 1	TSR = hsqx15_6R

Descriptive Statistics

I examined the distributions of the independent variables to affirm their conformance

with assumptions for the binary logistic regression analysis. I also examined correlational data

to note any association between variables and assess the uniqueness of individual constructs.

Chi-Square and Independent Sample T-Tests Analyses

Prior to running the logistic regression analysis central to this research, I ran chi-square

tests of association to evaluate possible associations between the two dichotomous independent

variables (OMH and TSR) and student perseverance. Independent samples t-tests were

conducted to evaluate the mean difference between student perseverance and two separate

continuous predictor variables (ERS and PSR). These analyses provided data regarding the

significance of the related associations and mean differences.

Across these analyses the sample sizes varied from 97 (PSR) – 110 (TSR). Prior to these

tests themselves, the variables were evaluated for compliance with the statistical assumptions

for the specific tests being run. Additionally, descriptive statistics were run including histograms

to assess distributions and boxplots to identify any outliers. These tests were conducted prior to planned regression analyses.

Binomial Logistic Regression Analysis

I used binomial logistic regression analysis to evaluate the probability of a student remaining enrolled in an RHS for at least 6 months after initial RHS enrollment based upon the four variable constructs. These theoretically relevant variables were included in the multivariable logistic regression, with their entry forced as one block simultaneously.

With four predictors in the binomial logistic regression, the model is represented by the following:

$$P(\Upsilon) = \frac{1}{1+e^{-(b_o+b_1X_{1i}+b_2X_{2i}+b_3X_{3i}+b_4X_{4i})}}$$

An early step in the logistic regression analysis was interpreting the overall R^2 value, seeking to understand how much variability in RHS attendance perseverance was explained by the group of four variables. Additionally, I examined the predictors individually to determine the degree to which each was uniquely predictive of perseverance while holding the other variables constant. Overall, this approach resulted in reduced power; however, the reduction was moderate. Additionally, because this study was intended as an exploratory analysis, a conservative approach was reasonable. Finally, for all predictors in the model, I identified the logit coefficients and their 95% confidence intervals as well as the odds ratios.

Design Threats. The data and design met the first assumption for binomial logistic regression because the dependent variable was dichotomous. Specifically, the dependent variable identified whether a student was present for at least two assessment periods over a 6-month period. As the singular indicator of perseverance, however, reliability may be affected to

an indeterminant extent because students may have departed for a brief period (1-2 months) between follow-ups and any such pauses in enrollment are not visible within the data set.

The remaining tests for logistic regression were also met. First, variables included multiple continuous or nominal independent variables. Additionally, the observations in the original study were independent, and all categories of the independent variables and the dichotomous dependent variable were mutually exclusive and exhaustive from one another. Finally, of the cases used in the quantitative phase ($n = 133$), only a few were missing data. Thus, the sample size meets the assumptions necessary for binomial logistic regression.

Data Type Threats. To run a binomial logistic regression, there must be a linear relationship between continuous independent variables and the logit transformation of the binary dependent variable. I tested this assumption using the Box-Tidwell approach, which confirmed the data met this assumption. Additionally, there should be no multicollinearity in the data. To test for this, I inspected the correlation coefficients and Tolerance/VIF values. Moderate collinearity existed between two variables. This is discussed further in the results chapter. Ultimately, these threats were sufficiently mitigated through additional testing and analysis, which is also discussed further in the results chapter.

Finally, there should be no significant outliers because they reduce predictive accuracy of regression results. I tested this assumption using case wise diagnostics. There were two outliers, and in both cases I analyzed them individually to determine the extent to which they may have compromised the results. This is explained further, including the rationale for why the cases were maintained as part of the sample, in the results chapter.

Phase II: Qualitative Episode

In Phase II, I conducted interviews with six recent RHS graduates. Each interview was conducted virtually within the Zoom platform. The video was recorded, together with the audio, and audio transcription was completed using Otter.ai. I conducted thematic analysis of the transcripts at two levels, within each case and across cases, using Dedoose 9.0.17 qualitative software. Verification procedures included triangulation of themes and examples across sources, member checking, rich and thick descriptions of the cases, reviewing and exploring discordances, and advisor review.

Within the larger sequential study, questions in Phase II were based on variables of interest and results in Phase I (Creswell, 2020). Phase II was designed to explain results from Phase I while allowing for unexpected results associated with student perseverance to surface. As such, findings ultimately emerged both deductively and inductively. I used purposeful sampling to engage six recent recovery high school students, all of whom sustained 6+ months RHS enrollment, eventually earning a state approved diploma at graduation from the same RHS. Focusing on the target outcome of perseverance for 6+ months and taking an asset-based approach to discovery was intended to provide results explaining and expanding upon possible influencers associated with RHS student enrollment perseverance.

Participant Recruitment and Selection

None of the Phase II participants had been involved in the study in which Phase I data were collected. All Phase II participants had attended an RHS continuously for 6+ months prior to graduating from the same RHS. Participants received $35 for each of three interview sessions attended, for a total of $105.

Sources of Data

Phase II participants ($n = 6$) ranged in age from 17 to 21 years, with three of the six identifying male and three female. Similar to Phase I, participants in Phase II were predominantly white ($n = 83.3\%$). Each completed their high school education attending an RHS and graduated between 2020 to 2023.

Data Collection Procedures

In Phase II, I sought to deeply understand connections between RHS graduates' perceptions regarding the same variables analyzed in Phase I, as well as other themes that unexpectedly emerged, all in association with long-term RHS attendance. During Phase II, verbatim data were collected over a series of three voluntary interviews. Using a semi-structured approach, first asking open-ended questions while selectively probing for clarification, I sought to understand respondents' experiences within the phenomena of adolescent SUD recovery as recovery high school students. Second interviews focused on gaining greater detail and deepening conceptual understanding from first interviews. At the same time, attention was given to assessing emerging themes through member checking. I conducted open coding and initial theme organization between interviews, with final interviews triangulating questions and asking participants to evaluate early findings as co-researchers. By the end of the third interview, it was clear that we had reached data saturation, and no further interviews were needed.

As a phenomenology, Phase II sought to establish accurate understanding of how participants experienced life as RHS students, both inside and outside the school. Phase II coding data aligned with predictors of student perseverance both inside and outside the scope of Phase I constructs. As such, the study was both explanatory (providing additional texture

regarding the four constructs) and exploratory (allowing for additional possible considerations and independent variables to surface in the qualitative phase).

Once I had initially coded and organized all transcripts using thematic analysis, I reviewed the transcripts a second time, this time focusing on any additional examples associated with emerging themes and re-coding as necessary. Additionally, and unexpectedly, because the process was both deductive and indictive, variables separate from Phase I constructs emerged as possible influencers in the cultivation of attendance perseverance.

The second interviews included questions structured specifically to probe into themes identified during analysis of initial interview transcripts. Quotations from the first interview and emergent themes were shared with participants for the purpose of member checking. Third interview questions proceeded in the same fashion as second interview questions with two additional aspects. First, third interviews provided an opportunity to ensure data saturation and the lack of any additional themes. Finally, third interviews provided each participant with the opportunity to identify and rank the top three influences supporting them while enrolled in the recovery high school.

Qualitative Data Analytic Strategies

All interviews were conducted virtually using Zoom software, with Otter.ai software providing real-time transcription. Each participant in Phase II engaged in a total of 2.5 to 3.0 hours of interviews, resulting in 259 pages of verbatim transcripts. Transcripts were analyzed using several distinct coding mindsets aligned with methods presented by Bazeley (2020).

First, I read each transcript several times after uploading each into Dedoose 9.0.107. After initial reading, I began dividing transcripts into discrete units of data. Units ranged from a single word, phrase, or sentence to full paragraphs. I labeled each unit with one or more codes,

initially organized by *a priori* categories. After identifying these literal connections with *a priori* categories, I noted emerging themes. These emerging themes ranged from discrete to overarching. While identifying patterns, I began constructing narrative analysis for the qualitative phase with descriptions designed to illuminate nuances in data throughout the interviews. At this juncture in my analysis, I shared the emerging themes with participants in second and third round interviews, allowing for an assessment of accuracy of initial conclusions reached inductively and deductively.

To provide myself the opportunity for a fresh look at the data, I separated from the data for a period of several weeks and then returned to observe the 35+ discrete themes which had emerged, and I began grouping them into broader, more coherent categories. During this refinement process, I returned to the participants' actual words, both in print and by reviewing interview video, seeking to critically discern the core attributes of the feelings, experiences, and intentions they had expressed.

Ultimately themes spread and overlap across the four RCAM-related constructs of interest in this study. After multiple review cycles, including participant member-checking, themes folded into units capturing the boldest essence of graduate experiences, and I determined the distillation process complete. In some cases, data reside solely in one theme. In others, data in the form of verbatim quotations cross over into more than one theme area.

Methodological Trustworthiness

With member-checking and feedback from participants, I revised core themes and refined labels before identifying their association within *a priori* constructs. Similarly, member-checking informed discernment during *post hoc* analysis, eventually linking to RCAM-related constructs. Grounded in prior RCAM theory yet open-ended, this study allowed both

explanatory and exploratory results to manifest. ERS, OMH, PSR and TSR were presumed as likely to be present during Phase II interviews. Objectively, however, findings beyond these four predictors surfaced, lending to the trustworthiness of the study.

Methodological Integrity

The data collection process for this study was approved by the University of Oregon's institutional review board. Additionally, I placed procedural emphasis on pausing between interviews to ensure findings were grounded in data. Though organized around pre-existing RCAM theory, methodological integrity was enhanced by taking specific steps to mitigate bias in data collection.

Personal experience and my own understanding of the phenomena in Phase II provided me with ready understanding, yet perspective management was critical. Recognizing I have experience as a person in long-term recovery, it was important I be mindful to mitigate the influence of bias throughout the research process. By checking assumptions and my early conclusions with participants, I sought to ensure fidelity of findings grounded in data and interpretations rooted in methodological integrity.

Levitt et al. (2019) found methodological integrity is bolstered when researchers develop a level of self-awareness that allows them to identify the influence of their own expectations and perspectives during data collection. Throughout the qualitative phase of this study, I paused at regular intervals to consider the influence of my experience and to ensure the discovery and meaning assigned to it were grounded in the experience of participants, not my own experience. I deliberately asked open ended questions, careful to note both confirmatory and unexpected responses. Question construction in second and third interviews was intentionally oriented to enhance reporting diverse experiences among participants.

Phase III: Mixed Method Data Integration

Mixed methods allowed a coherent mosaic of concepts to surface, blending Phase I variables and with Phase II results. This integration of data from Phase I and Phase II occurred in a structured, yet flexible process aligned with the literature on mixed methods analysis (Fetters et al., 2013). The two data sets were brought together for analysis and produced an overlapping, fluid understanding of the variables of interest and their influence on student perseverance in RHS attendance while allowing unexpected influencers to also be observed.

Initially, Phase I data informed data collection during Phase II (Creswell, 2018). Within the mixed methods integration, data were concurrently convergent, divergent, and expansive. These results are presented later in joint displays based upon various mixing models (Green et al., 1989; McCrudden et al., 2021).

During the integration of Phase I and II data, literal connections were clear from the outset; in other words, qualitative results aligned directly to quantitative findings, all for the primary purpose of deepening understanding associated with the variables of interest evaluated in the quantitative phase. Additionally, this integration provided for an understanding of phenomenological change in participant affective experience. The literal integration was unexpectedly followed by a gestalt assessment of participants lived experience, manifesting as a three-part frame of basic human feelings. In some respects, these experiences and related feelings can be understood as sequential, yet participants also described experiences in each of the three domains throughout their time as students in the RHS. This is explained further in the Discussion chapter.

CHAPTER IV

RESULTS

Phase I: Quantitative Results

In Phase I, I used SPSS 28.0 to conduct analyses of extant data (NIDA Grant R01-DA029785). These analyses included chi-square tests of association, independent samples *t*-tests evaluating mean differences, and binomial logistic regression to assess collective and individual associations of predictor variables with student perseverance.

