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# Perceived Stigma as a Function of Social Influence

Anne Thompson  
anne.thompson@uconn.edu

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# Perceived Stigma as a Function of Social Influence

Anne Thompson, M.A.

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## Perceived Stigma as a Function of Social Influence

Presented by

Anne Thompson, M.A.

Major Advisor \_\_\_\_\_  
Shayne Anderson

Associate Advisor \_\_\_\_\_  
Beth S. Russell

Associate Advisor \_\_\_\_\_  
Rachel Tambling

University of Connecticut

2013

## Introduction

Adolescents engage in substance use for several reasons, including poor coping skills, distress or depressive symptoms, poor self-esteem, peer substance use (Huurre, Lintonen, Kaprio, Pelkonen, Marttunen, & Aro, 2009), and parental substance use (Merline, Jager, & Schulenber, 2008). According to the Substance Abuse and Mental Health Services Administration (SAMHSA, 2004), adolescent treatment admissions increased 65% from 1992 to 2002 and in 2009, approximately 1,438,000 adolescents between the ages of 15 and 17 meet the criteria for substance dependence (SAMHSA, 2012). The younger an adolescent begins to engage in substance use, the greater the likelihood of the development of a substance use disorder. Children who start drinking before age of 15 are four times more likely to develop a dependency than if they wait until they are 21; 95% of all adults who have an alcohol dependency started drinking before they were age 21 (Hoffman & Froemke, 2007). This is particularly alarming considering adolescents are engaging in drinking and substance use at increasingly younger ages. “The average age at which a person takes their first drink has slipped from 17 to 14, according to a 2002 Substance Abuse and Mental Health Services Administration (SAMHSA) Survey” (Hoffman & Froemke, 2007, p.90). One consequence of the earlier onset of alcoholism and addiction is that the number of young people entering the world of substance use recovery is rapidly increasing. According to Misch (2009) there were over 1,000,000 college students who met the diagnostic criteria for dependence in the 2008-2009 academic year and it is estimated about 50,000 students in recovery are pursuing higher education in the U.S. (Harris, Baker, & Thompson, 2005). Understanding how adolescents are supported in recovery and the barriers they face are vital to the growth and development of young people in recovery.

There are many pathways to recovery that adolescents may be able to access and use as support systems. Some of these pathways include 12-Step fellowships, other recovery support groups such as Celebration Recovery and SMART Recovery, as well as accessing support through inpatient treatment, intensive outpatient treatment or outpatient treatment such as chemical dependency counseling or family counseling. The various pathways to recovery all have the potential to provide support to an adolescent struggling with a substance use disorder, but they also may present barriers depending on the adolescent's need. For instance, adolescents are the minority in 12-Step fellowships (Harris, Baker, Kimball, & Shumway, 2007). As the minority, adolescents may experience a lack of fit with a 12-Step group (Passetti & White, 2007), they also may feel higher levels of stigma should they feel they were too young to be in a 12-Step Fellowships. Other reasons 12 –Step Fellowships may present a barrier to program engagement for an adolescent is they are bored in the meetings, they feel low motivation to participate, and the external pressures to attend are removed over time (Passetti & White, 2007). Whatever the reason creating the barrier, adolescent attendance at 12-Step Fellowships declines steadily over time (Kelly, Brown, Abrantes, Kahler, & Myers, 2008).

Adolescents who enter into recovery from a substance use disorder have less control over the people, places, and things they affiliate with. Adults seeking recovery may have greater flexibility to change their environments than adolescents. Specifically, adolescents are less likely to have the flexibility to change their social contexts (Moberg & Finch, 2007). If their social environments are not supportive to substance use recovery, these adolescents may be at a higher risk of relapse. If an adolescent is working towards reducing substance use or working on abstaining from use entirely, their school environment, if comprised of substance using peers, may be a high-risk environment.

Struggles adolescents seeking substance use recovery face are likely to include personal organization, planning, problem solving, and other everyday skills. This is because these adolescents were using substances during a critical time in their brain development. Regions of the brain most directly impacted by substance use are the prefrontal cortex region, which governs decision making, judgment, and cognitive, behavioral and emotional regulation, as well as the hippocampus which supports learning and memory formation (Clark, D., Thatcher, D., & Tapert, S., 2008; Tapert, S., Caldwell, L., & Burke, C., 2004/2005). Due to the impact substance use may have had on their brain development; an adolescent in recovery may struggle to catch up with their non-afflicted peers (Hoffman & Frowmke, 2007). Understanding the social influences that help support adolescent substance use recovery, or create barriers to adolescent substance use recovery, is critical in learning how to help these adolescents recover.

