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Enhancing Long-term Outcomes: Implementing Community Engaged Research to Augment Substance Use Disorder Treatment

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The signatories of the committee below indicate that they have read and approved the thesis of Kevin M. Quinn in partial fulfillment of the requirements for the degree of Master of Health Science.

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Dedication

To everyone at Guiding Light and all those struggling with addiction. To my advisor, thesis chair, and academic mentor, Dr. Debra Burg. Thank you for always encouraging and supporting me. Most of all, to my parents. Thank you.

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The realization of this project required help from many people and would not have been possible without all those who contributed to its undertaking. Dr. Debra Burg, assistance in facilitating the developmental process of a nontraditional research topic as well as a dedication to the finalization of this project. The staff and residents at Guiding Light Recovery for providing the testing environment as well as the resources for collecting data. Brian Elve, the executive director of Guiding Light, serving as my liaison at the facility and access to previously collected data.

Abstract

The Universal Evaluation Tool is an intuitive self-assessment instrument to enhance long-term treatment outcomes for Guiding Light's residential addiction rehabilitation program. Designed as a versatile method for collecting primary data, the Universal Evaluation Tool can be administered to clients at any point during the recovery program (i.e., intake to discharge). The data collected from the survey can be used as a framework to guide treatment decisions, develop personalized care plans, offer insight into a client's progress, and collect baseline data (e.g., sociodemographic characteristics) on a treatment population for use in grant applications.

A pilot study to generate preliminary data was conducted across a three-month period when the Universal Evaluation Tool was first implemented at Guiding Light. The survey was administered multiple times to clients in Guiding Light's residential treatment program to systematically collect data during the winter months of 2016. Results from 20 completed surveys were analyzed for preliminary data to validate the survey instrument (i.e., questionnaire) and feasibility of the research protocol. The information gathered from this initial cluster of surveys provides empirical support for the Universal Evaluation Tool as a validated measure (i.e., produces reliable and accurate data) and advocates for its continued use at Guiding Light. Moreover, information gathered during the pilot study offers preliminary evidence suggesting that the Universal Evaluation Tool may be implemented as a framework to enhance long-term treatment outcomes for clients with substance use disorder.

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Chapter 1 Introduction

Economic Impact, Epidemiology, and Etiology of Substance Abuse

One of the largest studies conducted by the Centers for Disease Control and Prevention in 1999 found that in the United States, substance abuse (excluding tobacco) had an annual estimated economic impact of 343 billion dollars.[20,119] Approximately 13-16 billion dollars of the total amount were attributable to medical interventions provided to individuals for complications directly related to substance abuse.[2,123] A more recent report from the Office of the U.S. Surgeon General in 2019 outlined a significant increase in the economic cost of substance abuse in America, placing the modern-day economic impact around 442 billion dollars: 193 billion from illicit drug use and 249 billion from alcohol misuse.[119,173] Attached to each of these costs and related expenses is a human life. Therefore, it is imperative to remember that these inordinately high monetary values are also representative of human morbidity and mortality: loss of human life.

Substance use disorder (SUD) places a significant economic strain on the American health care system as well as the allocation of its finite resources.[149] Estimates from the 2021 National Survey on Drug Use and Health (NSDUH) suggest that 46.3 million adults in the US (i.e., 16.5% of the population) had a past year SUD; in accordance with the Diagnostic and Statistical Manual of Mental Disorder, Fifth Edition, Text Revision (DSM-5-TR) criteria for SUD.[115] Addiction is one of the nation's ten most costly chronic conditions in terms of dollars, disability, and deaths.[59] At least one in five dollars that Medicaid spends on hospital care is related to substance abuse in some fashion.[167] Stabilization and an ultimate reduction in the magnitude of

this financial strain is achievable through the widespread adoption of validated intervention strategies: early and appropriate identification of SUD, expanded access to treatment, client engagement in SUD education programs, efficient resource brokering, and nurturing sustained abstinence for individuals in recovery.[2,6,8,36]

However, of the 46.3 million people who had a SUD in 2021, only 2.8 million received any intervention.[115] In any given year, 90-95% of drug and/or alcohol dependent individuals do not receive treatment at a specialty facility or participate in community recovery groups (e.g., Alcoholics Anonymous, Narcotics Anonymous, etc.).[169] The Center of Alcohol and Addiction Studies (CAAS) at Brown University concluded that, "the inclusion of a substance abuse treatment benefit is a vital part of true health system reform."[167] As one of the foremost centers of addiction research in the nation, CAAS has been advocating for health care reform strategies since 1981; contributing to the widespread adoption of more effective SUD treatment strategies at facilities across America. A large body of research from CAAS suggests that addiction treatment facilities not only enhance the welfare of a community and its residents but, as a byproduct of their services, they also reduce the strain that SUD places on the American health care system.[59,123]

A distinction must be made between the state of true addiction and that of being "intoxicated." When one experiences a state of mild intoxication through the use of a mind-altering substance (e.g., alcohol, cocaine, etc.), or engages non-pathologically in potentially addictive behaviors (e.g., gambling, overeating, etc.), one may experience a "high," felt as a positive emotional

state.[87,144,172] These euphoric effects largely result from increased activity of endogenous opioid peptides (e.g., endorphins) and augmented release of various neurotransmitters (e.g., dopamine, serotonin, etc.) in nodes of brain networks characterized as reward pathways (i.e., cortical-basal ganglia network).[88,140,146] After experiencing the euphoric high, there is a neurochemical rebound period where neurotransmitters linked to reward processing drop below homeostatic levels.[100,153] Substance-dependent individuals often describe this state of perturbed homeostasis as "coming down" and it may be conceptualized as the "low" following the chemically induced high.[17]

As the intensity and frequency of substance use increases to the point of habituation, repeated exposure fails to illicit the anticipated euphoric effect/s.[22,158] An inordinate amount of exposure to supraphysiological levels of pleasure-related neurochemicals triggers negative feedback mechanisms in brain reward networks: pathological changes.[176,177] Moreover, neurobiological deviations in these reward pathways (i.e., drug-induced neuroplasticity) contribute to the development of tolerance and inability of recurrent use to generate the desired effect (e.g., pain alleviation, sedation, anxiolytic properties, etc.) sought out by drug-dependent individuals, thereby initiating the classical cycle of addiction, as habitual and escalating substance use fosters tolerance leading to dependency.[178,179]

Substance dependence is a normal physiological adaptation response motivated by repeated dosing of an exogenous compound (e.g., opioids, alcohol, nicotine, antidepressants, caffeine, sugar, etc.) and characterized by withdrawal symptoms when the substance is discontinued

(i.e., physical dependence).[22,89] Although dependency often accompanies addiction, conflation of addiction with dependence is inaccurate. Dependency associated adaptations are ordinary biological consequences of prolonged dosing (i.e., substance use), but these adaptations are largely distinct from those resulting in addiction.[30] Addiction is a maladaptive state distinguished by intense cravings, self-destructive behaviors, loss of control, relapse, and persistent substance use at the expense of accumulating negative experiences.[88,91] However, dependence can become problematic if an individual continues using a substance despite adverse consequences: transitioning from dependence to addiction.[92] Following the onset of addiction, allostatic overload shifts homeostatic setpoints (e.g., baseline mood) that fundamentally alter the internal state of the body.[3,49] These changes significantly diminish an addicted individual's capacity for self-regulation and preservation in the absence of the addictive substance.[7,85]

The cyclical pattern of escalating substance use induces a deeper and deeper low for the addicted individual following each successive use. While anyone may want to experience feelings of euphoria or get high, those with addiction feel a *need* to use the addictive substance in an attempt to resolve their dysphoric emotional state or the physiological symptoms of withdrawal.[103] Individuals subsequently begin to create a new physiological baseline that is unattainable without the substance. The new baseline produces intense cravings for supraphysiological levels of neurochemical substrates (e.g., endorphins, dopamine, etc.), precipitated by administration of the substance, and the brain becomes fixated on obtaining it because the substance is now required for the brain to function normally.[108,145]

Clinically, the transition to addiction is usually described in terms of three stages: initial exploratory or trial use, subsequent maintenance of drug use associated with the beginning of strong desires of anticipation (i.e., cravings), followed by preoccupation and habitual use in which the individual has lost regulatory control over their substance use.[7] Once the drug has been sampled (i.e., actuation), it will most likely be repeated due to euphorigenic, pharmacological, or socially positive effects.[18] Substance addiction is often accompanied by one or more psychiatric or social pathologies as co-occurring disorders among those entering addiction treatment facilities.[33,81] This pattern supports the widely accepted hypothesis that SUD is a spectrum disorder that includes a range of linked conditions.[7,15,20] These conditions have a set of similar manifestations and appear through a broad variety of paths to the eventual state of dependence upon drugs or alcohol, defined as substance use disorder (i.e., addiction).[145]

The American Society of Addiction Medicine (ASAM) defines addiction as a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. Addiction is a disorder that is manifested by compulsive substance use despite harmful consequences and the continued making of maladaptive choices, even in the face of the explicitly stated desire to make a different choice. It is characterized by the inability to maintain abstinence, impairment in behavioral control, craving, diminished recognition of substantial problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response.[15,109,146] Similar to other complex chronic conditions (e.g., type 2 diabetes and hypertension), addiction often involves cycles of

intermittent relapse and remission.[12,37] These shared features, in addition to the distinct substance-induced neurobiological changes that occur, provide a logical basis for categorizing those with SUD as having a chronic disease that can be effectively managed but not cured completely.[20] In response to the chronic nature of SUD disorders and to possibly disrupt the vicious cycle of intermittent abstinence, relapse, and treatment, researchers and clinicians are increasingly developing, implementing, and evaluating continuing care interventions.[71,169] This current method of treating SUD as a complex chronic condition via application of integrative care techniques is the approach that Guiding Light Recovery (GLR) has begun to implement.

Neurobiology of Addiction and the Brain Disease Model

Most individuals who meet criteria for a DSM-5-TR diagnosis of substance-related addictive disorder began their initial exploratory use of substances between ages twelve and fifteen.[29,62] Frontal lobe morphology, connectivity, and function are still in the process of maturation during adolescence and young adulthood.[21,23] Many neuroscientists believe that developmental morphology is the basis that makes early-life exposure to psychoactive substances (e.g., alcohol, cannabis, nicotine, etc.) such an important risk factor for the eventual onset of addiction.[81,188] Although the biological basis and cognitive processes underlying decision-making in the human brain are still being elucidated, neuroscience research has coalesced to propose a unified framework of decision-making systems as developing from multiple, interacting neural networks that are especially vulnerable during adolescence.[18,138] Nevertheless, the median time from first use to one-year continuous abstinence is twenty-

seven years, and the median time from primary treatment initiation to one-year continuous abstinence is nine years, with three to four treatment episodes within that period of time.[23,169]

Addiction has been conceptualized as existing in many states including acute, maintenance, recovery, early-remission phases of the disease, and treatment followed by a long-term remission phase.[116] Analysis of the epidemiologic evidence reveals that approximately seventy-two conditions requiring hospitalization are wholly or partially attributable to substance abuse.[109] Thereby reinforcing the validity of treating SUD in a manner similar to that of other chronic conditions such as hypertension, type 2 diabetes, and asthma.[12] Viewing addiction as a complex, chronic condition that impacts multiple aspects of a person's life, just as any other chronic medical condition does, is critical for increasing treatment efficiency as well as enhancing long-term treatment outcomes.[23,65,122]

Typical one-year abstinence rates for SUD clients from private residential treatment facilities (public rehab facilities are government funded) range from 32%-59%.[150,169] The protracted course of severe SUD is in line with the course of other chronic conditions: only 27% of patients with hypertension have blood pressure under control, 46% of type 2 diabetics have hemoglobin A1c levels below seven, and similarly distressing statistics can be found for patients with congestive heart failure, chronic atrial fibrillation, asthma, and clinical depression.[115,166] In all patients who were prescribed medication for the treatment of chronic illnesses, fewer than half of the patients took the medication as prescribed; less than 30% of patients accepted the prescribed behavioral changes, such as weight reduction strategies and adopting healthy eating

patterns; each year 40%-60% of patients with hypertension, type 2 diabetes, or asthma experience a relapse.[20,25] These relapse and treatment statistics are comparable to that of the one-year continuous abstinence rates of SUD clients, further supporting the hypothesis that addiction mirrors other common chronic conditions and should not be categorized myopically as a decision-based behavioral disorder.

Addiction is a complex condition that impacts many aspects of a person's life and requires long-term, coordinated care by an interdisciplinary team of professionals who can address the myriad of physical, mental, social, spiritual, economic, and legal ramifications of the disease.[2] Essentially, similar methods currently being used by physicians that are primary care providers to treat and monitor their patients over time should be adopted by those treating individuals with SUD.[71] Systemic changes have already begun to take place and are evolving SUD treatment from a largely non-medical, isolated field into a more integrated part of mainstream medical care.[150] However, there is still much progress to be made before SUD is widely accepted and treated as a chronic medical condition.

The qualitative ways in which the brain, and the accompanying addictive behaviors, respond to psychoactive substance exposure are different in the later stages of addiction compared to the earlier stages; indicating that addiction is a progressive illness that seems to get worse over time.[158,176] As is the case with other chronic conditions, SUD must be monitored and managed over time to decrease the frequency and intensity of relapse, sustain periods of remission, and optimize the person's level of functioning during periods of remission.[12,37,87] It has been well

documented that for some cases involving substance-related addiction, medication management can improve treatment outcomes significantly (e.g., medication-assisted treatment for opioid use disorder).[32,39] The integration of psychosocial rehabilitation and ongoing care with pharmacological therapy appears to provide the most favorable outcomes.[69] Behavioral and cognitive therapy coupled with pharmacological modalities have also been shown to reduce and minimize the severity of intermittent relapse in SUD clients: delivering a protective buffer. As in other chronic medical conditions, self-management, and attending peer-based recovery support groups (e.g., community recovery groups like Alcoholics Anonymous), are also very important in the addiction recovery process.[71,76,78,79]

A high degree of interindividual variability in biological and environmental risk factors contribute to addiction manifesting in a multitude of ways. For example, a major sign of SUD includes alterations in brain structure and function.[38,52] The frontal lobes are important in inhibiting impulsivity and in assisting individuals to appropriately delay gratification.[29,30] When a person with addiction manifests problems in deferring gratification, there is a neurological locus for these problems in the frontal cortex.[146] A particularly pathological aspect of how an individual with addiction pursues his/her substance of choice is a preoccupation with, obsession with, and/or pursuit of rewards (e.g., alcohol, cocaine, etc.) despite the overwhelming accumulation of adverse consequences resulting from the drug-seeking behaviors.[27] These maladaptive behaviors exemplify substantial impairments in executive functioning, which manifest as problems with judgment, learning, impulse control, delayed gratification, and formulating an objective perception of life events.[54,91,188]

Researchers studying the neurobiological foundations of SUD have identified distinct brain regions where neuronal activity is compulsory for SUD-characteristic behaviors to manifest: neural network selectivity in SUD phenotypes.[15,143] The human decision-making system of the brain has a myriad of potential access points through which it can be persuaded to make maladaptive choices, especially impulsive decisions that bias behaviors away from natural sources of reward (e.g., social interactions) in favor of substance use (i.e., drug-seeking behaviors).[138] Ten key vulnerabilities in cognitive decision-making systems are as follows: moving away from homeostasis, changing allostatic set points, euphorigenic "reward-like" signals, overvaluation in the planning system, incorrect search of situation-action-outcome relationships, misclassification of situations, overvaluation in the habit system, and a mismatch in the balance of the two decision systems, over-fast discounting process, and changed learning rates.[157,158] Depending on the substance being used (e.g., alcohol, cocaine, nicotine, etc.), the behavior being pursued, and/or the physiological differences between individuals, different vulnerabilities in the decision-making system are likely to be exploited.[13,15]

Many SUD-characteristic behaviors precipitated by dysfunctional cognitive decision-making systems result from perturbed communication between normal learning systems in the brain (i.e., dopaminergic mesolimbic and mesocortical pathways) and the distribution of reward signals in the prefrontal cortex (i.e., orbitofrontal cortex) for a particular behavior: incentive salience.[144,142] Incentive salience is the cognitive process of "wanting" and refers to the motivational and attentional features of rewards as well as their learned cues.[14] The incentive sensitization theory of substance-related addiction is a biopsychological framework postulating

that recurrent substance use initiates a hypersensitivity to the effects of psychoactive substances and to the stimuli associated with substances (e.g., paraphernalia, specific locations, etc.) that drive cue-induced reinstatement.[143] Executive dysfunctions (e.g., cognitive flexibility, working memory, self-regulation, etc.) contribute further to the incentive salience of substances over natural rewards.[13,38] Therefore, in order to successfully treat SUD, the vulnerabilities that are driving the individual's maladapted decision-making must be targeted.

Most researchers in the addiction field agree that to gain deeper knowledge into the etiology of SUD requires an in-depth understanding of how animals, including humans, internally make decisions and how vulnerabilities in these decision-making processes unfold to addiction over time.[138] The delivery of effective SUD treatment services should avoid sweeping generalizations applied to the population of addicts or to the specific behavior and/or substance of abuse. Instead, treatment should first entail the identification of which vulnerabilities have been triggered within a SUD client, and then the treatment should be tailored to the specific constellation of vulnerabilities into which the addicted individual has fallen.[33,36,65] In addition to the neurocognitive deficits caused by functional dysregulation of neural networks controlling human behavior (e.g., decision-making, emotional regulation, reward processing, etc.), chronic substance use can also initiate structural alterations in the brain.[176]

The brain is the main organ that psychoactive substances work on to elicit their desired effects, but this also makes the brain disproportionately vulnerable to any harmful health effects resulting from the use of these substances. For example, some of the neurobiological effects of

chronic overconsumption of alcohol include structural and volumetric alterations (e.g., cerebral atrophy and loss of gray matter), neuroinflammation, neurochemical dysfunction, and neurotoxicity (e.g., acetaldehyde).[145,168] A large body of empirical evidence suggests that alcohol directly contributes to neurotoxicity in brain regions that compromise mood-regulating serotonergic and dopaminergic systems: increasing negative affectivity.[51] Recurrent exposure to alcohol and/or other psychoactive substances also triggers structural, functional, and neurochemical changes associated with the onset of tolerance.[100]

Substance-dependent individuals become tolerant to particular dosages and achieving the subjective high (i.e., desired effect) becomes increasingly difficult at lower doses; suggesting a role for allostasis in the development of addiction.[49] Allostasis refers to a stress-induced adaptation by the body in response to a change in external environment in order to regain homeostasis of the internal environment (i.e., stability through change).[3] In substance dependency, allostasis is described as the counter-adaptive process of maintaining ostensible reward function stability via induction of mechanistic changes in brain reward pathways.[52,85] The onset of tolerance resulting from chronic substance use is indicative of a shift away from normal homeostatic neurochemical ranges to form a novel allostatic state in the brain: homeostasis feels like a deficit. This new pathological setpoint can only be achieved through substance use and must be satisfied to avoid the dysphoria-like effects of withdrawal.[22] Deviations from allostatic levels of neuromodulators (e.g., acetylcholine, dopamine, serotonin, etc.) result in the onset of withdrawal symptoms, changes in the perceived need for obtaining the substance (i.e., desire), and strong cravings to restore balance.[103,108,145] This cycle is

classically observed in the reaction of nicotine-dependent tobacco users during their first cigarette of the day.[92,175]

Addiction is a complex disorder and often not confined to a single condition. There is a relatively high prevalence of comorbidity with other psychiatric disorders in those with primary SUD.[81,151] Psychoactive substance-related changes in cognitive function (e.g., memory and attention deficits) and emotional regulation strategies (e.g., alexithymia) are thought to contribute to the high comorbidity via close interactions: negative affective states with high motivational intensity narrow cognitive scope (i.e., cognitive inflexibility and poor mood recovery in SUD).[115,163] Research has shown elevated levels of depression among those with SUD compared to that of the general population, which decreased during SUD treatment and remained stable over a follow-up period.[151] Common emotional disturbances directly related to substance use include excessive anxiety, dysphoria (a state of unease or generalized dissatisfaction with life), emotional pain, increased sensitivity to stressors associated with the recruitment of brain stress systems, and alexithymia (difficulty identifying and describing one's feelings).[17,22,101] Moreover, substance use can influence affective states through additional indirect mechanisms.

Chronic alcohol use can bring about mood problems indirectly, through nutritional deficiencies or malabsorption of certain vitamins (e.g., thiamine deficiency) that compound the deleterious effects of heavy alcohol consumption.[39,90] The cumulative effects of SUD over many years can also lead to illnesses such as heart disease, lung disease, and several forms of cancer.[2]

Substance abuse can compromise the immune system, reducing the body's ability to fight infection as well as cause problems unique to substance dependency which require stabilization prior to treatment (e.g., delirium tremens).[81,123,173] Therefore, a large proportion of SUD clients in residential treatment facilities have co-occurring disorders and a dual diagnosis of primary SUD coexisting with another mental health condition.[33,101,151]

As is the case in many other chronic medical conditions, SUD has biological, genetic, cultural, and environmental factors that influence its onset as well as the severity of the associated symptoms.[1,56,99,109] Addiction impacts many areas of well-being and health, but the impact on normal cognitive function of the brain seems to be one of the most prominent as well as apparent repercussions of habitual substance misuse.[116,178] Normal brain pathways become altered, and new pathways form which favor the destructive behaviors and irrational decision-making process common among SUD clients.[114] As mentioned previously, SUD is not isolated to the brain; it is a multisystem disease that increases the risks of other chronic illnesses (e.g., cardiovascular disease). SUD shares many similarities with other medical conditions that are widely accepted as chronic diseases. Addiction, as such, should be classified as a chronic disease to increase access to effective and financially accessible treatment options. Analogous to other chronic conditions ubiquitous in the US (e.g., obesity, type 2 diabetes, etc.), clinical interventions are extremely effective in altering the course of substance dependency; extending lifespan and enhancing healthspan for those with SUD.