Participant Demographics

Phase I data were drawn from Finch et al.'s *Effectiveness of Recovery High Schools as Continuing Care* study funded by the National Institute on Drug Abuse between 2011 and 2016 (Finch et al., 2018). Of the 323 participants enrolled in the original study, data from 133 were included in the present study. See Figure 4 for a description of study inclusion criteria and definition of the analytic sample. Participants in the sample were predominantly white ($n=$ 86.5%) males ($n = 51.1\%$) and ranged in age from 14 to 19 years (M = 16.52).

Missing Data

Of the 133 participants, 36 were missing scores on one or more of the independent variables and were excluded from one or more analysis. See Table 6 comparing demographics for the full sample ($n=133$), the final analytic sample for the binomial logistic regression analysis ($n=97$), and excluded cases ($n=36$). Based upon these exclusions, the cases used in the regression analytic sample had slightly lower percentages of white and male students, and the mean age was slightly lower than in the full sample.

Table 6

Regression Analysis Missing Data Demographics

	n	White	Non-White	Male	Female	Mean Age
Primary analytic sample	133	86.5%	13.5%	51.1%	48.9%	16.52
Cases included in the regression analysis	97	84.5%	15.5%	49.5%	50.5%	16.37
Cases excluded	36	91.7%	8.3%	55.6%	44.4%	16.92

The number of excluded cases was similar across three of the variables (ERS, OMH, TSR). Because PSR requires complete data in both halves of the construct, in those cases where one of the sub-constructs (giving assistance to peers or willingness to accept assistance from peers) was missing, those cases were excluded from the analysis of PSR. With this increased likelihood for missing data in the PSR construct, more data were missing in the logistic regression analysis when compared to the statistical tests focused on a single predictor variable in the chi-square analysis and independent sample t-tests.

Descriptive Statistics

Descriptive statistics were generated for the two continuous independent variables, and graphical representations were examined to determine adequacy for proposed analyses. These examinations determined PSR data were normally distributed and ERS data were moderately negatively skewed. Because the sample size was >50 and the independent samples *t*-test is fairly robust to deviations from normality, I carried on evaluating mean differences for ERS across dependent variable outcomes.

The percentages and distributions for both binary independent variables, OMH and TSR, as well as the binary dependent perseverance variable were examined. Among all participants,

the percentage who reported participating in twelve-step recovery (TSR) were generally split, with 54 individuals reporting non-participation, 56 reporting participation and 23 excluded because of missing data.

Among all participants, the percentage reporting participation in ongoing mental healthcare (OMH) was notably higher than the percentage who reported not participating in OMH, with 96 participants reporting participation (72.7%), 13 reporting they didn't participate (9.8%), and 24 participants (18%) excluded from the analysis with missing data for the variable.

I ran correlations to examine any potential overlap between independent variables. Variables were dichotomized based on response patterns and construct representation. Table 7 provides data on sample size, means, and standard deviation for all variables, as well as correlations between each.

Table 7

Descriptive Statistics and Correlations for Study Variables

	TSR	PSR	ERS	*n*	M	SD	% yes
Ongoing Mental Healthcare (OMH)	.09	.10	.10	109	-	-	72.2%
Twelve-Step Recovery (TSR)		.27	.18	110	-	-	42.1%
Peer Support Reciprocity (PSR)			.53*	97	3.08	.76	-
Educator Rapport and Support (ERS)				109	4.09	.81	-

* Moderate correlation

Finally, the dependent variable of perseverance was noted for all 133 cases. An analysis of participant perseverance in RHS engagement for 6+ months determined 79 students (59.4%) persevered, while 54 (40.6%) did not persevere.

Testing for Associations with RHS Student Perseverance

Chi-square tests were run to evaluate possible associations between the two dichotomous independent variables and student perseverance. Chi-square test results and crosstabs were analyzed to determine possible associations between (a) perseverance and mental healthcare support and (b) perseverance and twelve-step recovery participation.

Mental Healthcare Support. A chi-square test for association was conducted between perseverance and mental healthcare support (n = 109). Although there was a statistically significant association between perseverance and mental healthcare support, $\chi2$ (1) = 5.86, p = .02, prediction data for unenrolled students not engaged with a mental health professional was not greater than five (expected count = 4.2). Therefore, a Fisher's Exact Test was conducted between perseverance and mental healthcare support. This test confirmed a statistically significant association between perseverance and mental healthcare support, p = .025.

Actual counts for perseverant participants were higher for those engaged in ongoing mental healthcare than would be expected due to chance. Likewise, actual counts for non-persistent participants were lower for those engaged in ongoing mental healthcare than would be expected due to chance. See Table 8 for all actual counts vs expected counts.

Table 8

Actual vs. Expected Counts: OMH and RHS Student Perseverance

Perseverant	*n*	Ongoing Mental Health	Expected Due to Chance	Actual
Yes	74	Engaged	65.2	69
		Not Engaged	8.8	5
No	35	Engaged	30.8	27
		Not Engaged	4.2	8

Twelve-Step Recovery Participation. A chi-square test for association was conducted between perseverance and twelve-step recovery participation ($n = 109$), and all expected cell frequencies were greater than five. However, there was not a statistically significant association between perseverance and twelve-step recovery participation, $\chi2$ (1) = 0.55, $p = .45$. Those attending fewer than two twelve-step meetings per month were nearly equally likely (35/110 = 31.8%) as those regularly attending more than one meeting per week (40/110 = 36.4%) to persevere in RHS enrollment 6+ months.

Mean Differences and Statistical Significance of Associations

To understand the possible difference in means associated with continuous predictor variables and their relationship with the student perseverance dependent variable, independent samples *t*-tests were conducted. For each test, the mean and standard deviation are reported, together with the statistical significance of the association.

Peer Support Reciprocity. Data met all assumptions for independent samples t-tests. With one dependent 5-point continuous scale variable, one dichotomous independent variable, and independent observations in all cases, the data met the first three assumptions. Additionally, data were normally distributed and met the assumption for homogeneity of variance ($p = .430$). Finally, there were no significant outliers.

An independent samples *t*-test was performed to compare Peer Support Reciprocity (PSR) among students who persevered in RHS enrollment and those who unenrolled prior to 6+ months attendance. Self-reported PSR was statistically significantly higher for those who persevered in RHS enrollment ($M = 3.27$, $SD = .67$) than for those who unenrolled ($M = 2.55$, $SD = 0.76$), $t(95) = -4.55$, $p = <.001$.

Educator Rapport and Support. An independent samples *t*-test was performed to compare Educator Rapport and Support (ERS) among students who persevered in RHS enrollment and those who unenrolled the RHS prior to 6+ months attendance. Data met all but one of the five assumptions for independent samples t-tests. With one dependent 5-point scale variable, one dichotomous independent variable, and independent observations in all cases, the data met the first three assumptions. Additionally, data were generally normally distributed, though slightly negatively skewed.

With two potentially significant outliers in the results as seen in a boxplot for those who persevered, the assumption regarding outliers was not met. The two outliers presented with very low ERS levels. Further analysis of these outliers determined both were 17-year-old female students, one white and one Native American. Additionally, both persisted in RHS enrollment for 6+ months. Importantly, the relationship between perseverance and ERS was already statistically significant with their inclusion, regardless of their low ERS responses. Removing them would not have changed the significance result. As such, both cases were included as valid cases, as their responses were not extreme.

Finally, data did not meet the assumption for homogeneity of variance ($p = .006$). Because Levene's Test determined equality of variance did not exist, results reported do not assume equal variances. Ultimately, there was a statistically significant difference in self-reported ERS for those who persevered ($M = 4.32$, $SD = 0.64$) compared to those who unenrolled ($M = 3.56$, $SD = 0.91$), $t(46.44) = -4.37$, $p = <.001$.

Binomial Logistic Regression Analysis

In addition to the analyses of individual independent variables described above, a binomial logistic regression was performed to ascertain the possible predictive association

between all four variables and the likelihood participants would persevere in their RHS attendance for 6+ months after initial enrollment. This regression approach was employed to assess the variance in participant perseverance explained collectively by a participant's receipt of *ongoing mental healthcare*, participation in *twelve step recovery*, self-identified *educator rapport and support*, and self-identified *peer support reciprocity* and to examine the unique contribution of each independent variable to the model when holding the other independent variables constant.

Additional Assumption Testing Required. In a binary logistic regression, there must be a linear relationship between continuous independent variables and the logit transformation of the binary dependent variable. This assumption was tested using the Box-Tidwell approach. For the continuous variables ERS and PSR, multiplication of the natural log for each continuous variable by the variable itself produced a non-statistically significant result for ERS ($p = .59$) and PSR ($p = .49$). Thus, both continuous predictor variables met the assumption of linearity with the dependent variable in this logistic regression.

Using the Pearson's Correlation Coefficient, an *r* value above .8 is considered a strong positive linear correlation and the presence of such multicollinearity may make it impossible to differentiate between two independent variables. Using this analysis, a statistically significant correlation was determined to exist between ERS and PSR. With an r value of .53, the linear correlation and the impact on differentiation between the two variables in their association with the dependent variable is considered moderate.

Collinearity statistics were run to provide tolerance and variance inflation factor (VIF) data necessary for evaluating any potential violation of the assumption for collinearity. Tolerance ranges from .68 to .98 and VIF values range from 1.02 to 1.47. When VIF > 10,

further investigation is warranted and possible correction required (Myers, 1990). Additionally, a tolerance value < .10 warrants further analysis and possible correction (Menard, 2002). Because collinearity statistics in this analysis did not rise or fall to those thresholds, no correction was needed.

ERS and PSR both had statistically significant associations with perseverance when comparing means in the independent samples t-test analysis, yet PSR was not statistically significant above and beyond the other variables within the binary logistic regression. The statistically significant correlation that exists between ERS and PSR might explain this lack of statistical significance.

Regression Outcomes. The logistic regression model was statistically significant, $\chi^2(4) = 44.068$, $p < .001$, indicating that the independent variables were associated with the dependent variable of perseverance. The model explained 53.1% (Nagelkerke R^2) of the variance in perseverance and correctly classified 87.6% of cases. Sensitivity was 97.2% and specificity was 61.5%. Positive predictive value was 87.34% and negative predictive value was 88.88%. That is, of all cases predicted to persevere, 87.34% were predicted correctly, and of all cases predicted to not persevere, 88.88% were predicted correctly.

Test Sensitivity and Discrimination. The binomial logistic regression model provided an excellent level of discrimination in predicting whether cases could be correctly classified based on independent variable data. The area under the ROC curve was .880, 95% CI [.802, .958], which is an excellent level of discrimination according to Hosmer et al. (2013).

Predictive Odds Ratios. Of the four predictor variables, two were statistically significant in predicting the odds of perseverance: ERS and OMH (as shown in Table 9). When controlling for the other variables, every one unit increase in ERS results in predicting 8.01

times higher odds of persisting in RHS attendance for 6+ months. Again, controlling for other variables in the regression analysis, those who reported receiving ongoing professional mental healthcare had 13.00 times higher odds of persisting in RHS attendance for 6+ months than those who did not report receiving ongoing mental healthcare. PSR and TSR were not statistically significantly associated with sustained attendance when controlling for other variables (See Table 9).

Table 9

Logistic Regression Predicting Likelihood of Perseverance based on PSR, ERS, OMH, TSR

	B	SE	Wald	*df*	*p*	Odds Ratio	95% Confidence Interval	
							Lower	Upper
ERS	2.08	.61	11.74	1	<.001	8.01	2.44	26.32
OMH	2.56	1.01	6.42	1	.011	12.98	1.79	94.18
PSR	.82	.49	2.78	1	.096	2.27	.87	5.97
TSR	-.47	.63	.55	1	.459	.63	.18	2.16
Constant	-11.79	2.97	15.76	1	<.001	.00		

Phase II: Qualitative Results

Using a phenomenological approach, Phase II sought to establish deep understanding of how participants experienced life as RHS students, with primary attention paid to the constructs and variables assessed in Phase I. Thus, the results in Phase II are methodologically intentional extensions of results found in Phase I. Yet, Phase II was also constructed with open-ended questions allowing additional predictors of student perseverance both inside and outside the scope of Phase I to manifest during data collection. As such, the study was both explanatory (providing additional texture regarding the four constructs) and exploratory (allowing for additional possible considerations and independent variables to surface in the qualitative phase).