### **Role of the Parents**

Parents and guardians play significant roles in adolescent behavior, their perception of substance use, and their peer relationships. Parental influence exists for the timing of adolescent substance initiation as well as the frequency and amount of use (Tang & Orwin, 2009). Parents can either serve as a protective factor for their child in helping to prevent adolescent substance use or create greater risk for substance use initiation and engagement, depending on the parent-child relationship and the actions, behaviors, and values of the parent.

Research indicates adolescents are at greater risk of engaging in substance use behaviors if their parents do, as they are likely to mimic parental drinking habits (Merline, Jager, & Schulenber, 2008). For adolescents whose parents do not use, perception of attitudes towards substance use on the part of the adolescent can still have a considerable influence on whether or not an adolescent engages in substance use. Parents whose attitudes are perceived to be tolerant

towards substance use have a significant and direct influence on the timing of adolescent alcohol and drug use initiation as well as on their frequency of use (Alati, et al., 2011; Bahr, Hoffmann, & Yang, 2005; Ryan, Jorm, & Lubman, 2010; Wood, Read, Mitchell, & Brand, 2004).

Similarly, parents influence adolescents' beliefs, attitudes, and behaviors around any potential change in substance use, including recovery (Richter, Brown & Mott, 1999). The disease of addiction and alcoholism cannot be willed away by parents, but failure to support an adolescent's recovery through healthy actions and decision-making can compound the struggle a recovering adolescent experiences (Winters, 1999). Without parental support for their adolescent's substance use recovery, the home environment may be a high-risk environment for the adolescent: if the home environment is one where substance use is common, recovering adolescents are placed at higher risk. Richter, Brown, and Mott (1999) wrote that an increase in abstinence support results in greater the positive recovery outcomes for the adolescent seeking substance use recovery.

### **Role of Peers and Social Desirability**

Peer relationships are a crucial part of adolescent development. Adolescents help each other develop personal views about themselves through the reactions of others. It is through these reactions that an individual begins to build a sense of self (McAdams & Cox, 2010). Peer support is incredibly influential and can be tremendously supportive for adolescents, but it is the influential nature of peer support that can increase the desire to be socially accepted and promote the engagement in high risk, substance using behavior to achieve social desirability. As part of the developmental process, adolescents create in-groups and out-groups as a way of managing identity development confusion (Erickson, 1963). Forming groups not only helps teens form a sense of who they are through the discomfort of potential of group exclusion, group formation

and maintenance also facilitates social norming by creating groups of teens supporting each other in the development of personal views, values, and ideals. What does not fit the group norm or is considered “different,” is placed in the domain of the out-group. This maintenance of group boundaries is based on the acceptable norms for the group. These norms include the use of substances and the amount of substances being used. Erickson (1963) wrote, “young people can also be remarkably clannish, and cruel in their exclusion of all those who are ‘different’” (p. 262), this exclusion and cruelty may lead adolescents to step outside the protective factors parents have in place to seek peer approval.

The cruelty and exclusion of others promotes peer pressure by amplifying the desire to fit in and be accepted socially (Erickson, 1963). In this paper, peer pressure refers to the pressure adolescents feel to fit in and be socially accepted. Peer pressure felt by an adolescent is experienced differently by each gender. According to Rose and Rudolph (2006), girls look for closeness in peers and seek approval, while worrying about being abandoned by friends and feeling lonely. For adolescent boys, the focus is not on relationship closeness and quality, as it is for girls, but rather on image, popularity and social status (Rose & Rudolph, 2006). These social goals create peer stress, which is defined as the stressful feelings an adolescent experiences as they are trying to achieve their goal of closeness, approval, social status and popularity. This stress is experienced as a result of the peer pressure, the desire to fit in and be accepted, that the adolescent feels. Peer stress for adolescent boys consists primarily of verbal and physical aggression demonstrated in their quest for social status and popularity. Girls, on the other hand, experience stress in seeking out and managing peer support and close friendships (Rose & Rudolph, 2006).



Peer pressure from both close friendships and larger social crowds has been associated with adolescent substance use (Hussong, 2002) and the amount of social pressure increases with the size of the group (Cruz, Emery, & Turkheimer, 2012). Closer friends with higher social status have the greatest influence over substance use patterns (Bot, Engels, Knibbe, & Meeus, 2005; Branstetter, Low & Furman, 2011; Stevens-Watkins & Rostosky, 2010; Tucker, Green, Zhou, Miles, Shih, & D'Amico 2011; Vitaro, Wanner, Mara, Gosselin, & Gendreau 2004). For example, it is the friendships that are perceived as close but unilateral, and not as established, that elicits the greatest change in drinking patterns (Bot, et al., 2005). This directional influence is important as it can be extended to individual's pleasing and purposive drinking; these types of substance use behaviors enhance both the risk of consequences from intoxication (Turner, Bauerle, & Shu, 2004), but also increase the likelihood of developing a SUD (Allen, Litten, Fertig, & Babor, 1997).