Relapse and the Chronic Nature of Addiction

One of the fundamental objectives of SUD treatment and recovery is preventing relapse.[61] A relapse can be defined as the recurrence of substance use after a period of remission.[7,60] Comparison of relapse rates between individuals treated for SUD (40%-60%) and those treated for other chronic conditions, such as hypertension (50%-70%) and asthma (50%-70%), highlight two important parallels: incidence of relapse is common and occurs at similar rates across many chronic conditions.[115] However, the high rate of relapse within a short period following residential treatment is a distinctly concerning feature of SUD compared to other chronic illnesses. Approximately 50% of individuals relapse within the first 12 weeks after successfully completing a 4–12-week intensive addiction rehabilitation program.[79,169] Of all the individuals admitted to a public SUD treatment facility in the US in 2020, 60% were re-entering treatment, including 17% for the second time, 18% for the third to fourth time, and 19% for the fifth time or more.[115,169]

The trend towards shorter lengths of treatment is associated with increasing rates of continued substance use after discharge and readmission within the year.[186] Longer treatment duration times are generally associated with more favorable treatment outcomes among individuals with SUD.[8] Because SUD problems are chronic and recurrent, an optimal treatment delivery system needs to maintain long-term contact with individuals in recovery.[95] However, the exact duration of treatment needed to achieve optimal positive outcomes is controversial and has not yet been firmly established.[36]

Relapse prevention is an essential part of SUD treatment programs and addiction recovery in general. The relapsing of addictive behaviors and/or substance use can be actuated by internal events, external triggers, or a combination of the two.[61] Current research suggests that an extended period of continuous abstinence is required for the brain to resume normal function.[129,157] As the foremost barrier to recovery, chronic relapses thereby delay or outright inhibit various restorative processes from amending cognitive dysfunction resulting from SUD.[38] The chief mechanisms triggering physiological responses that precipitate a relapse in substance dependent individuals include re-exposure to a psychoactive substance (i.e., dopamine surge), exposure to environmental cues (i.e., glutamate spillover), and stress-induced relapse (i.e., dynorphin/kappa opioid receptor system).[17,57,100,157]

The orbitofrontal cortex (OFC) and anterior cingulate cortex (ACC) are two brain regions in the prefrontal cortex that are of major importance in understanding relapse. Together, the OFC and ACC participate in the complex process of decision-making based on (predicted) reward values.[146] Under nonpathological conditions, the brain has flexible value assignments to environmental stimuli to either motivate or inhibit choices and/or actions.[163] The ability to correctly determine values and the associated probabilities becomes skewed in the addicted brain.[152]

During reinstatement of drug seeking behaviors, extrasynaptic glutamate concentrations increase in the core subcompartment of the nucleus accumbens in a process called, glutamate spillover.[100,176] Empirical evidence suggest that glutamate spillover contributes to the often-

enduring vulnerability to relapse among those with SUD.[157] Without accurate interoceptive awareness, addicted individuals are unable to recognize the process of reinstated drug seeking. This is exemplified by the high level of self-deception or lack of appreciation for the magnitude of problems and complications exhibited by those with SUD. Eventually, the altered brain circuitry re-prioritizes motivational hierarchies such that addictive behaviors supersede healthy, self-care behaviors; often resulting in a relapse.[61,129]

Unlike pathologies that are time-limited and treatable in a single episode of acute care, chronic diseases undulate over long periods, and disease progression is not altered fundamentally by acute episodes of stabilization.[2,7] The two most prominent factors initiating a relapse after a period of abstinence were "intrapersonal determinants" (e.g., stress from work or relationships) and "interpersonal determinants" (e.g., close proximity to people using psychoactive substances or attending a celebration or special event).[24] The most powerful predictor for long-term abstinence is whether or not an individual with a history of SUD has lost the desire/craving to use psychoactive substances.[124]

Maintaining long-term, sustained abstinence is the principal objective of SUD treatment.[7,148] Three key phases have been identified for mitigating SUD: prevention, treatment, and recovery.[150] A major goal of recovery programs is to provide a systemic framework that provides resilience to relapse, allowing individuals to cope with psychological, emotional, and physical stressors that frequently precede a relapse.[7,150] Recovery from addiction is best achieved through a combination of self-management, community recovery group attendance,

and specialized SUD care provided by trained and certified professionals.[1,77] Integrative care and a holistic treatment plan can reduce relapse rates and increase the quality of life for those living with SUD related disorders.[71,80,151]

Background: Guiding Light in the Community

With almost 100 years of community involvement, GLR has been offering care to Grand Rapids' underserved population since 1929. Originating as a local program to deliver meals to the city's residents, who would otherwise go without, GLR has evolved into one of the premier addiction treatment centers in West Michigan with a wide-reaching positive impact felt throughout the greater Grand Rapids area. Therapeutic communities like GLR aim to rebuild an individual entering SUD treatment and for them to cultivate a responsible substance-free lifestyle. This is accomplished through a program of group living, firmly established behavioral norms (i.e., guiding principles), and a hierarchical system of SUD client responsibilities and privileges. To continue to do this and to enhance the care provided to the Grand Rapids community, GLR required a metric to define "success" pertaining to their SUD rehabilitation outcomes.

GLR is a non-profit residential treatment center that is available at no cost to the client because it is a completely donor-funded program and practices a client-centered funding strategy. These strategies focus largely on connecting individual SUD clients with the unique recovery services they require to sustain abstinence from psychoactive substances and realize self-sufficiency through sustainable full-time employment. Although GLR is like other treatment centers that engage with prospective SUD clients through various paid marketing strategies (e.g., billboard

advertisements, search engine optimization, etc.), GLR client acquisition occurs mostly through more organic strategies.

Organic marketing strategies reach potential SUD clients through nonpaid efforts such as word-of-mouth and posting video testimonials from previous SUD clients on social media. However, the most common gateway to treatment at GLR is referral. GLR client referrals come from numerous personal experience-based sources as well as specialist or professional sources. For example, personal word-of-mouth recommendations offered while attending a community recovery group (e.g., Alcoholics Anonymous), anecdotal experience, and professional referrals from GLR's existing relationships with local detoxification (e.g., Pine Rest detox services) and medical facilities (e.g., Trinity Health Grand Rapids Hospital).

GLR's program has seven key elements within its mission statement that they have identified as client characteristics that will ultimately lead to success. These are willingness to change, honesty, self-awareness, accountability to others, vulnerability, spiritual curiosity, and self-compassion. These characteristics are sourced from the several decades of experience that GLR has accumulated in treating SUD clients, involvement in local recovery communities, and serving the Heartside neighborhood in downtown Grand Rapids. It was not the intention of this research project to change the core values and/or the identity of GLR's SUD treatment facility. Rather, the objective was to assist with the evolution of GLR, as it is in a period of transition, by proposing a novel self-assessment instrument for SUD client data collection, based on the proven framework of the Recovery Enhancing Environment (REE) self-survey tool.[131] The survey

has the potential to optimize the aggregation of SUD client data and electronic record-keeping, and simultaneously enhance long-term treatment outcomes for GLR's residential clients.[148,155]

The unique data gathered by the self-assessment survey can be readily integrated into modern care plans to generate individualized treatment plans.[42] It offers an empirical evidence-based treatment practice that views SUD as a range of complex biopsychosocial disorders that require multiple interventions from an interdisciplinary team of professionals, and utilizes SUD client-specific data as a strategy for enhancing treatment.[80,127] By adopting and implementing the novel survey instrument developed for this pilot study, GLR will continue to be a premier treatment facility for years to come by enhancing SUD treatment outcomes (i.e., sustained abstinence), destigmatizing the experience of treatment for their clients, and increasing client resiliency to relapse after graduating from the residential treatment program.[130]

In substance-abuse treatment research, employment is often viewed as both a desired outcome and as an element of treatment.[53,65] The intensive rehabilitation program at GLR emphasizes the importance of work among its SUD clients and had a separate "back to work" program because of how vital stable employment is to a rewarding life. Employment is viewed not only as a method to establish a stable income but also as a technique to increase self-esteem and encourage re-socialization for their clients. Several studies have even demonstrated that employment is associated with an increased likelihood of treatment retention (i.e., completion of residential treatment).[53,60]

GLR currently has a set of key performance indicators (KPI) that are used to evaluate the overall effectiveness of the residential treatment program and to assess how SUD clients are doing in response to treatment at GLR (a comparative analysis and the association between the KPIs and the questions on the UET can be found in the Appendix). However, over the past year the facility and its employees have begun to revitalize the SUD treatment program. This modernization is taking place because the demand for addiction treatment facilities has been increasing and GLR wants to provide the best possible care for SUD clients in their intensive residential treatment program. GLR is in the process of becoming a SUD recovery program that is comparable to emblematic treatment facilities like the Hazelden Betty Ford Foundation.

Juxtaposed with GLR's treatment program renaissance has come the necessity for gathering unambiguous information about their clients, the effectiveness of the treatment interventions, and the quality of the facility, by implementing a universal measurement tool. In substance-abuse treatment, the question of "what works" is more productively specified as "what works for whom, and in what setting."[8] That is the type of question that the Universal Evaluation Tool (UET) helps answer. The term "universal" is used to describe how this new survey instrument can be given at any point in time during the SUD clients' recovery process and its ability to collect data on multiple levels. This multi-dimensional tool can also be used to provide valid, statistically significant data to the community for GLR to expand its current facilities, build a new residential SUD treatment facility, and continue its positive impact within the community.[155]

Intersection of Addiction Epidemic and COVID-19 Pandemic

Beginning in late 2019, the novel coronavirus pandemic has persisted through 2022. The reallocation of available assets to suppress the spread of the virus markedly reduced the resources that had previously been available for those with SUD.[73] As the impact of this systems-wide shock continues to ripple throughout vulnerable communities, those with SUD continue to be adversely affected both directly and indirectly by circumstances generated by the pandemic.

The SARS-CoV-2 virus that causes COVID-19 paralyzed economic and health care systems across the world, leaving millions of people unemployed and chronically diminishing long-term societal as well as personal safety nets. The accompanying civil unrest in the US drastically eclipsed public awareness of how the pandemic disproportionately affected individuals with SUD.[43] As medical professionals and scientists learned more about the novel SARS-CoV-2 virus and how it affects the systems of the human body, comorbidities for SUD were increasingly associated with risk factors for COVID-19.[181]

Adverse health consequences that are most commonly experienced by individuals with a SUD diagnosis include psychiatric conditions, respiratory diseases (e.g., COPD), cardiovascular disease, type 2 diabetes, immune system depression, and central nervous system abnormalities.[123,181] Environmental challenges in this population that also increase the risk for COVID-19 range from criminal justice involvement to housing instability.[134] The COVID-19 pandemic made already scarce treatment resources for those with SUD even more difficult to

access as well as more challenging to navigate, destabilizing many in the recovery communities.[102]

COVID-19 has severely impacted positive health measures for the entire world as well as the global economy.[43] Research has indicated that mental health is being adversely impacted for most of the world's population in the wake of the pandemic.[181] In the US, an already strained mental health care system continues to experience substantial stress to provide access to care for individuals suffering from SUD and mental health issues emerging from the pandemic.[59,111]

Analysis of electronic health records by the National Institutes of Health (NIH) for over 73 million patients in the US indicated a prevalence of 10.3% for a diagnosis of SUD.[115] Individuals with a diagnosis of SUD disproportionately represented 15.6% of the total COVID-19 cases in the sample population.[181] Additionally, a recent SUD diagnosis was associated with an eight-fold increase in the probability of developing COVID-19 compared to those without such a diagnosis.[43,73]

The pandemic has highlighted five major intersectional dimensions shared by both COVID-19 and SUD. Comorbidities associated with SUD are also linked to more severe COVID-19 symptomology.[73] Public health mitigation efforts such as isolation and social distancing may exacerbate preexisting mental health issues as well as limit access to community recovery groups (e.g., Alcoholics Anonymous).[102] Substance use is also frequently a communal ritual and likely contributed to community transmission of the SARS-CoV-2 virus. Lastly, the magnified

financial strain the pandemic has placed on already stressed individuals and limited resources resulted in significant reductions in accessibility to high-level SUD treatment services (e.g., medically assisted detox, residential treatment, etc.) for most individuals.[43,134]

Chapter 2 Literature Review

Recovery Enhancing Environment Measure as a Template

The Recovery Enhancing Environment (REE) tool is a measurement instrument developed by consumer-researcher Priscilla Ridgway, Ph.D. The REE is a paper and pencil self-report survey that collects information about recovery from people who use mental health services. The REE has been validated with extensive field-testing and found to be accurate and precise with its measurements.[131] The survey results demonstrate whether a program is successful in creating an atmosphere where recovery can flourish. It also provides information about those taking the survey. The results of the REE can be used to help treatment facilities like GLR to learn, change, and become more recovery-oriented in ways that make sense to all parties involved.[40,155]

The Michigan Department of Community Health (MDCH) reviewed multiple existing instruments and selected the REE to be its standardized survey tool. The REE was administered to 6,146 adults with serious mental illness served by Michigan's 46 Community Mental Health Services Programs (CMHSP) and their related contact agencies to determine its effectiveness via statewide data collection and analysis.[131] The REE was shown to be reliable and to be a valid instrument for conducting client surveys/data collection.[16] Reliability refers to the survey's consistency and dependability, and validity refers to the accuracy with which the survey measures the concepts it sets out to measure.[131,170]

Recovery from mental health issues and recovery from SUD issues are closely related. Dual diagnosis of the two diseases is common as well. The National Bureau of Economic Research

published an article, “Mental Illness and Substance Abuse,” exploring the relationship between the two conditions. The following is an excerpt from the article:

> There is a definite connection between mental illness and the use of addictive substances. Individuals with an existing mental illness consume roughly 38 percent of all alcohol, 44 percent of all cocaine, and 40 percent of all cigarettes. Furthermore, the people who have experienced mental illness consume about 69 percent of all the alcohol, 84 percent of all the cocaine, and 68 percent of all cigarettes. (2-3)

This is just one example of why the REE was used as a reference when creating the UET.

Using the original REE survey as a framework, a novel survey instrument has been created, where the focus has been shifted from being primarily a mental health services evaluation tool into a SUD evaluation tool. By altering the wording/phrasing of the original questions on the REE, removing questions less pertinent to SUD treatment, and the addition of SUD-related questions, an alternate version of the REE has been generated. The newly developed survey is called the Universal Evaluation Tool (UET). The UET was formed based on the specific needs and requests of the care providers at GLR. By creating a survey tailored to GLR, a universal in-house data collection and evaluation tool has been generated and a pilot study was conducted. Preliminary use of the UET has provided GLR with the means of collecting baseline data for their current and future needs as a SUD treatment facility. The data has been gathered by the same self-survey method as the original REE, while simultaneously collecting information regarding client demographics, involvement in the recovery process, integration of recovery elements into daily life, unique care requirements, and distinct recovery markers.[16,40,131]

The greatest drawback of the REE, and therefore the UET, is not directly attributable to the measure itself, but to the entire genre of self-report measures of satisfaction. Respondents tend to offer positively biased answers in this type of survey.[105] This phenomenon reduces the validity of responses, and therefore the ability of the data to support analysis.[9,10] However, no data collection method is without error, and the REE is reliable despite potential bias.

Self-Report Survey Validity

Social scientists have long recognized the validity of self-report instruments in areas such as satisfaction with services but reports of one's own characteristics tend to have a significant positive response bias. The respondents' answers tend to be more positive than their actual experience.[105] Relying on SUD client self-reports of abstinence status has also been debated. However, several researchers have concluded that, if reports of substance use do not lead to unwanted consequences, self-reports of *total* abstinence are accurate.[26,105] To surveyors, "accuracy" refers to how closely a measurement or observation comes to measuring a true value, since measurements and observations are always subject to error.[9] One condition strongly associated with the collection of accurate self-report research data among substance dependent individuals is the requirement that an individual be alcohol/substance free at the time data is collected.[40,131] As with any self-report survey, the accurate collection of data is limited by the veracity of the individual respondent's answers.[5,40,70] Researchers have also noted that frequent follow-up contacts function as a continuing care process with beneficial consequences such as increased abstinence rates and the ability to more effectively place SUD

clients in treatment groups.[148] Research suggests that by administering the UET at GLR instead of at home, it will enhance their success rates with regard to long-term abstinence for SUD clients that have received care at their facility.[120]

Self-reports on abstinence versus non-abstinence are more accurate than self-reports on frequency and amounts consumed by those who are not abstinent.[9,10,28] However, multiple studies centered on SUD research have shown that self-report methods are sufficiently valid so that it represents a practical way of assessing abstinence rates following treatment too.[65,79] Through a review of the current literature regarding SUD self-surveys, it has been concluded that the self-survey style has shortcomings and the potential to produce erroneous results, but the potential for false/unreliable data collection is no greater than for other data collection methods.[40]

Characterizing Favorable Treatment Outcomes

The most conventional label placed on an outcome variable for the measurement of efficient SUD treatment is "success."[139] Ostensibly, SUD treatment outcomes appear relatively straightforward to measure. Typical outcome measures include successful program completion, reduced substance use and illegal activity, and improved employment or school status.[23,33,65] Predictors of successful outcomes following SUD treatment include the length of stay, age of SUD client, educational attainment, marital status upon entry, socioeconomic status, religious involvement or spiritual practice, social support, and psychiatric diagnosis.[1,2,4,117] Furthermore, there is also evidence that significant variation in outcomes across different rehabilitation

facilities may be associated with the organization, management, and implementation of treatment programs. [8] Of these possibilities, we understand comparatively little. The consensus view among researchers in the field of addiction is that the definition of a successful substance abuse treatment program is nuanced and multifactorial.[117,139] However, there has yet to be an all-inclusive, universally accepted definition of success in this area of research.

One of the most widely utilized frameworks for describing and understanding factors that guide individuals' behavioral changes is the transtheoretical model (TTM).[135] First described by Prochaska and DiClemente in 1983, the five transitional stages of behavior change are pre-contemplation, contemplation, preparation, action, and maintenance. The TTM, in addition to many other integrative models used to conceptualize internal mechanisms related to changing adverse behaviors (e.g., substance abuse), ubiquitously describe the process of behavior change as dynamic and non-linear.[11,42,135] Given the dynamic nature of human behavior change, reliance on a single outcome measure (e.g., abstinence) to delineate successful treatment for SUD clients would be ill-founded; instead focus is on the process of change during treatment.[75,83]

Quantitative predictors of successful treatment tend to bias terminal outcome measures and discount the internalization of the SUD recovery process.[94] Recovery and the associated behavior changes are not linear processes that lead directly to externally idealized final outcomes such as lifelong abstinence. Outcome measures traditionally applied in the treatment literature include sustained abstinence, program completion, and life functioning.[23] However,

abstinence by itself does not guarantee optimal life functioning, and vice versa.[25,33,35] Although SUD recovery is a dynamic process, SUD treatment outcomes continue to be measured by linear models.[20,25,69]

Given the dynamic nature of SUD and the treatment of clients with SUD issues, a universal definition of success across *all* treatment levels may not even be appropriate or a relevant approach to the matter. However, it is feasible to limit the goal to defining variables that impact success in the treatment of addicts locally in Grand Rapids. By narrowing the scope further into the specific population of men that GLR treats, a manageable sample size emerges from which outcome variables pertaining to success can be characterized.[70] From this sample, it is feasible to identify and measure key variables to obtain statistically significant data pertaining to success (i.e., favorable SUD treatment outcomes).[124]

Evaluating the compounding variables that impact successful treatment outcomes for SUD clients necessitates a measurement scale.[16] Research on addiction treatment groups describes successful treatment as some type of change that positively impacts well-being.[79, 127] This includes enhanced coping skills, avoidance of psychoactive substances, increased confidence, empathy, self-control, self-efficacy, and involvement in rewarding activities.[130] In a broad sense, enhanced quality of all aspects of life for the SUD client and their families is the goal that is best reached after SUD clients become abstinent of all psychoactive substances.[23] Complete abstinence from drugs and alcohol is one of GLR's KPI that they have successfully treated a

client with SUD, which is in agreement with the vast majority of current research pertaining to successful SUD treatment outcomes.

Chapter 3 Methods

Synopsis of Goals for UET

The universal nature of this measurement tool will allow for it to be implemented during client intake, discharge, or at any timepoint as a method to continue collecting information about GLR alumni. By having a single evaluation tool that can be used at any interval throughout a client's recovery process, accurate data can be collected in the exact same manner but over different lengths of time. This will give GLR a wealth of information that can be analyzed using software such as SPSS® to produce statistically significant results in future studies, results that can be presented to donors, used to improve their facility, and enhance the quality of care provided to their SUD clients.

The UET will allow GLR to gather data for future analysis such as baseline data for comparison, sociodemographic variables, SUD client's perception of GLR's therapeutic staff and residential treatment program, unique care requirements for specific clients (e.g., trauma-informed care, Adult Children of Alcoholics, etc.), tracking of individual SUD clients' progress during the residential treatment period, recovery trajectory post-residential treatment, and the information necessary for GLR to create a definition of success unique to its facility's needs and client population.[155] The UET survey design is multi-dimensional, allowing it to collect a wide range of data while remaining simple to administer, intuitive for the respondent, and cost-effective for the facility.[40] This has supplied GLR with the ability to continuously monitor and enhance the SUD treatment provided to their clients. Enhanced SUD treatment at GLR may also

have a secondary effect of reducing the burden of SUD clients on local medical facilities and helping the underserved population of West Michigan.[123]

The finalized UET has proven to be an affordable, intuitive, and multi-dimensional self-survey tool that is providing information to GLR in four principal areas: sociodemographic data, facility/staff evaluations, accurate self-progress evaluations, and baseline/comparative dataset for analysis in future studies. More specifically, the survey will collect data about sobriety, recovery involvement, employment/income, physical/psychological/spiritual health, introspection (i.e., self-perception), housing, and demographics. Analysis and interpretation of the data will give valuable insight into GLR's specific SUD treatment process and outcome indicators.[155] All the different levels of preliminary data collected from the UET have provided GLR with accurate and reliable information. After more data is collected, the information can be used to formulate a treatment-specific definition for success and successful treatment/recovery outcomes for the SUD clients at GLR.

A clear definition of success for GLR will increase the efficiency of treatment delivery methods/techniques and the ability to design client-specific care plans that will move residents towards success. By adopting the UET, GLR will be able to reduce costs by streamlining their client evaluation techniques as well. The versatile design of the UET means that it can be used for intake, discharge, and evaluations at any given time in a consistent/accurate manner. Ideally, the UET will be adopted and used by GLR for multiple years as a measurement tool that

provides data to enhance SUD client care, the efficiency of the treatment facility, and improvement of the quality of life for SUD clients entering treatment at GLR.

Implementing the UET at GLR

To treat any chronic medical condition effectively, a normative baseline set of data must be obtained for the specific client population.[12,37] Initially, I set out to perform a retrospective study in which I would have compiled and statistically analyzed data from 208 previous SUD clients (from 2010-2015) to generate baseline data for GLR to use. However, the past client data was collected/filed using a range of different methods that were inconsistent, subjective, and contained many gaps in the client's records. This imperfect cataloging system was not a reflection of the quality of treatment SUD clients received at GLR, of the facility, or the therapeutic staff. The previous evaluation and data collection methods were appropriate for the needs of the facility and tailored to specific counselors at the time, but the needs of GLR had changed and it was evident that a novel evaluation tool needed to be implemented. Analyzing this available data would have produced results that were not reliable and therefore unusable. That is why the focus of the study was shifted from a retrospective analysis of GLR's client data to providing the data collection tool itself for GLR. The UET was adopted and introduced by GLR for a trial period; used to gather baseline data unique to their treatment population and as the standardized tool to monitor SUD clients and evaluate the quality of the treatment program.[70]

During the actualization period of this research project, working copies of the UET were presented to GLR's board of directors. During the initial meeting with the board of directors, an appeal was made that outlined flaws in the methods of data collection being employed at GLR and evidence supporting the need for a standardized, reliable, and valid measurement instrument. Although SUD client data collection at GLR had improved in recent years and was being gathered by a well-designed series of instruments, the data remained largely subjective, the collection process was somewhat lengthy, and the instruments could have been more intuitive. A single, proven client evaluation tool needed to be implemented to collect accurate data for establishing a reliable point of comparison for use in future studies.[105]

Following the opening presentation to the board of directors, all the members of the board were in agreeance that the residential treatment program could benefit from a single, updated, and validated data collection instrument. Their only stipulation was the inclusion of GLR's list of ten key performance indicators (KPIs) into the design of the new survey instrument and that the KPIs were the central developmental feature of the questions on the survey. By merging foundational elements of the GLR program and aspects of prior client evaluation tools, mainly GLR's ten KPIs, with the previously validated REE framework, amended to focus primarily on variables of SUD recovery in place of mental health, a novel survey instrument (i.e., UET) was generated to fulfill the requisite data collection needs of GLR's residential treatment program and satisfy the requirements set forth by the board of directors. Concisely, the UET is a hybrid of previous GLR KPI evaluation methods and the REE self-survey.