Dropout Potential vs Risk and Protective Factors

Early in the first-round interviews, it became clear not all the participants had considered dropping out while enrolled in the RHS. Of the six, three affirmed considering departure from the RHS prior to graduation; however, all participants described facing challenges in school-related, familial, or personal lives, and each affirmed these included feelings, experiences, and events with potential of jeopardizing their resilience as RHS students and increasing their overall risk. During first and second interviews, participants in Phase II reported experiencing risk factors associated with substance use disorder and relapse.

During the third round of interviews, all participants were asked to identify persons and experiences supporting them on their RHS journey as protective factors in the face of such challenges. Participants were also asked to rank order these protective layers of defense against such stressors and other risk factors.

Descriptive Data: Participant Vignettes

Each participant's responses are captured and organized into separate vignettes, each describing the influence of the constructs as they are defined in this study: ERS, PSR, OMH and TSR. Each vignette is also loosely organized in a linear fashion, first capturing the conditions in which the participant enrolled in the RHS and concluding with a description of their self-image upon graduation from the RHS. Verbatim quotations are the core data illustrating the participant's experiences from enrollment through graduation.

Graduate A. Graduate A, a female 18-year-old at the time of this study, participated in all scheduled interview sessions, arrived on-time for each session, and presented as a thoughtfully reflective, highly verbal young person able to engage in intellectually complex conversation.

Graduate A first enrolled as an RHS student late during her 10th grade year. As a young black girl living in a small rural community, she was adopted at age two by a white family. She spent her formative years in the same town, attending school with the same peers, all of whom she identified as white. She described feeling like a typical child early in school, but she began feeling "alone and singled out" during early adolescence, receiving "BS labels like ADHD."

She described herself as a 10th grader feeling lonely and misunderstood. That year she dropped out and ran away from home, returning occasionally to ask for money or clothing, only to leave again. She described feeling "unprotected" as she "sofa-hopped" in a nearby dense urban area, using drugs and putting herself "in dangerous situations." Eventually, on a visit home, she responded willingly to her mother's direction, accepting her life was headed in a negative direction. Her mother transported her out-of-state to a healthcare provider where she spent the next four months in specialty in-patient drug and alcohol treatment.

When she returned home, Graduate A said she "felt like a new person". She wanted to go back to school, but not her old school. She toured the only RHS in the region, interviewed with the principal, met with a recovery coach, and visited classes. "In an instant. . . I thought to myself. . . I could probably do this!"

"A safe haven. . . that's what it felt like for me," said Graduate A. She made an early connection with her recovery coach, who also identified as person-of-color.

> One of the main reasons I enrolled was my connection with (Coach A). . .
> meeting her was super cool. . . seeing people of color in leadership roles,
> that was very, very, very nice to see. . . very beautiful! I looked up to her
> as someone I really admired. I wanted to be like her because she used
> drugs like me, and she became so inspiring.

During her time as student, Graduate A was invited as a peer leader to plan positive community experiences while working with other students and adult facilitators. One of the events was a school-wide "Community of Strength Clothing Exchange":

> All these kids had great style. . . so many styles. . . and it was all
> negotiation, no currency. . . and everyone traded for clothes. . . We had
> our own booths, and we left messages of gratitude for each other at the
> end describing basically what you're grateful for. We taped it onto their
> booths, and we all had pizza, which was also great.

Another critical experience described by Graduate A was her relapse with drugs during her 11th grade year. She described the way she felt going back to school.

> I didn't have to be ashamed. They didn't kick me out or make me restart.
> It was only a step back. . . 'you're our student and you're going to have
> support. . . you're going to graduate.' I knew I didn't have to hide the way
> I was feeling. Everyone knew me and accepted me. I knew I could talk
> with anyone, and it would be OK. I had that with everyone. . . I could talk
> about anything and trust them. They would listen, and it didn't change the
> way they cared for me. And sometimes. . . they wouldn't sugar coat it. . .
> they loved me, but they also gave me feedback and helped me.

Her adoptive parents were in their late 70's, and during her 11th grade year, her father passed from symptoms related to dementia.

I worked with my therapist a lot. Even though he'd 'gone away' a long time ago, it was different because he was no longer there. . . it hit me all at once, and my mom just really didn't have experience or talk about mental health in her generation. Having a therapist was super important. I absolutely adore her. Having her as outside support. . . it was great.

Graduate A went on to describe how relationships with peers, teachers, and recovery mentors were important during her time of grief.

I had a safe place to fall back. I knew I could go find another student in the hallway and talk or go to a coach's office and talk. . . or not talk. I could just be. I was accepted. I never had any doubts. I wouldn't have to be alone. . . I had community. . . and that community was amazing!

My math teacher was always happy to see you . . . he knew every student. . . his lovingness and his patience. . . his outlook. . . he was always proud of you. . . When I got my driver's license, I got a message from him saying 'Congratulations! I'm proud of you.' I didn't even know he knew! He was more of a father figure for me and for the other students.

Graduate A spent time as part of a 12-step program while enrolled in the RHS.

I wasn't able to get through the 12-steps, but I had a sponsor. . . We'd all go out for dinner, and just being able to have a good time with other people and not be under the influence or getting into trouble or hurting myself. . . It was a big thing I learned. . . having fun without drugs.

When asked how she felt now as a young adult in recovery, Graduate A said, "I felt very proud. . . of both myself and my peers. I just felt lots of love. Love. Just warm love. And hopeful. . . and determined. . .and excited. . . I'm excited to see what my future brings."

Graduate B. Graduate B, a white female 17-year-old at the time of this study, participated in all scheduled interview sessions, arrived on-time for each session, and presented as a sincere, empathetic, thoughtful, clear-thinking young person who remembered the exact calendar day when she enrolled in her recovery high school as an academically gifted 15-year-old. She graduated from her recovery high school early in her 17th year. "I grew up in the same town all my life, and then I started moving around. . . just not really being comfortable with

anybody. Everybody I met. . . it was just like I felt like they didn't get me. I felt like I didn't belong."

As the only child of a single mother, she described her peer circle the year before she enrolled in the RHS. "We just weren't good people." She described knowing her life was headed a bad direction. "Nothing mattered to me. Nothing. I just felt like nothing. . . there wasn't much substance to my life. The only thing that mattered to me was getting high."

After a difficult winter holiday season, her mother suggested she consider attending the recovery high school. She said her mother "wanted to help" and "she has a lot of friends who are in recovery." She described her first day at the RHS, "Looking back. . . I remember the exact day when I started. It was January 4th." She described an almost immediate shift in her experience with other people. "I just felt like I found my people. . . people like who I am."

"The school was kind of like a safe haven. . . I used to feel like wherever else I would go, I would be scared and alone." From her first days at the RHS, she said,

> For the first time ever, I felt like it wasn't shameful. You didn't have to feel bad. You didn't have to feel gross or like cool or better, or whatever. You just had people who understood, who knew what was going on. They accepted me no matter what. We were connected that way.

> It felt like less of a school and more of a giant family. You can be yourself. . . you don't have to be scared of any teachers or any staff or any students. I always felt heard. I felt cared about. You're not just like any kid going through a school system. It's like you're an individual with a relationship with every single student, staff, all of them. It was like home.

Describing a peer who influenced her thinking about recovery, she said, "I started surrounding myself with good, happy people who knew all the things that I learned how to do. There was this one student, he's still a friend today. . . he's only a year older than me, but he's been through a fucking lot of shit. . . and he taught me so much about how to do life."

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Like her experience with peers, Graduate B described relationships with adults as accepting, caring, and mentoring.

> My first recovery coach. . . it was like automatically I felt like I had a new best friend I could talk about anything. She listened to me and cared about me. It might have been her job, but she didn't do it just because it was her job. She really cared about me. . . a real connection and a real relationship.

Graduate B highlighted her willingness to accept guidance from peers and adults. "Sometimes they would tell me things I didn't want to hear, even though I needed it. I didn't want to change at first. They pushed me and wanted me to be better."

Like her rapport with peers and recovery coaches, Graduate B described relationships with teachers in the RHS saying,

> I think the teachers helped me and helped me not be scared of teachers. They're nice, not mean. I had had very rocky relationships with adults in my life, and they (the RHS teachers) were supportive. I felt like they saw me for who I was. They were understanding and caring.

She went on about her relationships with teachers saying,

> They really listened to your needs. . . there was this one teacher. . . he really, really, really cares. . . and he gets us. I really had a good relationship with him. I needed that. . . older figures in my life that were healthy.

When asked about the possible influence she received from a therapist or a 12-step community, Graduate B described engagement with both for a period of time, yet for both variables, she explained she felt she had adequate support at the RHS and was not in need of additional care, concern, and community that would come from a therapist and a 12- step community. Regarding therapist support specifically, she said, "I was going to this therapist, and it was good to have a relationship on the outside (of the RHS), but I realized I have all the support that I need at (the RHS) so I stopped going (to the therapist).

The same appeared to be the case with 12-step community support. She said,

I first started going. . . that's where I made friends. . . But they [the RHS] also has stuff they do. . . activities where you can meet kids that aren't like AA or NA meetings. We had this program called "Push Movement" which was a bunch of skateboarders on Thursdays. . . they [the RHS] have a bunch of stuff that you can do to meet kids and be sober.

With a year of enrollment behind her, she described her later months trying to be of service to other kids the way she'd been supported early on.

I did the best I could do like giving people rides home, taking them places. . . just talking to them and not ignoring them. Caring. The recovery high school gave me so many tools. It opened me to people. I'm glad I went there. I think I was meant to [be a student at the RHS].

Describing herself today, Graduate B said, "I feel independent, strong, and smart. . . I feel connected and happy."

Graduate C. Graduate C, a female 21-year-old at the time of this study, arrived on-time and participated in all scheduled interview sessions, presenting as a sincere, deeply reflective, self-aware, empathetic young person, proud she was the "second graduate ever" from her RHS.

Several years before, she was removed from the custody of her biological mother and placed in the care of her aunt and uncle. "Between the two of them, they've got 60+ years of drug and alcohol counseling experience, including their own recovery."

"I knew I had a problem. I was a kleptomaniac, and I was drinking every day. . . but I was willing to try (RHS). Even though I was nervous, I was open-minded." She explained her open-mindedness came from care for her aunt and uncle. "They gave me their trust. They gave me an opportunity, and I wanted to do the right thing by these people who are helping me."

Before moving in with her aunt and uncle, she described herself as "angry, hurtful and selfish." When she began attending the RHS, she explained she felt "safe and secure." Others in the RHS "took extra care to notice things that were going wrong. . . and they would support, like a side hug or a pat on the back whenever somebody was feeling down."

When asked to discuss her journey as an RHS student and identify the variables that helped her be successful, she began with a slow, deep breath, "All those toxins are sort of melting from your body and you're starting to feel again. . . to breathe again and all those feelings can be difficult to feel. Having support from other people matters."

Ranked in her top three support systems, Graduate C identified the positive influence of RHS staff, specifically her recovery coach. Describing that influence she said,

> It wasn't just about your career and financial future. It was about your future and recovery. They cared how you ended up in the world, where you ended up in life in general. Are you set up for relationship success? Are you set up for success and recovery and loving yourself? It's the emotional appeal of having deeper conversations with the people you're meant to look up to. . . that's huge. . . everybody wants to be like their role model and at a recovery school. . . that's really possible. . . I had so much support. All the staff. . . my coach, the teachers, even the front desk ladies. . . it is about community. . . and the leaders in the community were teaching us this new way of thinking and feeling and being.

Relating to others in recovery was important for Graduate C during our interview.

> We already fucked up real bad. . . hit rock bottom. . . especially an emotional rock bottom. . . and you're ready for the next thing. You're open minded. . . and it's more like camaraderie like we're all this together. . . like we're learning the basics together, sort of like growing up in recovery together. . . We'd all go to [12-step] meetings, and it was so much fun. We'd go watch a movie, get a meeting, get some food. It was tons of fun.

