MEASURING RECIDIVISM RISK OUTCOMES: A PILOT PROJECT IN

COLLABORATION WITH THE FLATHEAD RESERVATION REENTRY PROGRAM

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Measuring Recidivism Risk Outcomes: A Pilot Project in Collaboration with the Flathead
Reservation Reentry Program

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Background: Native Americans have suffered from vast losses of land, traditional ways and
practices, language, and ability to pass on traditional knowledge; and those losses have led to
current day health and wellness disparities, as well as small but tangibly different tribal
populations. While Native Americans make up a disproportionate number of those involved in
the criminal justice system, creating an overrepresentation of Native Americans incarcerated in
jails and prisons relative to their overall population size, they still tend to be underrepresented in
the creation of validated recidivism measures. Risk assessment tools, such as the Level of
Service Index-Revised (LSI-R), that have been examined in Native American individuals do not
consistently uphold predictive validity. Additionally, most evidence-based approaches for
treatment also do not have a large enough sample of Native Americans who are included in
research efforts to draw conclusions about the efficacy of any given approach. Research has
suggested that re-validating existing measures may be a useful approach. Additionally, adding
cultural factors in the assessment and treatment of Native American individuals may serve to
more accurately evaluate risk for recidivism, ultimately guiding the appropriate level of
intervention and treatment approach.

Method: Archival data from male and female Native American individuals participating in the
Flathead Reservation Reentry Program (FRRP) between February 2016 and September 2018
were used. Participants were members of a federally recognized tribe, involved in the criminal
justice system, and plan to reenter or have reentered the Flathead Reservation community from
incarnation. Participants in this study included 216 Native American adults ranging in age from
18-65 years (*M* = 34.1 years). The sample included 133 males and 83 females, and the majority
of the sample identified as enrolled CSKT (170, other tribal enrollment 46).

Results: Hierarchical logistic regression models detected statistical significance for the overall
LSI-R, but only 2-3 of the subscore domains were significant upon further analyses. Cultural
measures as well as intensity case management involvement were not statistically significant.
Overall the models resulted in small effect sizes.

Discussion: The results of these analyses uphold the notion that the LSI-R is not a good tool for
measuring recidivism risk, but other factors that were predicted to be statistically significant
were also not found to be significant in the models. Suggestions and recommendations for
further data collection and analysis within this population are provided.

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Chapter 1: Introduction

Native American (NA)[1] populations are vastly underserved and unnoticed in practically all realms of public and social services and the criminal justice system is no exception. Native American individuals are disproportionally overrepresented in correctional institutions across the nation and more specifically, to the point of this study, in the Montana criminal justice system. They are also underrepresented in development of protocol and measures for level of risk at time of release from incarceration.

Native American people make up a distinct population differentiated not only by their race, culture, sovereignty, and historical experiences, but also by their unique within-group differences. There are more than 560 federally recognized tribes in the United States (Bureau of Indian Affairs, 2014; IHS, 2017). Montana is home to 14 different tribes across seven reservations: Blackfeet Reservation: *Amskapi – Pikuni* (Blackfeet); Rocky Boy Reservation: *Ne Hiyawak* (Chippewa and Cree); Flathead Reservation: *Séliš* (Salish), *Ktunaxa-Kasanka* (Kootenai), *Ql̓ẃispé* (Pend d'Oreille); Crow Reservation: *Apsáalooke* (Crow); Fort Belknap Reservation: *Nakoda* (Assiniboine), *A'aninin* (Gros Ventre); Fort Peck Reservation: *Nakona* (Assinboine), *Dakota* (Sioux); Northern Cheyenne Reservation: *Tsetsëhesëstä – So'taahe* (Northern Cheyenne); and the reservation-less but state recognized tribe, *Annishinabe* and *Metis* (The Little Shell Tribe of Chippewa Indians of Montana). Each tribe has approximately 6,100 (Rocky Boy) to 17,000 (Blackfeet) enrolled members with roughly one half living off-reservation (Montana State Government, 2017; University of Montana Native American Studies

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[1] Individuals indigenous to the United States territories identify as Native American, American Indian/Alaska Native, indigenous, or through individual tribal affiliations. For the sake of consistency, Native American will be used throughout this document unless specified differently in sources used.

Department, 2017). Even the tribes housed within the same reservation have a unique culture, including beliefs, practices, and traditional languages (Goldston, Molock, Whitbeck, Murakami, Zayas, & Hall, 2008; IHS, 2017).

Ultimately, research focusing on the individual needs of each tribe and reservation community would be the ideal approach to meeting the needs of NA individuals. While a singular research project examining recidivism risk of criminally-involved individuals within each tribe would be difficult and cumbersome, completing these research projects with a few tribal nations can serve as a starting point for other tribal programs to adopt and re-validate. This would not only serve the individuals involved in the criminal justice system to more accurately predict their risk for recidivism and identify needs to serve them directly, but would also serve the community in which they are re-entering by providing an evidence-base for the most efficient support.

Unique Difficulties in Creating Measures in Indian Country

Creating well-validated measures of health, wellness, function, risk, and resilience in Indian Country is essential due to the distinctive qualities of NA people, but can be difficult to accomplish for a number of reasons relating to the unique difficulties NA people have faced. These difficulties include vast amounts of historical trauma and losses and resulting health and social disparities, small population size, different tribes geographically spread across the nation and the differing cultures and beliefs of those tribes, as well as the differing strengths inherent and developed among individuals and communities within different tribes.

Historical Loss and Trauma. These unique qualities can be attributed to the tremendous historical losses suffered by NAs, such as loss of land, language, traditional ways and practices, and people through deaths, adoptions of children out of tribes, and numerous other injustices

(Ellerby & McPherson, 2002; Mann, 2009; Moss, 2010; Shoemaker, 2011; Whitbeck, Adams, Hoyt, & Chen, 2004). These historical losses led to the *soul wounds* of today's Native American people (Brave Heart, Chase, Elkins, & Altschul, 2011; Duran, Duran, Brave Heart, & Horse-Davis, 1998; Indian Health Services, 2017). The effects of these soul wounds are reflected in various disparities when compared to the mainstream population (Brave Heart, Chase, Elkins, & Altschul, 2011; Duran, Duran, Brave Heart, & Horse-Davis, 1998; United States Commission on Civil Rights, 2003). Some of these disparities include the continued cycle of poverty (Shoemaker, 2003) with over 28% of self-identified NA individuals living below the national poverty line (U.S. Census Bureau, 2016), health disparities with higher rates of suicide, liver diseases, diabetes, and intentional and unintentional injuries and deaths than the general U.S. population (Indian Health Services, 2017; Moss, 2010; Walters, Beltran, Huh, & Evans-Campbell, 2011; Whitbeck, Walls, Johnson, Morrisseau & McDougall, 2009), lower life expectancy by 4.4 years (IHS, 2017), disproportionate incarceration rates (Federal Bureau of Prisons, 2017), and lower educational attainment, with only 79.1% of NAs graduating high school and 13.8% obtaining a Bachelor's Degree or higher, compared to 88.8% and 33.1%, respectively, in the mainstream population (U.S. Census, 2016).

Small Population. Another unique difficulty presented in developing appropriate measures for NA people is that those identifying as American Indian/Alaska Natives (AI/AN) only make up 1.3% of the United States population (U.S. Census, 2016). In Montana, AI/AN individuals make up 6.6% of the population (U.S. Census, 2016). Even when individuals identifying as AI/AN or NA participate in studies conducted within the mainstream population, the percentage is often negligible and it is difficult to draw conclusions from such small subsamples.

Evidence-Based Psychological Practices

Given all the finely differentiated identities and cultural beliefs of each tribal nation, thorough and accurate assessment and treatment of mental health conditions among NA individuals is inherently difficult. As defined by the American Psychological Association (APA), evidence-based practice (EBP) in psychology is the "integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (American Psychological Association Task Force on Evidence-Based Practice, 2006, p. 273). For minority populations, such as NAs, or the even more marginalized population of incarcerated or recently incarcerated NAs, this definition holds the key to one main issue with EBPs. Integrating research findings in the context of the patient's culture is difficult since virtually no mainstream treatments, practices, measures, or assessments are validated or properly examined for efficacy on a large-scale in minority populations, and in this case, on a Native American (or individual tribal) basis (Aisenberg, 2008; New Freedom Commission on Mental Health, 2002; Novins, Aarons, Conti, Dahlke, Daw, Fickenscher, Fleming, Love, Masis, & Spicer, 2011).

Best and Promising Practices. As a response to the lack of evidence for use of tools developed in the mainstream population with NA populations, the Indian Health Service (IHS), a Department of Health and Human Services (DHHS) agency responsible for meeting the healthcare needs of American Indian and Alaska Native people (IHS, 2017), upholds a commitment to supporting "Best and Promising Practices." Best practices (BPs) are the equivalent to EBPs, while promising practices (PPs) are programs that may not yet meet the rigor of evaluation to be considered an EBP, but are generally considered by experts in the field to be efficacious in the population in question and should be considered for further pilot study. Additionally, IHS recognized "Local Efforts" (LEs) as efforts that are similar to PPs in that they

are not formally evaluated but LEs are identified locally as effective approaches (IHS, 2017). IHS maintains an electronic database of approaches that meet these criteria. Even with the effort to support practices outside of EBPs, the evidence-base and resources available to those working with NA communities are severely lacking. The database houses only 5 BPs, 23 PPs, and 53 LEs, with the majority of the content directed towards physical health efforts rather than mental health (IHS, 2017).

Additionally, the concept of Practice-Based Evidence (PBE) has also emerged. Similar to PPs and LEs reviewed above, PBEs refers to those interventions used in a community that have shown efficacy locally, but have not been exposed to the rigor of thorough research or formal evaluation (Echo-Hawk, 2011; Melton, et al., 2014; NICWA, 2013).

Incarceration Rates

Incarceration rates of NA individuals can be hard to estimate, perhaps as a consequence of the design of the data collection in different studies of incarcerated individuals, or by the nature of the self-report of tribal affiliation. For example, in 1998, Abril conducted a study at a women's prison in Ohio. A number of qualitative questions regarding identity were administered as well as two qualitative questions, "How do you identify yourself ethnically or racially," and "How do you think others identify you ethnically or racially?" The prison reported a total of two women of Native American/American Indian identity who were housed in the prison at the time of the study. Approximately 1/3 of the prison population voluntarily participated in the study. Results indicated 255 (42% of participants, 15% of the total population) of the women reported a Native American heritage. Three distinct groups were identified that may explain the initial, gross underreporting of NA tribal affiliation and other minority heritages. The first group indicated that although they had another heritage with which they identified, others identified

them differently (i.e., based on skin tone, White or Black) so they identified as such. The second group had mixed heritage and either chose or felt obligated to choose one racial or ethnic identity. The third group reported feeling like "it didn't matter" (Abril, 2003). If institutions are neither accurately asking nor accurately receiving information regarding inmate racial, cultural, or ethnic identity, it becomes nearly impossible to develop measures and practices validated for a specific population, such as NAs.

      Jurisdiction. In tribal communities that maintain their own judicial system, estimation of those incarcerated who are NA is much easier, as the tribal jails will only house individuals who are tribally affiliated. While that factor may simplify the matter of identification, such communities may include individuals tied up in a complicated web of charges in varying jurisdictions. For example, on the Flathead Indian Reservation in Montana, the community where the present study was conducted, there is a partial enforcement of Public Law 83-280 (frequently referred to as PL-280). PL-280 was enacted in 1953 during the beginning of the Indian Termination Era[2]. This era, lasting from 1953 until 1968, is characterized by congressional actions to decrease the federal government's treaty-bound responsibilities to NA people and tribes, and assimilate NA individuals into White culture (Committee on Indian Affairs, 1995). Essentially, PL-280 gave mandatory criminal jurisdiction from the federal government over to six states, California, Nebraska, Minnesota, Oregon, Wisconsin, and Alaska upon statehood, and opened up the option for other states to participate as well (Anderson, 2012; Melton & Gardner, 2006; Wilson, 1986). Montana joined PL-280 in 1965 (Confederated Salish and Kootenai Tribes, 2013; House Bill No. 55, 1963) and partially retroceded in 1993

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[2] The eras of Federal Indian Policy generally include: 1) Coexistence; 2) Removal; 3) Assimilation; 4) Reorganization; 5) Termination; and 6) Self-Determination.

(Anderson, 2012, Committee on Indian Affairs, 1995). The 1993 retrocession gave the CSKT discretion to arrest and prosecute NA individuals for misdemeanor and low-level felony crimes. In 2015, these criteria were expanded slightly, allowing for the prosecution of non-tribal individuals for domestic abuse committed against a tribal person on the Flathead Reservation under the Violence Against Women Act Reauthorization in 2013 (Committee on Indian Affairs, 1995; Tribal Law and Order Act, 2010).