The professional staff of GLR was already knowledgeable, skilled, and experienced in administering surveys/evaluation tools to SUD clients. They required minimal training due to their expertise. The UET is designed to be intuitive for both the person completing the survey and the professional administering it. The UET and the results produced from the data it collects were designed for internal use by GLR. The Recovery Council of Michigan's final report on the REE contains the fundamentals for the administrator and the various responsibilities of the surveyor.[131] Within the report, there is a manual for the surveyor that was used as a model for the UET administrator's manual. Through close collaboration with GLR therapeutic staff, a modified version of the REE surveyor manual was created (i.e., UET administrator's manual) that integrated the standards of practice used by GLR for conducting surveys. Novel guidelines, unique to the administration of the UET, were codified into a separate document and labeled as the UET Administrator's Manual.

A script was also developed and provided to those administering the UET, ensuring that each client surveyed received the exact same instructions.[16] The first page of the UET contains directions for the individual administering the survey, including the script. The UET script contains instructions for recording and tracking client data over time, as well as recording the individual who administered the UET. Inclusion of a script with the administrator's manual provided an intuitive and practical information packet to minimize discrepancies in data collection by standardizing the process. This process standardization strategy establishes a uniform method for gathering reliable data by installing a formal system and procedural guidelines for administering the survey. This ensured that the UET was administered the same

way to all SUD clients and that data was collected in a reproducible manner to yield the most accurate results possible.[26]

The UET has been designed specifically for the in-house use of GLR. Having the survey administered by the informed and knowledgeable SUD professionals at GLR helped minimize any confusion and/or frustration provoked by the UET itself (e.g., test anxiety). Furthermore, the administrator remained available to answer any UET-related questions for the duration of the survey. The most important aspect of developing the UET was to make it as intuitive as possible while collecting the most data possible and reduce potential errors in the data collection process.[28]

There are NO open-ended or free-response type questions on the UET. Questions are predominantly answered via a predefined measurement scale to reduce data collection errors and bias, while enhancing the validity of data collected by the survey.[105,170] There are primarily four ordinal answer choices on the UET: strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD). Additional questions are asked in a dichotomous style using true/false or yes/no as possible responses (i.e., dichotomous scale). Questions that require numerical answers have ranges of values that state their inclusion and exclusion criteria. The questions for gathering SUD client demographic data have predefined answers where the respondent places an “X” in the indicated area.

A substantial amount of time was invested in the phrasing and language used in each question on the UET (e.g., neutrally worded questions, answer options are not leading, etc.).[16,105] Standardizing UET response options using a predefined scale and having the professional staff at GLR administer the survey using a codified script (i.e., administrator's manual) augmented techniques for collecting data at GLR. Before participating in the survey, SUD clients are informed of the confidentiality agreement that administrators are required to adhere to as well as how SUD client data may be used in the future. The non-disclosure agreement is a legally binding contract that safeguards private information gathered from respondents by regulating current treatment implications as well as potential future use by researchers.[35] All clinical staff with access to the respondent's answers understand this restriction and have agreed to resist sharing the respondent's specific answers without prior written consent. This includes giving information to family members, other individuals, other treatment agencies, social agencies, criminal justice agencies, and other agencies. A working copy of the UET that has been successfully implemented at GLR can be found in the Appendix A.

Data Collection, Entry, and Preliminary Analysis

The pilot study assessed the feasibility of the UET as a survey instrument and offered a first look at the function of the measurement tool in its intended setting (i.e., GLR's residential SUD treatment program).[70] Implementation of the UET occurred during the winter months of 2015/2016 at GLR and twenty SUD resident-completed surveys were gathered for preliminary data analysis. A typical residential cohort of SUD clients at GLR is anywhere from 25-30 individuals. However, since dropout rates tend to be relatively high among those entering an

intensive residential SUD treatment program, the sample size of twenty (no SUD client was sampled twice) provided a valid starting point for evaluating how well the UET was performing and if the data it yielded could be analyzed/presented in a useful manner.[70,79,190]

The data collected from the twenty completed surveys was entered into a spreadsheet to record all the individual responses. Appendix D is a record of all the survey information gathered during the pilot study and subsequently used for preliminary data analysis. Each SUD client who completed the survey was randomly assigned a number between one and twenty, to maintain anonymity, before their responses were entered into the spreadsheet (i.e., Appendix D: UET spreadsheet). These values are listed under the first column heading of "client number." The top row of the spreadsheet in Appendix D designates the question from the UET that corresponds with the resulting data.

Numeric values for the UET questions were assigned based on the question and response options. This allowed for trends in the data to be evaluated using numeric values on an interval/ratio scale as opposed to an ordinal data scale and application of quantitative data analysis techniques (e.g., simple linear regression analysis) to extract value from the dataset. SUD client numbers were color coded based on the month they completed the UET, permitting the analysis of grouped data and additional levels of data aggregation (e.g., response trends based on time point completed).[40] Cross-tabulation (e.g., Chi-square) and other descriptive statistical techniques for data analysis provide further insight. Lastly, discourse analysis helped to provide an understanding of the cultural and social context of the dataset. Table 1 indicates

how each UET response option was assigned a numerical value (excluding questions with more than 4 response options). Table 2 shows the color-coding system for designating the month when each survey was completed, and Table 3 contains the key for the grouped UET response data.

Table 1. Numeric Values Assigned to Response Options

UET Response Options	Corresponding Numeric Value
Yes	1
No	2
Strongly Agree (SA)	1
Agree (A)	2
Disagree (D)	3
Strongly Disagree (SD)	4

Table 2. Color-Coding System for Month of UET Completion

Month of UET Completion	Corresponding Color
November (11) 2015	Orange
December (12) 2015	Purple
February (2) 2016	Green
April (4) 2016	Red

Table 3. Grouped Data Key

UET Response Options	Corresponding Color	Assigned Numeric Value
Strongly Agree (SA)	Green	1
Agree (A)	Blue	2
Disagree (D)	Orange	3
Strongly Disagree (SD)	Red	4

The data contained in the spreadsheet from Appendix D represents the cumulative raw data collected during the pilot study. Grouping and preliminary analysis of data from this trial period offered insight into UET response trends, patterns, and outliers. The dataset was used to

generate tables and figures for displaying preliminary results from analysis of the data. However, the main function of the spreadsheet (i.e., Appendix D) was to serve as a data catalog: a complete record of all the data collected from each UET respondent.

More pronounced and noteworthy trends in this data set will likely emerge after SUD clients take the UET at two or more timepoints. The format of the spreadsheet in Appendix D is best suited for tracking the progress of a specific patient, or lack thereof, over time. Thereby providing therapeutic staff at GLR with the information and framework necessary to create individualized care plans for residential SUD clients. The data set also provides insight into timepoint-based trends such as variations in responses based on the time/month the UET was administered. For example, the data set in Appendix D indicates that SUD clients at GLR who took the survey in April were more likely to have negative responses to UET questions compared to the clients who completed the survey between November of 2015 and February of 2016.

Chapter 4 Results

Demographic Data of GLR SUD Clients

The group of 20 individuals that completed the UET were all voluntarily attending GLR's residential SUD treatment program, and all identify as male. The age distribution of the men sampled ranged from 18 to 55 years old. Approximately 75% of the clients were aged 36 years or older and the majority of clients (9 of 20) were in the 46-55 age range. 85% of clients identify as Caucasian/White, and the remaining 3 clients identified as African American/Black. 70% of SUD clients entering the treatment program indicated that they did not have secure housing before coming to GLR.

When an individual is accepted into GLR's SUD program, the staff offer them the necessary documents/resources to apply for pertinent government assistance programs as well as health insurance. However, 85% of the clients stated that they currently had health insurance upon admittance to the program. Twelve clients responded that they were not receiving any type of government assistance (e.g., Supplemental Nutrition Assistance Program (SNAP), Medicaid, etc.) and 8 indicated that they were receiving assistance. Overall, most clients in the SUD program at GLR have some kind of health insurance but do not receive any form of government assistance.

The group sampled at GLR was well educated, with more than half (11) of the individuals having received some college education or higher. Three individuals had graduated with a high school diploma and two had successfully passed the General Educational Development (GED) tests.

Overall, 80% of the group sampled had graduated high school or earned a high school equivalency diploma (i.e., GED). The accompanying table, Table 4, partitions education into six subcategories, displaying the corresponding number of patients who have attained that level of education.

Table 4. Highest Level of Education Completed

Education Level	Number of Clients
Some high school	4
GED earned	2
High school graduate	3
Some college	**9**
Bachelor's degree	1
Some post-graduate work	1

Of the 20 clients surveyed, 80% had received some form of SUD treatment prior to entering the program at GLR. The 16 clients indicated that the style of treatment they had previously received were either similar to the inpatient program at GLR, traditional outpatient services, and/or community-based recovery groups such as those that utilize the "12-steps." Specifically, 32% had been a part of an inpatient SUD treatment program, 31% had utilized outpatient services, and 37% indicated that they have been to a community recovery group/12-step meeting (e.g., Alcoholics Anonymous).

Even though 80% of the SUD clients at GLR had received previous treatment for substance dependency and/or SUD-related issues, only 15% reported being substance-free for more than 60 days. The remaining 85% reported being abstinent from psychoactive substances for 60 days or less at the time the survey was administered to them. Almost half of the clients (9) had been substance-free 30 days or less, and one client indicated that his sobriety was in the range of

151-180 days. Table 5 shows the distribution of sobriety lengths among the 20 individuals upon completion of their first UET at GLR.

Table 5. Length of Time Substance-Free at Time of Survey

Continuous Abstinence Period (days)	Number of Clients
8-30	**9**
31-60	2
61-90	5
151-180	1

95% of respondents who completed the UET acknowledged the presence of substantial life problems (e.g., career, judicial, interpersonal relationships, etc.) directly related to substance misuse and considered themselves as having addiction issues. Table 6 depicts the self-indicated, preferred substance/s of abuse for the group of GLR clients, arranged in descending order. Alcohol was overwhelmingly reported as the primary substance of abuse by GLR SUD clients (18 clients). Cannabis and tobacco products, including non-tobacco-nicotine (NTN) products, were equally reported as the second most abused substances, with 5 clients each. 7 clients designated polysubstance use and interestingly, only 2 clients stated prescription medications as their principal substance.

Table 6. Primary Substance/s of Abuse for SUD Clients

Substance of Abuse	Number of Clients
Alcohol	**18**
Cannabis	5
Tobacco Products	5
Rock/Crack Cocaine	3
Prescription Medications	2
Heroin	2
Powder Cocaine	1
Methamphetamine/Speed	1

Client Evaluation of Services Provided by Guiding Light

Beyond collecting demographic data, the UET's second objective is to gather data regarding the quality of treatment clients feel they are receiving from GLR. Section 3 of the UET offers questions relating to the level of personalized care provided by the SUD program at GLR. Client perception concerning GLR's provision of personalized care is best represented by questions 2, 3, 4, and 7 from Section 3 of the UET. All four of these questions had a 100% response rate and Figure 1 indicates that, according to the SUD clients themselves, they feel they are receiving better than average (mostly) personalized care plans from the staff at GLR.

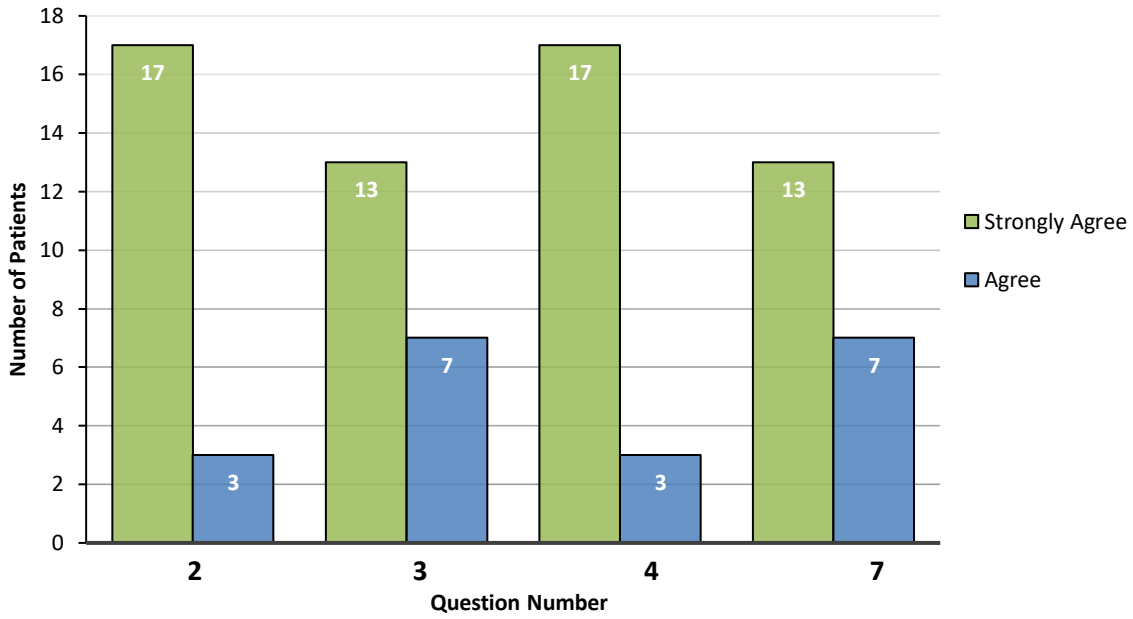

Figure 1. Integration of Personalized Care Planning. Client responses to questions 2, 3, 4, and 7 from Section 3 of the UET regarding use of individualized SUD treatment plans. (2) Staff at GLR view me as more than a "case" or a diagnosis; they want to know me as a person. (3) GLR's SUD treatment program offers individualized services to meet my unique needs. (4) Staff at GLR treat me as a whole person with a body, mind, emotions, important relationships, and spirit. (7) Staff at GLR ask me what is meaningful to me regarding my unique recovery process.

GLR staff also create care plans based on the chronic complex disease model of SUD (i.e., disease model of addiction) when it comes to treating SUD and SUD-related issues. Comprehension and client-driven acceptance of SUD as a chronic disease is considered an important part of treatment and has been shown to augment rates of long-term sobriety among individuals receiving treatment for SUD.[6,52,107] Figure 2 suggests that GLR staff are providing effective client education regarding the disease model of addiction, with clients largely accepting SUD as a chronic disease. Questions 45, 46, and 47 in Section 3 of the UET best characterize the client's comprehension level and acceptance of the chronic disease theory of SUD. All three questions had a 100% response rate, and there were no responses of "disagree" or "strongly disagree".

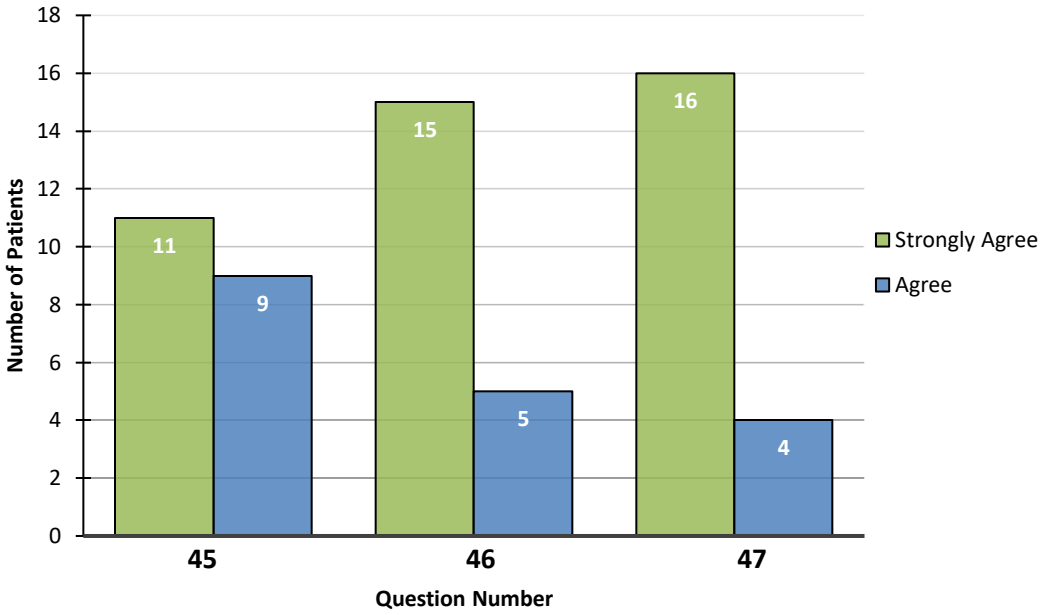

Figure 2. Disease Model of Addiction. Client responses to questions 45, 46, and 47 from Section 3 of the UET regarding the chronic disease model of addiction. (45) I believe that addiction is a disease like other chronic conditions (e.g., diabetes, hypertension). (46) Like other chronic conditions, I can live a full and productive life by continuing to treat my addiction by attending support groups (i.e., 12-step groups). (47) Like other chronic diseases, SUD demands the help and support of others to sustain recovery.

Co-Occurring Disorders and Distinct Treatment Considerations

SUD clients require complex care plans because SUD is often just one part of a multi-factorial disease or range of accompanying diseases.[151] Addressing these needs is essential to recovery, and question 2 in Section 4 of the UET is dedicated to the most common non-SUD factors or outside influences that impact an individual's SUD recovery process. The most prevalent factor being illnesses co-occurring with SUD such as mental health-related conditions (e.g., depression, anxiety, ADHD, etc.).[166,180] The 2021 annual report from the U.S. Department of Health and Human Services' Substance Abuse and Mental Health Services Administration (SAMHSA) indicated a strong link between SUD and mental illness; prevalence of past year co-occurring SUD and mental illness of approximately 50% (i.e., 1 in 2 of those with SUD also have mental illness).[33] In the group sampled at GLR, over half of the group indicated the presence or history of a mental health-related issue. Specifically, 58% of the clients sampled have had or currently have a mental health condition that has been clinically diagnosed by a medical professional. Figure 3 shows client responses to the four mental health-related questions listed under Section 4, question 2, in the UET. The client responses indicate a high level of satisfaction with the accessibility and provision of services pertaining to psychological wellness by GLR.

A history of trauma or abuse is not uncommon in those with SUD.[68,82] Question 3 in Section 4 of the UET gathers information on this topic. Most clients reported no history of trauma or abuse but 32% of clients indicated that they had experienced trauma or abuse in their past. The four sub-questions under question 3 on the UET ask for the clients' perception of the adequacy of services provided by GLR to care for these unique needs. Figure 4 displays a high level of

satisfaction among the clients in reference to the availability and provision of specialized care for clients with this type of history.

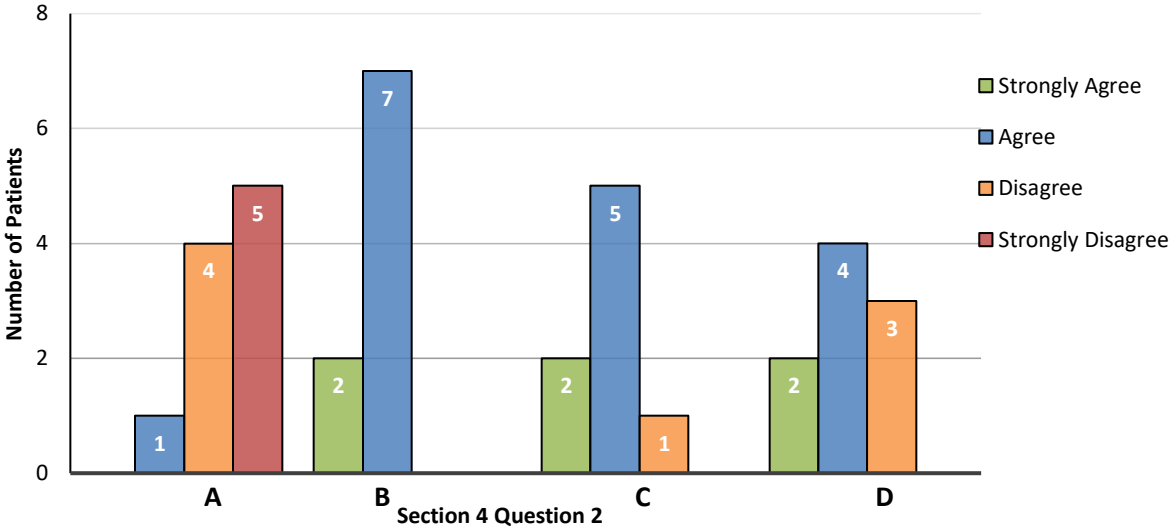

Figure 3. Substance Use Disorder and Co-Occurring Mental Health Disorders. Client responses to Section 4 question 2, regarding mental health, parts A, B, C, and D. (A) Receiving help with/for my mental health is *not* important to my recovery. (B) GLR has resources to help me with both SUD and mental health disorders. (C) I feel I can easily access the mental health resources that GLR offers. (D) GLR has linked me to community recovery groups that deal with co-occurring SUD and mental health disorders.

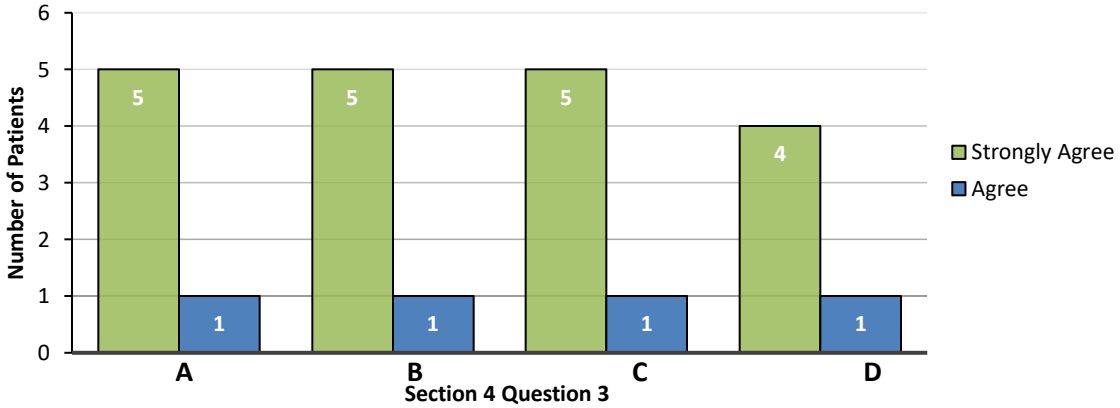

Figure 4. Integration of Trauma-Informed Care. Client responses to Section 4 question 2, regarding individual trauma (e.g., abuse), parts A, B, C, and D. (A) Healing from traumatic experiences in my past is important to my recovery. (B) GLR offers resources to help me heal from trauma. (C) I feel safe opening up about traumatic experiences with GLR staff. (D) Staff/counselors at GLR help me effectively deal with the emotional responses caused by my traumatic experiences.