Similar to a 12-step community, recovery circles in her RHS were a top memory, "I'd say the best stuff was those recovery groups [in the RHS] where we'd all sit around. There was this other girl who was so enthusiastic and optimistic, especially in recovery group, she always welcomed everyone with a booming voice, just such a lovely presence." She went on to describe further her experience in the recovery circles held at the RHS, "We'd take readings a lot from the big book or other recovery books, and our recovery coach would modify the language so instead of talking about old people in the 1930's, he made it more general and switched things up so we could relate."

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But the really fantastic thing about putting a bunch of addicts in a room together who want recovery is that they understand each other's problems. You know, even if they didn't have the exact same experiences. One might be a partier and one might be a solo user, but they both felt miserable. You know what I mean? They can relate to each other, and they can grow and figure out recovery together.

For Graduate C there were times, looking back, she felt at risk and considered dropping out. She gave examples of difficulties and what they meant, and how she overcame them as an RHS student. After having a "boyfriend" at the RHS break up with her, she explained she had

... all those big feelings. . . like being abandoned or left behind like. . . like. . . like my biological father left me and the dad that raised me passed away. I felt abandoned and all those feelings coming up again. . . because when somebody suddenly leaves with no warnings, it's difficult, especially if you've had that problem before.

Having also worked with a private therapist "for a lot of years" before enrolling in the RHS, Graduate C said she "needed a break" from it when she enrolled in the RHS. Having supports from peers, staff at the RHS and her 12-step community, she indicated she didn't feel like she needed the "outside" help.

"I thought about it [dropping out] but you know. . . I love my community." She explained during periods with "big feelings" she contemplated drinking and dropping out.

After graduating and moving into a professional career in the recovery field, she described herself today as "proud, a leader . . . and teachable." When asked what she meant by teachable, she explained her spiritual faith in a higher power as one that continues to guide her in life, "Everybody needs to keep learning in recovery. . . my own version of spirituality and faith. . . 'not my will be done; Thy will be done'. . . just like my journey to enroll in the RHS."

Graduate D. Graduate D, a 19-year-old male at the time of this study, participated in all scheduled interview sessions, arrived generally on-time for each session, and presented as an

independent, occasionally resentful, and sarcastic, young person with capacity to be reflective and sincere when speaking of his growth and future plans.

Graduate D talked openly about being sent by his father to an out-of-state residential treatment program. When he returned to his home, he knew returning to his neighborhood high school wasn't a good idea. Another young person from the same area who also attended the same residential program suggested he consider enrolling in the RHS.

Graduate D identified as a transgender male member of the LBGTQI+ community. "I have ADHD, and I didn't care anymore about anything. . . I just detached myself from school and didn't try. . . I felt lonely, lost and wandering with no sense of community. . . I was fighting all the time, and I just never wanted to be at home or in school."

Living independently at age 19, Graduate D works as a dishwasher in a local French restaurant, pays his own rent and lives with two cats. During interviews, he was regularly working on his own art – painting or drawing – and occasionally became distracted during the interview to go the bathroom or to go to his front door to accept delivery food order.

Relationships with adults while enrolled in the RHS were among the most compelling reasons why he felt success at the RHS.

> I really enjoyed getting in debates with (teacher name). He was sarcastic at times as a very classic, conservative Catholic guy. We were pretty different, right? But he would always listen to me. Even if he had a good argument, he honestly listened to me. . . I'd be waiting after school to go to a 12-step meeting with [a recovery coach], and he would come, and we would just start debating. . . and it was interesting. . . generally people like him don't want to hear the other side or the other experience, but not him. He really cared.

Relationships with peers were also important to Graduate D, and the stories he told to illustrate the strength of his relationships with peers often centered around his drug use and his sexual identity. "It was really fun. . . we [RHS students and staff] all went roller skating once.

Having fun without being high. . . and we didn't know it before but there was also an LGBTQ roller skating community there that time. So we all showed up and it was really cool."

With support from his therapist, he was able to navigate his relationship with his father at an important crossroads. Graduate D reported struggling with suicidal ideation, and his experience included at least one serious attempt followed by hospitalization. His therapist helped his father, "Dude, when [Graduate D] is trying to survive, homework isn't the top priority right now. . . [Graduate D] is trying to survive right now and doing a math worksheet isn't his top priority. . . he's in this major battle. You have to understand that."

At a particular time while enrolled as an RHS student, Graduate D faced a significant challenge, both emotionally and pragmatically. His father "kicked him out" of the house, and he began "couch surfing" with friends and other family members, including his older brother. "Everything felt really hopeless. . . I did a lot of self-reflection. . . what my dad did was really shitty. . . he's an alcoholic and he really fucked me up, but I came to this place. . . I realized he is desperate himself. He can't accept me as a trans man, but I know he wants me to be happy."

Not living with his father, he didn't have money to pay for his therapist, but he had his peers at school. "There's still those happy moments where you hang out with friends, non-stop laughing. . . everyone has those shitty days when you get off work and start crying with downspouts." Graduate D also described acceptance from adults at the RHS as important.

> Being brutally honest with teachers. . . saying 'like I'm doing really shitty now'. . . having those teachers who you really trust. . . they know you. . . all the time. . . like if I didn't sleep in the car the night before, [teacher name] would always understand. I can go lay down in the back and not bother anyone and sleep. . .

Graduate D described discovering he got pregnant after a "bad decision" while he was homeless. At that time, he felt great support from his brother who invited him to move in with him. He described his relationship with his brother as loving and accepting. "Having people

around who are either in a similar situation or they understand more than most people. . . being

able to talk and open up without having to explain things properly, you don't feel isolated."

> NA and AA meetings. . . I've heard 30- and 40-year-olds and I've related to
> them. . . and they've helped me see the grass is greener on the other side. I don't
> want to be a deadbeat dad who doesn't remember the day his child was born . . .
> but there's a different feeling when you're close to someone, especially in school .
> . . being surrounded by people and having a community. . . with friends, or with
> adults, like (teacher name) I just broke down sobbing with (teacher name). . . even
> if he didn't understand, he was good at listening and he was just so wise. . . he
> was definitely a huge father figure.

When asked how he felt about himself at graduation as a young adult in recovery,

Graduate D said, "I take it one day at a time. . . I'm tolerant. . . I love my dad and brother. . .I'm

comfortable and expressive and calm again. I'm no longer hopeless."

Graduate E. Graduate E, a 21-year-old male at the time of this study, participated in all

scheduled interview sessions, arrived on-time for each session, and presented as an optimistic,

kind, hopeful young adult. "All my life I wanted to fit in. I noticed I fit in best when I'm acting

like a shithead, doing drugs, selling drugs. . . selling drugs, that especially made me a lot of

friends, but I felt shitty about myself over time." He went on to describe what happened when

he enrolled in the RHS. "I could still have fiends and be accepted without doing that. I got the

best of both worlds. I got to feel good with myself and I got to be a better dude at the same time.

Graduate E enrolled as an RHS student early during his 12th grade year, having finished

residential treatment. Engaging regularly in NA community activities and having accumulated

some "clean time" after residential treatment, he enrolled in the RHS motivated to graduate with

a high school diploma while retaining his sobriety.

> I knew I had a better chance at staying clean there [at the RHS] than I would have
> at a regular high school. I'd caused so much wreckage in my family and my little
> sister. I'd watched all those relationships crumble down and I was ready for
> change. I was sick. . . scared. . . isolated and lonely, and starting at [the RHS] I
> had a bit of hope. . . That feeling of a warm, welcoming atmosphere from them

[other students] right off the bat. . . that was what really sealed the deal for me. . . and by the end of my first week I felt a sense of community and excitement for my future. . . I didn't feel like I'd have any walls up. . . there's no pressure to put on some kind of persona. I could just be myself.

As a student with several months of abstinence under his feet and a commitment to his 12-step program, Graduate E said, "I was going to meetings and had a sponsor and was doing step work. . . and I had a car. . . I wanted to get other kids involved in recovery the same way I was. . . I was excited to not have to go to meetings by myself, and I can do something for my recovery, and I gotta help someone else out, too."

Life outside of school and 12-step meetings included the same peers for Graduate E.

My parents were always happy to let kids from school hang out and do recovery stuff. I remember a distinct time. . . one of my buddies was over. . . he was on probation. . . we were playing this old [video] game. He was pretty iffy about recovery. . . we just got to sit there you know . . . and share childhood memories together and be vulnerable. I remember having that conversation with him and sharing plans for the future and what had me excited about recovery. . . I remember having that conversation with him.

Graduate E described another encounter with this same peer in a recovery community space.

I think we had music up real loud, and that same guy I told you about, we spent the night and played video games. . . we were sitting in the back of the truck, and he's like, 'I feel so content right now. And I haven't felt like this in two years.' And we were like life is good! And that was super cool to realize I'm with a bunch of kids my age, having a good time, and nobody's high. He and I together having that memory. That's one of my most fond memories.

Working with a therapist was an important safety net for Graduate E. He explained, "It was helpful to have an outside, confidential, third-party help me figure things out. . . I was going through a pretty difficult breakup with my girlfriend at the time. I didn't really feel like I could talk about it with others at school. It was really good talking with her [his therapist]."

Inside school hours, Graduate E expressed appreciation for the support he received from adults, "This isn't just a job to them. They could do something else for a paycheck. I didn't feel like any of the teachers or staff were there just for a paycheck. We were a lot to deal with and they all stuck in there and kept looking out for us."

Although Graduate E doesn't recall ever thinking about dropping out, he said the support and care he received from adults was extraordinary and affected how he felt about school.

> I remember being on Christmas break and I missed the first day back. My recovery coach called me and was like, 'Hey man, I just want to see how you're doing. I missed you at school today. I was really looking forward to seeing you.' I kept that voice message on my phone for a long time. It's really cool to have someone you know that cares enough to reach out and think about you when you're not there.

> When I was going through a hard time after my breakup, I'd show up to school late because I hadn't slept the night before. I got leniency that I wouldn't get at a regular school where I'd just get yelled at or sent to the office or whatever. Instead, I would have people ask, 'Hey, what's going on? How are you doing?'

In addition to RHS staff, his therapist, his peers and his 12-step community, Graduate E said his family was a critical support when he was an RHS student.

> I'm really lucky and blessed to have a family that was pushed so far and was still loving and supportive. So I went to [RHS name] and started putting some clean time together and it's looking like, 'Oh, I'm on track to graduate' and I can see they're excited for me. They're happy. They're not worried about me every single day. That was the most important thing for me when I graduated.

When asked how he felt about himself at graduation as young adult in recovery, Graduate E said, "I felt hope. . . I felt a sense of community. . . I felt connected. . . I felt excitement for my future."

Graduate F. Graduate F, a male 19-year-old at the time of this study, participated in all scheduled interview sessions, arrived on-time for each session, and presented with strong opinions while remaining cautious and expressly humble. Graduate F indicated he'd been

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identified as eligible for Talented and Gifted Services as a child. He presented as intellectually complex and highly verbal during the interviews.

Graduate F moved from his home state with his mother to relocate after he completed treatment. He enrolled in the RHS upon arrival and "fresh out of rehab." He met the principal, attended some classes with other kids, met the principal, teachers, and a recovery coach. "There was a sense of community. It was different from anything I'd ever seen. But it wasn't just the community. It was nice being around people who weren't milk toast, you know? They all dealt with similar experiences and were able to laugh and be merry. . . and enjoy themselves."

Before treatment, Graduate F described himself as angry, and unhappy with the kind of person he was. He said he "had a chip on his shoulder. . . was fucking angry. . . and filled with goddamn misery." He also described undergoing a profound change during his time at the RHS and describes himself as "content" today. As I heard him use the word "content" the first time, he took a deep breath and exhaled slowly.

He generally described the changes he underwent as an RHS student as part of a long journey, "It was like a long journey to get to a destination. And they [the RHS staff] were there to. . . like if I'm running a marathon, dealing with all my mental shit. . . they would be like the people who were passing out water at checkpoints, you know, offering me a little break."

Like the other graduates, Graduate F described relationships with adults important to him, especially when humor was involved. "There was this teacher. . . super cool and I was able to talk and fuck with him in the middle of class and he would laugh. That was always my goal, not to distract class but to able to laugh with me. He was human. He was more than a teacher."

The recovery coaches, as with other graduates, played an important role in helping

Graduate F feel accepted while teaching him new recovery-oriented strategies for managing his

emotional responses on any given day.