The greater exposure to substance using peers an adolescent has, the less influential parental protective factors are (Bahr, Hoffmann, & Yang, 2005; Eitle, 2005). The more drug-using friends an adolescent has, the more likely the individual is to begin substance use themselves, and the greater frequency at which an adolescent's friends use, the greater an adolescent's use will be (Steinberg, Fletcher, & Darling, 1994). These risks are compounded if an adolescent has poor coping resources, distress or depressive symptoms, poor self-esteem, and if their peers are engaging in the behavior (Huurre, Lintonen, Kaprio, Pelkonen, Marttunen, & Aro, 2009).

Peers are influential for each other in recovery as well. As stated above, the more abstinence-focused social support an adolescent has, the more positive the adolescent's recovery outcomes will be (Richter, Brown, & Mott, 1991). For peers, an adolescent in recovery has the

ability to mentor and teach another adolescent what it means to be a young person in recovery. An adolescent can model abstinence for another and teach coping mechanisms for managing high-risk environments (Richter, Brown, & Mott, 1991). This ability for a peer to model abstinence and teach coping skills is similar to the “learner as teacher” concept (Danish, 1997). This concept emphasizes that when someone learning something new is able to teach others what they are learning, that teacher’s knowledge is enhanced. In this regard, peer support for adolescents in recovery is reciprocal. This form of peer support also assists adolescents that struggle in their efforts to maintain their substance use recovery. When adolescents see a return to behaviors associated with their substance use (also known as “using behaviors”) as uncontrollable failures their self-esteem and self-efficacy is diminished, which may increase their risk of relapse (Marlat & Donovan, 2005). Adolescents in recovery seek strength and hope through healthy positive relationships. It is through these relationships peer support can normalize the process of recovery and help the adolescent view the associated behavior as part of the growing process.

Peer-based support for adolescents in recovery continues to increase (Passeti & White, 2007). Peer-based support fosters the development of a recovery community for young people by providing sober recovery building activities (Misch, 2009). These communities provide adolescents with an environment where they are able to meet other adolescents in recovery, learn to socialize without the pressure of substance use, create friendships and provide each other with the support described above. School-based peer support programs are the most common form of these peer based recovery communities with over 60 colleges and universities and over 30 high schools nation wide dedicated to supporting students maintain their recovery and increase their peer support (Moberg & Finch, 2007; The Stacie Mathewson Foundation, 2013). Students in

recovery who have positive peer relationships in school have more positive outcomes in school and in their recovery (Harris, Baker, Kimball, & Shumway, 2007).

### **Stigma as a barrier**

Adolescents whose parents use or abuse substances may face a significant barrier to recovery, as parental use may further normalize substance use and create discrepancies between adolescent and parental behavior thereby increasing levels of stigma the adolescent feels. Similarly, adolescents who are working toward recovery from a substance use disorder may also feel less connected to and less support by their substance using peers. These experiences may lead adolescents to feel less supported by their parents and peers and increase the level of internalized stigma they feel.

Internalized stigma (Livingston & Boyd, 2010) results from an individual's internalized negative feelings about him or herself based on perceptions of negative judgments by others. For an adolescent in recovery, being aware of stereotypes associated with alcoholism and addiction may be enough to negatively affect their self-esteem and self-efficacy (Corrigan, Watson & Barr, 2006). In addition to impacts on self-efficacy and self-esteem, a reduction in feelings of empowerment, hope, quality of life, and social support are all associated with higher levels of internalized stigma (Livingston & Boyd, 2010). Adolescents who suffer from SUDs and enter recovery, they may already experience the feeling of being in the out-group (Erickson, 1963) when relating to their high school or college peers. Indeed, college age, substance-using adolescents reported the fear of missing out on fun experiences because they were not drinking (Laitman & Lederman, 2007). Many young people entering recovery have concerns about finding a peer support network and friends in recovery (Laitman & Lederman, 2007). These recovering adolescents may avoid others out of fear of being looked down on (Lundberg,

Hansson, Wentz, & Bjorkman, 2009), rejected or discriminated against (Baiocco, Laghi, Pomponio, & Nigito, 2012). Once entering recovery, positive peer support becomes increasingly important as it provides a sense of belonging (Harris, Baker, & Cleveland, 2010).

D'Augelli's gay, lesbian, bisexual, and transgender (GLBT) college student development theory parallels the struggles and support needs of students in recovery (Evans, Forney, Guido, Patton, & Renn, 2010). Both groups are socially stigmatized, vulnerable, and in need of support to thrive in their environments. Students in recovery need to internalize what it means to have the disease of addiction, create support groups, and relate to their family and friends. If their parents are using substances or their parents lack explicit expectations or rules for sobriety and substance use, then adolescents may lack the positive support from their families to maintain recovery leading to potentially greater levels of internalized stigma. Having supportive peers can add to or create a buffer against internalizing stigma and substance use relapse, as well as promote recovery success and success in other areas of the adolescent's life. Data from Texas Tech's Center for the Study of Addiction Recovery, that houses one of the oldest and largest collegiate recovery communities in the country, states "available data suggested that those students who have positive peer relationships have positive behaviors and outcomes in schools" (Harris, Baker, Kimball, & Shumway, 2007, p.224).