Just under half of the population sampled, 42%, identified themselves as being a parent or having children. Question 5 in Section 4 of the UET asks those clients with children to evaluate the quality of resources provided by GLR to meet the specialized needs of a parent during inpatient SUD treatment. Figure 5 shows that all clients who are also parents were satisfied with the specialized services provided by GLR. Furthermore, all respondents believed that they were better parents when they were/are sober compared to when they are actively using substances.

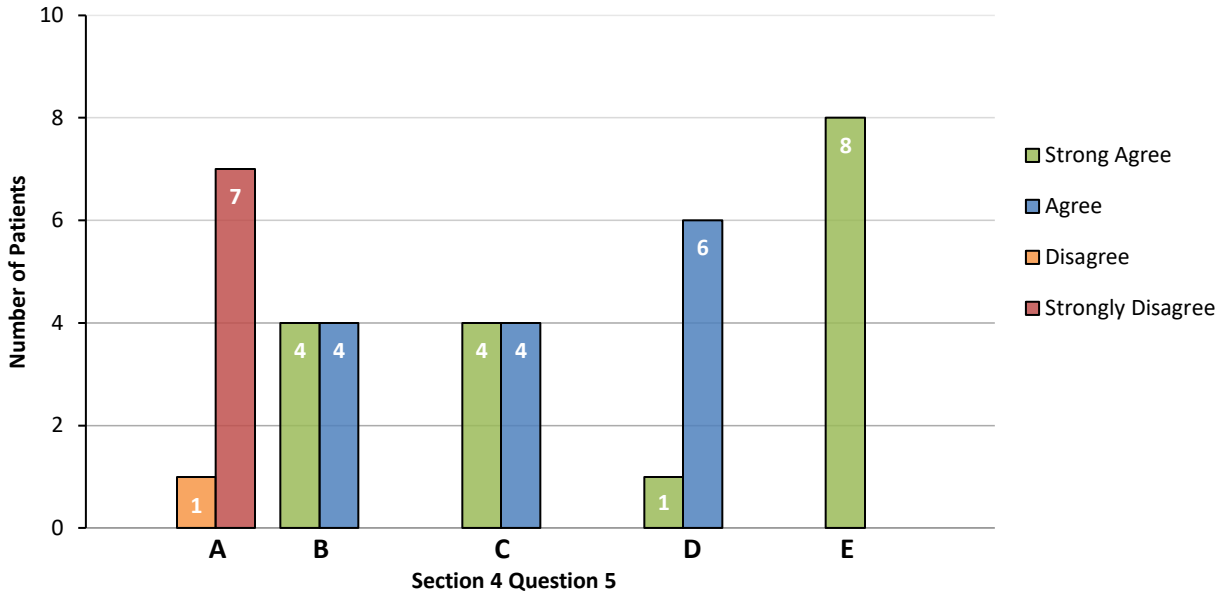

Figure 5. Integrating Resources for Parents with Substance Use Disorders. Client responses to Section 4 question 5, regarding specialized care for parents in recovery, parts A, B, C, D, and E. (A) Having support as a parent is *not* important to my recovery. (B) Staff/counselors at GLR support me in my role as a parent. (C) GLR staff assist me in becoming a better and more effective parent. (D) GLR staff assist me with or provide me with resources regarding any custody disputes. (E) I believe that I am a better parent when I am sober.

Figure 6 indicates that clients are neither extremely satisfied nor extremely dissatisfied regarding their financial stability. However, the responses to questions 6 and 17 in Section 5 of the UET suggest a moderate level of dissatisfaction with their overall financial situation. The

group also largely indicated that they did not (currently) trust themselves to make personal financial decisions.

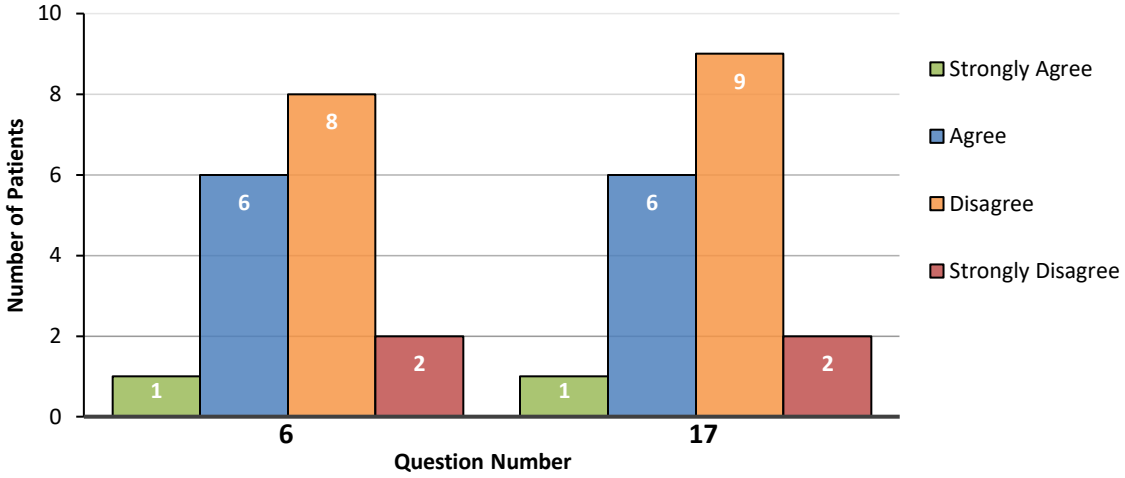

Figure 6. Financial Stability and Financial Decision Making. Client responses to questions 6 and 17, regarding finances, from Section 5 of the UET. (6) I have enough income to meet my basic needs. (17) I trust myself when making personal financial decisions.

Self-Evaluated Emotional, Physical, and Spiritual Health

The recovery performance indicators in Section 5 of the UET assess three key elements of client-centered care at GLR: emotional wellness, client perceived physical health, and spiritual well-being. Within this portion of the survey, a clustering of 14 questions gathers data related to the client's perception of their current mental, physical, and spiritual health. Having previously been identified by GLR counselors as major factors impacting treatment outcomes, these health measures were broadly codified into a list of 10 key performance indicators (KPIs) and integrated into the therapeutic planning process. These KPI-related treatment factors have been established as valuable indicators of client progress during SUD treatment at GLR and are important to track over time for optimizing treatment planning. Therefore, many questions on the UET were designed in direct relation to the previously established KPIs

Figure 7 highlights 9 questions from Section 5 of the UET that assess client perceived physical health and emotional wellness (i.e., measures of integrative care). 75% of clients indicated that they were in good physical health. Of the 20 individuals sampled, all but one responded that they have more good days than bad days. 100% stated that they were goal-oriented and accomplishing specific tasks in the pursuit of their ultimate goals. Clients generally express an above-average level of satisfaction regarding their emotional and physical well-being and the care provided by GLR staff to improve their emotional and physical health.

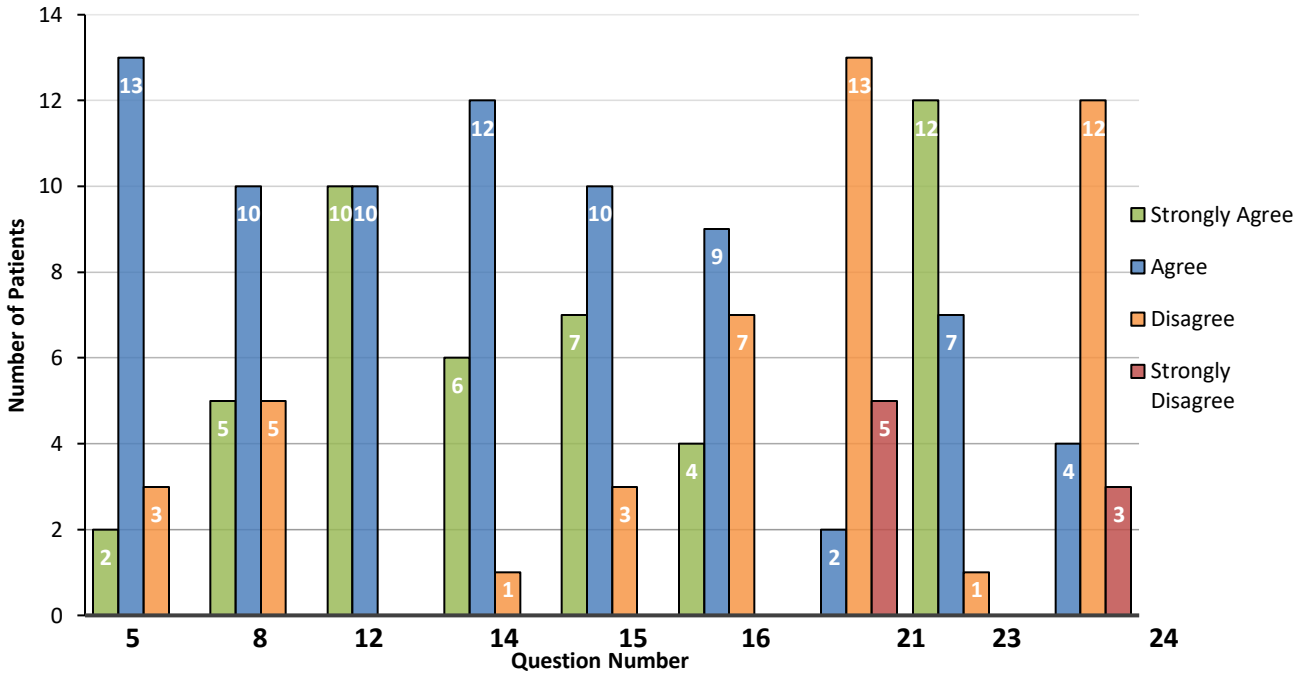

Figure 7. Emotional Wellness and Physical Health. Client responses to questions 5, 8, 12, 14, 15, 16, 21, 23, and 24, regarding patient perceived physical and mental health, from Section 5 of the UET. (5) My emotional health is balanced and manageable. (8) In good physical health. (12) Have goals I am working to achieve. (14) Have more good days than bad days. (15) Have a decent quality of life. (16) Confident in my ability to make important decisions in my life. (21) I *don't* have a sense of belonging. (23) I feel hopeful about my future. (24) Not able to effectively deal with stress.

Within Section 5 of the UET, there are five questions designed to assess the spiritual well-being of an individual. The response trend for spirituality-related questions was that of high satisfaction, with a small minority being somewhat dissatisfied with their current spiritual condition or unsure of how a spiritual practice would positively affect their SUD treatment. 100% of GLR respondents who completed the UET indicated that they had a meaningful spiritual connection to a higher power and deem that connection as an important part of their daily life. The group's individual responses to the five questions which emphasize the connection between spirituality and SUD treatment at GLR are depicted in Figure 8.

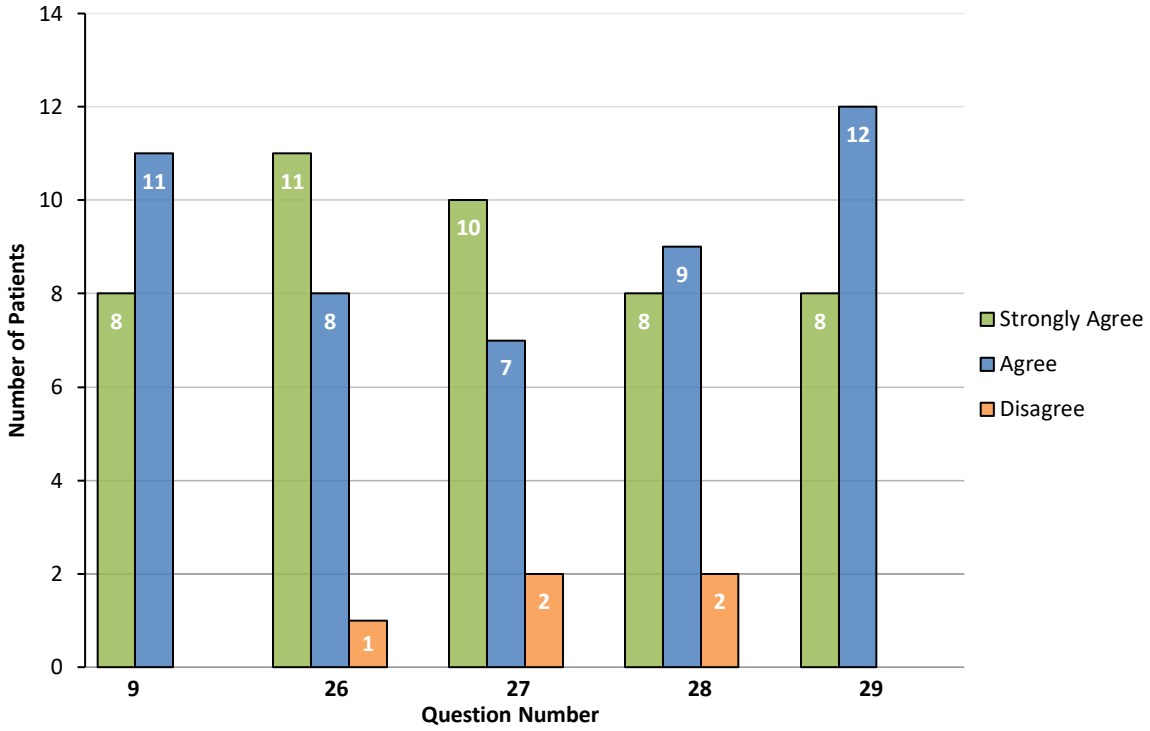

Figure 8. Spirituality and Value-Sensitive Substance Use Disorder Care. Client responses to questions 9, 26, 27, 28, and 29, regarding spiritual curiosity, from Section 5 of the UET. (9) I have a positive spiritual life/connection to a higher power of my understanding. (26) I consider myself to be spiritually curious about Christianity and its belief system. (27) I identify as a Christian. (28) I have had the opportunity to explore different faiths, religions, and spiritual practices through GLR. (29) I consider my faith/spirituality to be strong and important in my daily life.

Chapter 5 Discussion and Conclusion

Importance and Application of Socio-Demographic Data to Enhance Treatment

Overall, the UET performed exceedingly well on several levels and, just like the REE survey it was modeled after, demonstrated to be both an accurate and reliable data collection method. The UET was also designed in a manner that allows for it to be administered multiple times, at different intervals of time throughout the residential treatment period at GLR, and to follow-up after discharge. In this initial sample, none of the clients at GLR completed more than one UET, restricting formal assessment of the survey's ability to track progress over time. However, there were no indications in the preliminary data suggesting that the UET would perform any differently with subsequent testing of the same individual.

The collection of high-quality data is essential for making meaningful data-driven decisions.[16,155] Substantiating that UET responses came from attentive respondents helps ensure good data quality.[9] Confidence that insights drawn from the dataset are based on accurate information is imperative since data from the UET are anticipated to inform critical aspects of SUD treatment planning at GLR.

A straight-forward and often underutilized study design technique used to protect the quality of survey data is the inclusion of attention checks, such as trap questions or instructional manipulation checks (IMCs), at strategic points throughout a survey.[5,9,63] These questions are simple with obvious answers and not intended to deceive the respondent or scrutinize their knowledge. Principally, IMCs are survey questions dedicated to filtering out inattentive

respondents; that is, respondents who are not paying attention to the instructions and answering carelessly or insincerely.[63] By reducing the validity of the measurements, inattentive respondents (i.e., response bias) pose a severe threat to the quality of data collected by the UET and insights made from analysis of the dataset.[170]

The recommended strategy is to implement more than one attention check when designing a survey because even disengaged respondents, individuals choosing answers at random, will select the correct response to IMCs on occasion.[5] If more than one IMC is utilized, the probability of an inattentive respondent correctly answering multiple IMCs is significantly reduced.[63] For most surveys however, one IMC towards the beginning is sufficient.[9] Multiple-choice IMCs are easier to implement than open-ended IMCs but, both types of questions are sufficient. Although the range of IMC pass/fail rates varies substantially across different studies, IMCs flag 5-15% of respondents as inattentive on average.[5,9,16]

Question 44 from Section 3 of the UET is a multiple-choice IMC asking for a response to the question: "I believe that I *don't* have an alcohol/substance abuse problem." The primary goal of SUD treatment is the attainment and maintenance of abstinence.[59] Furthermore, all clients at GLR's residential SUD treatment facility have willingly elected to be there because it is a voluntary rehabilitation program. Considering the primary goal of SUD treatment and the voluntary nature of GLR's SUD treatment program, question 44 (i.e., IMC) has an obvious answer.

The way an IMC is phrased, and the specific words used in the IMC, are also critical for the intended purpose of the question: to filter out inattentive respondents.[9] The phrasing of question 44 is intentionally counterintuitive to gauge the attentiveness, not the knowledge base, of the respondent. By phrasing the question in the negative form, this attention check evaluates if respondents are reading questions carefully.[5,8] Thereby improving the quality of data collected by the UET.

All but one of the GLR respondents correctly navigated this attention check (i.e., IMC), selecting "strongly disagree" as their response to question 44. Resulting in a 95% pass rate for the attention check in Section 3 of the UET. It is feasible that the individual who chose "strongly agree" as his response to the question doesn't maintain the belief that he has substance dependency issues; but this is highly unlikely given the conditions of GLR's SUD program. The most likely explanation for the outlier response is that the respondent was inattentive and failed to recognize the IMC. Overall, the pass-fail was within the expected range for an ICM (5-15%) according to the research consensus regarding the effectiveness of attention checks in surveys.[5,9] This type of high-quality data offers GLR a stratified framework with numerous applications: designing personalized SUD treatment plans, tracking a client's progress as they advance through GLR's program, enacting early intervention strategies via identification of regressive behaviors associated with relapse to avoid catastrophic outcomes for GLR clients (e.g., program expulsion), and generating presentations for existing/prospective GLR donors at community fundraising events.

One of the most valuable tools in generating personalized care plans for individuals seeking SUD treatment is to determine their preferred substance/s of abuse or "drug/s of choice" (DOC).[28,92,95] Gathering DOC-based information from new admissions entering the SUD treatment program at GLR can add valuable insight to the overall clinical picture of an individual.[29,44] For example, various socio-demographic characteristics (e.g., age, ethnicity, educational attainment, marital status, etc.) have been shown to differentiate among individuals with different DOC.[1,4,19] Therefore, using identical one-size-fits-all treatment plans for every individual entering a SUD treatment program, regardless of DOC differences as well as other client-specific characteristics, should be discouraged.[65,74]

To enhance long-term outcomes, a comprehensive SUD treatment program should begin by integrating a client-centered model of care to formulate individualized SUD treatment plans.[122] With the disease model of addiction, those with different DOC should not and do not receive identical SUD treatment plans. This is not exclusively because the (preferred) substance/s differs, but also because evidence-based research suggests that different drug classes (e.g., depressants vs stimulants) initiate different neurobiological mechanisms, developmental pathways, and maladaptive behaviors.[136,161,180,184]

In active addiction, negative affective states tremendously increase the expected value of obtaining an individual's DOC, acutely outweighing previous goals of abstinence (i.e., brain anti-reward pathways).[52] A ubiquitous pathological feature of addiction that is reinforced and simplified by members of community recovery groups (e.g., Alcoholics Anonymous) through the

use of statements such as: “A drug is a drug is a drug.”[75,76] This platitude is in reference to the high addictive potential that exists for any psychoactive substance, regardless of personal drug preference (i.e., DOC), when ingested by an individual with preexisting SUD. Any exogenous compound with a mind-altering effect should be considered a “drug” because it will likely trigger an undesirable physiological response (i.e., cravings); initiating DOC-seeking and/or addictive behaviors foreshadowing a relapse.[143,185] Therefore, these types of statements function as valuable recovery proverbs to efficiently communicate the requisite of complete abstinence from psychoactive compounds to provide endogenous restorative mechanisms in the brain the opportunity to repair damage caused by substance abuse.[172,186]

Individualized care plans are a central and dominant feature of high-level SUD treatment programs, as evidenced by the latest scientific research, modern clinical practice guidelines, and the time-tested methods of community recovery groups.[106,116,124] Building a framework for enhancing long-term outcomes of GLR’s SUD treatment program begins with efficient collection of client information (e.g., DOC) required for the development and implementation of personalized SUD treatment plans. Therefore, questions in Section 1 of the UET ask respondents to indicate their DOC or the substance/s that they abused most frequently.

Preliminary findings from SAMHSA’s 2021 Drug Abuse Warning Network (DAWN) indicate that over half of all emergency department (ED) admissions for drug-related complications involved more than one substance/drug (i.e., polysubstance ED visits).[123,166] However, only seven of the twenty individuals surveyed at GLR identified themselves as being polysubstance users on a

somewhat consistent basis. These results of polysubstance use among the group at GLR are somewhat lower than was expected (approximately 50%) prior to analysis of the data.

Thirteen GLR clients (65%) reported alcohol as their preferred substance with no polysubstance use indicated. A total of eighteen SUD clients identified alcohol as their DOC or one of their preferred substances of abuse. Cannabis was the second most abused substance, with a total of five individuals (25%). All individuals who listed cannabis as their DOC were also polysubstance users. Another surprising trend is that only five people indicated tobacco products or non-tobacco nicotine products (NTNP) as a preferred substance. Research conducted by SAMHSA found that 63% of SUD clients aged twelve and above use tobacco products or NTNP.[150] This is more than twice that of the general population (i.e., individuals without SUD), which is 28%.[72,121] The tobacco use among GLR clients is half (five out of the twenty patients using tobacco) of the expected proportion (50%) for tobacco use among SUD clients. However, these rates are highly variable depending on individual characteristics and beliefs among the cohort being sampled.[108,175]

The age distribution of SUD clients at GLR ranged from 18-65 years old, with most individuals (45%) falling in the 46–55-year age range. Initially this may be surprising because one would assume that an individual struggling with SUD and SUD-related issues would seek treatment at an earlier age. The survey indicated that, in fact, 80% of the clients surveyed at GLR had received some form of SUD treatment in the past. This aligns with previous research that indicated the median length of time from SUD onset to remission (i.e., 1+ years of continued

abstinence) was 27 years without a SUD treatment-based intervention.[1,23] With a treatment-based intervention, this period is reduced by 18 years, yielding a median length of time of 9 years from SUD onset to remission.[60,65] Studies have also shown that within that 9-year period, individuals averaged 3 to 4 treatment episodes, and therefore at least as many relapses (i.e., 3 to 4 relapses), prior to obtaining 1+ years of abstinence.[150] National treatment admissions data also revealed that the average age of first SUD-related treatment admission is approximately 34 years old.[23] Collectively, these findings suggest that SUD treatment populations are generally expected to be early to late middle age (34-64 years old) and to include a medical history indicating previous SUD treatment episodes.[36] The socio-demographic data collected from GLR clients reflected these common characteristics of SUD treatment groups. It would make sense then that the GLR group would tend to be older, and most would have previously received SUD treatment before coming to GLR. These findings may also provide further evidence of the chronic nature of addiction (i.e., chronicity and the disease model).[47,52]

The most recent socio-demographic data for the greater Grand Rapids area found that 64% of the population was Caucasian/White and 18% of the population sampled identified as African American/Black (estimated 2021 population of 197,416). It is somewhat perplexing that none of the SUD clients at GLR identified themselves as Hispanic or Latino, given that they represent the third largest ethnic group in Grand Rapids, making up 16% of its population. Most clients in GLR's SUD treatment program are Caucasian/White but according to the demographic data from the census, the client population is disproportionately Caucasian/White individuals. 85% of the survey group was Caucasian/White and 15% were African American/Black. Numerous

factors may be contributing to the discrepancies observed between the SUD treatment population at GLR compared to the socio-demographics of the greater Grand Rapids area.[1] The ethnic identity of GLR clients at the time of the survey could be affected by the location of the facility, outreach methods, socioeconomics, variations in cultural practices, and education (both formal and SUD-related).[1,16,70]

The underrepresentation of Hispanic and Latino individuals at GLR is common for SUD treatment programs across the nation and the body of research investigating this widespread phenomenon is growing but still comparatively limited.[4,150] In the US, Hispanics and Latinos report equivalent rates of substance use as other ethnic groups in the past month and past year.[2,166] They also report slightly lower rates of lifetime substance abuse than African Americans and Americans of European ancestry according to SAMHSA.[115] Conversely, Latinos and Hispanics were less likely to express a need for SUD treatment as well as less likely to participate in treatment programs compared to other ethnic groups.[4] Information collected by the 2021 National Survey on Drug Use and Health (NSDUH) suggests three principal factors contributing to the SUD treatment disparity: limited accessibility, low retention rates, and poorer outcomes.[4,150] However, a detailed discussion of this topic is beyond the scope of this paper.