> This dude, my recovery coach, was just cool to be around. We had nice talks, and
> he helped me through a lot of stuff when I was pissed off or angry without being
> confrontational with me. He gave me space for me to be able to talk about it. He
> helped me see other sides. He helped me take a back seat and chill out. 'There's
> no point being angry, you know, because resentment is like drinking poison and
> then expecting someone else to die.' I love that man!

Having adult role models in recovery was important to Graduate F. He said,

> When a role model shows you they've already attained one of your goals, or all of
> them, they're living proof. Like the first time somebody ran the 100 meters in less
> than 10 seconds. . . they proved it could be done. . . it is attainable. They [RHS
> staff in recovery] gave me that motivation.

In addition to adults in the RHS playing a critical role supporting Graduate F, he said

work with his therapist "really helped me figure out life things." He was able to "process stuff

and get the shit out and leave it behind. . . and she planted different seeds that started to grow."

Graduate F spoke of his therapist and the RHS staff helping him "get out of himself." He spoke

of being a paranoid person feeling as if everyone was thinking about him. At one point in the

discussion of this concept he said his journey in recovery at the RHS was "a bunch of eureka

moments." He gave this example: "Like, you're working out at the gym and you think

everybody's looking at you, then you realize, no, they're exerting force and staring forward.

'Nobody's staring at you; calm down.'"

Graduate F explained he chose to not participate in a 12-step community. Generally

describing all of his relationships while enrolled at the RHS, relationships that influenced his

wellbeing as a student, Graduate F said,

> People help each other out at [the RHS] . . . adults and kids alike, and they do it
> with humility. They don't brag about what they do to help others. It's not

transactional. . . you truly care for this person. That's community, right? If you boil it down, it is a community with people who experienced similar shit.

He went on to contrast this with a 12-step community. He said, "We were working to get sober together. . . so it kind of eliminates the need for 12-steps. . . you have a bunch of people working to support each other getting sober. . . like you have your own makeshift 12-step program right there."

A common 12-step recovery-oriented practice, however, was particularly important to Graduate F. He said, "Meditating is a big one for me. That's something my friends actually ask me to help them with, and meditating with friends is good. . . you still have fun and do spontaneous shit but having space to ground yourself. . . that's what is important."

When asked what advice he would offer to future RHS students, Graduate F said, "Be your authentic self. Try to be your best self, even if you hate that version, because it will end up making you happier in the future. . . and don't be a dick."

Asked how he would describe himself today after graduation, Graduate F said, "I'm happy. . . no, not happy. . . content. Content is a better word. . . Loving, content, and dedicated. It is nice to have 'content' as my baseline. I feel good."

Data Analysis

Data were deductively analyzed to deeply understand the participants' experiences as former recovery high school students and recent graduates. Phase II deductive analysis focused on informing Phase I results and the possible association between ongoing RHS attendance for 6+ months and the subcomponents proposed for RCAM inclusion: ERS, PSR, OMH and TSR. In most cases, Phase II data linked to more than one theme within the four phenomena.

Inductive analysis provided for the emergence of divergent results as well as extensions from Phase I findings. Unexpected themes associated with protective factors outside the four

constructs of interest were identified by participants, including the protective influence of family supports and the importance of role clarity among RHS adults. These are explained in further detail later.

Distinct Feelings and Experiences. As the second phase within a sequential mixed methods study, these data were collected to add texture and depth to understanding the results in Phase I. In addition to data collected in association with the variables of interest, several unexpected sub-themes became evident. As I was using Dedoose 9.0.1 to analyze data in open coding, dozens of possible sub-themes surfaced. The number of sub-themes narrowed throughout repeat analysis. Eventually, after reviewing transcripts and re-listening to interviews, clear and consistent patterns were established. They are described here based upon Dedoose's Qualitative Code Presence reporting.

Supportive Relationships Internal to RHS Experience: 8 Common Top Themes. During Phase II analysis, I ultimately observed eight common primary themes manifest within ERS and PSR, all internal to the RHS environment and linked to relationships and interactions within the RHS. This alignment may relate to the moderate correlation observed in Phase I data analysis between ERS and PRS and will be discussed further in Chapter 5.

Phase II results suggest participant relationships with adults and peers alike may produce similar emotional effects among students. Identified by participants conceptually, together with their specific stories, the results suggest specific protective experiences were named by participants, and these experiences were notably different when contrasted with their experiences in traditional high school settings. The top eight themes are identified and illustrated with verbatim participant interview quotations in Table 10.

Table 10

Top Eight ERS and PSR Themes Experienced by All Phase II Participants with Verbatim Quotations

Theme	ERS	PSR
Participant felt accepted.	Getting that acceptance from staff was huge. It was like these staff related to me. . . they want me to be here. They understand the struggle. (Participant 103; female) This dude, my recovery coach, was just cool to be around. We had nice talks, and he helped me through a lot of stuff when I was pissed off or angry without being confrontational with me. He gave me space for me to be able to talk about it. He helped me see other sides. (Participant 106; male)	I didn't have to be ashamed. . . I knew I didn't have to hide the way I was feeling. Everyone knew me and accepted me. (Participant 105; male) They accepted me no matter what. We were connected that way. (Participant 101; female) I wasn't alone. If I told them what happened and how I was feeling and all of them could relate. We're all relating and they're telling me even if I relapsed, they'd still support me. Everybody in that school feels it when somebody relapses. (Participant 101; female)
Participant felt heard and understood.	I had a couple of times where I just like broke down sobbing with (teacher name). Just because like he was always so good at listening about, like, anything, even if he didn't understand, like, he was just so wise, I would call him like, he was definitely like, a huge father figure. (Participant 104; male) I always felt heard. . . you're not just like any kid going through a school system. . . It was like home. (Participant 102; female)	(Before enrolling in the RHS) that conversation would just be like super weird. . . talking about my family and how I used to hide shit. . . talking about bad shit and how I'm feeling. . . I can't say other (kids) would show up for me then. Whereas, if I call one of my friends that I had at (the RHS) and shared that I'm struggling, they'll sit there and listen, and they'll try to offer some solutions. . . they'll be there with me. (Participant 105; male)
Participant felt support from individuals they found trustworthy.	It was like a long journey. . . like if I'm running a marathon, dealing with all my mental shit. . . they would be the people who were passing out water at checkpoints offering me a little break. (Participant 106; male) . . . the teachers helped me not be scared of teachers. . . they were understanding and caring. (Participant 102; female) . . . having those teachers you really trust. . . if I didn't sleep in the car the night before, (teacher) would always understand. (Participant 104; male)	A few of my close friends that year . . . I would kind of talk to them a little bit about like, my future goals. . . going to school to work on motorcycles. I never got anyone, like, that's fucking stupid. Like they were just supportive. . . 'you should keep pursuing that!' (Participant 105; male) I feel like having people around who are, either in a similar situation to you or who understand you more than most people. . . it helps a lot. . . you don't feel as isolated. . .you don't feel like you're the only one. (Participant 104; male)

Participant felt encouraged to take risks trying new skills and behaviors.	Sometimes they would tell me things I didn't want to hear even though I needed it. It was the best possible support system. I didn't want to change at first. They pushed me and wanted me to be better. (Participant 102; female) . . . my coach, the teachers, even the front desk ladies. . . the leaders were teaching us this new way of thinking and feeling and being. (Participant 103; female)	He [peer] taught me so much about how to do life. (Participant 102; female) They [peers and adults] pushed me and wanted me to do better. (Participant 102; female)
Participants identified role models.	When someone can be a role model and they've already kind of attained one of your goals, all of them. You know what I mean, then it's set on those proof. Right? It's possible. (Participant 106; male)	It was encouraging to be a part of the community, to copy what these people were doing. . . it felt great to feel welcome. (Participant103; female)
Participants received and provided support from/to others within a caring community.	I remember being on Christmas break, and I'm pretty sure I missed the first day back. [Recovery coach name] called me and left a message, "I just want to see how you're doing what's going on. I missed you at school today. I was looking forward to seeing you." I kept that voice message in my phone for a long time. That's cool to have someone you know that cares enough to reach out and think about me when I'm not there too. (Participant 105; male) He [math teacher] was always happy to see you. . . his lovingness and patience. . ." (Participant 101; female)	I could say, 'Hey, I feel like shit today' and have the other kid say, 'I was just feeling that way recently, too. This is my experience. This is what I did the to get through it.' I can't tell you how many conversations I had like that with my core group at school. (Participant 105; male) I remember a bunch of new kids are in their first class, and I remember trying to help them feel comfortable. By being myself and like letting them know you can be yourself here. (Participant 102; female)
Participants experienced both relief from stressors and spontaneous joy without substances.	There was this teacher. . . super cool and I was able to talk and fuck with him in the middle of class and he would laugh. That was always my goal, not to distract class but to able to laugh with me. He was human. He was more than a teacher. (Participant 106; male)	I was thinking life's not too bad, and I'm not even high right now. It was super cool to realize I'm with a bunch of people a bunch of kids my age, having a good time, and no one's high. (Participant 105; male) It was nice being around people who weren't just milk toast, you know? They all delt with similar experiences and were able to laugh and be merry. (Participant 106; male)
Participants learned and practiced new behaviors.	He helped me take a back seat and chill. 'There's no point being angry because resentment is like drinking poison and then expecting someone else to die.' I love that man! (Participant 106; male)	Meditating is a big one for me. . . my friends ask me to help. . . you still have fun and do spontaneous shit but having space to ground yourself. . . that's what's important. (Participant 106; male)

Experiences External to RHS Supporting Perseverance: OMH & TSR Top Themes. All participants engaged in OMH in private healthcare offices while enrolled in the RHS. The details and related themes for each participant were generally unique to the individual's lived experience. Additionally, engagement frequency and duration were unique to the participant.

Table 11

Top Five OMH Themes Experienced by Participants with Exemplar Quotations

Theme	OMH
Support from a trusted, outside, independent, third-party	. . . the third-party support, being unbiased and supporting you. . . I got additional support at school, but where did my other support come from for my eating disorder, problems with my parents, issues at school with friends? I'm not gonna get that from my parents or from the people at home, but I did get help from somebody who could recognize it [therapist] and be nice to me about it. (Participant 103; female)
Support addressing general mental health concerns	Most people are going to drop out for depression or some mental thing. . . mental health reasons. . . having a support system and someone who can help you talk through your stuff. . . someone professional who can guide you through [emotionally difficult situations] and either calm you down or help you figure out what you want to do. (Participant 104; male)
Support navigating grief	When my dad passed away. . . it was weird . . .he was gone mentally a long time ago and I think I mourned a long time ago, but then he was physically gone. When I had a hard day, I never worried that I'd be alone at school, and having they outside support was great. I love my therapist. I'm going to keep her around for as long as I can. (Participant 101; female)
Support navigating family relationships	My mom wanted to help but she didn't know what to do. They didn't talk about mental health in her generation. She wanted to help, but she felt so bad . . . like a horrible mother because she didn't know what to do. We would have our own sessions then meet together. Having a therapist definitely helped both of us. (Participant 106; male)
Support navigating relationships at school	She got to see the progress I went through. And so definitely was a big influence. When I had problems with the school or I had problem with a peer or I was feeling a little weird about something. . . I can definitely just go to her. And it was also probably another reason why I was able to stay [enrolled] because I was able to talk it through and get a second opinion (Participant 103; female)

All Phase II participants engaged in TSR within the wider community while enrolled in the RHS. All participants experienced attending meetings in TSR communities, particularly in the early days enrolled as an RHS student. Half of the participants relayed experience with TSR community as a regular part of their recovery lifestyle. TSR themes were common among those

who regularly attend TSR meetings. Phase II data provides a possible explanation for the lack of statistical significance of TSR in Phase I. This is discussed further in chapter in the next chapter.