Social desirability indicates how individuals view the acceptability of their behavior in relation to others (McElhaney, Antonishak, Allen, 2008). During adolescence, peer relationships are significant in supporting development of autonomy (Collins, et al., 1997), as these relationships promote an increased sense of self (McAdams & Cox, 2010). Peers help adolescents develop through social-norming and shared experiences. Conversely, the more internalized stigma an adolescent feels, the less socially desirable they feel and the less social

support they perceive (Livingston & Boyd, 2010). Laitman and Lederman (2007) documented difficulties experienced by students in addiction recovery, such as internal battles with age and feeling too young to stop using substances, particularly when peers were, and concern with finding a peer support network. Having peers in recovery helps students keep a healthy balance by easing social anxiety and allowing students to focus on their recovery and education. Few studies have examined the impact of parental and peer influence, perceived social desirability and stigma on adolescents recovering from substance use disorders – the present study sought to fill this gap in the literature. It is our hypothesis that greater influence of peers will relate to higher levels of social desirability and reduce stigma.

## **Methods**

### **Participants**

This study is part of a larger study conducted at three recovery high schools in Massachusetts. For this study, a total of 28 participants were selected Liberty Preparatory Academy (LPA) in Springfield. All participants were required to be enrolled in the school and were invited to participate by a recovery school principal or counselor. LPA is a public day school and provides necessary criteria for students to receive a high school diploma. Recovery high schools may be private, charter or public schools. As a public school, LPA does not have some of the freedoms to set higher expectations that charter schools or private schools may set regarding abstinence. As such, LPA uses a harm reduction model, which identifies an adolescent's motivation for change and helps reduce substance use and reduce risk, while working toward a goal of abstinence. LPA recommends student have 30 days in recovery, but will accept student if they have less than 30 days if they express a willingness to become clean

and sober, acknowledge their alcohol and drug problems, and make a commitment to participate in school recovery activities.

### **Measures**

Four scales were used in this study to measure demographic information, social desirability, parent and peer influence, and stigma. A demographic measure was used to obtain information about participants self reported sobriety date, age, gender, drug of choice, family history of substance use, and legal guardianship.

Social desirability was measured using Crowne and Marlowe's (1960), 33-item scale of social desirability. This social desirability scale measures the agreement participants have with socially desirable behaviors. Participants are instructed to respond to items using T, for true and F, for false. Some of the items included statements such as, "I like to gossip at times," "I always try to practice what I preach," "I am always willing to admit it when I make a mistake," and "I sometimes feel resentful when I don't get my way" (Crowne & Marlowe, 1960). Internal consistency for the measure is reported at .88 and the test-retest reliability was a .89 (Crowne & Marlowe, 1960). Eighteen of the 33-items were reverse coded. Higher scores corresponded with greater levels of agreement with socially desirable behaviors and may indicate a bias to report or emphasize socially desirable responses.

The Parent and Peer Influence (PPI) Scale developed by Werner-Wilson and Arbel's (2000), is a 17-item scale that measures the degree to which an adolescent is influenced by their parents or their peers. The PPI addresses the following topics of influence: general values, basic beliefs, dating, sexuality, alcohol and substance use, and political beliefs (Werner-Wilson & Arbel, 2000). Items were answered using a likert scale from one to seven). The alpha coefficient of these items is .75, which suggests a high degree of internal consistency (Werner-

Wilson & Arbel, 2000). In scoring the measure, seven items were reverse coded and totaled. Lower scores indicated higher parental influence with a median split cutoff.

Perceived stigma was measured using Ritsher, Otilingam, and Grajales's (2003), Internalized Stigma of Substance Abuse (ISSA) scale, containing 29 Likert items. The ISSA measures the subjective level of internalized stigma for an individual with a substance use disorder (Ritsher, Otilingam, & Grajales, 2003). Of the 29 items there were five subscales, alienation, stereotype endorsement, discrimination experience, social withdrawal, and stigma resistance. All items were answered using a four point likert scale. The alpha coefficient for this scale is a .90, which suggests a high level of internal consistency (Ritsher, Otilingam, & Grajales, 2003). The stigma resistance subscale is reverse coded and then totaled with the additional subscales. The higher the total score, the greater level of internalized stigma indicated by the participants. Scores are totaled and divided by the number of items, in this case, by 29, as all subscales were included. A resulting average between 1-2 indicates minimal to no internalized stigma, 2.01-2.5-mild internalized stigma, 2.51-3-moderate internalized stigma, and 3.01-4-severe internalized stigma (Ritsher, Otilingam, & Grajales, 2003).