When an individual is admitted to GLR, they are provided with the necessary forms to determine eligibility and subsequent application for health insurance programs, including government assistance (e.g., Medicare and Medicaid). Of the twenty individuals who completed

the UET, seventeen had health insurance and three did not. The time at which the client completed the survey most likely impacted the response to this question.[26,40] It is a safe assumption that clients that have been resident of GLR for a longer period of time would be more likely to have health insurance. However, about 85% of the population sampled had been sober 60 days or less at the time the UET was administered to them. Since 85% of the SUD clients were insured and 85% of the clients were sober 60 days or less, the staff at GLR appears to be very effective at promptly giving their clients access to health insurance. This is critical because the practice of treating addiction as a chronic disease and not exclusively as a behavioral disorder requires access to medical professionals.[65,107] By readily facilitating acquisition of health care coverage, the staff at GLR is providing access to medical care and therefore increasing the likelihood of long-term abstinence for their SUD clients following inpatient treatment.[37,123,154]

"Housing-first" programs such as Grand Rapids' Community Rebuilders believe that by first supplying an individual who is experiencing homelessness with stable housing, they will have an increased likelihood of finding a stable job, abstaining from drugs and alcohol, improving family dynamics, and advancing transformative personal growth long-term.[53,126] These are just a few of the benefits that have been shown to result from supplying those in need with stable housing immediately. GLR is a residential facility, so upon admission into their program, clients are considered to have stable housing under the designated conditions/rules of the SUD treatment program. 70% of the twenty clients who completed the UET identified as being destabilized and/or without secure housing at the time of entry into the program. Previous

research and the results of projects such as those being executed by Community Rebuilders support the concept that stable/secure housing is one of the first steps towards positively changing one's life path.[126] By entering GLR, individuals have the burden of unstable residency removed, for the most part, which allows them to focus on treating their substance dependency and SUD-related conditions. Most of the clients in GLR's SUD treatment program that were surveyed agreed that GLR had helped or will help them get affordable housing in the future (i.e., following discharge from the program).

Secure and safe housing also increases the likelihood that an individual will acquire a stable job.[69,127] Housing, employment, and social support are the three biggest contributors to successful long-term treatment of SUD and improved quality of life.[53,60] GLR works very hard and is extremely successful at facilitating employment opportunities for their clients after an intensive SUD education period is completed (lengths of time vary depending on the individual's needs). Questions in Section 5 of the UET, pertaining to self-perceived financial stability and well-being, indicated that most of the men at GLR did not have a positive view of their current financial situation. This is not unexpected though because, after all, they are dealing with addiction and are currently at an inpatient SUD treatment facility to improve the chronic, progressive nature of their disease.[116] Surveyed individuals generally did not feel as though they currently had the finances necessary to meet their basic needs. They also indicated that they did not trust themselves with making important financial decisions. Question 31 from Section 3 also inquired about financial stability. Unexpectedly, this question only had a 50% response rate (completed by 10 respondents), but the clients who did answer this question

were satisfied with GLR's ability to create an environment conducive to and encouraging financial stability as well as financial independence.

Analysis of the UET dataset revealed that the educational attainment of most SUD clients at GLR, discordant with community sentiment, is high and relatively advanced. 45% of clients identified as have received some college-level education. One individual had completed his bachelor's degree, and another client had indicated some post-graduate work. Therefore, over 50% of the sample has some level of college educational experience. 80% of the clients had at least completed high school, a rate which far exceeds the Grand Rapids Public Schools overall high school completion rate of 49.56% in 2014. For the 20% of GLR clients surveyed that do not have a high school diploma, GLR supplies the resources for their SUD clients to complete high school to receive their GED.

Chronicity, Co-Occurring Disorders, and Specialized Care

Educating and treating SUD clients using methods comparable to treatment modalities used for other chronic conditions have been shown to enhance long-term treatment outcomes for individuals with SUD.[12,20,71,122] The American Academy of Family Physicians defines patient/client education as a process that favorably shifts a client's behaviors by producing changes in client knowledge, attitudes, and skills necessary to maintain and/or improve their health.[6] Engaging SUD clients with addiction educational curriculum has been demonstrated to be useful for implementing this treatment modality and changing self-destructive behaviors common to the SUD population, thereby translating evidence into action by using principles

drawn from the scientific research to generate actionable treatment tactics.[2,20,122] Addiction education curriculum may include materials about the disease model, neurobiology of addiction, physical and psychological withdrawal symptoms, and post-acute withdrawal syndrome (PAWS).

Cultivating the health literacy of SUD clients provides individuals with the capacity to seek out, comprehend, and act on health information.[6] Interventions designed to advance the health literacy of SUD clients improves measures of self-care related to an individual's belief in their ability to successfully navigate situations and accomplish goals (i.e., self-efficiency).[11,42,96] Reducing the severity and recurrence of self-destructive behaviors commonly associated with SUD, enhancing treatment outcomes for SUD clients.[24]

The UET data implies that treatment modalities utilized by therapeutic personnel at GLR provide SUD clients in the residential program with sufficient education on the disease model of addiction. This is highlighted by client responses to several questions in the UET, dispersed throughout Section 3, intended to assess respondent comprehension of addiction as a chronic illness and apropos features of the disease model. All 20 GLR respondents specify that they agree, most indicate they strongly agree, with the general notion of chronicity and the disease model of addiction; inferring that principles of effective SUD treatment should reflect the disease model. Furthermore, all UET questions relevant to comprehension of the disease model of addiction had 100% response rates. Providing further evidence in support of the insight that

the lone respondent who specified the absence of an SUD/addiction disorder was likely an inattentive respondent, and correctly identified by the IMC in Section 3 of the UET.[63]

Chronic diseases often do not occur in isolation but rather coexist with other physical or mental health conditions (i.e., comorbidities).[12] It is also not uncommon for a chronic disease to lead to the development of additional health complications within an individual.[72] For example, a patient with a primary diagnosis of Type 2 diabetes mellitus may also have a secondary diagnosis pertaining to their cardiovascular system (e.g., atherosclerotic cardiovascular disease, hypertension, etc.). SUD co-occurring with other medical conditions place individuals at an increased risk of mortality.[109] In accordance with other chronic diseases, comorbidities are a common feature of addiction and the most common co-occurring disorders in those with SUD are disorders related to mental health (i.e., dual diagnosis).[33,69,159,160]

Data historically suggest that approximately 1 in 2 individuals with a SUD also have a mental health disorder (MHD).[123,151] Although the order of onset cannot be established (i.e., whether SUD onset precedes onset of MHD or vice versa), analysis of 2019 NSDUH data revealed that approximately 9.5 million US adults had co-occurring SUD and MHD in the past year.[115] Around 2% of this population (i.e., those with dual diagnosis) received only specialty SUD treatment and 39% received only MHD services. Fewer than 8% of adults with a dual diagnosis are estimated to have received both MHD-related services in addition to SUD treatment. Moreover, 51% of US adults with a dual diagnosis received no treatment for either disorder in the previous year.[151] Preliminary data from SAMHSA's 2021 NSDUH suggest a high prevalence of SUD co-occurring

with MHD like generalized anxiety disorder (GAD), attention-deficit hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), depression, and bipolar disorder.[166] Furthermore, the overlap with SUD becomes more pronounced in individuals with MHD characterized as serious mental illness (SMI) such as schizophrenia.[115]

The UET data implies that 58% of the respondents in GLR's SUD treatment program have a co-occurring MHD that has been formally diagnosed by a credentialed medical professional (e.g., psychiatrist). SUD clients with a dual diagnosis were subsequently asked about the accessibility and quality of MHD-related services at GLR in Section 3 and 4 of the UET. Overall, GLR's dual diagnosis clients were satisfied with the accessibility to services related to MHD and the quality of MHD treatments provided by GLR. However, the responses to questions related to the accessibility, provision, and quality of MHD care were dissimilar to responses from other client satisfaction questions. SUD clients largely respond as being extremely satisfied with the level of non-MHD-related care provided by GLR but only moderately satisfied with the provision of care directly related to MHD.

Onset of a single chronic disease is generally characterized by multiple factors interacting over an extended period, and this complex causality is accentuated when two or more chronic diseases co-occur in the same individual.[12] The high prevalence of comorbidity between SUD and MHD yields complex dual diagnosis clients that require overlapping care from an interdisciplinary team of highly trained professionals.[166] Moderate satisfaction with the quality of MHD care provided by GLR might therefore be considered sufficient and efficacious given the

complexity of treating individuals with dual diagnosis. Indicating that the treatment modalities employed by GLR for dual diagnosis clients match the standard of care but could also be optimized to boost client satisfaction. However, the clients' perception of MHD-related care might also be adversely affected by the presence of MHD itself, generating discordance between subjective client satisfaction responses and the objective performance of GLR's SUD treatment program and staff.[151,165]

Psychological trauma has been described as a transdiagnostic risk factor for MHD and some researchers have suggested that traumatic experiences are at the heart of all addiction.[33] Transdiagnostic risk factors are defined as overlapping vulnerabilities that occur for multiple MHD and contribute to the maintenance and/or etiology of a range of disorders.[68] For example, traumatic experiences are strongly linked to SUD and SUD is highly comorbid with PTSD.[82] This association becomes even stronger if the traumatic stressor occurred during childhood.[183] Therefore, experiencing trauma increases vulnerability to MHD and MHD is strongly associated with SUD, and vice versa.[21,82]

Trauma occurs on a spectrum (i.e., acute, chronic, complex) and is often broadly separated into two elements: subjective and objective.[169,183] Subjective components are the internal processes concerned with how an individual experiences a particular traumatic event, including perceptions and meanings assigned to the experience. The objective components are the factual or tangible elements of an experience that result in the trauma. A recent systematic review and meta-analysis revealed that SUD developed in 25-75% of individuals after

experiencing a traumatic event.[68] Although this is a wide range, the research suggest that the earlier a traumatic event occurs (i.e., childhood vs adulthood), the more vulnerable an individual is to developing SUD. Highlighting the importance of integrating trauma-informed care (TIC) into SUD treatment plans to enhance outcomes.[169]

32% of the total SUD treatment population at GLR identified as having traumatic experiences in their past. All 6 individuals with a history of trauma specified that healing from these traumatic events is important to their recovery and maintaining abstinence. The remaining parts of question 3 in Section 4 of the UET inquire about the provision of TIC by therapeutic staff at GLR. 5 of the 6 respondents were extremely satisfied with the TIC provided by GLR and all of them indicated that GLR cultivated a safe environment for healing from trauma (e.g., discussing trauma in groups when appropriate or with counselors during individual sessions). Collectively, UET data implies that TIC is accessible and efficaciously provided to SUD clients at GLR.

Tantamount to a history of trauma or dual diagnosis, SUD clients with children require distinct treatment considerations as well.[93] The diverse needs of these individuals also extend to the client's family and children.[162] This is because of the strong familial pattern of inheritance observed in addictive disorders (i.e., SUD heritability) as well as the considerable role parental substance abuse plays in negative outcomes for children growing up in these households (e.g., increased risk for emotional, social, and behavioral problems).[34,56,99,137,156]

In the United States, approximately 9 million children reside in a household where at least one parent has SUD.[44] Parents with SUD are vulnerable to deficits that often adversely affect all other family members and interfere with the parent's caregiving ability.[162] Positive adjustments (e.g., resiliency) are displayed by some children growing up in a house with parental substance abuse, but a parent with untreated SUD more commonly elicits a stressful home environment associated with traumatic childhood experiences.[125,169] SUD clients with children face additional risk factors and a unique set of parenting-related stressors that increase vulnerability to relapse.[93] Therefore, GLR clients who are also parents require additional support during SUD treatment.

Almost half of UET respondents identified as a parent or primary caregiver and all respondents with children specified that having parenting support was important for maintaining abstinence. All SUD clients with children strongly agreed that they were better parents when they were maintaining abstinence (i.e., sober in recovery), emphasizing the importance of integrating specialized resources for parents with SUD. Accordingly, UET respondents were satisfied with the specialized care provided directly by GLR's therapeutic staff as well as resource brokering for parents with SUD in the treatment program.

Client Perceptions of Integrative Care at GLR

Integrative care refers to the application of multimodal interventions by an interdisciplinary team of professionals to simultaneously treat comorbid conditions.[71,136] This type of integrative approach takes a holistic (i.e., comprehensive) view of an individual to generate a single,

cohesive treatment plan. Integrative treatment plans for SUD clients require the coordination and combination of multiple interventions across different specialties to be efficacious.[80,156]

Psychiatric disorders (e.g., SUD, MHD, etc.) are common among US adults, affecting an estimated 58 million Americans in 2021.[115,166] Strong epidemiological evidence consistently shows that these types of disorders are also highly comorbid.[132] For example, according to the scientific literature, 50% of individuals with SUD have a co-occurring MHD (i.e., dual diagnosis).[133,171] The scientific literature indicates that an integrated approach consistently outperforms orthodox strategies that treat comorbidities as isolated disorders with discrete treatment plans.[80,169,180]

In the mental health field, it is widely recognized that a relationship exists between treatment outcomes and client satisfaction.[42,69,81,78] Evaluating a client's perception (i.e., satisfaction) of care during SUD treatment provides a direct measure of whether the services they received met their expectations.[16,170] Clients' perceptions of integrative care provided by GLR's SUD treatment program are evaluated via several questions throughout Section 5 of the UET. Dispersed throughout Section 5, these questions measure aspects related to respondents' physical, psychological (i.e., mental, emotional, stress response, etc.), social, and spiritual health. However, well-defined outcome measures (i.e., goals) should be codified and considered precursory to implementing an integrative treatment strategy.[28,117,139,155]

Motivational psychologists and behavioral scientists have offered several formal definitions for conceptualizing a goal. The overreaching definition is that a goal is a desired future state (i.e., preferred outcome) coupled with a set of precursory actions that nurture the attainment of that future state.[11,15,42] Importantly, goal realization does not occur without some form of intervention and is dependent on personal motivation as well as features of the goal.[17,91] The goal setting theory (GST) of motivation describes mechanisms by which goals impact human behavior, how behavior can be influenced by different goal dimensions, and how an individual's goals function as robust predictors of ensuing behaviors.[42] Therefore, GST offers a well-defined approach to systematically analyzing how an individual's performance (i.e., behavior) will be affected by the presence and/or absence of a goal and associated dimensions.[11,14]

Behavioral neuroscience describes goal setting as a fundamental component of successful behavior change interventions, including integrative approaches to health and wellness.[11,65] Moreover, the act of goal setting is an effective behavior change technique that is distinct from goal achievement.[15,42] The UET data implies that all clients in GLR's SUD treatment program are goal-oriented; directing their daily behaviors to accomplish specific tasks in the pursuit of individual and therapeutic goals established by GLR staff. Moreover, question 12 in Section 5 indicated that all UET respondents integrated goal setting strategies into their recovery plans.

In accordance with the GST of motivation, goals are strongly linked with performance.[11,13,15] Systematic review and meta-analysis on goal setting indicate that goals influence performance by strengthening higher level cognitive skills associated with strategic reasoning, inhibitory

control, attentional focus, goal prioritization, effort (mental and/or physical), and persistence: collectively known as executive function.[42,81] Goal setting is also an implicit component of most reward systems.[11,75] Unsurprisingly, the neurobiological mechanisms related to goal setting have substantial crossover with those related to addiction.[51,91,152, 158]

A shared feature of addictive substances is that they enhance functioning of reward circuitry in the brain.[15,104,163,172] Moreover, perturbation of cognitive processes which parallel those mediating goal-directed behaviors (i.e., impaired executive functioning) are commonly observed in individuals with SUD.[11,91,138] Goal setting is an evidence-based technique for restructuring brain regions to optimize cognitive processes (i.e., enhance executive functioning) to accomplish a specific goal.[78,84] Operating at the interface of psychology and neuroscience, goal setting functions as a multimodal intervention with practical application in SUD treatment settings. The reported use of goal setting strategies by all GLR's SUD clients, as implied by the UET data, is an example of how the residential treatment program at GLR employs integrative care techniques to enhance long-term treatment outcomes. However, it should be noted that a single measure (e.g., goal setting) is unable to accurately assess integrative care.

Every section of the UET contains questions that provide valuable insight into client perceptions of integrative care at GLR. Taken collectively, UET data delivers a comprehensive appraisal of an individual's health and wellbeing, but 9 questions in Section 5 explicitly assess measures of integrative care (e.g., physical health, mental well-being, spiritual wellness). Physical health is inextricably related to mental well-being and regular physical activity has consistently

demonstrated the ability to enhance mental health: a trend readily observed in UET responses. At the time of the survey, good physical health was reported by 75% of UET respondents and 5 of these individuals perceived their physical health to be above average. Respondents in good physical health were more likely to also report emotional stability (75%), stress resiliency (75%), and elevated mood (90%). In contrast to the well-established link between physical health and mental well-being, the effects of spiritual wellness on health measures are less clear.[128,147]

By the end of the 20th century, Western medicine had largely migrated from a reductionist biomedical model of disease to a multidimensional biopsychosocial model.[69] This novel approach to medicine offered a broader, three-dimensional perspective for systematically diagnosing and treating illnesses. The biopsychosocial model also emphasizes complex interactions among three principal factors (i.e., biological, psychological, and social) as influencing the etiology and natural history of a disease.[58] Notwithstanding the adoption of a more inclusive model, contemporary Western medicine continued to largely exclude religious and/or spiritual dimensions from patient care.[58]

Spiritual and religious beliefs, or non-beliefs, are integral aspects of a person's identity, worldview, and well-being. Although the religious composition of America has transformed in recent decades, most adults in the US (70%) continue to endorse some form of religious orientation; and 47% were members of a church, synagogue, temple, or mosque .[113,128] Moreover, 21-29% of Americans without any religious affiliation value spirituality (i.e., identify as spiritual but not religious).[50] With such a large portion of the US population having some sort

of religious or spiritual orientation, it is ethically sound that a culturally competent SUD treatment program would include these health dimensions into an integrated care plan.[129] Further research is required to fully understand the clinical implications of religion/spirituality on health before any cohesive conclusions are made. However, empirical evidence suggests that the effective use of religious/spiritual resources largely enhances SUD treatment outcomes.[58,75,128]

For many individuals, life events observed through a spiritual perspective imparts clarity on formerly unresolved lived experiences (e.g., negative familial relationships, traumatic experiences, etc.) and reconciles states of cognitive dissonance that frequently contribute to SUD.[58,96,169] Cognitive dissonance is a state of mental discomfort that results from holding two or more conflicting modes of thought (e.g., values, beliefs, attitudes, etc.).[128,129] When an individual's behaviors conflict with their intrinsic value structure (i.e., cognitive dissonance) they may justify or rationalize their negative choices to quell the associated psychological distress and/or attempt to mask the discomfort by using psychoactive substances.[35,164,187] A spiritual perspective and the awareness of a connection with a higher consciousness (i.e., something larger than oneself) are major components of the remedy to SUD offered by well-established community recovery groups like Alcoholics Anonymous.[75,78] Thereby offering aimless individuals with SUD a sense of purpose in their lives and the ability to navigate life's obstacles more effectively.

In some ways spiritual exploration enhances self-awareness and functions as an indicator of a client's openness to new experiences (e.g., novel treatment strategies).[129] Studies have also demonstrated a positive correlation between the personality trait of openness and improved cognitive flexibility.[58,128,129] The exploration of faith, religious values, and spirituality are keystones of GLR's SUD treatment program and therefore, essential features of the integrative care plans developed for many of their clients. Christianity is the spiritual perspective of GLR and Christian principles are woven throughout the foundational elements of the residential treatment program (e.g., KPIs). However, GLR remains open to other spiritual beliefs as part of SUD treatment and encourages their SUD clients to explore different spiritual perspectives.

Section 5 of the UET concludes with a series of questions designed to evaluate psychospiritual well-being and client perceptions of incorporation of spiritual/religious dimensions into integrative care plans at GLR. All UET respondents considered faith, religion, and/or spirituality as important features of their daily life. 95% of individuals in GLR's SUD treatment program also reported having a positive connection with a higher power. Of the total SUD treatment population at GLR, 85% identified as Christian and 19 of 20 SUD clients were spiritually curious about Christianity and its belief system.

Despite the presence of modest interindividual response variability to measures of integrative care, SUD clients were generally satisfied with the integrative services provided by GLR's treatment program. 95% of UET respondents were optimistic about their future since entering the SUD treatment program at GLR and 100% strongly believe that the services provided by GLR

can improve their quality of life. The data suggests that the integrative approach used by GLR is an effective intervention technique for SUD clients. However, regardless of whether a treatment program follows an integrative or parallel model, SUD programs should include a well-coordinated multidisciplinary team of professionals, working together, to enhance long-term outcomes for SUD clients.[130]

Implications and Conclusions for the UET

Accessibility to expert level SUD treatment services has widely deteriorated throughout the US in recent years.[150] For individuals who gain access to formal services, the duration of treatment is often considerably less than that recommended by the research and SUD professionals to enhance client outcomes.[36] Major factors contributing to this decline in services include fiscal austerity and the decreasing intensity of nationally available treatment programs.[134] Treatment outcomes have become increasingly dependent on the distinct features of SUD treatment bundles (e.g., integrative care plans) that often lack continuity and differ from facility to facility. SUD clients might have better treatment outcomes if programs simultaneously employed multiple therapeutic techniques via an integrated approach to care.[80] However, to efficaciously address the complex biopsychosocial needs of SUD clients, treatment facilities require an instrument for collecting SUD client data that can be readily integrated into personalized care plans, enhancing treatment outcomes.[97,155,165]

This pilot study was designed to evaluate the reliability, validity, and feasibility of utilizing a novel self-assessment questionnaire (i.e., UET) for collecting SUD client data.[70] Community

engaged research principles were implemented to recruit 20 participants from the residential treatment population at GLR and a field test was conducted over a period of 6 months: providing a first look at the function of the UET as a data collection method for conducting survey research at a residential addiction treatment center.[40] Data from individual surveys was anonymized and aggregated into a single dataset for analysis. The preliminary results offer a synopsis of the grouped UET data using descriptive statistical analysis while the discussion synthesizes the preliminary results into, clinically relevant, prospective SUD treatment applications before offering a direction for future research.