Table 12

Top Three TSR Themes Experienced by Participants with Exemplar Quotations

Theme	TSR
Participant's explanation for why 12-step program wasn't a necessary support for him	I think people were trying to be sober together, right? That's all it is. It's a space to get sober, and you know, get your life back on track. That's what everybody in the school was trying to do, so it kind of eliminates the need for 12 steps, when you have a bunch of people all coming together trying to get sober and trying to work on themselves and better themselves. I don't particularly see the need for a 12-step program. When you already have your own makeshift 12 STEP program right there [in the RHS]. (Participant 106; male)
Participant sense of 12-step community as important support	I can call [sponsor name] or somebody and we can go to a meeting because I felt like I was gonna relapse. Like if I stayed home, I think I would have relapsed. I was a couple months sober at that point. It was scary because I actually had something to lose at that point. (Participant 101; female)
Participant felt affinity and joy in 12-step community	Going to a meeting with my sponsor and being able to have a good time with people not on drugs was something else I found nice. . . just being able to have a good time and not be under the influence and getting in trouble or hurting myself. (Participant 101; female)

Unexpected Protective Factors Found Within Results*.* Throughout Phase II, participants frequently spoke of family members. In many cases, participants described relationships with family members negatively, suggesting the quality and health of those relationship may, in fact, be a risk factor. In some cases, participants described family relationships as particularly important to their recovery success. With potential to manifest as both protective and risk factors, family relationships were also sometimes described as both. In this study, the potential for positive influence is considered.

Another unexpected factor with potential to provide both risk and protection, depending on conditions, is the nature of adult roles within the RHS. Specifically, some participants spoke of situations when adult roles clarity or consistency did not exist. In such situations, participants described conditions as unfavorable.

Family Members as Possible Positive Influencers. Five of six participants identified family members as key supporters (see Table 13). Although this was not a variable in Phase I, it was mentioned with relative frequency during interviews. Data describing the related experiences are included as possible positive influences on perseverance.

Table 13

Family Members as Protective Factors: Themes and Exemplar Quotations

Theme	Specific Family Members as a Protective Factor
Participant experience with non-parental figure providing critical support	My biggest family support was always my brother. Oh, he. He'd always helped me when my dad and I were fighting or like something like he was always just there to talk and like he understood me a lot more than most people. (Participant 104; male) They [aunt and uncle with custodial responsibilities] were super understanding, supportive, sympathetic, but they also had rules. So it was like, it was like, I have to give this a try. You know, what I mean, one of their big rules was, you know, if we catch you, you know, doing drugs or drinking, like, you're out. And they did catch me doing drugs or drinking, but they let me stay. So, it was sort of like, you know, I've been warned. And, you know, they gave me this thing, you know, this opportunity to sort of, you know, start a new basically, (Participant 103; female)
Participant gratitude for parent support	I'm really lucky and blessed to have a family that even at the point that I had pushed them to was still like loving and supportive. And so when I go there, and I start, you know, putting some clean time together, and it's looking like, Oh, I am on track to graduate and stuff, and like, I can see that they're excited for me, and they're happy, and they're not worried about me every single day and stuff and, and all that. That that was my biggest thing at that time. And then I also just really liked being clean. It wasn't easy. (Participant 105; male)
Parent recovery community practices seen as important for family wellbeing by participant	She [mother] has a lot of friends that are in recovery, and stuff like that. She realized she could use it [recovery practices] in her own life, even if she wasn't like addicted to drugs. So she was very supportive of it. And not only that, she understood because she was also in it [Alanon]. (Participant 102; female)

Adult Role Clarity is Important. Finally, participants shared experiences when RHS adults engaged with them in ways the participants felt were outside the given adult's respective role. Five of six participants cited situations when their trust with a given adult was compromised because the adult seemed to step outside the scope of their given role. If a teacher, for example, tried to engage with a student in the way a coach might be expected, or a coach communicated

with a student in the way the principal might be expected, the affected student might become

angry, resentful, uncertain, or sad, all of which can influence trust long term.

Table 14

Importance of Role Clarity Sub-themes and Exemplar Quotations

Theme	Importance of Adult Role Clarity
Without role clarity, allowing students to know which adults are responsible for which supports and which decisions, student feel unclear and vulnerable	I think the most important thing. . . is having defined roles for [adults] . . . nine times out of 10 people come into recovery schools basically ready to go into a psych ward. . . but they're coming in a very vulnerable spot. And it's [knowing clearly which adults are responsible for certain aspects of student support] difficult when you're in a vulnerable spot. (Participant 106; male) . . . nobody goes to a recovery school, when they're in a stable part of their lives. You know, normally, it's super tumultuous. And everything's super chaotic around you. And recovery school is supposed to be a place of like stability, right? . . . blurred lines make it very difficult for someone who's trying to figure out their own stuff, to figure out the dynamic around them. You know, it's just, it's just adding more barriers to the entry of sobriety, I think. (Participant 106; male)
Clarity of roles is important yet adults maintaining a warm rapport with students is also important.	So I totally understand where people come from. . . the teachers need to stay teachers, the principal needs to stay the principal, and the coaches need to stay the coaches. . . structure is so important, but there's also an air of like we're kind of a family here [in the RHS] . . . Like, we're building a ship while it's in the water. . . It's like we were all in this together. Like we were we were just one big team. (Participant 103; female)
Role separation helps an RHS feel more like a school than a treatment center	I would also say that the teachers should stick to academics and the recovery staff should stick to recovery. . . it shouldn't get mixed because that's confusing to the structure. . .it'll just help it maintain the feeling of a school more than a treatment center. (Participant 103; female)

CHAPTER V

DISCUSSION

Overview

Because a search for prior research specific to RHS student persistence and sustained enrollment for 6+ months produced no results at the time of this dissertation, the hypotheses themselves within this study provide the touchpoint for the relevance for the study findings. Constructs analyzed and the proposal of novel RCAM subcomponents in Phase I of this study produced understandings new to the field of adolescent recovery research. Furthermore, mixed methods analyses provide a deeper understanding for practitioners, researchers, and policy makers seeking to improve outcomes for adolescents in recovery from substance use disorder.

Phase I: Answers to Research Questions

RQ 1 – Do four specific variables (OMH, PSR, ERS, TSR) collectively predict the likelihood of RHS students maintaining enrollment for 6+ months?

The logistic regression model was statistically significant, $\chi^2(4) = 44.068$, $p < .001$, confirming independent variables in the study were collectively associated with the dependent variable of perseverance. Thus, the null hypothesis can be rejected.

RQ 2 - To what extent do each of the variables predict sustained attendance above-and-beyond the other predictor variables?

This second research question is consistent with the hypothesis that adolescents with higher levels of certain RCAM sub-component measures are more likely to persevere in RHS attendance for 6+ months than others. It is also consistent with the hypothesis that sustained RHS enrollment is more uniquely associated with certain RCAM sub-components.

Bivariate Results Summary and Discussion

As an exploratory matter within the larger explanatory mixed-methods study, Phase I analysis of extant data sought to answer novel research questions not yet addressed in literature regarding recovery high schools. As an exploratory matter, bivariate analysis prior to the primary logistic regression sought to determine which of the individual predictors of student perseverance might have an independently statistically significant association with student perseverance.

Bivariate analyses determined three of the four predictors (ERS, PSR and OMH) have a statistically significant association with student perseverance. Interestingly, the significance of these three variable associations shifted within the larger logistic regression analysis. This may be due, in some part, to the moderate correlation observed between PSR and ERS. The emergence of parallel themes within PSR and ERS in Phase II suggest peer and educator relationships produce certain, nearly identical, emotional responses among RHS students. Qualitative analyses of this same alignment during Phase II are discussed later in this chapter.

Logistic Regression Summary and Discussion

The collective influence of the four predictor variables is statistically significant in the logistic regression ($p = <.001$), and the null hypothesis can be rejected. When controlling for the influence of the other variables, ERS is a statistically significant predictor of student perseverance ($p = <.001$). Engagement in ongoing mental healthcare is also a statistically significant predictor of perseverance ($p = <.05$).

When controlling for the influence of other variables in the regression analysis, neither PSR nor TSR were statically significant predictors of perseverance. Although the association between PSR and perseverance in the earlier bivariate analysis cannot be denied, the predictive nature of PSR may not be as strong as that of ERS and OMH.

Further research is needed to better understand the correlation between PSR and ERS. Data collected in the Finch et al., (2018) study at the same 6-month follow up from which data were analyzed in this study include other evidence of student perception of relationships with both peers and educators. As such, these extant data may provide a foundation for future research differentiating further between these two variables. Inquiries central to such differentiation should include a focus on better understanding certain adult or peer behaviors and their possible impact on RHS students.

Generally, further research into recovery-supportive relationships embodied in all four variables, including their duration and intensity, will provide deeper understanding about the promotion of sustained enrollment among RHS students. Ultimately, Phase I findings began to fill a gap in research by providing evidence of certain variables with positive influence on sustained RHS attendance. These findings should be seen as foundational to informing future research as well as practice.

Phase II: Summary and Discussion of Constructs Within Vignettes

Phase II produced thematic texture within the four constructs, suggesting a framework for understanding how RHS students develop new ways of approaching both successes and challenges in life. Qualitative data validated Phase I results, reinforcing the appropriateness of including ERS, PSR and OMH within in the RCAM framework.

Educator Rapport and Support

Elements associated with this RCAM-related subcomponent were described in stories told by all participants. For all six, the first, most decisively different element in school, when comparing the typical high school experience with their experience in the RHS, was based on their experience with adults in the school. That experience began on their first day, even before

they were enrolled. After touring the school, visiting with staff and students, and meeting their recovery coach, each participant shared that they felt unconditionally accepted, safe and loved.

Peer Support Reciprocity

This RCAM-related construct took several shapes. In each, participants described their relationships with peers as decidedly different than they had experienced in a traditional high school setting. PSR was the most frequently represented theme across interviews as participants expressed feeling emotionally safe and accepted by peers supporting them in routine daily challenges as well as significant events like relapse, death of a parent, and homelessness. Both female and male students in Phase II spoke of situations when they showed emotional vulnerability with peers, and all said such vulnerability was not typical of their traditional high school experience. Contrasted with stories of support through challenges, all participants also shared joyous memories of having fun with peers in recovery. They all discovered, at some point, they were able to have fun without substances.

Ongoing Mental Health Engagement

Engagement in ongoing mental healthcare services was also experienced by all participants. Throughout interviews, participants provided less frequent and less detailed descriptions of their engagement in OMH than their experiences with ERS and PSR. When asked to help shed light on this, participants pointed to the sensitive and confidential nature of interactions between providers and clients. The frequency and duration of OMH differed across the sample, yet all participants emphasized the importance of OMH in their wellbeing.

Twelve Step Recovery Community Engagement

Engagement in TSR community was a common experience among participants when they first enrolled in the RHS, yet only half of the participants described an ongoing relationship

with a Twelve-Step community while they were enrolled. One possible explanation for this variance was provided by Gradate F (participant 106, male) when he explained that, to him, the RHS community provided the same recovery support he felt in a 12-Step community.

Unexpected Themes

Identifying Phase II evidence aligned with Phase I variables began deductively, yet data analysis also allowed for inductive reasoning to observe initially unforeseen variable themes in Phase II. The manifestation of these unexpected themes appeared during text analysis after first interviews and was affirmed during member checking in second and third interviews. Identified in the preceding chapter, family support and the importance of role clarity among RHS adults both surfaced as possible protective factors associated with student enrollment for 6+ months.

Expanding Recovery Capital; Growing Self-Confidence

A three-tier understanding of RHS student change emerged during data integration. The general progression began as students experienced a sense of love and acceptance, regardless of how badly they felt initially and how problematic their behavior may have been at enrollment. From such experiences of love and acceptance, their stories described a growing willingness to change their responses to life circumstances. They found they could experience joy, bliss, sadness, anger, loneliness, and other "big emotions" without mind-altering substances. In this context, graduates communicated a sense of growing self-confidence atop a foundation of expanding recovery capital. This progression is aligned with earlier research on the dynamic nature of recovery capital compounding as individuals expand experiences across the RCAM domains *(Hennessy et al., 2018).*

Phase III: Joint Display Results Integration and Analysis

The integration of data from both phases began deductively and emerged to include inductive discoveries. Interviews with participants in Phase II allowed each graduate to tell their own story, providing illustrative examples of their experiences with other people – educators, peers, therapists, and 12-step community members. These illustrative examples provided a lens into understanding common experience. Drawn from verbatim quotations, I constructed conceptual first-person statements illustrative of participant experiences. Synthesizing these experiences into conceptual first-person statements provides an immediacy and parsimony to the data merging that would be otherwise unachievable. In all cases, participants confirmed the representative accuracy of these conceptual first-person statements during member checking.