### **Demographics**

Student participants were between the ages of 16 and 18 years old. There were a total of 28 participants, 13 students identified as male and 15 identified as female. Students were asked to report their most recent sobriety date, who is their legal guardian, number of siblings, their drug of choice, family history of substance use disorders (SUDs), knowledge of substances used by guardians, and their reason for attending the recovery high school.

### **Procedures**

Students were recruited to participate in the study by the school principal. In groups of five, students were prompted to complete the measures using online survey software (Survey Monkey) to collect and store the data anonymously. Surveys took students approximately 15-20 minutes to complete. Ten-dollar gift cards were provided to students as incentives and distributed by the principle at the end of the day.

## **Results**

### **Demographics**

During data collection, there were 46 students enrolled at LPA, the 28 participants represented 100% of those in attendance at the time of data collection. Due to the sample size, it was reasonable to expect the results to be underpowered, therefore, we adjusted significance for all results presented here to  $p < .1$ . The student population at LPA consisted of students with the following ethnic background: 35% Caucasian/non-Hispanic; 9% African American; 54% Hispanic; 2% were multi-racial. Of this sample, 87% received free or reduced lunch, 13% spoke English as a second language, and 50% were considered to have exceptional education needs. Detailed demographics are presented in table 1.

### **Descriptive results by measure**

Descriptive results were run for each of the three measures, the PPI, SDS, and the ISSA. The average score for the PPI was 66.76, with a standard deviation of 11.677. Scores ranged from 52 to 105. These results indicate slightly higher influence by peers because the average score is higher than 59.5, the median score for the measure (Werner-Wilson & Arbel, 2000). Descriptive results for the PPI are presented in table 2. The average score for the SDS was 48.83, with a standard deviation on 4.539. Scores ranged from 36 to 59. These results indicate participants may be concerned about social approval and have a bias toward socially desirable



agreement based on a high score range for the measure from 40-66 (Crowne & Marlowe, 1960). Descriptive results for the SDS are presented in table 3. The average score for the ISSA is 2.32 in this sample, with a standard deviation of .515. Scores ranged from 1.45 to 3.48. According to the measure's authors, interpretation of these results indicates mild levels of internalized stigma, as they are within the range of 2.01 to 2.5 (Ritsher, Otilingam, & Grajales, 2003). Descriptive results for the ISSA are presented in table 4. Correlations were run to identify linear relationships between measures. Results show no significant correlations between the PPI, SDS, ISSA, and months of sobriety, suggesting no linear relationship between the measures. Correlations for the measures are presented in table 8.

Additional demographic variables, as presented in table 1, include 57% of participants reported a family history of substance use disorders. There are 13 male and 15 female participants in this sample. The average age of the participants is 16.93 years, with a standard deviation of .9. Ages ranged from 15 to 18 years as presented in table 5. Participants reported their drugs of choice as presented in table 7. Cigarettes (57.1%), alcohol (53.6%), marijuana (82.1%), and prescription drugs (21.4%) were the most commonly abused substances. Results indicate participants are poly substances users, identifying more than one substance as their preferred drug of choice.

### **Group Differences**

An independent t-test was run to examine gender differences for the ISSA (Ritsher, Otilingam, & Grajales, 2003), SDS (Crowne & Marlowe, 1960), and PPI (Arbel, 2000). Results indicate there is a significant difference between gender and PPI ( $t=-2.031$ ,  $p=.054$ ). On average, females scored 8.99 points higher on the PPI, as presented in Table 10. This suggests female participants are more influenced by peers than by their parents.

As noted in table 1, 64% of this sample report that one or both of their parents have legal guardianship, 36% report non-parental guardianship including kin-care and foster care, as presented in table 6. It was worth exploring these group differences based on this important social contextual factor. To test for group differences we ran independent t-tests with the PPI, SDS, ISSA, and length of sobriety in months. Results indicate a significant relationship between parental guardianship and the PPI ( $t = -1.59, p = .1$ ) and a significant relationship between parental guardianship and the SDS ( $t = -1.57, p = .1$ ). There were no significant results between parental guardianship and the ISSA ( $t = -.931, p = .362$ ). These results suggest that participants with parental guardians are less influenced by their peers than adolescents with non-parental guardians. These results also suggest participants with parental guardians show lower levels of agreement with socially desirable behaviors. No significant results were found between parental guardianship and length of sobriety in months ( $t = -1.465, p = .155$ ). However, the mean length of sobriety in relation to parental guardianship is worth noting. Results show participants who live with parents averaged 1.89 months of sobriety, those with non-parental guardians averaged 5.70. These group differences are presented in table 9.