The development of the UET has been a long process, and future amendments may be made to the survey to improve its accuracy, reliability, and the quality of collected data.[26] However, the UET prototype that was administered to 20 SUD clients in GLR's residential treatment program demonstrated its validity as a survey instrument. This pilot study demonstrated the feasibility of the UET as an effective tool for gathering SUD client information such as sociodemographic data, information required for integrative care planning and creation of personalized treatment plans, as well as data for evaluating SUD client perceptions of the care provided by GLR's residential SUD treatment program. A combination of trap questions (i.e., IMCs), an administrator's guide, scripting, and training staff in administering the UET has minimized errors and diminished positive report biases that often beset self-survey instruments.[5,9,10]

The format of the UET lessens response variability that may be present in free response type questions. It allows for the client responses on the UET to be systematically entered into a

spreadsheet and readily analyzed using programs such as SPSS® or Microsoft Excel®.[170] Thereby providing the ability to generate high-quality tables, charts, and graphs to display relevant SUD treatment data at private/public fund raising events or in grant applications. Following the assignment of numeric values to UET answer choices and the generation of a spreadsheet with SUD client survey responses; the dataset may be analyzed across multiple levels to yield a wealth of clinically relevant information. After discussing the preliminary results of this pilot study, it is evident that the UET performs in its intended manner and could prove to be an invaluable tool for enhancing treatment outcomes for SUD clients in GLR's intensive residential rehabilitation program.

Recommendations for Future Research

The "universal" quality of the UET was the solitary feature of the survey instrument that was not thoroughly evaluated during the pilot study. The UET is designed in a manner that allows for its administration at any timepoint during or after a client's residential treatment period. In the sample of SUD clients evaluated during this field test, none of the participants were surveyed more than once and consequently, the UET's ability to function at different timepoints remains untested. However, since the UET is modeled after the proven REE, it can be stated with a high degree of confidence that the survey would perform equally as well at different timepoints. The UET thereby offers an excellent means of enhancing client care via the collection of accurate data, regardless of the phase in SUD treatment that the survey is administered.[70,131,155]

As a recommended direction for future research, improvements may be made to the UET by creating an electronic version of the survey instrument. By providing computer stations for SUD clients to take the UET in a digital format, survey results could immediately be filed electronically and readily accessed by GLR staff. Furthermore, the development of a program or data organizational tool to systematize client response into a dataset for tracking a client's progress and/or supplementary data analysis. An electronic format would reduce cost associated with administering the UET by removing printing fees, reducing the amount of time necessary to enter client responses into a dataset, and make it simpler to extract client data for analysis and subsequent presentation. The actualization of a digital UET format will provide an anonymous dataset that can be aggregated with data from larger treatment populations for comparison and evaluated over time to assess the efficacy of GLR's treatment program. For example, is there actually no Latino or Hispanic representation in the GLR SUD client population even in a larger data set? If not, why not? Does the client's ethnic group or cultural background impact recovery success? Do some ethnic groups have unique treatment needs that are unmet by the current program?[1,4] A digital format and electronic filing system would make answering these types of questions easier and potentially offer detailed explanations of other SUD treatment-related issues.

Appendices

Appendix A: UET

Guiding Light Recovery

Universal Evaluation Tool

A Survey to Collect Data and Enhance Client Care

Kevin M. Quinn

10/25/2015

This is NOT a test and there are no right or wrong answers for questions on this survey. The Universal Evaluation Tool (UET) is a standardized paper and pencil survey tailored for the specific needs of Guiding Light Recovery (GLR). The UET helps the staff at GLR to gather information in four primary areas: general data collection, program evaluations, self-reported progress evaluations, and demographic data for analysis in future studies to enhance GLR. It will help staff at GLR to provide more accurate diagnosis, placement, and treatment planning for you and other individuals in the substance use disorder (SUD) treatment program.

Universal Evaluation Tool: Guiding Light Recovery

(Modeled after ©Priscilla Ridgway's REE-MI)

Introduction:

This is a voluntary survey, and you can skip any questions you do not wish to answer. Your answers to the questions will remain confidential. All GLR clinical staff and anyone granted access to the information collected from this questionnaire has signed a confidentiality agreement to ensure that your specific answers remain private. The UET is designed to help both you and the clinicians at GLR to learn valuable information; to holistically enhance the quality of SUD treatment provided to you and encourage/cultivate growth while you are at GLR. Results over time may be shared with you to help you learn about your personal recovery and progress.

Survey taking instructions:

1. The UET you are about to complete has no right or wrong answers and is **not a test**. Answer each question as accurately as possible based on your personal opinions and beliefs.

2. Be sure to **carefully read** the directions for each section before answering the questions.

3. Answer each question by marking the one answer that best fits your opinions, beliefs, and current situation. If none of the provided answers to a question fit for you exactly, **choose the answer that comes closest to you.**

4. If you are not sure what a particular question is asking, you may ask the individual administering the survey for clarification. If you feel any question does not apply to you, leave it blank.

5. Remember, this is designed to help GLR track your progress during SUD treatment. Many have found the survey to be interesting, enjoyable to fill out, and helpful in their recovery journeys.

For Staff Use Only

Client:_____
(Print Name) (Date of Survey Completion)

Intake Date:_____ **Discharge:**_____
(Date) (Reason for Discharge)

Administrator:_____
(Print Name) (Position/Title) (Date Survey Administered)

Section 1. Demographics & Questions About You

1. What age group are you in (Check your current age group)?
   ____17 or younger
   ____18-25
   ____26-35
   ____36-45
   ____46-55
   ____56-65
   ____66-75
   ____76 or older

2. What gender do you identify yourself with?
   ____Male
   ____Female
   ____Other

3. What is your cultural, ethnic, or racial background (Select all that apply)?
   ____Caucasian or European Ancestry (White)
   ____African American or African Ancestry (Black)
   ____Hispanic or Latino
   ____Indigenous American, Native American, or Alaskan Native
   ____Asian
   ____Native Hawaiian or another Pacific Islander
   ____Arab-Chaldean
   ____Other

4. Do you currently have a home, apartment, or place of residency?
   ____Yes
   ____No

5. Do you currently have health insurance?
   ____Yes
   ____No

6. Do you receive any expense or living assistance from the government?
   ____Yes
   ____No

7. Are you a legal resident of Michigan?
   ____Yes
   ____No

8. Do you currently reside in Grand Rapids, Michigan?
   ____Yes
   ____No

Section 1. Demographics & Questions About You

9. What is the substance/s you primarily use or that is your "drug of choice" (Select all that apply)?

____Alcohol	____Hallucinogens (LSD, PCP, Psilocybin Mushrooms)
____Cannabis	____MDMA (Ecstasy, Molly)
____Prescription Drugs (Opioids)	____Ketamine
____Powder Cocaine	____Tobacco or Non-Tobacco Nicotine Products
____Rock/Crack Cocaine	____Inhalants (Nitrous Oxide, Alkyl Nitrites)
____Methamphetamine/Speed	____Over the Counter Medications
____ Heroin	____Other

10. What method do you use most frequently to *use* your primary substance? (Select all that apply.)
    ____Oral ingestion (drink, swallow, eat/chew, or dissolve in mouth)
    ____Nasal insufflation (sniff/snort up the nose)
    ____Inhalation (smoke, vaporize, or breath in a chemical/substance)
    ____Injection (intravenous or direct injection into body using needle or another instrument)
    ____Other (non-injection)

11. Have you ever received treatment for alcohol or substance misuse in the past?
    ____Yes
    ____No (If you answered "No" here, continue to question 12.)

    •*If you have received treatment before*, what style of treatment? (Select all that apply.)
    ____Inpatient treatment
        ▪How many Inpatient treatment facilities have you attended?
        ____1-2 ____3-4
        ____5-6 ____7 or more

    ____Outpatient/Intensive Outpatient Treatment
        ▪How many Outpatient/Intensive Outpatient programs have you participated in?
        ____1-2 ____3-4
        ____5-6 ____7 or more

    ____Twelve-step programs such as Alcoholics Anonymous and/or Narcotics Anonymous

12. What is the highest level of education that you have completed (select <u>one</u> answer that fits best for you)?

____Some high school	____Some College	____Some post-graduate work
____High school graduate	____Associate degree	____Graduate degree
____GED earned	____Bachelor's degree	____Professional degree

Section 1. Demographics & Questions About You

13. Please provide your personal contact information:

•Name and Date:_____
(Print full name) (Date)

•Current Address:_____
(Street) (City) (State) (Zip Code)

•Phone Number:_____E-mail Address:_____
(Area code first) (Primary account)

•Emergency Contact:_____
(Name) (Relationship to you) (Phone Number with Area Code)

Section 2. Your Involvement in the Substance Abuse Recovery Process

1. Which of the following statements is currently most true for you? (Read **ALL** responses before selecting **ONE**.)

___I have never heard of, or thought about, recovery from alcohol/substance abuse.

___I do not believe I have any need to recover from alcohol/substance abuse.

___I have not had the time to consider alcohol/substance abuse treatment or recovery.

___I've been thinking about recovery but haven't decided to act on it yet.

___I am committed to my recovery, and I am making plans to take action very soon.

___I am actively involved in the process of recovery from alcohol/substance abuse.

___I was actively moving toward recovery, but now I am not because of a relapse.

___I feel that I am fully recovered and no longer need treatment or help to maintain.

___None of the above fits me best.

Section 3. Elements of Substance Abuse Recovery

- For each of the following questions, please circle the **one** answer that is most true for you right now:

  - **SA** if you **strongly agree** with the statement.
  - **A** if you **agree** with the statement.
  - **D** if you **disagree** with the statement.
  - **SD** if you **strongly disagree** with the statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Having a positive sense of personal identity beyond my alcohol/substance abuse is important to my recovery.	SA	A	D	SD
2. Staff at Guiding Light Recovery view me as more than a "case" or a diagnosis; they want to know me as a person.	SA	A	D	SD
3. Guiding Light Recovery's alcohol/substance abuse treatment program offers individualized services to meet my unique needs.	SA	A	D	SD
4. Staff at Guiding Light Recovery treat me as a whole person with a body, mind, emotions, important relationships, and spirit.	SA	A	D	SD

Section 3. Elements of Substance Abuse Recovery

	Strongly Agree	Agree	Disagree	Strongly Disagree
5. Spirituality and having a sense of meaning in life is *not* important to my recovery.	SA	A	D	SD
6. Staff at Guiding Light Recovery help me make sense out of what is happening in my life during this transitional period.	SA	A	D	SD
7. Staff at GLR ask me what is meaningful to me regarding my unique recovery process.	SA	A	D	SD
8. Guiding Light Recovery's alcohol/substance abuse program encourages me to do things that give my life meaning.	SA	A	D	SD
9. Having hope is important to my recovery.	SA	A	D	SD
10. Staff at Guiding Light Recovery believe I have a positive future.	SA	A	D	SD
11. Counselors and staff at GLR encourage me to feel hopeful again when I am discouraged or have a setback.	SA	A	D	SD
12. Guiding Light Recovery staff have *not* explained to me that addiction is a disease similar to other chronic diseases like diabetes and hypertension.	SA	A	D	SD
13. Being self-aware and self-motivated to stay active in my recovery process to avoid relapse is important to me.	SA	A	D	SD
14. Guiding Light Recovery's program has helped me identify and monitor triggers/early signs of relapse.	SA	A	D	SD
15. I have learned and developed personalized coping skills at GLR so I can manage stress well.	SA	A	D	SD
16. By attending the alcohol/substance abuse treatment program at GLR, I have *not* developed a more positive self-image.	SA	A	D	SD
17. Improving my general health and wellness is important to my recovery.	SA	A	D	SD
18. Staff at Guiding Light Recovery pay careful attention to my physical health.	SA	A	D	SD
19. The recovery program at GLR encourage me to achieve a higher level of wellness.	SA	A	D	SD
20. Guiding Light Recovery's program offers wellness programming such as exercise options, nutrition, movement, relaxation, and meditation.	SA	A	D	SD

Section 3. Elements of Substance Abuse Recovery

	Strongly Agree	Agree	Disagree	Strongly Disagree
21. Having my rights respected and upheld is important to my recovery.	SA	A	D	SD
22. Staff at Guiding Light Recovery have clearly informed me of my rights, the program's rules, policies, and expectations while I am here.	SA	A	D	SD
23. There is a clear grievance policy if I feel as though my rights are being violated.	SA	A	D	SD
24. I *don't* feel safe when reporting a grievance to the staff.	SA	A	D	SD
25. Staff at GLR upholds my rights.	SA	A	D	SD
26. Having positive relationships and accountability to others is important to my recovery.	SA	A	D	SD
27. Staff assist me in having positive relationships with my peers and others in the recovery program.	SA	A	D	SD
28. Guiding Light Recovery staff support me in building or rebuilding positive relationships with family members.	SA	A	D	SD
29. Staff assist me in forming friendships with people outside of Guiding Light Recovery like in the local recovery community (AA, NA, etc.).	SA	A	D	SD
30. Having my basic needs met is important to my recovery.	SA	A	D	SD
31. Guiding Light Recovery assists me to get a basic income by working and/or employment.	SA	A	D	SD
32. GLR has helped/will help me get decent, affordable housing.	SA	A	D	SD
33. Following treatment, I would be interested in living at GLR's halfway house, Iron House.	SA	A	D	SD
34. Guiding Light Recovery helps me gain access to basic health care.	SA	A	D	SD

Section 3. Elements of Substance Abuse Recovery

	Strongly Agree	Agree	Disagree	Strongly Disagree
35. Having a sense of control over my life and feeling empowered is important to my recovery.	SA	A	D	SD
36. Staff/counselors encourage and support my sense of empowerment.	SA	A	D	SD
37. Staff/counselors assist me to gain or maintain control over important decisions in my life.	SA	A	D	SD
38. Staff/counselors *do not* try to maintain power and control over me.	SA	A	D	SD
39. Taking on new challenges and moving out of my comfort zone is *not* important to my recovery.	SA	A	D	SD
40. Staff/counselors encourage me to take on new challenges.	SA	A	D	SD
41. I feel supported when I try new things that seemed out of my reach before coming to Guiding Light Recovery.	SA	A	D	SD
42. Staff/counselors encourage me to step outside of my comfort zone, grow and move in a positive direction.	SA	A	D	SD
43. I realize that emotional vulnerability is not a weakness and expressing my emotions in a positive manner is necessary for me to grow in recovery.	SA	A	D	SD
44. I believe that I *don't* have an alcohol/substance abuse problem.	SA	A	D	SD
45. I believe that addiction is a disease similar to other chronic conditions such as diabetes and hypertension.	SA	A	D	SD
46. I believe that like other chronic diseases, I can live a full and productive life by continuing to treat my addiction by attending support groups such as twelve-step-based groups.	SA	A	D	SD
47. I believe that like other chronic diseases, substance abuse demands the help and support of others to maintain my recovery.	SA	A	D	SD

Section 4. Special Needs

• The following questions relate to specific groups of individuals. If you are NOT a member of the specific group asked about, answer "no" and go onto the next question.

1. **Do you identify yourself as a member of an ethnic, racial, or cultural minority group? (Check one box only.)**

   ☐ Yes (Please answer questions a-e below.)

   ☐ No (Go to question 2.)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having my ethnic and cultural background respected is important to my recovery.	SA	A	D	SD
b. Staff at Guiding Light Recovery are respectful to me as a person of a racial, ethnic, or cultural minority group.	SA	A	D	SD
c. GLR and its staff understand and support my cultural values/language/customs.	SA	A	D	SD
d. Staff/counselors are aware of and sensitive to my cultural heritage and needs.	SA	A	D	SD
e. Staff/counselors are willing to take the time to educate themselves about my ethnic and cultural background.	SA	A	D	SD

2. **Do you have or have you ever been diagnosed with any mental health issues such as depression, anxiety, bipolar disorder, schizophrenia, etc.? (Check one box only.)**

   ☐ Yes (Please answer questions a-d below.)

   ☐ No (Go to question 3.)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Receiving help with/for my mental health is *not* important to my recovery.	SA	A	D	SD
b. Guiding Light Recovery has resources to help me with both substance use disorders and mental health disorders.	SA	A	D	SD
c. I feel that I can easily access the mental health resources that GLR offers.	SA	A	D	SD
d. GLR has linked me to community recovery groups that deal with co-occurring disorders; substance use disorder and mental health disorders.	SA	A	D	SD

Section 4. Special Needs

3. Do you have a history of (individual) trauma such as physical, emotional, or sexual abuse? (Check one box only.)

☐ Yes (Please answer questions a-d below.)

☐ No (Go to question 4.)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Healing from traumatic experiences in my past is important to my recovery.	SA	A	D	SD
b. Guiding Light Recovery has resources to help me heal from trauma.	SA	A	D	SD
c. I feel safe opening up about traumatic experiences with the staff/counselors at GLR.	SA	A	D	SD
d. Staff/counselors at GLR help me effectively deal with trauma.	SA	A	D	SD

4. Do you identify yourself as homosexual, bisexual, transgender or asexual (i.e., LGBTQ+)? (Check one box only.)

☐ Yes (Please answer questions a-f below.)

☐ No (Go to question 5.)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having support for my sexual orientation is important to my recovery.	SA	A	D	SD
b. Staff/counselors at GLR treat me with respect regardless of the sexual orientation that I identify most with.	SA	A	D	SD
c. Staff/counselors are willing to take the time to educate themselves about my specific sexual orientation.	SA	A	D	SD
d. I feel safe in openly sharing my sexual orientation with staff/counselors at GLR.	SA	A	D	SD
e. I feel safe in openly sharing my sexual orientation with my peers that are in GLR's substance abuse treatment program with me.	SA	A	D	SD
f. Staff/counselors *don't* deal effectively with issues of sexual orientation.	SA	A	D	SD

Section 4. Special Needs

5. Are you or do you identify yourself as a parent? (Check one box only.)

☐ Yes (Please answer questions a-f below.)

☐ No (Go to next section.)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having support as a parent is *not* important to my recovery.	SA	A	D	SD
b. Staff/counselors at Guiding Light Recovery support me in my role as a parent.	SA	A	D	SD
c. Staff/counselors assist me in becoming a better and more effective parent.	SA	A	D	SD
d. Staff/counselors assist me with or provide me with resources regarding any custody disputes.	SA	A	D	SD
e. I believe that I am a better parent when I am sober.	SA	A	D	SD

Section 5. Recovery Performance Indicators

- For each of the following questions, please circle the **one** answer that is most true for you right now:

  - **SA** if you **strongly agree** with the statement.
  - **A** if you **agree** with the statement.
  - **D** if you **disagree** with the statement.
  - **SD** if you **strongly disagree** with the statement.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. My current living situation feels like a safe home to me.	SA	A	D	SD
2. I have people I trust whom I can turn to for help.	SA	A	D	SD
3. I have at least one close mutual (give and take) relationship in my life.	SA	A	D	SD
4. I am involved in activities that I find meaningful.	SA	A	D	SD
5. My emotional health is balanced and manageable.	SA	A	D	SD
6. I have enough income to meet my basic needs.	SA	A	D	SD
7. I am learning new activities, ideas, and spiritual practices that are important to me.	SA	A	D	SD
8. I am in good physical health.	SA	A	D	SD
9. I have a positive spiritual life/connection to a higher power of my understanding.	SA	A	D	SD
10. I *do not* have a positive self-image, and I *don't* like or respect myself.	SA	A	D	SD
11. I am using my personal strengths, skills or talents to help others and myself.	SA	A	D	SD
12. I have goals I am working to achieve.	SA	A	D	SD
13. I have reasons to get out of bed in the morning.	SA	A	D	SD
14. I have more good days than bad days.	SA	A	D	SD
15. I have a decent quality of life.	SA	A	D	SD

Section 5. Recovery Performance Indicators

	Strongly Agree	Agree	Disagree	Strongly Disagree
16. I am confident in my ability to make important decisions in my life.	SA	A	D	SD
17. I trust myself when making personal financial decisions.	SA	A	D	SD
18. I *do not* contribute to my community.	SA	A	D	SD
19. I contribute to the wellbeing of my peers and those around me.	SA	A	D	SD
20. I am growing as a person.	SA	A	D	SD
21. I *don't* have a sense of belonging.	SA	A	D	SD
22. I feel alert to my surroundings and alive.	SA	A	D	SD
23. I feel hopeful about my future.	SA	A	D	SD
24. I am *not* able to effectively deal with stress.	SA	A	D	SD
25. I believe I can make positive changes in my life.	SA	A	D	SD
26. I consider myself to be spiritually curious about Christianity and its belief system.	SA	A	D	SD
27. I identify myself as a Christian.	SA	A	D	SD
28. I have had the opportunity to explore different faiths, religions, and spiritual practices through Guiding Light Recovery.	SA	A	D	SD
29. I consider my faith/spirituality to be strong and important in my daily life.	SA	A	D	SD
30. I believe that the services provided by Guiding Light Recovery can improve my quality of life.	SA	A	D	SD

Section 5. Recovery Performance Indicators

• For each of the following questions, please place an "**X**" in the indicated space for the answer that is most true for you right now.

	True	False
31. I am not working but see myself working within six months.		
32. I am working part time (less than 35 hours a week).		
33. I am working full-time (35 or more hours per week).		
34. I am in school.		

35. At this moment, I have been sober and completely substance free/abstinent from alcohol, drugs, etc. for: (see table below for days to months conversion)

____ 0-7 days	____181-210 days	____3-4 years
____ 8-30 days	____211-240 days	____5-6 years
____31-60 days	____241-270 days	____7-8 years
____61-90 days	____271-300 days	____9-10 years
____91-120 days	____301-330 days	____11-15 years
____121-150 days	____331-364 days	____16-20 years
____151-180 days	____1-2 years	____21 years or more

▪Helpful key for question 35 above, with the number of days in each month.

Days	Months
30	1
60	2
90	3
120	4
150	5
180	6
210	7
240	8
270	9
300	10
330	11
360-365	12

•**You have completed the UET!** Thank you for your time and for contributing your insightful answers to Guiding Light Recovery. This valuable information will allow GLR to continue to provide modern, high-level treatment free of charge. GLR will use this data to provide an individualized treatment plan for you and will compile data over time to enhance the general method of SUD treatment at the facility. **Remember to sign and date the next page (page 16) before you turn this survey into the administrator.**

Section 6. Confidentiality Clause

- Consent to release the information and answers of my completed UET survey to Guiding Light Recovery, its staff, and verified researchers for data analysis purposes.

- All research and clinical staff with access to your answers understand that the sharing of your personal/specific answers beyond the in-house needs of Guiding Light Recovery is strictly prohibited. This restriction includes the giving of information to family members, other individuals, other treatment agencies, social agencies, criminal justice agencies, and other agencies.