Senate Bill 310 was proposed in April 2017, which would allow CSKT to fully retrocede from PL-280 and have jurisdiction over all criminal matters involving tribal members on the Flathead Indian Reservation. (S. 310, 65th Legislature, 2017). CSKT has not yet decided whether they will exercise their ability to withdraw consent for criminal jurisdiction at this time (CSKT, Legal Department, 2017, pp. 6-7); but if they do, there will be a dramatic increase in the number and type of criminal cases overseen by their tribal judicial system. As of 2017, arrests and citations for NA individuals on the Flathead Reservation could be made by Tribal Police, State Police, City, or County Police (Wilson, 1986; Flathead Reservation sits within the boundaries of four counties and over 20 towns, four of the towns maintain police departments). Thus, jurisdiction depends on the location of the crime, the Indian status (tribal or non-tribal) of the offender, and the Indian status of the victim, and the type of crime, as demonstrated in Table 1 (U.S. Department of Justice Offices of the United States Attorney, 2011; Wilson, 1986). This means, that while the Tribal Jail only houses Tribal individuals, the county jails house tribal and non-tribal individuals alike, as is true for state and federal jails and prisons.

Table 1. *Jurisdiction in Indian Country*[3]

Offender	Victim	Crime	Location	Jurisdiction
Tribal member	Tribal member	Enumerated/ Felony	Indian Country	Tribal and Federal *except on reservations or states that have been conferred under P.L. 280. In this case the State has jurisdiction.
Tribal member	Non-Tribal member	Misdemeanor	Indian Country	Tribal only
Tribal member	Non-Tribal member	Enumerated/ Felony	Indian Country	Tribal and Federal *except on reservations or states that have been conferred under P.L. 280. In this case the State has jurisdiction.
Tribal member	Tribal member	Misdemeanor	Indian Country	Tribal only
Non-Tribal member	Tribal member	Misdemeanor or Enumerated/ Felony	Indian Country	Federal or State
Non-Tribal member	Non-Tribal member	Misdemeanor or Enumerated/ Felony	Indian Country	Federal or State
Tribal member or Non-Tribal member	Tribal member or Non-Tribal member	Misdemeanor or Enumerated/ Felony	Outside Indian Country	State only

(U.S. Department of Justice Offices of the United States Attorney, 2011, p. 689)

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[3] Although commonly used in a colloquial manner when referring to Indian people and where they live, Indian Country is a legal term. Essentially, it is referring to lands including federal reservations; fee land (not fee land later acquired by tribes); dependent Indian communities (not a reserve or allotted, but set aside for use by Indian people); allotted lands; and lands held in US trust for a tribe or tribal individual (Office of the United States Attorneys, 2017).

Overall, there is a large overrepresentation of both NA men and NA women in the state of Montana's prison system. While those identifying as NA-alone make up less than 7%[4] of the Montana population (U.S. Census Bureau, 2016), 20% of prison-incarcerated males and 34% of prison-incarcerated females are identified as tribally-affiliated (Montana Department of Corrections, 2017). This overrepresentation is not reflected to such a large degree at the national level, with 1.3% of the U.S. population identifying as NA-alone[4] (U.S. Census Bureau, 2016), and 2.2% of those incarcerated nationally self-identifying as NA (Federal Bureau of Prisons, 2017; see above reference to Abril, 2003, for further discussion on possible underreporting of NA identity in incarcerated populations).

Reentry in the U.S.

Approximately 95% of individuals incarcerated in the United States will be released back in to the community and of those, about 80% are released on parole supervision (Hughes & Wilson, 2004). In 2016, the prison system released a total of 43,864 individuals nationally and 471 individuals in Montana (Federal Bureau of Prisons, 2017). In Montana, prison incarcerated individuals are eligible for parole review when they have completed one-quarter of the time served, or 30 years of a life sentence for all crimes committed after January 1997. In 2016, 329 individuals were released from Montana prisons on parole supervision (Montana Department of Corrections, 2017). Based on a 3-year follow-up, 66% of those released in the past do not return; however, the vast majority of those who do return (i.e., 95% of men and 98% of women) are due to technical violations. The technical violations that result in the majority of men and women returning to prison include a violation of one of more of the conditions imposed by probation

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[4] Since 2000, the United States Census Bureau has allowed for individuals to identify with two or more races. It is likely that some of the 2.7% Montana and 2.6% overall individuals who exercised this option, identify NA as one of their 2+ races.

(released by court-order to community supervision) or parole (parole board released from incarceration to community supervision), rather than a conviction for a new crime (Montana Department of Corrections, 2017).

In the past, determining an individual's risk for committing a new crime upon release was based solely off the judgment of the professionals who were tasked with supervising the individual (Baird, Heinz, & Bemus, 1979; Monahan, 1981). One way that parole boards, pre-release staff, and probation and parole officers now assess for risk for recidivism is through standardized risk assessments, such as the Level of Service Inventory-Revised, or the self-developed and validated Ohio Risk Assessment System.

Recidivism

Recidivism is reoffending or returning to criminal behavior that an individual commits after arrest or incarceration. While on the surface recidivism may appear to be a straightforward concept, the operational definition is considerably more complex. There are many levels of the criminal justice system, so pinpointing when an offense is considered recidivism varies. Recidivism can be counted from technical violations (no new offense, but failure to complete conditions of release; for example, checking in with a probation officer at set time daily or obtaining a chemical dependency assessment), new arrest (prior to conviction), upon conviction, or upon imprisonment after sentencing, either for a new crime or technical violation (National Institute of Justice, 2017). In 2017, Andersen and Skardhamar conducted a study on recidivism rates and argued that recidivism rates and the relative success or failure conclusions that can be drawn based on those rates rely heavily on the operationalization of recidivism. Based on the specific definitions of offender and recidivism used (re-arrest, re-convicted, re-incarceration) and the time-frame examined for re-offense, numerous accurate—but vastly different—recidivism

rates can be observed. For example, Andersen and Skardhamar (2017) examined the national recidivism rate of Norway, a country commonly viewed as having the lowest rates of recidivism when compared to other countries. They found more than 36 different recidivism rates, ranging from 9% to 53%, that could be drawn from the data available to them.

Some researchers have argued that the most accurate accounting of recidivism would be at re-arrest, given that there is only one level of discretion involved, namely, that of the arresting officer (Blumstein & Cohen, 1979; Maltz, 1984). One could argue that the other layers of judgment are essential to providing the most accurate distillation of a new criminal charge. For example, counting a single citation as a new offense would be determined and reviewed only by the officer making the citation based on their training and knowledge of circumstances at the time. If recidivism is counted beyond this point, several more layers of judgment are added. Once an officer's citation is submitted, a prosecuting attorney makes a determination whether the evidence for the alleged crime meets criteria to be charged in court. If charged with a crime that meets the threshold for representation, the individual's defense attorney examines the facts presented, can request supporting evidence, and generally ensures that the individual's legal rights are not/have not been violated. At this point, charges may be amended or dropped all together. Charges that are upheld are then presented in court, and the individual may plead guilty, innocent, or no contest. Upon a no contest or guilty plea, or determination of guilt through a trial, the judge then sentences the individual based on the crime and allowable sentencing criteria set-forth by the jurisdiction's criminal code. Setting aside the immeasurable racial disparities in the criminal justice system (American Civil Liberties Union, 2017); hypothetically, these layers of judgment are in place to provide the accused the most fair and impartial

assessment of the charges to determine innocence or guilt, making the determination of a return to criminal behavior more accurate.

Models of Criminal Behavior

Risk-Needs-Responsivity Model. In 1990, Andrews, Bonta, and Hoge developed the structure for the Risk-Needs-Responsivity (RNR) model that has become the standard to which the most effective measures of risk for recidivism are held (Bonta & Andrews, 2010; Bonta, Bourgon, Rugge, Scott, Yessine, Gutierrez, & Li, 2011; Bourgon & Bonta, 2014; Koehler, Lösel, Akoensi, & Humphreys, 2013; Lowenkamp, Holsinger, Robinson, & Alexander, 2014). The General Personality and Cognitive Social Learning (GPCSL) of criminal conduct is the basic underpinning theory of the RNR model. (Andrews & Bonta, 2006). The GPCSL explains criminal conduct as an interaction between individual choice towards pro-criminal behavior, weighing rewards and punishments for pro-social and anti-social conduct, and an individual's predisposition to anti-social personality. This is not necessarily the diagnostic concept of antisocial, but general traits that are commonly viewed as socially unacceptable when exhibited in excess, such as impulsivity or selfishness. (Bonta & Andrews, 2007). Together, these theories form the integral components of criminal conduct and are employed in the assessment of risk and needs of an offender.

Risk. The Risk principle of the RNR model addresses the criminogenic risk, or the likelihood a person will re-offend (Andrews, Bonta, and Hoge, 1990). Early examination of this factor quickly identified that those ranked as higher-risk for reoffending should be targeted for more intensive services (Andrews, Bonta & Hoge, 1990; Bourgon, & Armstrong, 2005; Lowenkamp & Latessa, 2005) and that mismatching risk level to more intensive and/or residential services can actually increase the chance that a previously-determined low-risk

individual would be more likely to recidivate (Andrews, Bonta & Hoge, 1990; Bonta, Wallace-Capretta, & Rooney, 2000; Lowenkamp & Latessa, 2005; Lowenkamp, Smith, & Betchtel, 2007). Assessing and considering the Risk principle for likelihood for recidivism has been upheld in a number of studies and remains one of the key factors in determining recidivism risk (Andrews & Dowden, 2006; Bourgon & Armstrong, 2005; Lowenkamp & Latessa, 2005).

Needs. The Needs principle focuses on criminogenic needs, or those needs related to recidivism. These needs can be split into two categories of criminogenic factors: static and dynamic (Andrews, Bonta, & Hoge, 1990). Static factors are typically unchangeable, such as current age, age at first arrest, sex, criminal history, and current (if any) criminal charges. Dynamic factors are conditions that can change over time or that can be addressed with treatment interventions. Examples of dynamic factors are family (including marital status and any familial conflict), education, employment, leisure activities, substance abuse, and anti-social components (i.e., anti-social personality, attitudes, and friends/peers). Treatment goals/targets originate from the assessments of needs (Andrews & Bonta, 2010).

The combination of risk and needs assessment lead to the eight central factors identified as the most predictive of recidivism risk, including four anti-social factors (e.g., history of anti-social behavior, pattern of anti-social personality, anti-social cognitions, and anti-social associates) as well as family/marital status, school/work, leisure, and substance use disorders (Andrews & Bonta, 2010; Andrews, Bonta, & Wormith, 2011). These factors are commonly included in measures of risk for recidivism, such as the Level of Service Inventory-Revised (LSI-R).

Responsivity. The Responsivity factor is the approach in which services are delivered and is composed of two types of services, general and specific. General service refers to the overall

basic approach used by a program to attempt to decrease reoffending, such as using a cognitive-behavioral oriented curriculum. Specific services consider individualized components and potential barriers, such as personality, learning ability, motivation, mental health status, culture, and the likelihood of constructive response in the treatment efforts (Andrews & Bonta, 1998; Cullen & Latessa, 2006; Melton, Cobb, Lindsey, Colgan, & Melton, 2014). While responsivity is identified as a core principle in determining and treating factors related to recidivism, several researchers have identified this principle, especially the element of specific factors, as the most difficult to target (Bourgon & Bonta, 2014; Melton, Cobb, Lindsey, Colgan, & Melton, 2014). Difficulty in researching this principle may perhaps be due to the initial abstract definition (Bourgon & Bonta, 2014), but it also allows for the most inclusive variety of unique factors (Bonta & Andrews, 2010). While the RNR model does leave room for factors such as race-specific and culturally-specific factors, even allowing space to include the current effects from historical trauma and loss in approaching rehabilitation planning, it falls short in terms of having a research base of support (Melton, et al, 2014).

Despite the lack of research in this area, specific ideas could be piloted and validated to begin to build evidence-based support for expanding responsivity approaches. For example, in NA populations the Historical Loss Scale (Whitbeck, Hoyt, & Chen, 2004) and Historical Loss Associated Symptoms Scale (Whitbeck et al, 2004; both measures reviewed more in depth below) could be administered to evaluate the frequency of thoughts about historical losses and the emotional response to those thoughts (anger/avoidance and anxiety/depression). This information could be used to target treatment for the emotional response and inform the treatment provider as to the potential source of distress, in this case, historical losses. Another avenue of infusing cultural sensitivity in to the RNR model would be evaluating an individual's

current level of connection to their traditional culture, as well as the desire to be connected to their culture. If there is a mismatch between current connectedness and desire for increased connection, efforts could be made to facilitate appropriate referrals for establishing a cultural connection and culturally-based services.

Professional judgment. A fourth factor, that of professional judgment, allows for the individual(s) completing the assessment to insert their own expertise in the classification of risk. This would allow for the professional, usually a probation/parole officer or pre-release social worker, to increase or decrease the risk level determined by the assessment based on their own knowledge and expertise (Andrews, Bonta, & Hoge, 1990).

Since its development in 1990, the RNR model has expanded into a larger model to include rehabilitative services and to increase the efficacy of all elements (Table 2).

Table 2

The Risk-Needs-Responsivity Model of Offender Assessment and Rehabilitation.