Inductively, Phase II participant experiences sort into three distinct categories. In many respects, these categories are sequential, beginning with Tier One (Baseline), moving the Tier Two (Transformation) and landing in Tier Three (Revelation). It is an overstatement, however, to suggest the stages are exclusively sequential. In fact, participants described experiences in each tier occurring throughout their enrollment. The frequency of higher tier experiences, however, generally increased over time as students found and built upon an accumulation of successful experiences in tiers one and two. This finding is directly in line with Hennessy's (2019) assertion that RCAM variables as protective factors for teens in recovery, when added together, may have greater protective influence that the simple sum of their parts.

In Table 15, I present a mixed-methods validation of results in a sequential fashion. Phase I bivariate outcomes and regression outcomes, when controlling for all other variables, are presented with foundational primacy aligned with study design. In Phase II, the illustrative, conceptual first-person statements aligned with data themes provide qualitative confirmation of

Phase I findings. By providing conceptually representative first-person statements, the phenomenological experience of Phase II participants is presented parsimoniously. First-person summary statements were tested during Phase II member checks to ensure accurate representation of participant feelings. Synthesizing common lived experience in this way provides for clarity and immediacy in the integration of Phase I and Phase II results.

Tier One (Baseline) experiences spanned from the early days of RHS attendance through graduation for Phase II participants. Participants' Tier Two (Transformation) experiences were facilitated and supported by Tier One. In other words, across themes and within these tiers, participants described developing a willingness to think, feel, and behave differently. In the context of these transformative experiences and increasing self-efficacy, participants described a growing hopefulness and optimism about their futures as reflected in Tier Three (Revelation) conceptual first-person statements (see Table 15).

Table 15

Joint Display: Mixed Methods Validation

Construct	Quantitative Results	Qualitative Results: Conceptual 1st Person Student Voice		
		Tier I (Baseline): **I'm safe and loved.**	**Tier II (Transformation):** **I am learning new strategies, and I'm willing to risk changing the ways I manage life experiences.**	**Tier III (Revelation):** **I've experienced joy, as well as relief from challenging events, without substances. I have hope for my future.**
Educator Rapport & Support	**Bivariate Independent Samples T-Test Evaluating Mean Differences** Perseverant (M = 4.32, SD = 0.64) Non-perseverant (M = 3.56, SD = 0.91), t(46.44) = -4.37, p = <.001 **In logistic regression,** after controlling for all other variables, ERS was a statistically significant predictor of RHS perseverance. p = <.001 with an odds ratio of 8.01	They didn't shame me. They listened to me until I felt heard and understood. I felt accepted in every way, in spite of my flaws. I am OK. They loved me even when I was hard to love. I grew to trust them, and they grew to trust me.	I was able to hear and incorporate honest feedback. I became willing to learn and practice new behaviors. I have adults I look up to who give me a vision of what's possible while equipping me with tools to achieve the same reality for myself. I can feel good without mind-altering substances, and equally important, I can navigate difficult situations without substances.	I came to experience hope, joy, and optimism about myself and my future, one day at a time without mind-altering substances. I can think and feel in the abstract about the future using my frontal cortex. I am hopeful and optimistic about my future. I'm not living in the past, nor am I shutting the door on it. I can manage feelings and find serenity without a substance.
Ongoing Mental Healthcare	**Bivariate Chi-Square Test of Association** χ^2 (1) = 5.86, p = .02 **In logistic regression,** after controlling for all other variables, OMH was a statistically significant predictor of RHS perseverance. p = .011 with an odds ratio of 12.98	They listened to me until I felt heard. I feel especially safe with an outside, third party, and my secrets don't need to be secrets anymore. They didn't shame me. I may admire my therapist as role model.	I was able to hear and incorporate honest feedback from people I trusted them. I felt supported and encouraged by my mental healthcare provider as I tried new behaviors. With the support of others and newfound success, I am building new neural pathways. I'm willing to try new behaviors.	I came to experience hope, joy, and optimism without mind-altering substances. I may or may not need a therapist now, but I have experience with a therapist and know there is no shame in accessing mental healthcare if I need it.

Peer Support Reciprocity	**Bivariate Independent Samples T-Test Evaluating Mean Differences** Perseverant (M = 3.27, SD = 0.67) Non-perseverant (M = 2.55, SD = 0.76), $t(95)$ = -4.55, p = <.001 **In logistic regression,** after controlling for all other variables, PSR was not a statistically significant predictor of RHS perseverance. p = .096	We have similar lived experiences, and I feel supported. They didn't shame me. They listened to me until I felt heard and understood. My secrets didn't need to be secrets anymore, and I no longer had to feel alone. They loved me even when I was really difficult to love. I felt accepted and safe. I felt seen, heard, and understood.	We developed camaraderie (reciprocity) traveling difficult roads and having fun, both without mind-altering substances. I was able to hear (and give) honest feedback and support based upon mutual trust. I felt supported and encouraged by my peers as I tried new behaviors	I came to experience hope, joy, and optimism about myself and my future, one day at a time without mind-altering substances. I have a community of peers I trust, and I've learned to have fun in recovery. I'm not alone. I'm connected.
Twelve-Step Recovery	**Bivariate Chi-Square Test of Association** $\chi^2 (1)$ = 0.55, p = .54 **In logistic regression,** after controlling for all other variables, TSR was not a statistically significant predictor of RHS perseverance. p = .459	We may have similar lived experiences, and I see my AA/NA Sponsor as a role model. Others didn't shame me. Others listened to me until I felt heard and understood. My secrets don't need to be secrets anymore, and I no longer had to feel alone. Others loved me even when I was hard to love. I felt accepted and safe. I felt seen, heard, and understood.	I felt like I had a community of support in the RHS and didn't need a 12-step community. Whether it was my RHS community or my 12-step community, I was no longer alone. I was connected. I felt supported and encouraged by others in recovery with similar life experience as I tried a new way of doing life. I was able to hear and incorporate honest feedback because I trusted them. We have camaraderie traveling difficult roads and having fun, both without mind-altering substances.	In a community of others with whom I identify and trust, I came to experience hope, joy, and optimism about myself and my future, one day at a time without mind-altering substances.

Synergistic Interactions and Discussion

Globally, my interpretation of the quantitative findings and nuanced qualitative results, especially in the context of the joint display, confirm recovery happens in community when an individual is surrounded by loving relationships. Because students spend a significant amount of time in school settings and with school-based peers (Finch et al., 2018), the influence of peers can provide reinforcement for recovery behaviors.

Aligned with earlier qualitative research (Karakos, 2014), although student relationships can be complex and challenging at times in any school environment, the proximity and depth of relationships among students who have experienced similar challenges before enrolling in an RHS is foundational in creating a sense of community uniquely supportive of recovery. In my study, students talked about how their common experiences produced a sense of community, even a sense of lasting love and camaraderie.

Aligned with prior studies affirming statistically significant recovery capital development among individuals engaged in recovery community organizations (Ashford et al., 2021), this study produced both quantitative and qualitative evidence of key school-based relationships influencing sustained RHS enrollment which is known to lead to higher levels of recovery-related outcomes (Finch et al., 2018). Social relationships supportive of recovery (Granfield & Cloud, 1999; White, 2008) have long been recognized as a form of recovery capital. Phase I and II results, collectively validated in Phase III, affirmed the power of close personal relationships in an RHS community, and in some cases in Phase II, with key family members.

The utility of the RCAM framework predicting RHS enrollment (Hennessy, 2018) identified recovery capital variables supporting access to recovery high schools. Aligned with this earlier research, this study points to related variables supporting sustained RHS enrollment

once students decide to attend an RHS. With particular attention to actively engaging in recovery-supportive relationships within the RCAM domains, this study expands upon the growing body of research on adolescent recovery from substance use disorder.

Unique to this study, recovery-supportive relationships produced an awareness of platonic love and care among participants. Participants in Phase II described loving relationships within each of the relational constructs explored in this study, whether they were experiences with peers, educators, therapists, or mental healthcare providers. Both "acceptance" and "love" were words used by all participants in Phase II. As participant 105 said, *"I just felt really surrounded by love."*

During Phase II, this awareness of love and care experienced by participants was associated with relationships in all four variables studied in Phase I, including TSR. Although TSR did not have a statistically significant association with sustained RHS enrollment in bivariate analysis, regular 12-step participation among adolescents is known to have a positive association with abstinence (Hennessy & Fisher, 2015) and this aligns with evidence discovered in Phase II interviews with participants 103 and 105.

Ultimately, given the statistical significance of Phase I findings, mixed-methods validation with results, and the sound generalizability of Phase II results, the three novel constructs – *Educator Rapport and Support* (ERS), *Ongoing Mental Healthcare Engagement* (OMH) and *Peer Support Reciprocity* (PSR) introduced in this study are appropriate for addition to the RCAM model (see Figure 5).

Figure 5

Adapted RCAM Framework with additional (novel) subcomponents: ERS, PSR and OMH
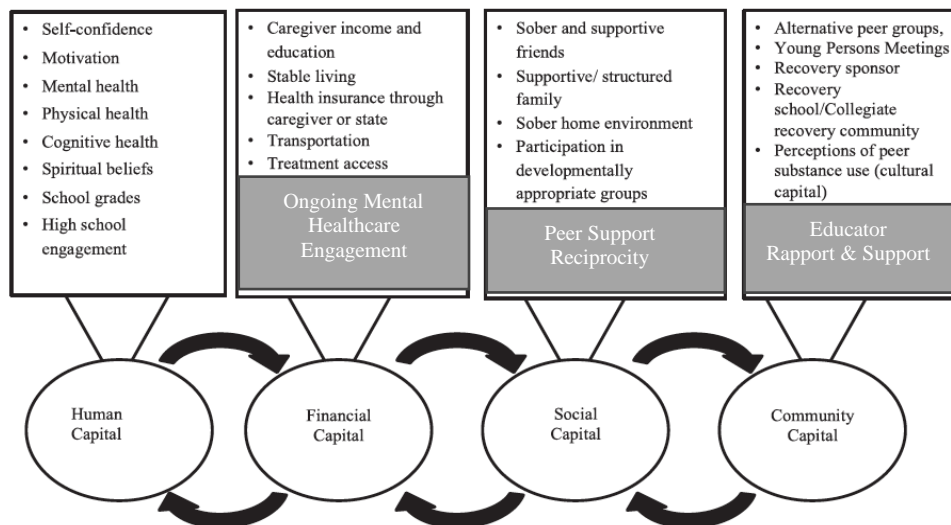
*Note.* Hennessy et al., (2019) *Recovery Capital Adolescent Model* used with permission.

Similar to Hennessey et al., (2018) identifying the compounding nature of RCAM (see Figure 6), so too might it be understood that the variables of interest in this study are both *supporters* of sustained enrollment and *products* of sustained enrollment. The compounding energy and cumulative effects appear to both *push and pull,* collectively building forward momentum as students and their families move from despair to hope, shame to confidence, and darkness into the light. Recovery capital across the RCAM domains is relational and built through relevant human connections supporting recovery. Indeed, those in recovery are known to acknowledge the opposite of *addiction* is *connection*.

The cumulative experience of Phase II participants was captured succinctly as each participant was asked to provide 3-5 words describing how they felt before and after enrolling in the RHS and at graduation (see Figure 6). These single word descriptors, with high frequency words appearing larger in word cloud data visualization, illustrate the despair experienced by

individuals using substances uncontrollably, as well as the gifts experienced within the power of recovery-supportive community relationships.

Figure 6

Participant Self-descriptors Before and After RHS Enrollment

Before RHS	After RHS

Note. Words used more frequently by participants are larger.

Deductive Thematic Analysis Followed by Inductive Gestalt Assessment

During thematic analysis, the fiber connecting experiences across participants in Phase II surfaced with generally literal connections. The literal connections gave rise to a gestalt assessment of the overarching lived experience of participants, manifesting as a three-part frame of basic human feelings. In some respects, these experiences and related feelings might be assumed as linear and sequential, yet participants described experiences in each of the three domains throughout their time as students in the RHS. This proposed theory of change is anchored in gestalt analysis of emotional responses of Phase II participants to external stimuli synergized as three demonstrative domains – Love, Willingness, and Hope (see Table 16).