An ANOVA was run to compare group differences between age and the ISSA (Ritsher, Otilingam, & Grajales, 2003), SDS (Crowne & Marlowe, 1960), PPI (Arbel, 2000), as presented in Table 3. There were no significant differences found between groups. No significance was observed between family history of substance use disorders and ISSA, SDS, and PPI.

A linear regression was run to further examine linear relationships between ISSA, SDS, PPI and the demographic characteristics of this sample. Age and gender were not significant predictors of the ISSA scores. Age and gender explained 4.6% of variance in the ISSA scores.

A linear regression with ISSA on SDS (Crowne & Marlowe, 1960), PPI (Arbel, 2000), gender and age showed no significant relationship between variables.

### **Discussion**

Lack of high school specific research pertaining to student's recovery from substance use disorders highlights the importance of conducting research with this population. It was hypothesized that adolescents with higher levels of peer influence will also report higher levels of social desirability and reduced stigma. No statistical significance was found to support this hypothesis. Due to the small sample size, there was not enough statistical power to pick up significant differences in the analyses.

There were significant group difference results for the PPI. Specifically, results demonstrated greater female alignment with peer influence. This finding is consistent with the literature which indicates that females have a greater investment and focus on their peer relationships with the goal of closeness and approval (Rose & Rudolph, 2006). The pressure experienced by these adolescents to achieve popularity, closeness, positive image, and social acceptance may have influenced their substance use, and likely remain an influence once in recovery considering these adolescents are now at risk of being placed in an "out-group," and may further desire a sense of belonging which supportive peers can provide (Harris, Baker, & Cleveland, 2010).

No statistical significance was found in the regression of age and gender on PPI (Arbel, 2000), SDS (Crowne & Marlowe, 1960) or ISSA, (Ritsher, Otilingam, & Grajales, 2003). This could be for several reasons. From a theoretical perspective, the PPI examines the level of influence parents and peers have on an adolescent. . There are multiple considerations when examining parental and peer relationships. Parenting style is one consideration, specifically the

level of warmth provided by a parent, which consists of how involved they are, how accepting, sensitive, and responsive they are to their child's needs (Ryan, Jorm, & Lubman, 2010). Parents could also relay on greater levels of parental control with greater levels of monitoring, discipline, power and authority (Eitle, 2005; Tang & Orwin, 2009).

Further, the PPI (Arbel, 2000) uses a median split to measure values and beliefs as influenced by parents and peers on a dichotomous scale. Participants' beliefs and values may be equally aligned with parents as they are with their peers considering about 60% of the participants' report family history of substance use. Parental substance use is also more likely to influence their adolescent's perception of risk, acceptability, and normalization (Brook, Kessler, & Cohen, 1999). The PPI measures the strengths of two opposing social influences, peers and parents. For this population these two opposing social influences may not be opposing at all.

How the adolescent aligns their values and behaviors socially may also be influenced by personal characteristics of the adolescent. Huurre, et., al. (2009), wrote of multiple adolescent characteristics such as coping skills, distress or depressive symptoms, and self-esteem levels, as predictors of adolescent substance use. Therefore, it is difficult to tell what contributes to the adolescent's experience and to their relationships with their parents and peers. Substance using adolescents are unlike the typical adolescent population in their experiences as they relate to substance use, so there is the possibility the decisions are not going to be influenced by parents and their peers to the same extent as their non-substance using peers.

An interesting finding by Oyserman (1993) reported substance abusing youth might feel uninfluenced by both peers and parents. If an adolescent's parent or guardian is using substances, the behavior may seem normative, and therefore an adolescent's use may appear normative to the adolescent and the guardian and provide the adolescent with a sense of freedom

and independence that is associated with lack of parental influence. Substance abusing adolescent whose parents stress non-using parental values, may feel less parental alignment and influence as a result of their rebelling against parental values. It is likely adolescents seeking recovery from substance use disorders were influenced by their peers initially. Adolescents who use substances to achieve social acceptance are more likely to be high risk users, meaning they are at greater risk of consequences from intoxication (Turner, Bauerle, & Shu, 2004). Using substances to achieve social acceptance also increase the likelihood of developing a SUD (Allen, Litten, Fertig, & Babor, 1997), which was experienced by the participants in this study. However, throughout the adolescent's use, he or she may have begun to feel less influenced by their peers and perhaps more influenced by the substances they were using.

Adolescents in recovery from a substance use disorder may also feel cut off from their non-substance using peers. The "in-group" and "out-group" process of social norming (Erickson, 1963), is constant with the finding that reported substance abusing adolescents feel more cut off from their non-substance abuse peers (Oyserman, 1993). The feelings of being cut off from non-abusing peers may also contribute to a substance using adolescent's decreased level of overall peer influence (Oyserman, 1993).