Principle	Statement
Overarching Principles	
Respect for the person	Services are provided in an ethical, legal, just, moral, humane, and decent manner.
Theory	Use a general personality and cognitive social theory.
Human Service	Introduce human service delivery rather than relying on the severity of the penalty.
Crime Prevention	The theoretical and empirical base of RNR-based human service should be disseminated widely for purposes of enhanced crime prevention throughout the justice system and beyond (e.g., general mental health services).
Risk-Needs-Responsivity	
Risk	Match the level of service to the offender's risk to reoffend.
Needs	Assess criminogenic needs and target them in treatment.
Responsivity	Maximize the offender's ability to learn from a rehabilitative intervention by providing cognitive behavioral treatment and tailoring the intervention to the learning style, motivation, abilities and strengths of the offender.
General	Use cognitive social learning methods to influence behavior.
Specific	Use cognitive behavioral interventions that take into account strengths, learning style, personality, motivation, and bio-social (e.g., gender, race) characteristics of the individual.
Structured Assessment	
Assess RNR	Use structured and validated instruments to assess risk, need, and responsivity.
Strengths	Assess personal strengths and integrate them in interventions.
Breadth	Assess specific risk/need/responsivity factors as well as non-criminogenic needs that may be barriers to prosocial change but maintain a focus on the RNR factors.
Professional discretion	Deviate from the RNR principles for specified reasons.
Program Delivery	
Dosage	Engage higher risk cases and minimize dropout from programs that adhere to RNR
Staff Practices:	
Relationship Skills	Respectful, collaborative, caring staff that employ motivational interviewing (stages 1 and 2).
Structuring Skills	Use prosocial modeling, the appropriate use of reinforcement and disapproval, cognitive restructuring, motivational interviewing (stages 3 – 6).
Organizational	
Community-based	Services that adhere to RNR are more effective when delivered in the community although residential or institutional services that adhere to RNR can also reduce recidivism.
Continuity of service	Provision of services and ongoing monitoring of progress.
Agency Management	Managers select and train staff according to their relationship and structuring skills, provide clinical supervision according to RNR, ensure that there are organizational mechanisms to maintain the monitoring, evaluation and integrity of assessments and programs.

(Bonta & Andrews 2007, pp. 17-18)

Good Lives Model. Another model that is used to provide services to a population of individuals convicted of crimes is the Good Lives Model. Developed by Ward in 2002, this model provides a framework for shifting focus from risk assessment to also include a strength-based approach with its foundations rooted in positive psychology. This model marries the goal for reducing recidivism with client goals (Ward, Mann, & Gannon, 2007; Ward & Maruna, 2007; Ward & Stewart, 2003). The Good Lives Model (GLM) has been successfully implemented with sexual offenders (Ward & Gannon, 2006; Ward & Stewart, 2003), but efficacy has been shown in the general offender population as well (Ward, Day, Howell, & Birgden, 2004). This model also possesses the potential to seamlessly integrate mental health concerns into rehabilitation approaches (Barnao, Ward, Robertson, 2015). The principles used in the GLM are based off of the biopsychosocial factors that make up "primary goods." Primary goods are defined as the elements that contribute to a "good life" or to a life that is fulfilled and happy. Eleven identified factors are targeted in the GLM and are used to motivate offenders to decrease anti-social behavior and work towards fulfilling primary goods to increase life satisfaction. These eleven contributing factors are: 1) Healthy life, 2) Knowledge, 3) Recreation, 4) Excellence/mastery in work, 5) Agency, 6) Inner peace, 7) Relationships, 8) Community, 9) Spirituality, 10) Pleasure, and 11) Creativity. Underlying the primary goods are secondary goods, which are the means through which one can achieve the primary goods (e.g., achieving the primary good of knowledge through the secondary good of taking college courses). In examples of individuals committing crimes, the GLM view proposes that as the individual experiences obstacles to achieving one or more primary goods through socially acceptable secondary goods, they may resort to anti-social approaches. For example, if the primary goal of healthy life via having a safe place to live is the goal, and the secondary good of having a job is blocked by unemployment,

the individual may resort to an alternative secondary good of stealing (Barnao, Ward, & Roberson, 2015; Purvis, 2006; Ward & Gannon, 2006; Willis, Prescott, Yates, 2011).

A study conducted in the United Kingdom by Harkins and colleagues in 2012 found that men convicted of sexual offenses who had engaged in a GLM-based program performed just as well as those in an RNR-based relapse prevention program with minimal attrition, and evidenced treatment change (e.g., relapse prevention skills, socioaffective functioning, and pro-offending attitudes). Additionally, both the participants and providers expressed a preference for the positive approach offered by the GLM framework versus a concentration on risk and past offenses (Harkins et al., 2012).

ADDRESSING Model. Opportunities to provide the most culturally-appropriate and inclusive services to individuals rely first on properly identifying those factors that may influence assessment and treatment approaches. In 1996, Pamela Hays developed and later refined the ADDRESSING model. This model requires examination of ten identities and possible cultural influences. These factors are 1) age, 2) development and 3) acquired disabilities, 4) religion, 5) ethnicity, 6) socioeconomic status, 7) sexual orientation, 8) Indigenous heritage, 9) national origin, and 10) gender (Hays, 1996).

Many proponents for the RNR model argue that when properly administered in its entirety (see Table 2), it is a fully inclusive guide and does encompass fostering positive factors as well as risk factors (Andrews, Bonta, & Wormith, 2011; Looman & Abracen, 2013). Additionally, critics of the GLM highlight the slim attention to risk employed by the GLM (Harkins, Flak, Beech, & Woodhams, 2012; Looman & Abracen, 2013; Ogloff & Davis, 2004). To address the proposed gaps in each model, some researchers have advocated for the use of an RNR approach with GLM incorporated into the responsivity principle, focusing on positive

factors to improve one's life thus reducing the likelihood of one committing new crimes (Ogloff & Davis, 2004; Ward & Maruna, 2007; Ward & Stewart, 2003). Given the breadth of demographic information collected through the ADDRESSING Model, also incorporating those factors in to the responsivity principle of RNR could provide a more thorough (while still not completely exhaustive) view of an individual when compared to general demographic information collection.

Risk Assessment

There are over 60 different tools that assess for risk, most of which are used in specific jurisdictions (Desmarais & Singh 2013). Two of these measures are reviewed below, the widely implemented Level of Service Inventory-Revised and the independently developed Ohio Risk Assessment System.

Level of Service Inventory-Revised. The Level of Service Inventory-Revised (LSI-R) began as the Level of Service Inventory in 1982 and was developed in Canada by Donald Andrews. As the tool evolved, the LSI-R was developed and is now the most widely used recidivism risk tool employed to assess the risk and needs factors of individuals (Andrews, Bonta, & Wormith, 2010). Through 54 questions, ten factors of criminogenic risks and needs are assessed, including the eight central criminogenic risk factors derived from the RNR model (see Appendix B). The ten factors evaluated in the LSI-R are: 1) criminal history, 2) education and employment, 3) financial, 4) family/marital relationships, 5) accommodation, 6) leisure/recreation, 7) peers/companions, 8) alcohol/drug problems, 9) emotional/mental health, and 10) attitudes/orientation. Composite scores are then split in to levels of risk categories, low, low-moderate, moderate, moderate-high, and high (Andrews & Bonta, 1995).

Prior to the development of the LSI, Andrews (1982) reported 3 factors as a result of factor analyses that were ultimately used in the LSI and later in the LSI-R. In this factor analysis, the 1st factor accounted for 75% , while factor 2 accounted for 14%, and factor 3 accounted for 11%. Factor 1 score coefficients included Companions (.45), Leisure/Recreation (.28), and Attitudes (.21), while Factor 2 coefficients included Rewards at school/work (.40), Money problems (.34), Accommodations (.20), and Family Problems (.15), while Factor 3 coefficients were Alcohol/Drugs (.36), Emotional/personal disturbance (.15), and Criminal history (.40). Follow-up factor analyses vary in factors (both in number and subcomponents) and the recommendations to primarily focus on overall score, then the subcomponents (Andrew, 1982).

Also during the development of the LSI, Andrews (1982) found that the rates of false negatives were low (2-3%) and false positives were higher (around 30%). Andrews claimed that this is preferable given that "conservative predictions" served to recommend higher levels of caution when unnecessary rather than recommending lower levels of caution when more caution is necessary. In the first follow-up analyses after the implementation of the LSI, Andrews (1982) reported "unprecedented levels of predictability" with LSI scores and outcomes status (recidivism including technical violations of probation) correlation of 0.47. Additionally, he reported 90% of recidivists had scores outside of the "low risk" range, and 76% fell into the "maximum risk" range and of those with multiple reconvictions, 100% scored outside the "low risk" range and 96% fell into the "maximum risk" range (Andrews, 1982).

Given the popularity of the LSI-R, it has been widely tested for validity (Lowenkamp, Lovins, & Latessa, 2009). In 1996 Gendreau, Little, and Goggin, and in 1999 Gendreau, Goggin, and Smith conducted meta-analyses of the predictive validity of the LSI-R. Using the threshold of $r = .30$ as a threshold for predictive validity, both studies found support for the LSI-R with

Pearson's r = .33 and .38, respectively. Ellison, Steiner, Brennan, and Chenane (2016) examined the LSI-R for validity through different ages of men and found that the LSI-R reliably predicted risk across age groups, but the strength of the predictability varied. In 2013, Ostermann and Herrschaft published findings following an examination of all female parolees released in New Jersey in 2006 along with a random sample of male parolees during the same time frame. Ostermann and Herrschaft (2013) conducted a 3-year follow-up to test the LSI-R predictive validity in this population. Results indicated that the LSI-R was a good predictor of recidivism, but the effect sizes for these analyses remained small. Additionally, they found significant trade-offs between true positives and false positives. For example, at one LSI-R composite score cut-point, 23 – low/moderate classification, 60.9% of individuals scoring $\geq$ 23 were correctly identified as recidivists, but 41.8% were misclassified as they did not reoffend. This increase in sensitivity and decrease in specificity was found at all cut-points of the LSI-R (Ostermann & Herrschaft, 2013). The researchers on this project speculated that the way in which the LSI-R is administered (by a contracting agency within the prison prior to parole hearings), and only composite LSI-R scores are clearly communicated to probation/parole officers who may lack the breadth and detail of specific risk and criminogenic needs of the individual, may explain some of the shortcomings found within their results.

   Ohio Risk Assessment System. In 2009, Latessa, Lemke, Markarios, Smith, and Lowenkamp developed and validated the Ohio Risk Assessment System (ORAS). Initially, they sought to develop measures of risk, each focusing on a different point in the criminal justice system: prior to conviction/sentencing, upon prison entry, preparation for release, and post-release. Latessa and colleagues (2009) conducted extensive interviewing of individuals pre-, during-, and post-incarceration in several geographical areas of the Ohio prison system. Risk was

determined by scoring identified areas of risk and assigning zero, 0 or no points for absent risk factors, and assigning 1 point per risk factor present (a.k.a. Burgess Method; Burgess, 1928). Factors with varying levels were assigned points based on increasing risk (0, 1, 2, 3…), then overall cut-offs were determined for levels of risk. They also addressed the responsivity factor by identifying areas that were not necessarily related to criminogenic risk, but were areas to be targeted for treatment that could increase chances of post-release success; for example, tailoring treatment approaches based on reading ability, and comprehension of English language. One year post-interview data were collected. The resulting tools developed were the Pretrial Assessment Tool (PAT), the Community Supervision Tool (CST), the Prison Intake Tool (PIT) and the Reentry Tool (RT). The predictive validity of the ORAS for recidivism varied from .22 (on the PAT) to .44 (for females on the RT; Latessa, Lemke, Markarios, Smith, & Lowenkamp, 2009).

Using Risk Tools in Native American Populations. To date, a comprehensive literature review reveals that no assessment tools determining risk for recidivism have been properly developed and validated on NA populations (Kane, Bechtel, Revicki, McLaughlin, & McCall, 2011; Melton et al., 2014). While many areas of professional practice have acknowledged and adapted approaches to cultural competency, criminal justice approaches continue to lag behind in developing culturally competent assessment tools (Kane, Bechtel, Revicki, McLaughlin, & McCall, 2011). While some research has examined the efficacy of existing risk tools, results have suggested at best they provide only moderate accuracy in predicting risk for NA samples compared to mainstream samples. Exploration of the efficacy of the LSI-R in aboriginal/indigenous populations in Canada has resulted in underwhelming prediction of risk and potential overestimation of criminogenic needs (Gutierrez, Wilson, Rugge, & Bonta, 2013;

Wilson & Gutierrez, 2013; Wormith, Hogg, Guzzo, 2015).