Participants all described peers, educators, therapists, and 12-step community members, each in a in different RCAM domain, having the capacity to produce similar feelings and

supportive experiences in early recovery. Therefore, in addition to the proposed RCAM-related variables proposed by this study, I also propose a theory of change in recovery among adolescents where affective change is both the *product of* and the *energizer* of interpersonal relationships that support and propel sustained RHS attendance, and the likelihood RHS students experience the recovery-related benefits of 6+ months attendance are also known from earlier research (Finch et al., 2018; Wiemer et al., 2018; Tanner-Smith et al., 2018a). Ultimately, these feelings are associated with relationships residing across the RCAM model (see Tables 15 & 16).

Table 16

Proposed Change Theory: Interpersonal Relationships at the Heart of RCAM's Influence

RCAM-related Relationships	LOVE (Baseline)	WILLINGNESS (Transformation)	HOPE (Revelation)
Educators **Mental Healthcare Providers** **Peers** **12-Step Community Members** [a]	I experience emotional safety, love, and acceptance from people with whom I have affinity. . . people I've quickly grown to trust.	I can grow and risk changing without fear or shame. I receive empathetic, non-shaming feedback. I learn, practice, and find success using new strategies for managing emotions. I find satisfaction receiving from (and giving to) others in authentic, non-transactional relationships.	I experience joy in a community of others in recovery as I develop a hopeful, optimistic vision for myself navigating the ups and downs of life without substances

ERS, OMH, PSR, TSR → Acceptance, love, and understanding → Learning and practicing new strategies for managing life's circumstances, and helping others in community → Hopeful vision for my future

[a] Did not have statistically significant association with sustained attendance in Phase I

Love (Baseline), Willingness (Transformation), and Hope (Revelation)

These gestalt themes, inductively determined analyzing Phase II data, are in some ways linear over time as students move from baseline experiences built on love and acceptance within the RHS community to revelations inspiring hope for their future. At the same time, experiences within these domains appear to compound in weight for students over time, as they have experiences and develop new memories within each column during early recovery.

In the early days, it appears most important that RHS students experience love. With a sense of safety and trust developing in their newfound loving environment, their willingness to seek and accept feedback expands. They become willing to learn new strategies and risk using them as they manage emotional responses to life circumstances without substances. As they do this in community with others they trust and admire, they have satisfying experiences without the use of mind-altering substances. These experiences build on each other, producing a sense of hope and optimism.

Limitations

As with all research, this study has limitations. These include potential for threats to validity, selection bias (Phase II), researcher bias, and design threats.

Internal Validity

The study design and findings both provide for internal validity in this study. Consort construction in the quantitative phase was representative demographically of the larger Finch et al. (2018) study. It might be argued that with only six participants in the qualitative phase validity may be jeopardized; however, question triangulation and the volume of data collected provided for robust, reliable representation of these individuals' experience.

Selection Bias

Phase I participants all completed some form of substance use disorder treatment prior to enrolling in an RHS. This was not the case for all participants in Phase II. It might be helpful to limit such disparity in sample characteristics in future research. Additionally, Phase I did not explore factors that may have influenced participants' decision to leave the RHS prior to six months. Those factors may have resulted in the student dropping out altogether, but they could have also included positive factors, such as students feeling so secure in their recovery they

chose to return to their neighborhood high school. In either case, this Phase II study was designed specifically to provide texture in understanding factors possibly associated with sustained enrollment, not departure.

Researcher Bias

Given my own status as a person in long-term recovery who is also the father of a young person who experienced substance use disorder and recovery while in high school, the potential for researcher bias influencing this study was real. Consequently, I reflected throughout the study on my own biases, mindfully allowing room for participant voice in Phase II to shape ultimate conclusions. Future research may further mitigate the potential for such bias by including multiple researchers in any replication studies.

Design Threat

Using extant data for Phase I while collecting data from an entirely different group of participants in Phase II presents possible design threats to this study. Namely, all participants in Phase I were actively *enrolled* in an RHS during the data collection periods in this study, and all Phase II participants had recently *graduated* from a different RHS. Additionally, all Phase I participants completed some form of specialty substance use treatment while only half of Phase II participated in specialty treatment prior to enrolling in the RHS. Finally, with a difference in mean age of slightly more than two years between participants in the two phases, maturation may also be a factor in Phase II, creating a slight design threat to validity.

External Validity

Participants in Phase II all successfully graduated from their RHS after attending for at least 6 months. Given their homogeneity in this respect, it is natural to imagine they represent a population of adolescents with positive feelings about their experiences and their resulting social

and academic success. It is possible, however, there may be students who successfully graduate in the face of a broadly negative RHS experience, and external validity may be an issue as a result. Future studies may benefit from including participants who successfully graduate from an RHS while holding a generally negative perspective about their overall school experience, though such situations may represent outliers among graduate experiences.

Implications

Additional research to better understand and inform systems of care supporting adolescents in recovery from substance use disorder, including further RHS research, is needed. As this study demonstrates, an expanding body of research will surely lead to findings and results with important implications for practitioners and policy makers alike.

Researchers

The correlation between ESR and PSR in Phase I was moderate. A deeper understanding of the correlation, with attention paid to differentiating between the two constructs, may aid practitioners and researchers alike. For example, participants in Phase II described their ability to engage vulnerably in conversations. Understanding the degree to which this is an RHS student experience particularly unique to engagement with adults or peers or even within or across student gender may further differentiate between PSR and ERS.

Participants in Phase II often spoke of support from peers and adults in the form of behavioral accountability. It is unclear whether peers or adults or both are more likely to best influence student behavior through loving, constructive feedback and interpersonal accountability. Research might seek to understand such accountability, contrasting the influence between peer and adult accountability.

Participants in Phase II also described a renewed ability to have joyful experiences without being under the influence of substances. This is another aspect of the phenomena where future researchers might seek to better differentiate between ERS and PSR. Outcomes from such research might provide an understanding of how educators and peers alike can create joyous conditions further supportive of ongoing RHS enrollment.

As with ERS, researchers and practitioners alike may be well served to foster opportunities for students to notice and reflect upon the ways they become willing to receive support and provide support to peers. At least one participant in Phase II suggested students reflecting on their service to others goes against a principle often promoted within recovery communities: humility. Thus, future research might seek to provide practitioners with an understanding of how best to support students in metacognitively understanding the power of service objectively, without feeling selfish or self-serving. Ultimately, and as a novel construct, PSR warrants further understanding in the RHS context and the experiences of students who sustain enrollment.

Tanner-Smith et al., (2018a) found no evidence suggesting RHS attendance had a significant effect on student mental health outcomes when contrasting students who enrolled at baseline with those who did not. However, their study did not differentiate between those who enrolled at baseline and remained vs those who enrolled at baseline and departed. Knowing now that OMH is a strong predictor of RHS perseverance, research will benefit by exploring further the possible mental health outcomes for those who persist compared with those who do not after baseline enrollment. In addition to possible mental health benefits found from success in early recovery supported by RHS enrollment, benefits from OMH itself may also be further contrasted across specific mental health conditions in future research.

From a strength-based orientation, this study focused on factors associated with student resilience and sustained RHS attendance. Conversely, future research might examine risk factors associated with RHS student departure prior to graduation. Knowing what factors might discourage a student from remaining enrolled, coupled with knowledge of factors supportive of sustained enrollment, will further bolster the effectiveness of practitioners' work with RHS students.

Finally, future research should include a broader theoretical sampling of perseverant recent graduates, pressing the generalizations present in my dissertation further for validity and accuracy. Additionally, future research might seek to evaluate Phase II unexpected predictors.

Practitioners

For recovery high school leaders and educators, this study provides compelling evidence suggesting goals for employee development and school-based practices. This includes, above all else, key implications for human resources. The screening, selection, and hiring of staff who embody personal dispositions oriented to non-shaming professional practices is foundational.

Given the significance of ERS as a construct, adults who quickly develop personal rapport with students in a professional context appropriate to their role should be the target employee. RHS leaders should carefully support employees in maintaining such an environment.

Practitioners serving RHS students directly may benefit from the results in this study by evaluating the routines within a school day against the findings, identifying strategic moves adults can take in alignment with themes uncovered in Phase II. Additionally, supporting students and their families taking action to engage in ongoing mental healthcare services while enrolled has special promise, given the odds ratio for this variable in Phase I.

Phase II results provide practitioners with good reason for clearly identifying and monitoring adult roles within the school. With role clarity enhancing interpersonal trust with students, leaders should take actions to formalize and monitor role clarity, communicating transparently to students what they should be able to expect from adults in various roles.

Schools fostering positive open communication with parents will also benefit from finding ways to foster the development of healthy family practices. However, as this is largely outside the control of the school, simply being aware of the influence certain family members might play in supporting individual students could be valuable.

Policy Makers

For policy makers influencing educational systems that include RHSs as an option, it is important to recognize the personal attention required to support students in recovery from SUD warrants adult to student ratios allowing for the time and intensity required of RHS adults as they engage with students. Future research might seek to understand the amount of personalized time and attention required for each RHS student to be successfully supported by adults.

Mental healthcare for adolescents in recovery is not readily accessible for many reasons, including financial barriers and conditions related to stigmatization of mental healthcare. Efforts to ensure healthcare parity, particularly for adolescents with SUD and co-occurring disorders have been noble, yet navigating systems of care across healthcare providers in the United States is challenging at best. OMH is underfunded and inaccessible. Given its influence on RHS student attendance perseverance, it is even more critical that pathways be created, and barriers removed. Policy makers must continue to prioritize adolescent access to appropriate mental healthcare.

Conclusion

In addition to answering the research questions posed, the inductive, exploratory nature of this mixed-methods study provides for generalizable conclusions regarding relational recovery capital across the RCAM framework and novel variables associated with sustained attendance among RHS students. Future research, practice, and policy may each be informed by these generalizable conclusions.

Ultimately, for every adolescent who has persevered and found recovery from substance use disorder and the seemingly hopeless state that accompanies it, and for every parent who has lived through the terror such a condition brings to a family, and for those who have lost a child due to substance use disorder: It is my greatest hope there comes a time when no parent must ever experience such tragedy, and every adolescent who wants recovery is supported in their journey, discovering for themselves that something different is possible.

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APPENDIX: LIST OF ABBREVIATIONS

Acronym/Survey Code	Meaning	Original Source
ca4	How often have you helped out at your school during the past 6 months?	Finch et al., 2018
ca6	How often have you been a peer mentor or peer advisor during the last 6 month?	Finch et al., 2018
ca7	How often have you helped tutor someone during the last 6 months?	Finch et al., 2018
caii6	My teachers really care about me.	Finch et al., 2018
CRC	Community Recovery Capital	Hennessy et al., 2019
ERS	Educator rapport and support within the recovery high school community	Mann Dissertation
FRC	Financial Recovery Capital	Hennessy et al., 2019
HRC	Human Recovery Capital	Hennessy et al., 2019
hsqx13	Are you currently receiving any AOD or mental health counseling outside of your school?	Finch et al., 2018
hsqx15	How often do I currently attend AA, NA or other 12-step meetings?	Finch et al., 2018
hsqxbc13	My teachers support my recovery.	Finch et al., 2018
hsqxbc14	The students in this school support my recovery.	Finch et al., 2018
OMH	Ongoing Mental Healthcare	Mann Dissertation
PSR	Peer Support Reciprocity	Mann Dissertation
RC	Recovery Capital	White, 2008
RCAM	Recovery Capital Adolescent Model	Hennessy et al., 2019
RCO	Recovery Community Organization	White, 2012
RHS	Recovery High School	n/a
rhsenrollment	Dependent variable capturing periods enrolled in RHS in Phase I study (Finch et al., 2018)	Finch et al., 2018
SRC	Social Recovery Capital	Hennessy et al., 2019
ss1	Did you have a professional counselor to talk to during the last 3 months?	Finch et al., 2018
TSR	Twelve-step recovery community engagement	Mann Dissertation