Oyserman's (1993) finding, which stated the influence parents and peers have on substance abusing adolescents is less than on non-substance abusing adolescents, is an important consideration when discussing the PPI (Arbel, 2000) results. Adolescents in recovery from substance use disorders may not experience parent and peer influence the same way as their non-afflicted counterparts. If influence is experienced, it is most likely from peers (Oyserman, 1993), which is consistent with the findings presented above.

Finding no statistical significance between age and gender on SDS (Crowne & Marlowe, 1960) is likely due to the lack of statistical power of such a small sample size. The measure of social desirability used measures an adolescent's perceived general social acceptability for his or her own behavior. As stated above, social desirability is based on individual self image in relation to others (McElhaney, Antonishak, Allen, 2008). In this regard, peer support is incredibly influential in how an adolescent views their behavior. The desire to fit in will influence and shape an adolescent's behavior to make it more socially acceptable, more socially desirable (Erikson, 1993). It is also probable that adolescents with a history of substance use disorders may differ from their non-substance using peers in how they achieve social desirability. These adolescents are likely using to achieve social acceptance and friendships, valuing that over the larger cultural values for adolescent sobriety. If parents and guardians use substances as well, substance use may be easier to normalize and to be perceived as acceptable.

As stated above, greater levels of internalized stigma are related to reduced feelings of social desirability and social support (Livingston & Boyd, 2010). No statistically significant results were found with age and gender on the ISSA in this sample (Ritsher, Otilingam, & Grajales, 2003), which is also likely a result of small sample size. Many pathways to recovery may rely on practices that do not engage substance-abusing teens well. For instance, many substance abuse treatment facilities utilize 12-Step philosophies and encourage 12-Step participation post treatment. Adolescents are the minority in 12-Step fellowships (Harris Baker, Kimball, & Shumway, 2007) and as a result adolescents attendance at 12-Step meetings steadily decline overtime (Kelly, Brown, Abrantes, Kahler, Myers, 2008). This decline is caused by

factors including the adolescent feeling stigmatized as a result of being so young resulting in a lack of fit with the group (Passetti & White, 2007).

As stated above, there were no statistically significant results found between parental guardianship and the ISSA, or sobriety date in months. It was interesting to note that adolescents with non-parental guardians report longer sobriety on average than those with parental guardians. If an adolescent's guardianship changed as a result of parental substance use, the change may provide a more supportive environment for the adolescent and help facilitate substance use recovery for that adolescent.

The significant relationships between parental guardianship and the PPI and SDS suggest that participants with parental guardians are less influenced by their peers than those non-parental guardians. Adolescent with non-parents guardians may lack parental influence resulting in a greater influence by peers. These results also suggest participants living with parents show lower levels of agreement with socially desirable behaviors; this may be due to parental behaviors creating a norm for behaviors deemed socially desirable as discussed above.

### **Limitations**

This data was part of a larger study with three recovery high schools in Boston. On average, recovery high schools have between 12-25 students enrolled at a time (Moberg & Finch, 2007), resulting in small numbers of participants available at any one site or in any single community. Data was collected at three sites, but due to technical difficulties and scheduling constraints, data on the ISSA (Ritsher, Otilingam, & Grajales, 2003) was only collected in its entirety at LPA, reducing the sample size considerably. Due to the sample size and the age of the population, participant anonymity was important, preventing additional demographic

information, such as race, ethnicity, socio-economic status, religious affiliations, and sexual orientation from being collected.

### **Implications**

Given that so little work is done with this population, further work is needed to better understand the needs of high school aged adolescents in recovery. Next steps might focus on the identity development of adolescents who have struggled with substance use disorders. As one enters into recovery as an adolescent, in a state of identity diffusion (Erickson, 1963), one must recover from substances while exploring their identity. Further research is needed to determine the influence of recovery, the meaning it has, to an adolescent, on their identity. To do this, research needs to be done to further understand the social influences that influence the sense of self for adolescence in recovery. This goal will be served best if followed up with a study with a larger sample that can use the ISSA (Ritsher, Otilingam, & Grajales, 2003) to help gauge what these young people are internalizing and believing about themselves.

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Table 1

Variable	N	Mean
Age	28	16.93 (SD .900)
Gender		
Male	13 (46.4%)	
Female	15 (53.6%)	
Lengths of Sobriety (In months)	28	3.25 (SD 6.736)
Legal Guardian		
Mother	12 (42.9%)	
Father	2 (7.1%)	
Mother & Father	4 (14.3%)	
Grandparent(s)	2 (7.1%)	
Foster Parent(s)	7 (25%)	
Other Relative	1 (3.6%)	
Number of Siblings	28	4.04 (SD 2.874)
Drug of choice		
Smoke Cigarettes	16 (57.1%)	
Alcohol	15 (53.6%)	
Marijuana	23 (82.1%)	
Prescription Drug	6 (21.4%)	
Cocaine or Crack Cocaine	4 (14.3%)	
Hallucinogens	2 (7.1%)	
Heroin	1 (3.6%)	
Selling	1 (3.6%)	
Family history of SUD		
Yes	16 (57.1%)	
No	12 (42.9%)	