In 2003, Holsinger, Lowenkamp and Latessa conducted a study examining the risk factors encompassed in the LSI-R in White and NA incarcerated individuals. Results indicated that NA individuals scored higher across most risk factors (i.e., education/employment, financial, family marital, accommodation, leisure/recreation, companions, and substance use). The researchers noted that it was unclear if the NA population actually had higher levels of criminogenic needs, or if the measure simply did not accurately capture their level of risk/needs in relation to risk for recidivism (Holsinger, Lowenkamp, & Latessa, 2003). Then, in 2006, Holsinger, Lowenkamp, and Latessa published findings comparing the predictability of the LSI-R in White ($n = 263$) and NA ($n = 140$) offender populations ($N = 403$). While the risk predictive validity was upheld in the White population (Pearson's $r = .23$), validity was not upheld in the NA sample (Pearson's $r = .11$). When the NA population was split by sex, neither r showed significance between composite LSI-R scores and recidivism, with NA males $r = .19$ and NA females $r = -.13$, although there was a notably small sample size of NA females in the study ($n = 40$; Holsinger, Lowenkamp, & Latessa, 2006).

In general, the most widely used approaches to risk assessment tend to focus on criminogenic factors, but fail to identify and promote protective factors. Researchers have found that fostering cultural identity and/or spiritual connections in racial/ethnic minorities may increase positive outcomes such as promoting mental health and general wellbeing (Roman, Jervis, & Manson, 2012). Inclusion of those factors in risk assessments and treatment planning could also be beneficial in providing culturally-sensitive assessment and services to individuals identifying as Native American (Hodge & Limb, 2010).

Confederated Salish and Kootenai Tribes Tribal Defenders Office

The Confederated Salish and Kootenai Tribes (CSKT) are located on the Flathead Indian Reservation in northwestern Montana. The Tribal Defenders Office (TDO) provides indigent defense services to enrolled members of any federally recognized tribe charged with a crime in CSKT's Tribal Court (Confederated Salish and Kootenai Tribes, 2016). The staff consists of three criminal defense attorneys, one criminal defense advocate, civil attorneys, one civil defense advocate, one reentry attorney, one grant manager, one case manager, one clinical psychology trainee, and two administrative support staff members (CSKT Tribal Defenders Office, 2017).

Justice and Mental Health Collaboration Program. In 2009, the CSKT TDO was awarded a Bureau of Justice Affairs (BJA) Justice and Mental Health Collaboration Project (JMHCP) grant to address the mental health and chemical dependency issues that existed within the tribal population who were involved in the criminal justice system. Participants, tribally-enrolled adults, were referred by their TDO public defenders to the case manager, and the case manager completed a comprehensive intake interview, collecting information on demographics, areas of needs, and client goals. The case manager then assisted in connecting the client to various social, medical, and financial services. A mental health provider (namely, a clinical psychology student intern) also met with each individual to determine mental health and/or chemical dependency needs/goals, provided direct services, or initiated a referral for services. A recent 5-year follow-up of this program indicated that the participants of this program experienced a statistically significant reduction in recidivism compared to their pre-program involvement (Fox, Hansen, Sherwood, & Swaney, manuscript in progress).

Holistic Defense. Recognizing a need for a more integrated approach in their services, in 2011, the CSKT TDO applied for and was selected to receive technical assistance from the

Bronx Public Defenders Office (BPDO). The technical assistance was geared towards helping

the recipients develop and refine the approaches of public defense offices by incorporating a

more holistic system of criminal defense. The BPDO is widely credited with the development of

the Holistic Defense model and with their assistance, the CSKT TDO adopted and adjusted this

model to fit within the context of tribal public defense. The original model as created by the

BPDO includes Four Pillars of public defense. These are as follows:

1. Seamless access to services that meet legal and social support needs,

2. Dynamic interdisciplinary communication,

3. Advocates with an interdisciplinary skill set, and

4. Understanding of, and connection to, the community served. (Steinberg, 2013)

The CSKT TDO adopted these four pillars and adapted them to fit within a public

defense office in a small, rural, tribal community. The adoption and adaptation of the BPDO

model included: using existing staff to provide wrap-around services within a single office,

holding weekly staff meetings to coordinate and consult on cases as a group, using existing staff

to expand services, providing and maintaining an "open door" policy, expanding community

outreach efforts to ensure the clients have knowledge of and access to services, and establishing

a forum for clients to express their feedback (Sherwood & Smith, 2016). These approaches

served the ultimate goal of holistic defense, and also sought to improve outcomes not only for

those directly involved in the criminal justice system, but also for their families and communities

(Steinberg & Feige, 2004). Additionally, the TDO's ultimate goal of client-centered services

were highlighted and allowed to flourish (Sherwood & Smith, 2016).

Flathead Reservation Reentry Program. In 2015, the CSKT TDO was awarded Second
Chance Act funding[5] to provide reentry services to NA individuals returning to the Flathead
Reservation community from prison or jail, thus the Flathead Reservation Reentry Program
(FRRP) began. Using a tool for risk and needs screening, the Reentry Intake Assessment Tool
(RIAT; described below in detail), the case manager of the program screened each individual
requesting or referred for services. The FRRP case manager then used this information to
develop a treatment plan, provide appropriate assistance, and/or referrals for services. Services
provided in the TDO include civil advocacy, driver's license restoration guidance, mediation
(civil and cultural), and a *pro se* clinic (self-representation resources). The reentry attorney
provides guidance on collateral consequences of charges and convictions, assists in pre-sentence
investigations, and offender registration requirements. The clinical psychology trainee provides
mental health and chemical dependency evaluations, individual therapy (e.g., CBT, etc.) and
group therapy (e.g., Depression, Anger & Anxiety, a CBT-based anger management group),
attorney/advocate consultation, and psychoeducation. The case manager assists individuals in
directly providing or facilitating referrals for addressing primary needs, (e.g., housing/shelter),
financial needs (e.g., employment, benefits), medical/mental health services, transportation, and
education services.

Reentry Intake and Assessment Tool. The Reentry Intake and Assessment Tool (RIAT;
see Appendix A; Fox & Hansen, 2016) was designed to classify a client's level of risk as well as
to assess for other areas potentially predictive of recidivism in this specific population of NA
individuals involved in the criminal justice system who are planning to live on the Flathead

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[5] The Second Chance Act was passed by Congress in 2008 allowing up to $165 million in grants
to be awarded with the ultimate goal of increasing public safety and saving costs of incarceration
by reducing recidivism (Office of Justice Programs, 2016).

Indian Reservation. The RIAT is composed of a demographic intake questionnaire, the LSI-R (Appendix B; Andrews & Bonta, 1995), the Historical Loss Scale (HLS; Appendix C; Whitbeck, Adams, Hoyt, & Chen, 2004), the Historical Loss Associated Symptoms Scale (HLASS; Appendix D; Whitbeck, Chen, Hoyt, & Adams, 2004), and the Cultural Connectedness Scale (CCS; Appendix E; Hansen & Fox, 2016). Approximately one year into the administration of the program, the reentry staff also began administering the Posttraumatic Stress Checklist for DSM-5 (PCL-5; Appendix E; Weathers, Litz, Keane, Palmieri, Marx, & Schnurr, 2013). This measure was added after reentry staff subjectively noticed a number of clients were reporting to have experienced traumatic events in their lives that were still affecting them. The PCL-5 was added for future analysis to determine whether significant exposure to traumatic events may be a risk factor in determining level of risk in this population. All participants also signed an informed consent form (Appendix G) that was reviewed with them by a FRRP team member, to allow for the use of the RIAT for further evaluation and research purposes.

Rationale for this study

Virtually all incarcerated and post incarceration supervised individuals undergo some form of risk assessment. While many model approaches and tools have been validated in the mainstream population, none have been properly validated for use with Native American individuals. In this study, we measure level of risk, needs, and protective/resilience factors based on data collected since the beginning the CSKT TDO Flathead Reservation Reentry Program. The goal for this project was to help guide the development of a tool specifically designed for Native American individuals involved in the criminal justice system. In addition to the risk and needs factors identified by the LSI-R, protective and resilience factors related to culture as determined by the HLS, HLASS, CCS, as well as those fostered by participation in case

management services, will provide additional layers of protection from recidivism risk via improving life circumstances.

Hypotheses

1) The ten criminogenic factors as measured by the Level of Service Index-Revised (criminal history, education/employment, financial, family/marital, accommodation, leisure/recreation, companions, alcohol/drug problems, emotional/personal, and attitude/orientation) will be not be validated as factors of risk for recidivism in the population of AI/AN individuals reentering the community from incarceration.

2) Case management intervention intensity (low = 0-2 hours in addition to RIAT administration; high = 2+ hours in addition to RIAT administration) will be associated with risk for recidivism, with low case management intensity serving as a risk factor for recidivism and high case management intensity predictive of less recidivism.

3) Lower scores on the Historical Loss Scale (HLS), indicating more frequent thoughts of historical loss, and higher scores on the Historical Loss Associated Symptoms Scale (HLASS), indicating more self-reported symptoms of anger/avoidance and depression/anxiety in relation to thoughts of historical loss, will be associated with increased risk for recidivism.

4) Higher scores on the Cultural Connectedness Scale (CCS) indicating more connection with traditional tribal culture, will be associated with a decreased risk for recidivism.

Chapter 2: Methods

   Participants. This study utilized an archival dataset housed at the FRRP. The FRRP has

been collecting information on consenting individuals participating in their program. Participants

eligible for their program are NA male and female adults (18 years and older) who had been

charged with or convicted of a crime, with at least one criminal charge occurring within the

bounds of the Flathead Reservation. The individual must also have planned to reside on the

Flathead Reservation after their release from incarceration.

   At the onset of the reentry program, reentry staff estimated a total sample of

approximately 260 participants based off of the TDO criminal defense case-loads and number of

clients participating in prior TDO programs. As of September 2018, 317 RIATs were completed.

For purposes of this project, only data from individuals who had been enrolled in the FRRP for at

least one year were included in the analysis (N = 263). The overall sample included 105 females,

158 males, ages 18-65 (*M* = 34.1). 204 were CSKT enrolled members while 69 were enrolled in

other tribes. Of these participants, 10 (3.8%) were homeless, living outdoors/camping, 49

(18.6%) were "couchsurfing"/staying from place to place without knowing where they would be

staying in the next 24-48 hours, 122 (46.4%) had "temporary" shelter, including staying with

family or friends but were unable to stay permanently, and 82 (31.2%) described their housing as

stable or permanent, meaning 68.8% of the sample had unstable housing. Of the participants, 189

reported having insurance coverage (38% Medicaid, 33.8% other) and 73 (27.8%) reported no

insurance coverage. 177 participants reported having a high school diploma/GED (69.4%; high

school completion 27.5%, GED 30%) and 79 (30.3%) reported not finishing high school or

earning a GED. 28 participants (8.8%) were employed full-time, 19 (6%) employed part-time, 13

(4.1%) were seasonally employed, and 203 (77.2%) were unemployed, of which 158 (49.8%)

were seeking employment. 85 (26.8%) reported being married or had a significant other and 217 (68.5%) reported having children. Case management services included referrals to mental health, education, and employment services. 163 (63.4%) participants were referred to mental health services (assessment, individual or group treatment; 28.9% to FRRP mental health providers),198 (76.2%) participants were referred for chemical dependency services (assessment or treatment, 12.3% were referred to FRRP mental health providers). 139 (52.9%) individuals were referred for educational services (GED coaching/testing, higher education consultation), and 211 (80.2%) were referred for employment services (job corps, job service, vocational rehabilitation, tribal employment programs). Some of the participants had incomplete data, including missing scores on the measures or new criminal charges that had not yet been processed and turned into convictions or dismissals. Thus, the final sample size used in this analysis was 216. The sample included 133 males and 83 females, and the majority of the sample identified as enrolled CSKT (170, other tribal enrollment 46).

Measures

       The Reentry Intake and Assessment Tool (RIAT). The RIAT is a screening tool that was developed at the onset of the FRRP with a two-fold purpose. First, the RIAT would be used to classify a level of risk to help guide FRRP staff in determining intensity of services, as well as to identify areas of need to be targeted in treatment planning. Second, evidence-based tools were selected and included in order to gather validation data within in a NA population to find if these measures are accurate predictors of risk for recidivism.

       The RIAT takes approximately 45-60 minutes to administer, with the majority of that time spent with a FRRP staff member, usually the case manager. The RIAT is an orally administered (due to potential for reading difficulty, inclusion of professional judgment,

opportunity to prompt for expansion on given answers, and the inclusion of the LSI-R, validated

on oral administration) intake questionnaire/LSI-R hybrid. The RIAT collected demographic

information as well as self-reported criminal history, education, income and employment history,

family, housing issues, substance use, medical and mental health, and current needs and goals

(see Appendix A). The intake was initially developed by the TDO staff for the JMHCP in 2009,

and has been refined based on client feedback (for example, a focus on goals set by the client

versus goals deduced from the intake tool) and needs (for example, assessing for level of

homelessness, not just as a binary, yes/no, but homeless, living outside, couch surfing, temporary

housing/living with others, stable housing). In 2016, Fox and Hansen integrated this intake

questionnaire with the LSI-R, eliminating any superfluous or repetitive questions, and added the

HLS, HLASS, CCS, and PCL-5.