- Being of sound mind and sober at the time of/during the completion of this UET, I voluntarily give Guiding Light Recovery access to my answers to improve the quality of care they provide the clients in their substance abuse rehabilitation program.

- If you would like more detail regarding this confidentiality clause and how Guiding Light Recovery will use your answers, please ask the individual administering your UET.

- I (print name),_____, authorize Guiding Light Recovery to use my answers and the information from my UET survey for the purpose of assisting me with services provided by their facility. I also understand that my information may be used to generate statistical reports and for program evaluation purposes. General data analysis will be anonymous.

- _____
  (Signature) (Date)

Appendix B: UET Administrator's Manual

Guiding Light Recovery

Administrator's Manual

How to Deliver the Universal Evaluation Tool

Kevin M. Quinn
4/25/2023

This is designed to be an intuitive and manageable information packet/manual that can, and should, be distributed to the staff at Guiding Light Recovery (GLR) who will be directly administering the Universal Evaluation Tool (UET) to clients in the substance abuse treatment program. The information in this manual will help reduce bias during data collection and reduce any subjectivity associated with individual answers on the UET. Scripting is also provided to ensure that each respondent receives the same directions and instructions for completing the UET. The UET is designed specifically for the internal use/needs of GLR.

Section 1. Universal Evaluation Tool Background

What is the Universal Evaluation Tool (UET)?

The UET is a self-report survey tool made specifically for internal use by Guiding Light Recovery (GLR) to allow for client data collection and statistical analysis. The UET was created using the Recovery Enhancing Environment (REE) survey as a model. The REE is a tested measurement instrument that has been found to be a reliable method of data collection. The REE is designed for a patient receiving mental health services. The REE was developed by Priscilla Ridgway, Ph. D., as a practical and accurate means of collecting patient information.

Recovery from mental health issues and recovery from substance use disorder (SUD) issues are closely related. Dual diagnosis of the two diseases is common as well. The National Bureau of Economic Research published an article, "Mental Illness and Substance Abuse," exploring the relationship between the two conditions. The following is an excerpt from the article:

> There is a definite connection between mental illness and the use of addictive substances. Individuals with an existing mental illness consume roughly 38 percent of all alcohol, 44 percent of all cocaine, and 40 percent of all cigarettes. Furthermore, people who have ever experienced mental illness consume about 69 percent of all the alcohol, 84 percent of all the cocaine, and 68 percent of all cigarettes. (2-3)

This is just one example of why the REE was used as a reference when creating the UET. The UET is a multi-dimensional self-survey tool, completed by the patient, which is used to collect a wide range of data while remaining simple to administer, intuitive for the respondent, and cost-effective. The client data collected can be compiled and statistically analyzed to improve client care and ultimately define what successful treatment is for GLR.

Examples of the Data Collected by the UET

1. Identify the unique client population of GLR's SUD recovery program and client demographics.
2. Client evaluation of GLR staff/counselors.
3. Client evaluations of the SUD recovery program holistically and the quality of care they receive.
4. Self-progress evaluations.[1]
5. Baseline/comparative data for statistical analysis in future studies.
6. General data collection relating to SUD treatment and recovery.

1. Social scientists recognize that self-report surveys in areas such as satisfaction and reports of one's own characteristics tend to have a positive bias. Regarding SUD, several researchers have concluded that **if reports of drinking by the client do not lead to negative consequences**, self-reports of total abstinence are accurate. The individual must be alcohol/substance free when the data is obtained. Ultimately, the accurate collection of data is limited by the veracity of the individual respondent's answers.

Section 2. Collecting Data with the UET

When the UET can be Administered:

The versatile design of the UET means that it can be used and administered to clients at any time:

- As a screening tool.
- Client intake.
- Client discharge.
- Traditional recovery milestones such as 30, 60, 90, etc., days.
- Residents of Iron House (i.e., evaluation of continued progress).

Where the UET can be Administered:

The UET is designed as a paper and pencil self-survey that can be administered individually or in a group setting. The suggested method for administering the UET is individually and in person. The UET may also be adapted into an editable PDF file. A PDF version could also transition the survey into a computer-based measurement tool that could make digital filing of data more efficient.

Section 3. Responsibilities of the UET Administrator

Administrator Responsibilities:

- A trained staff member or counselor from GLR should administer the UET.
- The administrator should remain present for the duration of the UET.
- Only staff/counselors and approved researchers at/for GLR will have access to the UET.
- Read instructions from the provided standardized script.
- Hand out the UET and collect the survey after it has been completed.
- Answer questions from the survey participants regarding the UET.
- Record the sample size if administered in a group setting.

Section 3. Responsibilities of the UET Administrator

Administrator Responsibilities:

- After UET completion and collection, secure the survey to ensure client confidentiality.
- File and organize the UET promptly and in compliance with GLR policy.
- Provide pencils and paper copies of the survey to the participants.
- Administer the UET in the same scripted manner **EVERY** time it is implemented.

Ensuring the Integrity of the Survey Process (from appendix 4. of the REE surveyors' manual)

A standardized survey instrument is one that asks the same established list of questions of every person surveyed. It is administered and scored in a consistent manner. Any differences in answers should be directly attributable to differences between respondents (people answering the questions), NOT to differences in the process that produced the answers. Therefore, it's important for the surveyor to follow certain rules to ensure that the survey remains standardized.

To maintain the integrity of the survey process using a standardized instrument, each surveyor needs to be aware of the following issues:

1. Maintaining confidentiality: Secure and file the UET in the respective patient's file that completed the survey. Do not share individual answers with anyone outside of GLR without authorization of the respondent.

2. Avoiding conflicts of interest: Conflict of interest occurs when an individual has a duty to more than one person or organization but cannot do justice to the actual or potentially adverse interests of both parties. This includes when an individual's personal interests or concerns are inconsistent with the best for the client/UET respondent.

3. Avoiding bias: Bias refers to anything that might influence the answers that people give to the survey questions. For example, if the questions on different copies of the UET were worded slightly differently, or if surveyors gave different explanations of the survey procedures to different people, these would be potential sources of bias. This is why standardized surveys must be administered in the same way, with the same list of questions and the same instructions, no matter who is giving the survey and who is taking it. We will reduce bias by implementing the following methods:

    a. Using a prepared script to introduce and explain the UET **every time** the survey is administered.
    b. Using a list of standard answers to potential questions asked by respondents taking the UET.
    c. Being clear about what kind of assistance and support are approved to give respondents and what kind of assistance could be a source of bias.

Section 3. Responsibilities of the UET Administrator

Become Familiarized with the UET:

It is vital that the professional administering the UET is familiar with the questions and content of the survey. An administrator should have read over the UET a few times and should personally complete a survey to ensure that he/she is comfortable with the material. The person administering the survey should also have read over the prepared script used to introduce the UET to survey participants as well as the list of answers to common questions asked about the UET. Being confident in your abilities to administer the UET is essential, and familiarizing oneself with the information on the UET is suggested for anyone involved in the process from the administration of the survey to the organizing and filing of the data from the UET.

Using the Standardized Script:

The same introductory script **must** be read every time the UET is administered to reduce bias. **Do not paraphrase** the provided script **or change it** in any fashion. The script **must be read exactly** as it is written to ensure continuity.

Answering Questions About the UET:

When administering the REE to patients in recovery for mental health issues, researchers identified two main types of questions asked by the respondents to the survey administrators: general questions and questions regarding the content of the REE (in our case the content of the UET).

1. General questions: These are questions about the survey, such as: what is the UET, why take the UET, how will the data be used, etc. To answer general questions like these, a list of standardized responses has been developed (based on the findings of the REE researchers) that can and should be used. The responses to general questions, like the introductory script, must be read **exactly** as they are written to ensure continuity and reduce bias.

    a. If a respondent asks the surveyor to read a question aloud to them, the surveyor may read a question to a respondent exactly as it appears on the survey for clarification but without further explanation than is provided by the original question.

2. Questions about the content of the UET: If a respondent asks what a question means, there are limited ways that the administrator may answer. If a respondent asks for the explanation of a particular question on the UET or the meaning of a word, there are restrictions to what the administrator may respond with. The REE researchers allowed survey administrators to respond with the following options, and those administering the UET will use these same options:

    a. Read the entire question aloud to the survey taker.
    b. Reply with a phrase such as, “Whatever _____ means to you.”
    c. You may answer a yes or no kind of question. An example would be if someone asks, “Is yoga a type of wellness programming?” The administrator may answer “yes.” However, if someone asks you to give examples of “wellness programming,” you may not give them suggestions.

Section 3. Responsibilities of the UET Administrator

Answering Questions About the UET Continued:

2. Questions about the content of the UET:

    d. It is important to explain to the individual asking the question that the administrator must abide by certain rules when answering questions to reduce bias. This is to make sure that everyone taking the UET is provided with the same information regarding the completion of the survey.

Section 4. UET Introductory Script

- Based on Appendix 4. REE surveyors' manual [Appendix D].

Hi. My name is _____. I am a staff member of Guiding Light Recovery's substance abuse recovery program. I am here to ask you to take the Universal Evaluation Tool (UET). This survey is used because Guiding Light Recovery wants to know if the substance abuse recovery services you receive here are helping you achieve the life that you want.

Please allow me to fill in the information at the bottom of page 2 under the heading, "for staff use only." All your answers to the questions on the UET will be confidential and not shared with anyone or any organization outside of GLR without consent.

This is not a test. There are no right or wrong answers. We are looking for your opinions and beliefs. This survey is voluntary, and you may skip questions if you feel the need to. There is no time limit to complete the survey, but you must complete it before you leave this area.

The survey has 6 sections, including a confidentiality clause that requires a signature. Each section has the instructions at the top. Please read the instructions before each section and within the respected questions carefully. Remember, your answers apply only to the services you receive from Guiding Light Recovery unless the question specifies otherwise.

If you like, you may fill out an extra copy of section 5, the recovery performance indicators, to take with you. You can keep this for your own information or use it to track your progress in recovery during your time at Guiding Light Recovery.

Thank you for taking the time to share your opinions with us by completing this survey. You can begin the UET after I have completed the bottom of page 2 in your survey packet. After we begin, I will be able to answer only certain questions, and the questions I am allowed to answer will be done in a standard fashion. This is to minimize bias and reduce any subjectivity associated with individual answers on the UET.

Section 5. Frequently Asked Questions about the UET

- Based on Appendix 4. REE surveyors' manual [Appendix E].

1. **What is the UET?**

   The UET is a self-report survey that collects information from individuals in Guiding Light Recovery's substance abuse recovery program.

2. **What do you mean by "recovery"?**

   Recovery from the disease of addiction is multi-dimensional, but complete abstinence from alcohol/drugs is basic to what is implied by the term "recovery." In a broad sense, enhanced quality of all aspects of life for substance-abuse clients and for them to live meaningful lives is the objective of the recovery journey.

3. **Who is conducting the UET?**

   Guiding Light Recovery is implementing the UET, and their staff will be conducting/administering the survey to individuals in their alcohol/substance abuse recovery program.

4. **Why is the information being collected?**

   The data collected from the UET will be used internally to improve the way care is provided to clients and to give Guiding Light Recovery an idea of how successful their treatment program is in supporting recovery from alcohol/substance abuse. It is very important that we get the opinions of everyone to get meaningful results. Your input is valuable to us, and we need your help.

5. **How/why was I picked to take the survey?**

   The UET is given to all individuals in the alcohol/substance abuse recovery program at Guiding Light Recovery.

6. **How will the results be used?**

   The results of the UET will be used by Guiding Light Recovery to improve the care they provide individuals in their alcohol/substance abuse recovery program, produce a more personalized treatment plan for the respondent, improve the overall efficiency of the treatment facility, and improve the quality of life for the residents of Guiding Light Recovery.

Section 5. Frequently Asked Questions about the UET

- Based on Appendix 4. REE surveyors' manual [Appendix E].

7. I have a problem at this program with _____. Can you help me?

Sorry, but I can't help you with that right now. While administering the UET, I may answer only questions that you may have regarding the survey. After you have completed the survey, I, or another member of the GLR staff, will answer your question. Thank you.

8. How do I answer questions from Section 1?

For each Question, place an "X" next to the response that is most true/correct for you at the present time. Additional instructions may be provided within parentheses following a specific question.

•*For Question 11 Specifically*

If you answered "**No**" to the first part of the question, meaning that you have NEVER received ANY type of treatment for alcohol/substance abuse (i.e., inpatient/outpatient treatment, AA, NA, etc.), skip the rest of question 11 and continue to question 12.

If you answered "**Yes**" to the first part of the question, meaning that you HAVE received treatment for alcohol/substance abuse (i.e., inpatient/outpatient treatment, AA, NA, etc.) in the past, place an "X" next to all the treatment types that you have received in the past. For any treatment types that you have placed an "X" next to, please place an "X" next to the number of times you have attended that specific *type* of treatment facility/program.

•*For Question 12 Specifically*

Please provide the indicated information in the space provided to the best of your ability by printing, not writing in cursive, your responses. If you feel the question does not apply to you, leave it blank and move on to the next section, Section 2.

9. How do I answer questions from Section 2?

Place an "X" next to the ONE answer that is MOST true for you currently.

10. How do I answer questions from Section 3?

Please refer to the directions provided on the UET at the beginning of this section. For each question in Section 3, there are four options: strongly agree (SA), agree (A), disagree (D), strongly disagree (SD). For each question, circle the ONE response from the four provided that is most true for you right now.

•The survey administer may show the individual asking the question how the answer choices for each respected question are within the same row as the question.

Section 5. Frequently Asked Questions about the UET

- Based on Appendix 4. REE surveyors' manual [Appendix E].

11. How do I answer questions from section 4?

Section 4 has 5 main questions. Each of these 5 main questions has additional follow-up questions that you should complete ONLY if you responded "Yes" (by placing an "X" in the box provided) to the initial question. If you responded "NO" to the initial question being asked (by placing an "X" in the box provided), leave the rest of that question blank and move on to the next question.

12. How do I answer questions from section 5?

Please refer to the directions provided on the UET at the beginning of this section. For most questions in section 5, there are four options: strongly agree (SA), agree (A), disagree (D), strongly disagree (SD). For each question, circle the ONE response from the four provided that is most true for you right now.

•The survey administer may show the individual asking the question how the answer choices for each respected question are within the same row as the question is in. This is permissible for all questions within section 5.

•*For Questions 31-34 Specifically*

For each of the 4 true or false questions, please place an "X" in the box within the same row as the answer. Mark the answer (either true or false but not both) that is most correct for you right now.

•*For Question 35 Specifically*

There are 21 possible groups to choose from (administrator may show the respondent the 21 different answers by pointing to each). Place an "X" next to the answer choice that best describes the length of time that you CURRENTLY have been completely alcohol/drug free. We encourage you to be as honest as possible because there will be NO negative or unwanted consequences for any of the answers that you select.

A quick reference table is directly below the answers for question 35 that contains a days to-months conversion key to make answering the question more intuitive (administrator may show the respondent how the respected days-to-months conversions are contained within the same rows of the table). Again, please select the ONE response that most closely describes your current length of sobriety. Thank you.

Section 5. Frequently Asked Questions about the UET

- Based on Appendix 4. REE surveyors' manual [Appendix E].

13. What is a confidentiality clause and why do I have to sign it?

Section 6 is a confidentiality clause that describes how your answers to the questions on the UET will be used. The confidentiality clause also describes how we will protect your specific answers and ensures that the information contained on the completed UET will not be shared with anyone outside of Guiding Light Recovery without your consent.

14. How do I complete section 6?

Please print your name in the (first) space provided. Then, sign and date on the indicated line. Thank you.

Appendix C: UET with KPIs

Universal Evaluation Tool

A Survey to Collect Data and Enhance Client Care

Kevin M. Quinn

Key Performance Indicators (KPIs):

1. Relationships
2. Faith
3. Housing
4. Employment
5. Income
6. Sober
7. Growth/learning/education
8. Physical/emotional health
9. Quality of life
10. Community

Universal Evaluation Tool: Guiding Light Recovery

(Modeled after ©Priscilla Ridgway's REE-MI)

Introduction:

This is designed to be an intuitive and manageable information packet/manual that can, and should, be distributed to the staff at Guiding Light Recovery (GLR) who will be directly administering the Universal Evaluation Tool (UET) to clients in the substance abuse treatment program. The information in this manual will help reduce bias during data collection and reduce any subjectivity associated with individual answers on the UET. Scripting is also provided to ensure that each participant receives the same directions and instructions for completing the UET. The UET is designed specifically for the internal use/needs of GLR.

This is a voluntary survey, and you can skip any questions you do not wish to answer. Your answers to the questions will remain confidential. All GLR clinical staff and anyone granted access to the information collected from this questionnaire has signed a confidentiality agreement to ensure that your specific answers remain private. The UET is designed to help both you and the staff at GLR to learn valuable information to holistically improve the quality of substance use disorder (SUD) treatment provided to you and encourage/cultivate growth while you are at GLR. Results over time may be shared with the individuals who completed the survey to help them learn about their recovery and progress.

Survey taking instructions:

1. The UET you are about to complete has no right or wrong answers and is **not a test**. Answer each question as accurately as possible based on your personal opinions and beliefs.

2. Be sure to **carefully read** the directions for each section before answering the questions.

3. Answer each question by marking the one answer that best fits your opinions, beliefs, and current situation. If none of the provided answers to a question fit for you exactly, **choose the answer that comes closest for you.**

4. If you are not sure what a particular question is asking, you may ask the clinician administering the survey for clarification. If you feel any question does not apply to you, leave it blank.

5. Remember, this is designed to help the GLR track your progress during SUD treatment. Many have found the survey to be interesting, enjoyable to fill out, and helpful in their recovery journey.

For Staff Use Only

This summary information easily shows file and tracking information for the person who inputs data.

Patient: _____
(Print Name) (Date of Survey Completion)

A table may be created with standard discharge reasons ↓

Intake date:_____Discharge:

_____
(Date) (Reason for Discharge)

Incentive used by other SUD treatment facilities: hold a patient's money while they are residents in the program to incentivize completion of exit survey in case patient attempts to leave abruptly.

Administrator: _____
(Print Name) (Position/Title) (Date Survey Administered)

Section 1. Demographics & Questions About You

1. What **age** group are you in (Check your current age group)?
   ____17 or younger
   ____18-25
   ____26-35
   ____36-45
   ____46-55
   ____56-65
   ____66-75
   ____76 or older

The demographic portion will allow GLR to identify their specific patient population and track any changes over time in the population that seeks treatment through GLR.

2. What **gender** do you identify yourself with?
   ____Male
   ____Female
   ____Other

3. What is your **cultural**, ethnic or racial background?
   ____Caucasian (White)
   ____ African American or Black
   ____Hispanic or Latino
   ____American Indian or Alaskan Native
   ____Asian
   ____Native Hawaiian or another Pacific Islander
   ____Arab-Chaldean
   ____Other

4. Do you currently have a home, apartment, or place of **residency**?
   ____Yes
   ____No

5. Do you currently have **health insurance**?
   ____Yes
   ____No

6. Do you receive any type of expense or **living assistance** from the government?
   ____Yes
   ____No

7. Are you a legal **resident of Michigan**?
   ____Yes
   ____No

8. Do you currently **reside in Grand Rapids**, Michigan?
   ____Yes
   ____No

Section 1. Demographics & Questions About You

9. What is the substance you primarily use or that is your "**drug of choice**"? (Select all that apply.)

____Alcohol	____Hallucinogens (LSD, PCP, Mushrooms)
____Marijuana	____Ecstasy/MDMA
____Prescription Medications	____Ketamine
____Powder Cocaine	____Tobacco Products
____Rock/Crack Cocaine	____Inhalants (Duster, Whip-its)
____Methamphetamines/Speed	____Over-the-Counter Medications
____ Heroin	____Other

10. **What method do you** use most frequently to use your primary substance (Select all that apply)?
    ____Oral ingestion (e.g., drink, swallow, eat/chew, or dissolve in mouth)
    ____Inhalation (smoking, vaporizing, or breathing in a substance)
    ____Nasal insufflation (sniffing/snorting up the nose)
    ____Injection (intravenous or direct injection into body using a needle or other instrument)
    ____Other non-injection

11. Have you ever received any type of **treatment** for alcohol or substance misuse in the past?
    ____Yes
    ____No (If you answered "No" here, continue to question 12.)

    •*If you have received treatment before*, what style of treatment (Select all that apply)?
    ____Inpatient treatment
        ▪How many **Inpatient** treatment facilities have you attended?
        ____1-2 ____3-4
        ____5-6 ____7 or more

    ____**Outpatient/Intensive Outpatient Treatment**
        ▪How many Outpatient/Intensive Outpatient programs have you participated in?
        ____1-2 ____3-4
        ____5-6 ____7 or more

    ____**Twelve-step programs** such as Alcoholics Anonymous and/or Narcotics Anonymous

    ____**Other** type of alcohol or substance abuse treatment program type
        ▪How many *other* treatment style facilities or programs have you participated in?
        ____1-2 ____3-4
        ____5-6 ____7 or more

Number of treatment centers a patient has been in before coming to GLR.

12. What is the highest level of **education** that you have completed? (Select <u>one</u> answer that fits best for you.)

____Some high school	____Some College	____Some post-graduate work
____High school graduate	____Associate degree	____Graduate degree
____GED earned	____Bachelor's degree	____Professional degree

Section 1. Demographics & Questions About You

13. Please provide your personal **contact information**:

Tracking information for future studies, updated by mailing to alumni.

•Name and Date:_____
(Print full name) (Date)

•Current Address:

_____
(Street) (City) (State) (Zip Code)

•Phone Number:_____E-mail Address:
_____
(Area code first) (Primary account)

•Emergency Contact:_____
(Name) (Relationship to you) (Phone Number with Area Code)

Section 2. Your Involvement in the Substance Abuse Recovery Process

1. Which of the following statements is currently most true for you? (Read **ALL** response before selecting **ONE**.)

___I have never heard of, or thought about, recovery from alcohol/substance abuse.

___I do not believe I have any need to recover from alcohol/substance abuse.

___I have not had the time to consider alcohol/substance abuse treatment or recovery.

___I've been thinking about recovery, but I haven't decided to act on it yet.

___I am committed to my recovery, and I am making plans to take action very soon.

___I am actively involved in the process of recovery from alcohol/substance abuse.

___I was actively moving toward recovery, but now I am not because of a relapse.

___I feel that I am fully recovered and no longer need treatment or help to maintain.

___Other or none of the above fits me best.

Knowledge and position on/about recovery.

Section 3. Elements of Substance Abuse Recovery

- For each of the following questions, please circle the **one** answer that is most true for you right now:

  - **SA** if you **strongly agree** with the statement.
  - **A** if you **agree** with the statement.
  - **D** if you **disagree** with the statement.
  - **SD** if you **strongly disagree** with the statement.