Level of Service Index - Revised. The LSI-R, developed in 2000 by Don Andrews and

James Bonta, is a 54-item questionnaire (see Appendix B). The LSI-R measure includes 8 of the

criminogenic needs identified by the RNR model plus 2 more components for a total of 10

criminogenic factors. These 10 factors are: criminal history, education/employment, financial,

family/marital, accommodation, leisure/recreation, companions, alcohol/drug problems,

emotional/personal, and attitude/orientation. Composite scores are calculated based on the

Burgess method (Burgess, 1928), with each criminogenic factor assigned a 0, or no points, for

absent risk factors and 1 point per risk factor present. A rating of 0 - 3 is also given on some

items to classify level of satisfaction with a given factor as assessed by the interviewer (with 0 =

a very unsatisfactory situation with a very clear and strong need for improvement to 3 = *a*

satisfactory situation with no need for improvement). Scale scores are assigned values, with 3 or

2 being classified as 0, or no risk factor present, and 1 or 0 are classified as a 1, or risk factor

present. Each risk factor present is counted and total scores can range from 0 – 54, with cut-offs set for levels of risk (i.e., minimum, medium, maximum) for each gender and setting. The FRRP used the institutional classification for females and males. Female cut scores are as follows: minimum risk = 0 -17, medium risk = 18 - 23, and maximum risk = 24 and higher. Male cut scores are: minimum risk = 0 - 24, medium risk = 25 - 36, and maximum risk = 37+ (Andrews & Bonta, 1993). Cronbach's alpha for the LSI-R in this study was found to be .47.

Historical Loss Scale. The Historical Loss Scale (HLS) was developed by Whitbeck, Hoyt, and Chen in 2004 on and for a NA population, to measure the frequency of NA individuals' thoughts about historical losses (see Appendix C). Initially, the questions were developed through focus groups with elders from the upper Midwestern United States who identified various historical losses. The final questions were then vetted by the tribal elders prior to utilizing the measure in a study validating it. Developers found excellent internal consistency with a Cronbach's alpha of .92. This study also found excellent internal consistency with a Cronbach's alpha of .94. In this 12-item measure, the participants identify how often they think about historical losses (such as, loss of land, loss of language, loss of our family ties due to boarding schools, and loss of respect by our children for traditional ways), by rating each question on a 1 to 6 frequency scale where 1 = *Several times a day* and 6 = *Never*. Scores on the HLS range from 12 to 72. Lower numerical ratings indicate more frequent thoughts of historical losses while higher ratings indicate less frequent thoughts of historical losses.

Historical Loss Associated Symptom Scale. The Historical Loss Associated Symptoms Scale (HLASS) was developed by Whitbeck, Hoyt, and Chen (2004; see Appendix D) along with the HLS. The HLASS measures the frequency of emotional responses to thoughts about historical losses. Each of the 12-items lists an emotional reaction or symptom (i.e,

anger/avoidance and anxiety/depression) of historical loss while thinking of the items measured on the HLS. The participants rate each question on a frequency scale where 1 = *never* and 5 = *always*. Total scores can range from 12 to 60 with high scores indicating more emotional symptoms in response to thinking of historical loss. Developers found very good internal consistency with a Cronbach's alpha of .89 and this study found a similar Cronbach's alpha of .90.

The Cultural Connectedness Scale. (CCS) (see Appendix E) was developed by Hansen and Fox (2016) specifically for the FRRP. The scale was developed to assess individuals' interest and access to cultural knowledge and practices to help inform treatment planning for the case manager. In this measure, clients are asked to report their self-perceived connection, access, participation, interest, and knowledge of their traditional tribal culture. Each of the 5 items are ranked on a 4-point, 5-point, or 6-point scale. Total scores range from 5 to 24, with higher scores indicating self-perceived stronger cultural connection. This scale was developed at the onset of the FRRP on which the current study is base. Cronbach's alpha was .71, which is acceptable, and will continue to be evaluated in future projects.

Post-traumatic Stress Disorder Checklist for DSM-5. The PCL-5 is 20-item measure of posttraumatic stress disorder symptoms as defined by the DSM-5 (see Appendix F). Participants are asked to rate items on a 0 – 4 scale (0 = *Not at all*, 4 = *Extremely*) based on their level of agreement with each statement, with scores of 0-80 possible, with higher composite scores indicating more symptoms of PTSD. Symptoms of intrusion, avoidance, cognitive/mood changes, arousal/reactivity are assessed. Ideally, the criteria for each subcategory are that the participant should have at least 1-2 positive responses at a 2 or higher for threshold, but generally a cut-off of 38 is indicative of clinically significant symptoms of PTSD. Initial psychometric

properties found excellent internal consistency with a Cronbach's alpha of .94 and a test-retest reliability of r = .82 (Blevins, Weathers, Davis, Witte, & Domino, 2015). This measure was not used in this specific study as it was added to the RIAT approximately eighteen months into FRRP implementation, so there was an insufficient sample size for analyses.

Procedure

Data collection. In the overall project, data were collected, de-identified, and stored by the FRRP. After a referral to the FRRP, the case manager administered a 45-60 minute interview including the LSI-R, demographic information, background information, as well as assessment of needs and goals. Participants then completed the Historical Loss Scale, the Historical Loss Associated Symptom Scale, the Cultural Connectedness Scale, and the PSTD Checklist for the DSM-5. The measures were scored and entered into a master Excel document by the case manager or grant manager. Prior to release for analysis, the grant manager de-identified the data.

Analytic Strategy. This project used data from the RIAT (LSI-R, intake demographics, and culturally relevant measures), as well as tracked outcome data (recidivism via new convictions, and individual case management services). The de-identified data were entered into SPSS 25 statistical software package (IBM Corporation, 2013) for analysis. Recidivism was measured as any conviction after entering into the Flathead Reentry program. Convictions were tracked by the FRRP program manager by checking daily jail rosters and court dockets for new arrests and court appearances in the CSKT tribal system, ultimately tracking conviction outcomes through the public defender or court records. The Program manager also tracked new incarcerations and convictions in the Montana state prison system, and for Lake, Sanders, and Missoula counties. Recidivism was treated as a bivariate variable (0= No, 1=Yes).

Chapter 3: Results

A hierarchical binary logistic regression analysis was performed using IBM SPSS

Statistics version 25 to test the study's hypotheses that 1) the LSI-R is not a sufficient measure to

classify risk for recidivism in this population, and 2) case management involvement and 3)

cultural factors including historical loss and symptoms associated with historical loss and 4)

cultural connection will account for a significant proportion of variance, above and beyond what

is already accounted for by a commonly used recidivism risk assessment tool (LSI-R), while

controlling for age and gender.

The first model (see Table 3 below) included the LSI-R total score to test the overall

predictive ability of this measure. The chi-square model reached statistical significance ($p <$

.001) and using Nagelkerke R, a pseudo-R-square measure[6], found that this model explained

about 12% of the variance in recidivism outcomes (Nagelkerke R = .122). For every one unit

increase in LSI-R, the odds of being in the recidivism group are multiplied by a factor of 1.1,

given that age and gender are also included in the model. The classification table, which reports a

cross-classification of observed values and predicted values indicating how well the model

predicts the outcome, in this case, recidivism (see Table 4). The classification table for this

model indicates that the overall correct classification for recidivism is 63.1%, while only

accurately classifying "yes" recidivism 35.4% of the time while correctly classifying "no"

recidivism 81% of the time. This means that while the model is very good at accurately

classifying a participant as "no" recidivism, it is worse than a chance (.50) prediction of

classifying "yes" the participant will be convicted of a new crime.

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[6] While pseudo R-squared is interpreted as "variance explained," this interpretation in not a
literal interpretation of variance as it is for R-squared.

Table 3

Hierarchical Logistic Regression for LSI-R Total Scores

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Age	-.027	.015	3.236	1	.072	.973
	Gender	.301	.283	1.134	1	.287	1.351
Step 2	LSI_total	.095	.023	17.152	1	.001[***]	1.100
	Constant	-2.467	.893	7.638	1	.006	.085

*$p < .05$, **$p < .01$, *** $p < .001$

Table 4

Classification Table[a] for LSI-R Total Scores

		Predicted Recidivism		
Observed:		No	Yes	% Correct
Recidivism	No	124	29	81.0
	Yes	64	35	35.4
Overall %				63.1

a. The cut value is .500

The second model (see Table 5 below) included the LSI-R subscores, instead of the full

LSI-R scores, to test the predictive ability of the ten criminogenic factors included in this

measure (hypothesis 1). The overall model reached statistical significance ($p < .001$) and

explained about 17% of the variance in recidivism outcomes (pseudo-R-square, Nagelkerke R =

.168). Subscales for which effects were found (i.e., p < .05) included the risk factor domains of

criminal history ($p = .028$), family/marital ($p = .051$), and attitudes/orientation ($p = .013$),

meaning for every point increase in each of these risk domains, there is a slight change in

likelihood for recidivism. For every one unit increase in the criminal history risk factor, the odds

of being in the recidivism group are multiplied by a factor of 1.167, with age and gender also

included in the model. While statistically significant, when age and gender are controlled for in

the model, for every one point increase in family/marital risk factors, the odds are almost 1 to 1

(Exp(B) = .998), so there is no detected change in likelihood for recidivism. For every one unit

increase in attitudes/orientation risk scores, the odds of recidivism are multiplied by a factor of

1.39, with all other factors also included in the model. The classification table (Table 6) for this model indicates that the overall correct classification for recidivism is 66.7%, while only accurately classifying "yes" recidivism 44.4% of the time while correctly classifying "no" recidivism 81% of the time.

Table 5
Hierarchical Logistic Regression for LSI-R Subscores

Step 1	Age	-.028	.016	3.158	1	.076	.972
Step 2	Gender	.094	.314	.089	1	.766	1.098
	Crim. Hist.	.154	.070	4.805	1	.028*	1.167
	Edu./Emp.	.129	.074	3.003	1	.083	1.137
	Financial	-.090	.233	.149	1	.700	.914
	Family	.250	.128	3.792	1	.051*	1.284
	Accommod.	.105	.168	.389	1	.533	1.111
	Leisure	-.025	.185	.018	1	.893	.975
	Companions	-.017	.113	.023	1	.880	.983
	Substances	.005	.066	.007	1	.934	1.005
	Emotional	.010	.132	.006	1	.939	1.010
	Attitude	.329	.132	6.194	1	.013**	1.390
	Constant	-2.175	.923	5.555	1	.018	.114

*$p < .05$, **$p < .01$, *** $p < .001$

Table 6
Classification Table[a] for LSI-R Subscores

		Predicted Recidivism		
Observed:		No	Yes	% Correct
Recidivism	No	124	29	81.0
	Yes	55	44	44.5
Overall %				66.7

a. The cut value is .500

The third model was designed to test the hypothesized effects of cultural measures and case management involvement (See Table 7). Age and gender were controlled for in step one,

and block two included the 10 criminogenic factors of the LSI-R. Block 3 added Case

Management as a binomial categorical variable (0 = low, < 2 hours direct case management

services; 1 = high, >2 hours direct case management services). Block 4 included the HLS and the

two subscales of the HLASS, anger/avoidance and depression/anxiety, and the five items of the

CCS. Block 5 included the binary variable for tribal affiliation (0 = other tribal enrollment; 1 =

CSKT enrolled).

The overall model with all factors included neared statistical significance $p = .06$, (using

the cutoff of $p < .05$) and explained about 19% of the variance in recidivism outcomes (pseudo-

R-square, Nagelkerke R = .193). Participant age was statistically significant at the $p < .05$ level

($p = .039$), as were two subscales of the LSI-R. The significant effects found included the risk

factor domains of family/marital ($p = .005$), and attitudes/orientation ($p = .055$); meaning for

every point increase in each of these risk domains, there is a slight increase in one's likelihood

for recidivism. Most notably, for every one unit increase in the family/marital risk factor, the

odds of being in the recidivism group are multiplied by a factor of 1.557, given all other factors

are included in the model. Results indicate that the addition of level of case management

intensity (high vs. low) or cultural factors (historical loss, symptoms associated with historical

loss, reported level of connection to culture and traditional ways, and tribal affiliation) did not

contribute to the model, as the effects were not statistically significant. For the final model,

overall statistical power was low, given the small effect sizes, sample size, as well as limited

range of scores on some factors. Essentially, the probability of detecting an effect if there were

an actual effect in the population was small. The classification table (Table 8) for this model

indicates that the overall correct classification for recidivism 68.1%, while only accurately

classifying "yes" recidivism 43.9% of the time while correctly classifying "no" recidivism 82.8% of the time.

Table 7

Hierarchical Logistic Regression for LSI-R Subscores, Case Management, and Cultural Measures

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1	Age	-.037	.018	4.250	1	.039*	.963
	Gender	.190	.357	.285	1	.593	1.210
Step 2	Crim. Hist.	.056	.081	.474	1	.491	1.057
	Edu./Emp.	.117	.084	1.916	1	.166	1.124
	Financial	-.048	.280	.029	1	.865	.953
	Family	.443	.157	7.958	1	.005**	1.557
	Accomod.	-.016	.192	.007	1	.935	.985
	Leisure	-.023	.212	.012	1	.914	.977
	Companions	.031	.130	.056	1	.813	1.031
	Substances	-.019	.077	.063	1	.802	.981
	Emotional	.097	.150	.423	1	.515	1.102
	Attitude	.285	.149	3.674	1	.055*	1.330
Step 3	Case Mngmt.	-.057	.340	.028	1	.867	.945
Step 4	HLASS Anx/Dep	-.064	.047	1.802	1	.180	.938
	HLASS Ang/Avo	.026	.037	.482	1	.488	1.026
	HLS Total	-.003	.018	.032	1	.858	.997
	Connection	.193	.166	1.356	1	.244	1.213
	Access	-.239	.177	1.828	1	.176	.787
	Participation	-.141	.130	1.184	1	.277	.868
	Desire	.300	.241	1.558	1	.212	1.351
	Knowledge	.088	.234	.140	1	.709	1.092
Step 5	Tribe	.075	.398	.035	1	.851	1.078
	Constant	-2.008	2.011	.997	1	.318	.134

*p < .05, **p < .01, *** p < .001

Table 8

Classification Table[a] for LSI-R Subscores, Case Management, and Cultural Measures

		Predicted Recidivism		
Observed:		No	Yes	% Correct
Recidivism	No	111	23	82.8
	Yes	46	36	43.9
Overall %				68.1

Chapter 4: Discussion

The results of the study support the hypothesis that overall, the ten criminogenic factors of the LSI-R do not perform well in predicting recidivism risk in the population of Native Americans reentering the Flathead Reservation community. While statistical significance was detected for the LSI-R total scores, upon further analysis, only three of the LSI-R subscale domains were statistically significant when the domains were run alone with age and gender controlled and only two domains were statistically significant in the overall model. Cronbach's alpha for the LSI-R in this study was found to be .47, indicating that the measure was not capturing the same underlying construct (recidivism risk) in this population. Additionally, the models were only able to accurately classify risk for recidivism about 61% (LSI-R total score and subscore models) to 68% (full model) of the time.

Overall, recidivism for this sample was about 39% (meaning 39% of the participants in this sample were convicted of a new crime within at least one year (12-31 months)). As mentioned in the literature review above, the rates of recidivism are greatly mixed due to the varying definition of recidivism (technical violations, re-arrest, new conviction, re-incarceration in jail or prison). This study used new conviction as the marker for recidivism. Past projects in this population estimated a fairly similar new conviction recidivism rate in this population; for example, there was a 35.5% 1-year recidivism rate among an earlier iteration of data in this population (Hansen, 2018). The Bureau of Justice Statistics (2018) released their most recent report on a long-term follow-up of recidivism patterns in a population of prior prisoners. They report that in a sample of 401,288 individuals released from prison in 2005 across 30 states, the 1-year re-arrest recidivism rate was 43.4% (Snyder, Howard, Durose, Matthew, Cooper, Alexia, & Mulako-Wangota, 2016).

While the LSI-R is one of the most widely used measures for recidivism, it was initially developed in Canada on a primarily non-Native sample of males (Lowenkamp, Lovins, & Latessa, 2009). Given that this measure was developed within a mainstream population and utilizes the risk factors for that population specifically, the measure may simply not be capturing all possible relevant risk factors or protective factors among the population involved in the current study. Many of the individuals in this sample were also involved in the complex web of multiple jurisdictions within the criminal justice system and may have been charged and convicted in more than one judicial system. Navigation of a complicated legal system can be difficult. Adding in multiple jurisdictions, especially multi-jurisdictional cases stemming from one incident, can increase the complexity of coordination for pretrial bail/bond, pretrial supervision, criminal charges, plea deals, sentencing, release, and community supervision and associated requirements. This factor alone could increase risk for recidivism, simply by increasing the individuals' exposure and contact to the criminal justice system and increasing the likelihood of varying supervisory (pre- or post-release) requirements.

Results of the larger model including all the variables tested did indicate two of the ten criminogenic risk factors subscales of the LSI-R were statistically significant. These risk factors were family/marital risk factors and attitudes/orientations risk factors. The family/marital risk factor includes dissatisfaction with marital (or equivalent partnership) relationship, reports of non-rewarding relationships with parents and other relatives, and the criminal involvement of spouse or other family. Generally, Native American belief systems are associated with a collectivist worldview, and this is also true of CSKT individuals, who make up a majority of the sample. The collectivist worldview, as opposed to the individualistic worldview, centers on the idea of interconnectedness with all beings (human and non-human), maintaining balance, and

reciprocity. Naturally, this influences the nature and importance of community and family. This worldview lends to a communal identity rather than an individual identity (Grandbois & Sanders, 2009). It would follow that in this sample, a potential reason for increased recidivism risk with higher family/marital risk subscores (generally poorer relationships with immediate family) could be indicative of a sense of loss in communal identity. Conversely, improved family relationships could be a protective factor with regard to recidivism. Additionally, increased recidivism risk associated with higher subscores in attitudes/orientation (exposure to and supportive/positive perception of crime, being dismissive of convention, having negative feelings towards sentence and supervision) could potentially be tied back to collectivist worldviews. Reentering a community following incarceration can be an ostracizing experience. Depending on the type of conviction, carrying a criminal history can impact employability, ability to find housing, to get a driver's license, or to obtain funding for higher education, some of which may be required conditions for release from incarceration or supervision. This sets up a multitude of barriers to meeting an individual's (and their family's) basic needs. This may also lead to individuals feeling distanced from their community may contribute to seeking belongingness elsewhere or to more pro-criminal attitudes.

Cultural factors were not found to be statistically significant in this analysis. Based on anecdotal evidence as well as a prior project within this sample (Hansen, 2018), cultural factors, particularly active participation in traditional cultural activities, served as a protective factor from recidivism risk. One reason for this may be is that the sample was simply too small to detect such an effect, therefore, power for this model was very low. Additionally, the question regarding cultural participation is a self-reported, 1-item question within the Cultural Connection Scale stating, "How often do/did you participate in your traditional Native American cultural

activities?" with six response options (*1= Never; 2= Yearly; 3= A few times per year; 4= Monthly; 5= Weekly; 6= Daily*). While the question is left open to the participant to define for themselves what participation means, there is a possibility that individuals who are highly involved with cultural activities may not identify as such. First of all, they may not identify as being "cultural" when engaging in certain activities (berry picking, drying meat, smudging), as those activities may fall within the norm, and consider other types of activities (participating in ceremony, speaking traditional language) in which they do participate as "cultural," thus underreporting their participation. Second, in line with worldview and humility, individuals may underreport their participation consistent with a value of remaining humble, especially if perceiving themselves as less involved in comparison to others the individual knows who are more active in cultural or traditional activities. The question also does not address the participants' potential future plans of participation for those who are currently incarcerated; opportunities to participate in cultural activities are usually limited in an incarcerated setting.

Regarding the Historical Loss Scale and Historical Loss Associated Symptoms Scale, recent publications on historical trauma recommend moving away from defining and utilizing historical trauma as a clinical condition, life stressor, or even a topic of "critical discourse" which can rapidly devolve into pathologizing Indigenous identity (Hartmann, Wendt, Burrage, Pomerville, & Gone, 2019). Rather, Hartmann and colleagues (2019) suggest bridging research ideas into psychology and other service areas to support the growth of ideas surrounding Indigenous wellness beyond simply past "victims" and current "survivors." In short, this type of project may better serve Native American populations in research as well as in direct services by moving forward with the inclusion of items measuring cultural strength and wellness in addition to or in replacement of measures of historical loss and associated symptoms of historical loss.

One example of this is already beginning to take root within the Flathead Reservation Reentry Program. The program has been developing and expanding on cultural mentoring efforts that are designed to utilize the cultural strengths that already exist within the local community. Volunteer members of the community provide mentorship, presentations, and a general sharing of knowledge to anyone with interest, but with an intent to reach those just beginning to enter the criminal justice system or re-entering the community from incarceration, as well as preventatively for those at risk of future incarcerations.

Additionally, the level of case management involvement (low or high) was not a significant factor in risk for recidivism. While this may suggest that case management is not a protective factor against recidivism, once again, given the sample size and effect size, power for this model was low and an effect of this service that may exist may not have been detected. Anecdotal experiences of service providers and clients serviced, as well as prior projects in this population (Fox, Hansen, Sherwood & Swaney, 2016) suggest that case management does have a meaningful impact for the clients enrolled in the program. One factor that may be adjusted for future projects is that in this project, case management was analyzed between low, meaning less than two hours of case management outside of the intake interview, or high, greater than two hours outside of the intake interview. Tracking by hour spent with each participant on a continuous basis could allow for a more detailed account of differences that may exist in services provided.

Additionally, data from this sample were not collected to include types or "levels" of offenses. This means if there were a shift in the types or severity of new convictions, that is not detected in this study. This is potentially relevant for a few reasons. One, if the "severity" or nature of crime changes, while still counted objectively as recidivism, it may make a more

subjective difference in the increase or decrease in severity of the crime. It may also be helpful to track the type of crime as certain types of criminal offenses (crimes against property, person, violent crime, misdemeanors, etc.) may contribute an additional layer of potential explanation of variance in risk for recidivism.

Limitations. There are limitations that exist within this project. The design of the FRRP did not incorporate a control group. The FRRP staff felt it would be unethical to withhold services from participants that could potentially reduce the rate of recidivism. They also decided against a wait-list control group due to prior research indicating that 18% of individuals on federal supervision are re-arrested within the first year and 35% are re-arrested within first three years (Markman, Durose, Rantala, & Tiedt, 2016). Given the lack of experimental design, inferences that can be drawn from these results cannot be stated as influential.

Additionally, the project is conducted on a very small subset of criminally-involved Native American people, those who will be reentering the Flathead Reservation community. This is a very specific, and unique population that may create difficulty in generalization of results to other communities. This will not preclude other tribal communities from adopting methods used and mirroring the development process used though this project, and adapting it to their own communities.

Future Directions. One suggestion for the FRRP would be to continue with ongoing data collection including areas already being tracked (e.g., demographic information, offenses, HLS, HLASS, and CCS). Additional information that may be helpful in future analyses would include more detailed case management tracking (time, types of services provided, outcomes of services provided), types of crimes using an established classification system such as types of crimes (i.e., crimes against person, property, or society), either in conjunction with state standards of

classification or using a tribally-developed classification system that fits within the tribal criminal justice system.

To show the utility of the overall FRRP in efforts to reduce recidivism and improve life circumstances of clients, FRRP may also collect time matched data for the participants for recidivism (i.e., recidivism rates 2 years pre-FRRP program enrollment to compare to recidivism rates 2 years post-FRRP program enrollment) or life outcomes (i.e., housing status upon entry into the program and housing status attained with case management intervention). Additionally, tracking of mental health treatment engagement and outcome (i.e., engaged with treatment, successful completion of group or individual treatment, follow through on assessment recommendations) can provide supportive evidence for mental health providers' direct involvement in FRRP. Finally, if FRRP continues to utilize the CCS, the program can use desire for cultural connection as a treatment planning tool and as a source of referral for cultural activities coordinated by FRRP. Participation in these events could be tracked and added to the overall outcome data of the participant.

Further exploration of the services provided by the FRRP is recommended to continue to include examination of the client's family relationships, engagement in family treatment or cultural mediations to repair family relationships when appropriate. In conjunction, FRRP may also facilitate a supportive environment by continuing to offer a community of acceptance within the FRRP by offering groups and activities for individuals involved in the program to have a place of positive support.

Finally, given that the LSI-R, a widely used measure within the criminal justice system, showed little predictive validity on most of the ten criminogenic risk factors within this population, I would propose that attempts to adapt a pre-existing measure of recidivism risk for

use within this community be adjusted or ceased all together. An emic approach, working from within the community to develop and identify the factors that are most relevant to recidivism, may be implemented to develop and validate a new measure of risk and recidivism that could be used more effectively within this population. This process can include a community based participatory research (CBPR) frame and would elicit risk and resilience factor suggestions from the community, particularly tribal elders in the community, as well as those who work closely with the target population (defense attorneys, probation officers, police officers).

In addition to the typical CBPR approach proposed by Israel, Schulz, Parker, & Becker (1998), LeVeaux and Christopher (2009) recommended the following for a CBPR approach specific to Native American communities: 1) Acknowledge historical experience with research and with health issues and work to overcome the negative image of research, 2) Recognize tribal sovereignty, 3) Differentiate between tribal and community membership, 4) Understand tribal diversity and its implications, 4) Plan for extended timelines, 5) Recognize key gatekeepers 6) Prepare for leadership turnover, 7) Interpret data within the cultural context, and 8) Utilize Indigenous ways of knowing. This approach could inform a culturally-sensitive approach to developing a useful tool to serve the over-arching goals to develop a measure of risk and resilience to provide appropriate services and improve outcomes of Native American individuals involved in the criminal justice system.

Overall, results of this study show that while cultural factors and case management involvement did not seem to serve as protective or risk factors in predicting recidivism for this population, neither did the widely used measure, the LSI-R. Alternative models using case management and cultural factors alone, may yield different results than those found in the current analyses. Further studies within this population may help in the development of a

measure of the unique factors that may be contributing to risk and resilience to recidivism, particularly if those studies take an emic approach to measure development in this unique community.