Defined measurement scale reduces bias and subjectivity of "open ended" questions.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. Having a positive sense of personal identity beyond my alcohol/substance abuse is important to my recovery.	SA	A	D	SD
2. Staff at the Mission views me as more than a "case" or a diagnosis; they want to know me as a person.	SA	A	D	SD
3. Guiding Light Recovery's alcohol/substance abuse treatment program offers individualized services to meet my unique needs.	SA	A	D	SD
4. Staff at GLR treats me as a whole person with a body, mind, emotions, important relationships, and spirit.	SA	A	D	SD

Question 3: National Institute on Drug Abuse number 2 of 13 principles of effective treatment.

These questions give a general evaluation of the staff and program in the eyes of the patient which helps them feel as though their "voice" is being heard.

Section 3. Elements of Substance Abuse Recovery

	Strongly Agree	Agree	Disagree	Strongly Disagree	KPI
5. Spirituality and having a sense of meaning in life is *not* important to my recovery.	SA	A	D	SD	2,8,9
6. Staff at GLR helps me make sense out of what is happening in my life during this transitional period.	SA	A	D	SD	1,7,8
7. The Staff at GLR asks me what is meaningful to me regarding my unique recovery process.	SA	A	D	SD	1,6,9
8. The Guiding Light Recovery's alcohol/substance abuse program encourages me to do things that give my life meaning.	SA	A	D	SD	7,8,9
9. Having hope is important to my recovery.	SA	A	D	SD	2,8
10. The staff at Guiding Light Recovery believes I have a positive future.	SA	A	D	SD	8,9
11. My counselors and the staff at GLR encourage me to feel hopeful again when I am discouraged or have a setback.	SA	A	D	SD	1,2,8,10
12. The Guiding Light Recovery Staff has *not* explained to me that addiction is a disease similar to other chronic diseases like diabetes and hypertension.	SA	A	D	SD	6,8
13. Being self-aware and self-motivated to stay active in my recovery process to avoid relapse is important to me.	SA	A	D	SD	6,7
14. The GLR program has helped me identify and monitor triggers/early signs of relapse.	SA	A	D	SD	6
15. I have learned and developed personalized coping skills at GLR so I can manage stress well.	SA	A	D	SD	1,2,7,8,9
16. By attending the alcohol/substance abuse treatment program at GLR, I have *not* developed a more positive self-image.	SA	A	D	SD	8,9
17. Improving my general health and wellness is important to my recovery.	SA	A	D	SD	8,9
18. Staff at Guiding Light Recovery pays careful attention to my physical health.	SA	A	D	SD	8,9
19. The recovery program at GLR encourages me to achieve a higher level of wellness.	SA	A	D	SD	8,9
20. Guiding Light Recovery's program offers wellness programming such as exercise options, nutrition, movement, relaxation, and meditation.	SA	A	D	SD	8,9

GLR Recovery Program Focus #3, " Self-Awareness"

Simplified physical health assessment.

Section 3. Elements of Substance Abuse Recovery

	Strongly Agree	Agree	Disagree	Strongly Disagree	KPI
21. Having my rights respected and upheld is important to my recovery.	SA	A	D	SD	7,8,9
22. The staff at the Guiding Light Recovery has clearly informed me of my rights, the program's rules, policies, and expectations while I am here.	SA	A	D	SD	1,3,10
23. There is a clear grievance policy if I feel as though my rights are being violated.	SA	A	D	SD	3,9
24. I *don't* feel safe when reporting a grievance to the staff and that my grievance will be taken seriously.	SA	A	D	SD	1,3,10
25. The staff at GLR upholds my rights.	SA	A	D	SD	1,3
26. Having positive relationships and accountability to others is important to my recovery.	SA	A	D	SD	1,10
27. Staff assists me in having positive relationships with my peers and others in the recovery program.	SA	A	D	SD	1,9,10
28. The Guiding Light Recovery staff supports me in building or rebuilding positive relationships with family members.	SA	A	D	SD	1,9,10
29. Staff assists me in forming friendships with people outside of Guiding Light Recovery like in the local recovery community (AA, NA, etc.).	SA	A	D	SD	1,10
30. Having my basic needs met is important to my recovery.	SA	A	D	SD	3,4,5,9
31. Guiding Light Recovery assists me to get a basic income by working and/or employment.	SA	A	D	SD	4,5
32. GLR has/will help me get decent, affordable housing.	SA	A	D	SD	3
33. Following treatment, I would be interested in living at GLR's halfway house, The Iron House.	SA	A	D	SD	3,10
34. Guiding Light Recovery helps me gain access to basic health care.	SA	A	D	SD	8,9

Section 3. Elements of Substance Abuse Recovery

KPI

GLR Program Focus #5, vulnerability

	Strongly Agree	Agree	Disagree	Strongly Disagree	
35. Having a sense of control over my life and feeling empowered is important to my recovery.	SA	A	D	SD	7,8,9
36. Staff/counselors encourage and support my sense of empowerment.	SA	A	D	SD	1,7,8,9
37. Staff/counselors assist me to gain or maintain control over important decisions in my life.	SA	A	D	SD	1,9,10
38. Staff/counselors **do not** try to maintain power and control over me.	SA	A	D	SD	1,7,8
39. Taking on new challenges and moving out of my comfort zone is *not* important to my recovery.	SA	A	D	SD	7
40. Staff/counselors encourage me to take on new challenges.	SA	A	D	SD	7
41. I feel supported when I try new things that seemed out of my reach before coming to GLR.	SA	A	D	SD	1,7,10
42. Staff/counselors encourage me to step outside of my comfort zone, grow and move in a positive direction.	SA	A	D	SD	1,7,10
43. I realize that emotional vulnerability is not a weakness and expressing my emotions in a positive manner is necessary for me to grow in recovery.	SA	A	D	SD	1,7,8,9,10
44. I believe that I *don't* have an alcohol/substance abuse problem.	SA	A	D	SD	6,7
45. I believe that addiction is a disease similar to other chronic conditions such as diabetes and hypertension.	SA	A	D	SD	7
46. I believe that like other chronic diseases, I can live a full and productive life by continuing to treat my addiction by attending support groups such as twelve-step based groups.	SA	A	D	SD	6,7
47. I believe that like other chronic diseases, I need the help and support of others to maintain my recovery.	SA	A	D	SD	1,6,7,10

Section 4. Special Needs

• The following questions relate to specific groups of individuals. If you are NOT a member of the specific group being asked about, answer "no" and go onto the next question.

1. **Do you identify yourself as a member of an ethnic, racial, or cultural minority group (check one box only)?**

   ☐ Yes (please answer questions a-e below)

   ☐ No (Go to question 2)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having my ethnic and cultural background respected is important to my recovery.	SA	A	D	SD
b. Staff at Guiding Light Recovery is respectful to me as a person of racial, ethnic, or cultural minority group.	SA	A	D	SD
c. GLR and its staff understand and support my cultural values/language/customs.	SA	A	D	SD
d. The staff/counselors are aware of and sensitive to my cultural heritage and needs.	SA	A	D	SD
e. The staff/counselors are willing to take the time to educate themselves about my ethnic and cultural background.	SA	A	D	SD

2. **Do you have or have you ever been diagnosed with any mental health issues such as depression, anxiety, bipolar disorder, schizophrenia, etc. (check one box only)?**

   ☐ Yes (please answer questions a-d below)

   ☐ No (Go to question 3)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Receiving help with/for my mental health is *not* important to my recovery.	SA	A	D	SD
b. GLR has resources to help me with both substance use disorder and mental health disorders.	SA	A	D	SD
c. I feel that I can easily access the mental health resources that GLR can offer.	SA	A	D	SD
d. GLR has linked me to community recovery groups that deal with co-occurring SUD and mental health disorders.	SA	A	D	SD

Section 4. Special Needs

3. Do you have a history of (individual) trauma such as physical, emotional, or sexual abuse? (check one box only)

☐ Yes (please answer questions a-d below)

☐ No (Go to question 4)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Healing from traumatic experiences in my past is important to my recovery.	SA	A	D	SD
b. GLR has resources to help me heal from trauma.	SA	A	D	SD
c. I feel safe opening up about traumatic experiences with the staff/counselors at GLR.	SA	A	D	SD
d. Staff/counselors at GLR help me deal with trauma effectively.	SA	A	D	SD

4. Do you identify yourself as homosexual, bisexual, transgender or asexual (i.e., LGBTQ+)? (check one box only)

☐ Yes (please answer questions a-f below)

☐ No (Go to question 5)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having support for my sexual orientation is important to my recovery.	SA	A	D	SD
b. Staff/counselors at the Guiding Light Recovery treat me with respect regardless of the sexual orientation that I identify most with.	SA	A	D	SD
c. Staff/counselors are willing to take the time to educate themselves about my specific sexual orientation.	SA	A	D	SD
d. I feel safe in openly sharing my sexual orientation with staff/counselors at GLR.	SA	A	D	SD
e. I feel safe in openly sharing my sexual orientation with my peers that are in GLR's substance abuse treatment program with me.	SA	A	D	SD
f. Staff/counselors *don't* deal effectively with issues of sexual orientation.	SA	A	D	SD

Section 4. Special Needs

5. Are you or do you identify yourself as a parent (check one box only)?

☐ Yes (please answer questions a-f below)

☐ No (Go to next section)

	Strongly Agree	Agree	Disagree	Strongly Disagree
a. Having support as a parent is *not* important to my recovery.	SA	A	D	SD
b. The staff/counselors at the Guiding Light Recovery support me in my role as a parent.	SA	A	D	SD
c. The staff/counselors assist me in becoming a better and more effective parent.	SA	A	D	SD
d. The staff/counselors assist me with or provide me with resources regarding any custody disputes.	SA	A	D	SD
e. I believe that I am a better parent when I am sober.	SA	A	D	SD

Section 5. Recovery Performance Indicators

- For each of the following questions, please circle the **one** answer that is most true for you right now:

  - **SA** if you **strongly agree** with the statement.
  - **A** if you **agree** with the statement.
  - **D** if you **disagree** with the statement.
  - **SD** if you **strongly disagree** with the statement.

This section is most closely related to questions about the current KPIs.

KPI

	Strongly Agree	Agree	Disagree	Strongly Disagree	
1. My current living situation feels like a safe home to me.	SA	A	D	SD	3
2. I have people I trust whom I can turn to for help.	SA	A	D	SD	1
3. I have at least one close mutual (give and take) relationship in my life.	SA	A	D	SD	1,10
4. I am involved in activities I find meaningful.	SA	A	D	SD	4,7,8 ,9,10
5. My emotional health is balanced and manageable.	SA	A	D	SD	8
6. I have enough income to meet my needs.	SA	A	D	SD	5
7. I am learning new activities, ideas, and spiritual practices that are important to me.	SA	A	D	SD	2
8. I am in good physical health.	SA	A	D	SD	8
9. I have a positive spiritual life/connection to a higher power of my understanding.	SA	A	D	SD	2
10. I *do not* have a positive self-image, and I *don't* like or respect myself.	SA	A	D	SD	8
11. I am using my personal strengths, skills or talents to help others and myself.	SA	A	D	SD	1,10
12. I have goals I am working to achieve.	SA	A	D	SD	7,9
13. I have reasons to get out of bed in the morning.	SA	A	D	SD	8,9
14. I have more good days than bad days.	SA	A	D	SD	9
15. I have a decent quality of life.	SA	A	D	SD	9

GLR program focus 6, spiritual curiosity.

Section 5. Recovery Performance Indicators

KPI

	Strongly Agree	Agree	Disagree	Strongly Disagree	
16. I am confident in my ability to make important decisions in my life.	SA	A	D	SD	7,8
17. I trust myself when making personal financial decisions.	SA	A	D	SD	5
18. I *do not* contribute to my community.	SA	A	D	SD	10
19. I contribute to the wellbeing of my peers and those around me.	SA	A	D	SD	1,10
20. I am growing as a person.	SA	A	D	SD	7
21. I *don't* have a sense of belonging.	SA	A	D	SD	1,9,10
22. I feel alert to my surroundings and alive.	SA	A	D	SD	8,9
23. I feel hopeful about my future.	SA	A	D	SD	8,9
24. I am *not* able to effectively deal with stress.	SA	A	D	SD	7,8,9
25. I believe I can make positive changes in my life.	SA	A	D	SD	7,8,9
26. I consider myself to be spiritually curious about Christianity and its belief system.	SA	A	D	SD	2
27. I identify myself as a Christian.	SA	A	D	SD	2
28. I have had the opportunity to explore different faiths, religions, and spiritual practices through the Guiding Light Recovery.	SA	A	D	SD	2
29. I consider my faith/spirituality to be strong and important in my daily life.	SA	A	D	SD	2
30. I believe that the services provided by the Guiding Light Recovery can improve my quality of life.	SA	A	D	SD	9

GLR program focus 1, willingness to change.

Section 5. Recovery Performance Indicators

• For each of the following questions, please place an "**X**" in the indicated space for the answer that is most true for you right now.

	True	False
31. I am not working, but see myself working within 6 months.		
32. I am working part time (less than 35 hours a week).		
33. I am working full time (35 or more hours per week).		
34. I am in school.		

35. At this moment, I have been sober and completely substance free/abstinent from alcohol, drugs, etc., for; (see table below for days to months conversion)

KPI 6, length of sobriety, drug/alcohol free.

____ 0-7 days	____181-210 days	____3-4 years
____ 8-30 days	____211-240 days	____5-6 years
____31-60 days	____241-270 days	____7-8 years
____61-90 days	____271-300 days	____9-10 years
____91-120 days	____301-330 days	____11-15 years
____121-150 days	____331-364 days	____16-20 years
____151-180 days	____1-2 years	____21 years or more

▪Helpful key for question 35 above, with the number of days in each month.

Days	Months
30	1
60	2
90	3
120	4
150	5
180	6
210	7
240	8
270	9
300	10
330	11
360-365	12

•**You have successfully completed the UET!** Thank you for your time and for contributing your insightful answers to Guiding Light Recovery. This valuable information will allow GLR to continue to provide modern, high-level treatment free of charge. GLR will use this data to develop an individualized treatment plan for you and will compile data over time to enhance the general method of SUD treatment at the facility. **Remember to sign and date the next page (page 14) before you turn this survey in to the administrator.**

Section 6. Confidentiality Clause

- Consent to release the information and answers of my completed UET survey to Guiding Light Recovery, its staff, and verified researchers for data analysis purposes.

- All research and clinical staff with access to your answers understand that the sharing of your personal/specific answers beyond the in-house needs of Guiding Light Recovery is strictly prohibited. This restriction includes the giving of information to family members, other individuals, other treatment agencies, social agencies, criminal justice agencies, and other agencies.

- Being of sound mind and sober at the time of/during the completion of this UET, I voluntarily give Guiding Light Recovery access to my answers to improve the quality of care they provide the patients in their substance abuse rehabilitation program.

- If you would like more detail regarding this confidentiality clause and how Guiding Light Recovery will use your answers, please ask the individual administering your UET.

- I (print name),_____, authorize Guiding Light Recovery to use my answers and the information from my UET survey for the purpose of assisting me with services provided by their facility. I also understand that my information may be used to generate statistical reports and for program evaluation purposes. General data analysis will be anonymous.

This needs to be looked over by a lawyer.

- _____
(Signature) (Date)

Appendix D: UET Spreadsheet

Client Number	Age Group	Gender	Ethnicity	Residency	Health Insurance	Gov. Assist.
1	5	1	1	2	1	2
2	4	1	1	2	1	2
3	2	1	1	1	1	2
4	4	1	1	1	1	1
5	3	1	1	2	1	2
6	5	1	1	1	1	2
7	3	1	1	2	1	1
8	4	1	2	1	1	2
9	5	1	1	2	2	2
10	5	1	1	2	1	2
11	3	1	1	2	1	2
12	5	1	1	2	2	1
13	4	1	1	2	1	1
14	5	1	1	2	1	2
15	5	1	2	2	1	1
16	2	1	1	1	1	1
17	5	1	2	2	1	1
18	5	1	1	1	2	2
19	4	1	1	2	1	2
20	2	1	1	2	1	1

MI Resident	GR Resident	DOC	DOC Use	Prev. Treated	Treat. Style	LOS
2	1	1	1	2		
1	1	1	1	1	123	2
1	1	12	13	1	123	1
1	1	2511	3	1	123	45
1	1	1	1	1	12	37
1	1	1	1	1	23	5
1	1	711	4	2		
1	1	14511	123	2		
1	1	1	1	2		
1	2	1235711	134	1	13	15
1	1	123611	1	1	3	
1	1	1	1	1	13	25
1	1	1	1	1	123	15
1	1	1	1	1	123	15
1	1	1	1	1	13	1
1	1	12	13	1	23	5
1	1	1	1	1	13	1
1	1	1	1	1	2	6
1	1	1	1	1	2	5
1	1	1	1	1	123	26

Education	Recov. Involv.	31	32	33	34	35	36
2	6	1	1	1	1	4	2
4	6	1	1	1	2	3	2
4	6	1	1	1	1	4	1
3		2	1	1	1	4	1
4	6	1	2	2	1	4	2
1	6	2	1	1	1	4	2
1	6	1	1	2	2	3	1
4	6	1	1	1	1	4	1
1		1	1	1	1	4	1
4	5	1	2	2	2	4	2
4	6	1	1	1	1	4	2
4	6	1	1	1	1	4	1
7	6	1	1	1	1	4	2
4	6	1	1	1	1	4	1
3	6	1	1	2	1	4	1
1	6	1	1	1	1	4	1
6	6	1	2	2	1	4	1
4	6	1	1	1	1	4	2
2	6	3	1	2	1	2	2
2	6	1	1	2	1	4	2

37	38	39	310	311	312	313	314	315
1	2	1	1	1	4	1	1	2
1	2	2	2	2	3	1	2	2
2	1	1	1	1	4	1	1	2
1	1	1		2		1		
2	2	1	2	2	4	1	2	2
1	1	1	2	2	3	2	2	2
2	1	1	2	2	4	1	1	3
1	1	1	1	1	4	1	1	
1	1	1	1	1	4	1	1	1
1	2	1	2	2	4	1	3	3
2	1	1	1	1	4	1	2	2
1	1	1	1	1	4	1	1	1
2	2	1	2	2	3	1	2	2
1	1	1	1	1	4	1		
1	1	1	2	2	4	1	2	1
1	1	1	1	1	4	1	2	2
1	2	2	2	2	4	1	1	1
2	2	1	2	2	3	2	2	2
1	1	1	1	1	2	1	2	2
2	1	1	2	2	3	1	2	2

316	317	318	319	320	321	322	323	324
4	1	1	1	1	1	1	1	2
3	2	2	1	2	2	1	2	4
4	1	1	1	1	1	1	1	3
	1	2	2	1	1	1		4
3	1	2	1	1	2	1	2	4
3	2	2	2	2	2	2	2	3
4	1	1	1	1	1	1	4	4
4	1	1	1	1	1	1	1	4
4	1	1	1	1	1	1	2	4
3	1	2	2	2	2	1	3	3
4	1	2	1	1	1	1	3	3
4	1	1	1	1	1	1	1	4
3	2			1	2	2		
4	1	1	1	1	1	1	1	4
3	1	2	1	1	2	1	1	3
4	1	1	1	1	1	1	1	4
4	1	2	2	1	2	1		3
3	1	2	2	2	2	2	2	3
	2	2	2	1	1	1	1	2
3	2	3	2	2	1	2	2	3

Appendix E: Grouped UET Data

	Age Group	Gender	Ethnicity	Residency	Health Insurance	Gov. Assist.
Code Value						
1	0	20	17	6	17	8
2	3		3	14	3	12
3	3					
4	5					
5	9					
6	0					
7						
8						
9						
10						
11						
12						
13						
14						
Total Response	20	20	20	20	20	20

MI Resident	GR Resident	DOC	DOC Use	Prev. Treated	Treat. Style	LOS
19	19	18	18	16	11	6
1	1	5	1	4	11	3
		2	5		13	1
		1	2			1
		3				7
		1				2
		2				1
		5				
20	20			20		

Education	Recov. Involv.	31	32	33	34	35	36
4		17	17	13	17	0	10
3		2	3	7	3	1	10
2		1	0	0	0	2	0
9		0	0	0	0	17	0
0	1						
1	19						
1							
20	20	20	20	20	20	20	20

37	38	39	310	311	312	313	314	315
13	13	18	9	9	0	18	7	4
7	7	2	10	11	1	2	10	11
0	0	0	0	0	5	0	1	2
0	0	0	0	0	13	0	0	0

316	317	318	319	320	321	322	323	324
0	15	6	12	15	12	16	8	0
0	5	10	7	5	8	4	6	2
8	0	1	0	0	0	0	2	8
10	0	0	0	0	0	0	1	9
18	20	17	19	20	20	20	17	19

325	326	327	328	329	330	331	332	333
11	19	12	11	11	12	6	4	14
9	1	8	6	8	7	3	8	4
0	0	0	1	0	0	1	0	1
0	0	0	0	0	0	0	0	0
20	20	20	18	19	19	10	12	19

334	335	336	337	338	339	340	341	342
12	16	6	8	3	1	10	6	13
4	2	10	11	11	0	10	8	7
0	1	1	0	1	7	0	3	0
0	0	0	0	2	12	0	0	0
16	19	17	19	17	20	20	17	20

343	344	345	346	347	41	411	412	413
13	0	11	15	16	2	0	1	0
6	1	9	5	4	17	1	1	2
0	0	0	0	0		1	0	0
1	19	0	0	0		0	0	0
20	20	20	20	20	19	2	2	2

414	415	42	421	422	423	424	43	431
0	0	11	0	2	2	2	6	5
2	2	8	1	7	5	4	13	1
0	0		4	0	1	3		0
0	0		5	0	0	0		0
2	2	19	10	9	8	9	19	6

432	433	434	44	441	442	443	444	445
5	5	4	0					
1	1	1	19					
0	0	0						
0	0	0						
6	6	5	19					

446	45	451	452	453	454	455	51	52
	8	0	4	4	1	8	11	12
	11	0	4	4	6	0	9	8
		1	0	0	0	0	0	0
		7	0	0	0	0	0	0
	19	8	8	8	7	8	20	20

53	54	55	56	57	58	59	510	511
8	8	2	1	12	5	8	0	4
10	10	13	6	8	10	11	2	13
2	1	3	8	0	5	0	11	1
0	0	0	2	0	0	0	6	0
20	19	18	17	20	20	19	19	18

512	513	514	515	516	517	518	519	520
10	13	6	7	4	1	0	6	11
10	7	12	10	9	6	3	13	9
0	0	1	3	7	9	12	0	0
0	0	0	0	0	2	4	0	0
20	20	19	20	20	18	19	19	20

521	522	523	524	525	526	527	528	529
0	6	12	0	12	11	10	8	8
2	13	7	4	7	8	7	9	12
13	1	1	12	0	1	2	2	0
5	0	0	3	0	0	0	0	0
20	20	20	19	19	20	19	19	20

530	531	532	533	534	535
17	19	0	0	1	0
3	0	14	14	14	9
0					8
0					2
					0
					0
					1
20	19	14	14	15	20

Appendix F: List of KPIs from GLR

10 Key Performance Indicators

1. Healthy Relationships?
2. Active Faith?
3. Safe & Secure Housing?
4. Positive Employment?
5. Income Supports Bills?
6. Drug and Alcohol Free?
7. Growing/Ongoing Learner?
8. Positive Physical/Emotional Health?
9. Improved Quality of Life?
10. Re-engagement in Community?

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