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Appendix A

Reentry Intake Tool with Integrated LSI – R items

CSKT Holistic Defense Team Re-Entry Services Intake (RIAT)

Intake Date:_____ Referral Source: _____

Intake By: _____ Reason for referral_____

Intake completed _____in Jail   OR   _____Post Release

Last day of incarceration: _____   Where: _____

Demographics:

Name: _____   DOB: _____/_____/_____   Age _____

Gender: ☐ Male   ☐ Female

Physical address: Mailing Address (if different)

_____   _____

_____   _____

Telephone: _____   Message #: _____

Tribal Affiliation   ☐ CS&KT UO_____   ☐ Other: _____

Court Information: *Criminal History*

Current Tribal Cause #(s):_____
    ☐ Violent Offense- registered ☐ Yes   ☐ No
    ☐ Sexual Offense- registered ☐ Yes   ☐ No
    ☐ Substance Related, if checked, what substance(s)? _____

Defense Attorney: _____   Prosecutor: _____

Probation/Parole: ☐ Yes ☐ No   Probation/Parole Officer: _____

Educational History:

Do you have a high school diploma? ☐ Yes ☐ No   From where? _____

Do you have a GED?   ☐ Yes ☐ No *15-16.Highest grade completed? _____*

Higher Education/Specialized Training? _____

Are you currently a student: ☐ Yes ☐ No   If yes, ☐ Full-time ☐ Part-time

Name of school: _____   Degree/Certification: _____

Employment and Income Info:

Employed? ☐*No* ☐*No-Seeking Employment* ☐*Yes-Seasonal* ☐*Part-time* ☐*Full-time*

If yes, where? _____ Salary? _____ Hours/week or season? _____

If seeking, what type of employment are you seeking? _____

Have you served in the Military? ☐ Yes ☐ No

Do you receive a percapita? ☐ Yes ☐ No ☐ Has been assigned elsewhere for:_____

Do you receive any other type of income (TANF, SSI, Unemployment, Retirement, etc.)?

☐ Yes ☐ No   Type(s):_____ Amount: _____

Do you receive Food Stamps? ☐ Yes ☐ No Amount: $_____/month

Do you have insurance?   ☐ Yes ☐ No

Type(s) (IHS, Medicaid):_____ Is your insurance: ☐ Active ☐ Inactive

If yes, how long, when, where? _____

Do you have a legal guardian or payee? ☐ Yes   ☐ No
If Yes, Name: _____ Relationship: _____

Address: _____ Telephone: _____

Family: ☐ Single ☐ Married ☐ Divorced ☐ Significant Other ☐ Widowed ☐ Separated

Do you have any children?   ☐ Yes ☐ No   If yes, how many?_____ CPS involvement? Y/N

Ages/Sex?_____ Whom do they reside with(custody)_____

Are you working with any other caseworkers? ☐ Yes   ☐ No Who?_____

Housing issues:
Homeless? ☐ Sleeping outside/shelter ☐Couch-Surfing ☐ Temporary ☐ Stable/Permanent

Substance Use: (excludes nicotine and caffeine)

Are you currently in substance abuse treatment?   ☐ Yes   ☐ No

If yes, where/counselor?_____

37. Have you ever been told that you have an alcohol problem or diagnosis?   ☐ Yes ☐ No

38. Have you ever been told that you have a drug problem or diagnosis?   ☐ Yes   ☐ No

        Specify

drug/s_____

Have you ever entered treatment for substance abuse?   ☐ Yes ☐ No

If yes, how many times, and where?_____

Did you complete? ☐ Yes   ☐ No, why didn't you complete? _____

Are you currently interested in drug/alcohol treatment/counseling? ☐ Yes ☐ No

Why? _____

Medical/Mental Health History:

Do you currently have any medical conditions or physical disability?   ☐ Yes ☐ No

If yes, which conditions do you have? _____

Are you currently taking any medication(s) for physical conditions?   ☐ Yes ☐ No

If yes, which medications for what conditions? _____

Has anyone every told you that you have a mental health diagnosis?   ☐ Yes ☐ No

If yes, what was the diagnosis? _____

Are you currently receiving mental health treatment?   ☐ Yes ☐ No

Are you currently taking any medications for mental health issues?   ☐ Yes ☐ No

If yes, which medications for what conditions? _____

Have you taken any medications in the past for psychiatric/mental health issues? ☐ Yes ☐ No

If yes, what? _____

Do you feel you have any mental health problems that haven't been diagnosed?   ☐ Yes ☐ No

If yes, what? _____

Have you ever been hospitalized for any mental health reason?   ☐ Yes ☐ No

If yes, were these hospitalizations: Psychiatric Emergency Room (ER) visits?   ☐ Yes ☐ No

Inpatient hospitalizations?   ☐ Yes ☐ No

Which hospital(s)? _____

Level of Service Inventory – Revised

LSI-R Score Sheet

Name:_____ Identifying Number:_____

Date of Birth:___/___/___   Sex: M   F   Date:___/___/___

Referral Source:_____ Reason for Referral:_____

Disposition:_____ Present Offenses:_____

The LSI-R is a quantitative survey of attributes of offenders and their situations relevant to the decisions regarding level of service. The LSI-R is composed of 54 items. Items are either in a "yes-no" format, or in a "0-3" rating format, based on the following scale:

    3: A satisfactory situation with no need for improvement
    2: A relatively satisfactory situation, with some room for improvement evident
    1: A relatively unsatisfactory situation with a need for improvement
    0: A very unsatisfactory situation with a very clear and strong need for improvement

Place an "X" over the appropriate response for each question, whether it be a simple "yes" or "no", or a rating number. The answers will transfer through to the scoring sheet beneath for quick tallying of the LSI-R score. Be sure to see the manual for guidelines on rating and scoring. For missing information, circle the question number.

Criminal History

No	Yes	1.	Any prior adult convictions? Number:
No	Yes	2.	Two or more prior convictions?
No	Yes	3.	Three or more prior convictions?
No	Yes	4.	Three or more present offenses? Number:
No	Yes	5.	Arrested under age 16?
No	Yes	6.	Ever incarcerated upon conviction?
No	Yes	7.	Escape history from a correctional facility?
No	Yes	8.	Ever punished for institutional misconduct? Number:
No	Yes	9.	Charge laid or probation/parole suspended during prior community supervision?
No	Yes	10.	Official record of assault/violence?

Education/Employment

When in labor market:

No	Yes	11.	Currently unemployed?
No	Yes	12.	Frequently unemployed?
No	Yes	13.	Never employed for a full year?
No	Yes	14.	Ever fired?

School or when in school:

No	Yes	15.	Less than regular grade 10?
No	Yes	16.	Less than regular grade 12?
No	Yes	17.	Suspended or expelled at least once?

For the next three questions, if the offender is a homemaker or pensioner, complete #18 only. If the offender is in school, working, or unemployed, complete #18, #19 and #20. If the offender is unemployed, rate 0.

3	2	1	0	18.	Participation/performance
3	2	1	0	19.	Peer interactions
3	2	1	0	20.	Authority interactions

Financial

3	2	1	0	21.	Problems
	No	Yes		22.	Reliance upon social assistance

LSI•R: The Level of Service Inventory • Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

LSI-R: The Level of Service Inventory – Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

Remember, the rating scale is as follows:

    3: A satisfactory situation with no need for improvement
    2: A relatively satisfactory situation with some room for improvement evident
    1: A relatively unsatisfactory situation with a need for improvement
    0: A very unsatisfactory situation with a very clear and strong need for improvement

Family/Marital

		Question Numbers
Dissatisfaction with marital or equivalent situation	3 2 1 0	23.
Non-rewarding, parental	3 2 1 0	24.
Non-rewarding, other relatives	3 2 1 0	25.
Criminal-Family/Spouse	No Yes	26.

Accommodation

Unsatisfactory	3 2 1 0	27.
3 or more address changes last year	No Yes	28.
High crime neighborhood	No Yes	29.

Leisure/Recreation

Absence of recent participation in an organized activity	No Yes	30.
Could make better use of time	3 2 1 0	31.

Companions

A social isolate	No Yes	32.
Some criminal acquaintances	No Yes	33.
Some criminal friends	No Yes	34.
Few anti-criminal acquaintances	No Yes	35.
Few anti-criminal friends	No Yes	36.

Alcohol/Drug Problem

Alcohol problem, ever	No Yes	37.
Drug problem, ever	No Yes	38.
Alcohol problem, currently	3 2 1 0	39.
Drug problem, currently Specify type of drug:_____	3 2 1 0	40.
Law violations	No Yes	41.
Marital/Family	No Yes	42.
School/Work	No Yes	43.
Medical	No Yes	44.
Other indicators Specify:	No Yes	45.

Emotional/Personal

Moderate interference	No Yes	46.
Severe interference, active psychosis	No Yes	47.
Mental health treatment, past	No Yes	48.
Mental health treatment, present	No Yes	49.
Psychological assessment indicated Area	No Yes	50.

Attitudes/Orientation

Supportive of crime	3 2 1 0	51.
Unfavorable toward convention	3 2 1 0	52.
Poor, toward sentence	No Yes	53.
Poor, toward supervision	No Yes	54.

LSI-R: The Level of Service Inventory – Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

Name:_____ Identifying Number:_____

Date of Birth:___/___/___   Sex: M   F   Date:___/___/___

Referral Source:_____ Reason for Referral:_____

Disposition:_____ Present Offenses:_____

_____

Column B

23.
24.
25.
26.
Family/Marital

27.
28.
29.
Accommodation

Instructions: Add up the number of X's in column A and record the number in the appropriate box. Do the same for column B. Add the totals for columns A and B for the total LSI-R score. Refer to the Male or Female Profile Sheet for charts of the LSI-R total score. Note: X's that fall in the blackened areas are not counted. Circled numbers represent missed questions.

Column A

Criminal History
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Number of prior convictions [   ]

Number of present offenses [   ]

Number of times punished
for institutional misconduct [   ]

Leisure
30.
31.

Companions
32.
33.
34.
35.
36.

Education/Employment
11.
12.
13.
14.

Type of drug associated with
current drug problem (if any)
[   ]

Alcohol/Drug Problem
37.
38.
39.
40.
41.
42.
43.
44.
45.

School
15.
16.
17.

Other indicators of drug problem
[   ]

Employed
18.
19.
20.

Area of psychological
assessment indicated
[   ]

Emotional/Personal
46.
47.
48.
49.
50.

Financial
21.
22.

Total from Column A
and Column B is:

Attitude/Orientation
51.
52.
53.
54.

Total number of
X's in column A [   ] → **TOTAL LSI-R SCORE** [   ] ← Total number of X's in column B [   ]

Interviewer:_____ Date:___/___/___

Appendix C

Historical Loss Scale

Instructions: Our people have experienced many losses since we came into contact with Europeans (Whites).   Some of the types of losses that people have mentioned to us, are listed below. Please check the box that best describes how often you think of each type of loss.

Items:

1. the loss of our land
2. the loss of our language
3. losing our traditional spiritual ways
4. the loss of our family ties because of boarding/residential schools
5. the loss of families from the reservation to government relocation
6. the loss of self-respect from poor treatment by government officials
7. the loss of trust in whites from broken treaties
8. losing our culture
9. the losses from the effects of alcoholism on our people
10. loss of respect by our children and grandchildren for elders
11. loss of our people through early death
12. loss of respect by our children for traditional ways

Response Categories

1= Several times a day
2= Daily
3= Weekly
4= Monthly
5 = Yearly or only at special times
6 = Never

Appendix D

Historical Loss Associated Symptom Scale

Instructions: Now, I would like to ask you about how you feel when you think about these losses. (Please check the box that best describes your response to each item)

Items:

How often do you feel . . .

1.   Sadness or depression
2. A loss of sleep
3. Anxiety or nervousness
4. A loss of concentration
5. Feel isolated or distant from other people when you think of these losses
6. Anger
7. Shame when you think of these losses
8. Uncomfortable around white people when you think of these losses
9. Rage
10. Fearful or distrust of the intentions of white people
11. Feel like it is happening again
12. Feel like avoiding places or people that remind you of these losses

Response Categories:

1 = Never
2 = Seldom
3 = Sometimes
4 = Often
5 = Always

Anxiety and Depression subscale score = sum of items 1-5
Anger and Avoidance subscale score = sum of items 6-12

Cultural Connectedness Scale

Instructions: Please circle the option that best matches your experience. If you are currently incarcerated, please answer these questions regarding the times that you were not incarcerated

1. **How would you describe your connection to your traditional Native American culture?**
   1- I feel isolated from my traditional Native American culture
   2- I do not feel isolated, but I do not feel a connection to my traditional Native American culture
   3- I feel a slight connection to my traditional Native American culture
   4- I feel connected to my traditional Native American culture
   5- I feel a strong connection to my traditional Native American culture

2. **How would you describe your access to your traditional Native American culture?**
   1- No access
   2- Limited access
   3- Some access
   4- Good access
   5- Full access

3. **How often do/did you participate in your traditional Native American cultural activities?**
   1- Never
   2- Yearly
   3- A few times per year
   4- Monthly
   5- Weekly
   6- Daily

4. **How would you rate your desire to learn or participate in your traditional Native American cultural activities?**
   1- No desire
   2- Minimal desire
   3- Moderate desire
   4- Strong desire

5. **How would you rate your knowledge of your traditional Native American culture (language, history, etc.)?**
   1- Not knowledgeable
   2- Slightly knowledgeable
   3- Somewhat knowledgeable
   4- Very knowledgeable

PCL-5

Instructions: Below is a list of problems that people sometimes have in response to a very stressful experience. Please read each problem carefully and then circle one of the numbers to the right to indicate how much you have been bothered by that problem in the past month.

<u>**Items:**</u>

1. Repeated, disturbing, and unwanted memories of the stressful experience?
2. Repeated, disturbing dreams of the stressful experience?
3. Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?
4. Feeling very upset when something reminded you of the stressful experience?
5. Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?
6. Avoiding memories, thoughts, or feelings related to the stressful experience?
7. Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?
8. Trouble remembering important parts of the stressful experience?
9. Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?
10. Blaming yourself or someone else for the stressful experience or what happened after it?
11. Having strong negative feelings such as fear, horror, anger, guilt, or shame?
12. Loss of interest in activities that you used to enjoy?
13. Feeling distant or cut o from other people?
14. Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?
15. Irritable behavior, angry outbursts, or acting aggressively?
16. Taking too many risks or doing things that could cause you harm?
17. Being "superalert" or watchful or on guard?
18. Feeling jumpy or easily startled?
19. Having di culty concentrating?
20. Trouble falling or staying asleep?

Response Categories:

1 = Not at all
2 = A little bit
3 = Moderately
4 = Quite a bit
5 = Extremely

APPENDIX G

Informed Consent

Confederated Salish and Kootenai Tribes Defenders Office
INFORMED CONSENT FOR RE-ENTRY SERVICES

The Tribal Defenders Office provides mental health services for individuals meeting certain requirements in the Flathead Reservation community. The provisions of mental health services in conjunction with legal services are an innovative effort on behalf of the Tribal Defenders Office to better meet the needs of the community. You should be aware of the following when you receive psychological services at the Tribal Defenders Office.

1. <u>Confidentiality and Record Keeping:</u> We keep records of the services we provide for you. In general, all information provided by you during the course of your involvement with the Tribal Defenders Office is kept strictly confidential and may not be used or released without your express, written permission. However, by seeking psychological services at the Tribal Defenders Office, the client agrees to the release of information relevant to his/her treatment within the Defenders inter-professional holistic defense team. These limited disclosures are strictly for the purpose of improving treatment, case management, and legal services and may occur with the Referring Defender, Ann Sherwood (Managing Defender), Crystal Matt (Case Manager), and/or Dr. Michael Scolatti (Supervising Clinical Psychologist). De-identified information from your file (such as statistics) may be used for Quality Assurance and Improvement activities, administrative services, and research purposes. Finally, State and Federal laws set limits on our ability to respect confidentiality in certain instances. Your therapist may be required by law to break confidentiality if:

    a. There is reason to suspect that a minor, elderly person, or person with disabilities is experiencing maltreatment though either abuse or neglect, or has experienced such maltreatment in the past;
    b. There is a strong possibility that you may harm yourself or others if action is not taken;
    c. If otherwise legally impelled (e.g., court order or other requirement of law).

2. <u>Confidentiality Agreement:</u> Student therapists and Tribal Defenders staff strongly respect the confidentiality of all individuals seeking psychological services. All attempts will be made to maintain client confidentiality with the exception of legitimate training, clinical or legal purposes.

3. <u>Psychological Services:</u> The Tribal Defenders Office is committed to the ongoing training and supervision of therapists. Therefore, your therapist will be working under the direction of a senior supervisor (Michael Scolatti, Ph.D.). The supervisor will provide assistance to the therapist throughout the period during which services are rendered.

4. <u>Nature of Services:</u> You are entitled to know – at any time while you are receiving psychological services from the Tribal Defenders Office – the nature of the specific services you are provided. The anticipated outcome, risks, and benefits, and alternative services to you (including no treatment) in sufficient detail to ensure that you understand your service options. Your therapist should also provide sufficient opportunity to ask questions and receive answers. Finally, you are entitled to contact the therapist's supervisor with any concerns you may have regarding the services you receive.

5. <u>Possible Distress:</u> Psychotherapy can have both risks and benefits. Since therapy often involves working on difficult aspects of a person's life, clients can sometimes experience uncomfortable feelings like sadness, guilt, anger, or frustration. However, psychotherapy has also been shown to have significant benefits for some people who go through it. Therapy often leads to better relationships, solutions to specific problems, changes in problematic behavior, and significant reduction in feelings of distress. There are no guarantees on what you will experience or on the results of therapy for you.

6. <u>Client's Rights and Grievances:</u> Individuals receiving psychological services from the Tribal Defenders Office have the right to be treated respectfully, appropriately, and ethically. A client may seek recourse if at any time s/he feels that her/his rights have been violated, or if s/he feels that s/he has not received adequate, appropriate or ethical treatment. If you have a grievance, you must first inform your therapist of the nature of your complaint. Your therapist will attempt to discuss your concerns and to negotiate a satisfactory resolution. Your therapist will also make note of your complaint and the attempted resolution in your file. If you are not satisfied with informal resolution of the complaint, or do not feel comfortable discussing your complaint with the therapist, you may ask to meet with your therapist's supervisor.

7. <u>Assessments:</u> The recipient of assessment services understands that the individual conducting the assessment will choose tests and assessments that are suitable for the described purposes. (In psychological terms, their reliability and validity for these purposes have been established). These tests will be given and scored according to the instructions in the tests' manuals so valid scores will be obtained. These scores will be interpreted according to scientific findings and guidelines from the scientific and professional literature.

8. <u>Therapy Policies:</u> By seeking psychological services at the Tribal Defenders Office, clients agree to make a strong commitment to their treatment and agree to abide by the ascribed policies. As a recipient of psychological services, you are responsible for the following:
   a. Attendance: You are expected to attend scheduled appointments and to arrive on time.
   b. Cancellations & Missed Appointments: Please call as soon as you know you need to cancel an appointment. Twenty-four hours in advance is preferred. If you miss an appointment, please be in contact with your therapist to reschedule.
   c. After Hours Contact: The Tribal Defenders Office is not a crisis facility and your therapist will not be available to you at times. After hours emergency

psychological services can be obtained through contacting Tribal Law & Order or by going to the nearest hospital emergency room.

I hereby acknowledge that the above issues and policies have been fully explained to me and that all of my questions have been answered. I hereby consent to receive psychological services from the Tribal Defenders Office according to these provisions. I also agree to comply with my above-named responsibilities as a client receiving psychological services and understand that my non-compliance may be grounds for the suspension of discontinuation of my treatment:

_____   _____
Signature of Client   Date

_____   _____
Signature of Interviewer/Clinician   Date

Pearson r (Continuous to Continuous Correlations) and Point Biserial (Categorical to Continuous Correlations)

		Age	Gender	Tribe	CM	HLASS ANX DEP	HLASS ANG AVO	HLS TOTAL	CC Connect.	CC Access	CC Particip.	CC Desire	CC Knowl.	CC Total	LSI Total
Age	Pearson Corr.	1	-.053	.117	.092	.094	.039	-.039	.027	.080	-.022	-.002	-.094	.023	-.076
	Sig. (2-tailed)		.389	.058	.136	.153	.559	.551	.687	.225	.738	.976	.153	.731	.220
	N	263	263	263	263	231	232	232	229	229	230	230	231	232	263
Gender	Pearson Corr.	-.053	1	-.029	-.141*	-.156*	-.069	.099	.068	.092	.079	-.104	-.003	.041	-.133*
	Sig. (2-tailed)	.389		.640	.022	.018	.292	.134	.306	.165	.232	.116	.968	.532	.031
	N	263	263	263	263	231	232	232	229	229	230	230	231	232	263
Tribe	Pearson Corr.	.117	-.029	1	-.126*	-.001	.065	-.067	.009	.131*	.114	.025	.003	.083	-.021
	Sig. (2-tailed)	.058	.640		.041	.992	.324	.312	.897	.047	.084	.707	.962	.205	.729
	N	263	263	263	263	231	232	232	229	229	230	230	231	232	263
CM	Pearson Corr.	.092	-.141*	-.126*	1	.185**	.058	-.057	-.055	-.138*	-.123	.033	-.025	-.117	.121*
	Sig. (2-tailed)	.136	.022	.041		.005	.376	.384	.403	.037	.062	.614	.701	.075	.050
	N	263	263	263	263	231	232	232	229	229	230	230	231	232	263
HLASS ANXDEP	Pearson Corr.	.094	-.156*	-.001	.185**	1	.573**	-.413**	-.089	-.105	.001	.119	.135*	-.013	.279**
	Sig. (2-tailed)	.153	.018	.992	.005		.000	.000	.179	.114	.993	.073	.040	.840	.000
	N	231	231	231	231	231	231	231	228	228	229	229	230	230	231
HLASS ANGAVO	Pearson Corr.	.039	-.069	.065	.058	.573**	1	-.599**	-.041	-.034	.104	.202**	.188**	.107	.211**
	Sig. (2-tailed)	.559	.292	.324	.376	.000		.000	.540	.606	.117	.002	.004	.105	.001
	N	232	232	232	232	231	232	232	229	229	230	230	231	231	232
HLS TOTAL	Pearson Corr.	-.039	.099	-.067	-.057	-.413**	-.599**	1	-.090	-.165*	-.305**	-.479**	-.271**	-.368**	-.047
	Sig. (2-tailed)	.551	.134	.312	.384	.000	.000		.174	.012	.000	.000	.000	.000	.474
	N	232	232	232	232	231	232	232	229	229	230	230	231	231	232
CC Connect	Pearson Corr.	.027	.068	.009	-.055	-.089	-.041	-.090	1	.506**	.405**	.223**	.417**	.770**	-.212**
	Sig. (2-tailed)	.687	.306	.897	.403	.179	.540	.174		.000	.000	.001	.000	.000	.001
	N	229	229	229	229	228	229	229	229	227	228	229	229	229	229
CC Access	Pearson Corr.	.080	.092	.131*	-.138*	-.105	-.034	-.165*	.506**	1	.326**	.279**	.354**	.722**	-.095
	Sig. (2-tailed)	.225	.165	.047	.037	.114	.606	.012	.000		.000	.000	.000	.000	.151
	N	229	229	229	229	228	229	229	227	229	228	228	229	229	229
CC Participat.	Pearson Corr.	-.022	.079	.114	-.123	.001	.104	-.305**	.405**	.326**	1	.317**	.375**	.748**	-.066
	Sig. (2-tailed)	.738	.232	.084	.062	.993	.117	.000	.000	.000		.000	.000	.000	.318
	N	230	230	230	230	229	230	230	228	228	230	229	230	230	230
CC Desire	Pearson Corr.	-.002	-.104	.025	.033	.119	.202**	-.479**	.223**	.279**	.317**	1	.183**	.530**	-.106
	Sig. (2-tailed)	.976	.116	.707	.614	.073	.002	.000	.001	.000	.000		.005	.000	.108
	N	230	230	230	230	229	230	230	229	228	229	230	230	230	230
CC Knowl.	Pearson Corr.	-.094	-.003	.003	-.025	.135*	.188**	-.271**	.417**	.354**	.375**	.183**	1	.616**	-.004
	Sig. (2-tailed)	.153	.968	.962	.701	.040	.004	.000	.000	.000	.000	.005		.000	.946

	N	231	231	231	231	230	231	231	229	229	230	230	231	231	231
CC Total	Pearson Corr.	.023	.041	.083	-.117	-.013	.107	-.368**	.770**	.722**	.748**	.530**	.616**	1	-.140*
	Sig. (2-tailed)	.731	.532	.205	.075	.840	.105	.000	.000	.000	.000	.000	.000		.033
	N	232	232	232	232	230	231	231	229	229	230	230	231	232	232
LSI Total	Pearson Corr.	-.076	-.133*	-.021	.121*	.279**	.211**	-.047	-.212**	-.095	-.066	-.106	-.004	-.140*	1
	Sig. (2-tailed)	.220	.031	.729	.050	.000	.001	.474	.001	.151	.318	.108	.946	.033	
	N	263	263	263	263	231	232	232	229	229	230	230	231	232	263

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

APPENDIX I

Phi Correlations for Model Categorical Variables

		Gender	Tribe	CM
Gender	Pearson Correlation	1	-.029	-.141[*]
	Sig. (2-tailed)		.640	.022
	N	263	263	263
Tribe	Pearson Correlation	-.029	1	-.126[*]
	Sig. (2-tailed)	.640		.041
	N	263	263	263
CM	Pearson Correlation	-.141[*]	-.126[*]	1
	Sig. (2-tailed)	.022	.041	
	N	263	263	263

*. Correlation is significant at the 0.05 level (2-tailed).