Table 2

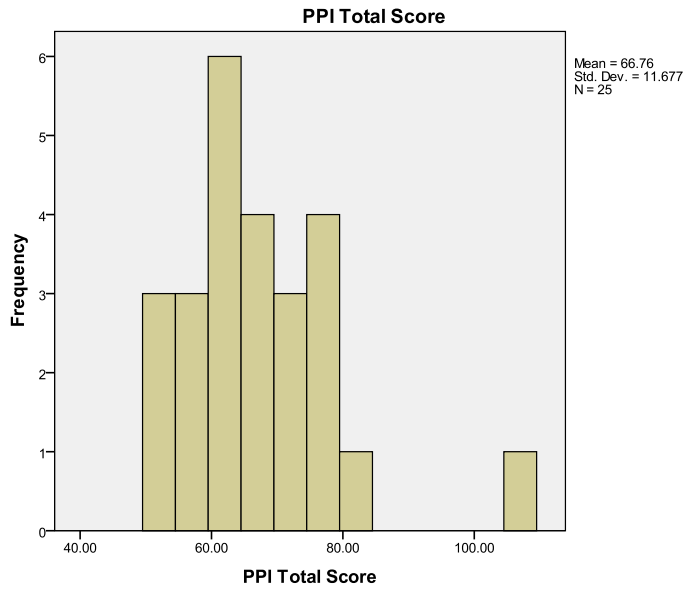


Table 3

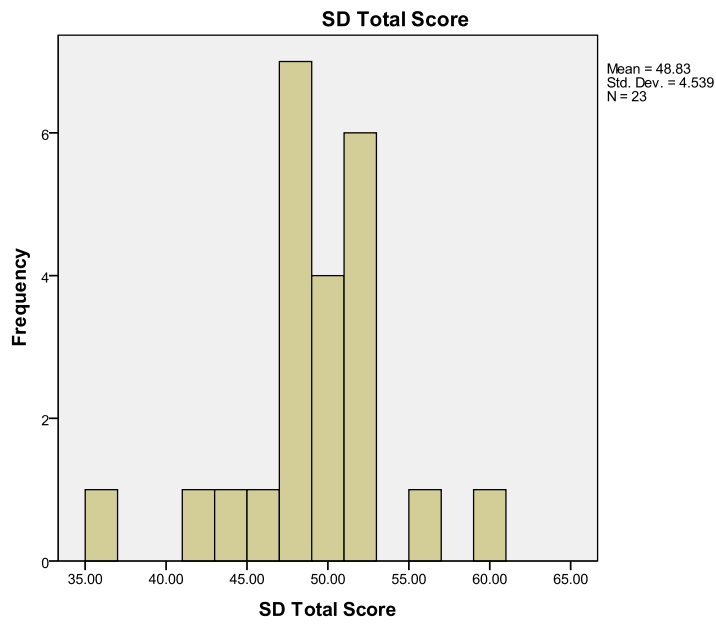


Table 4

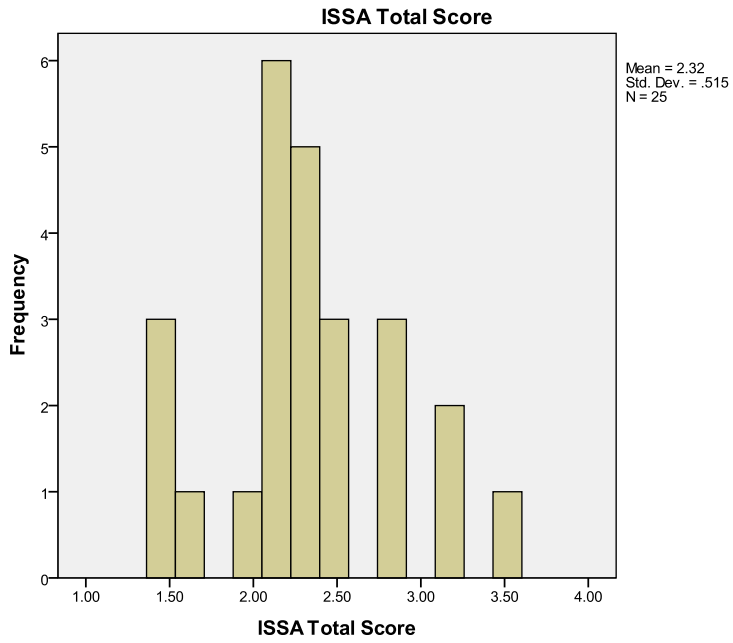


Table 5

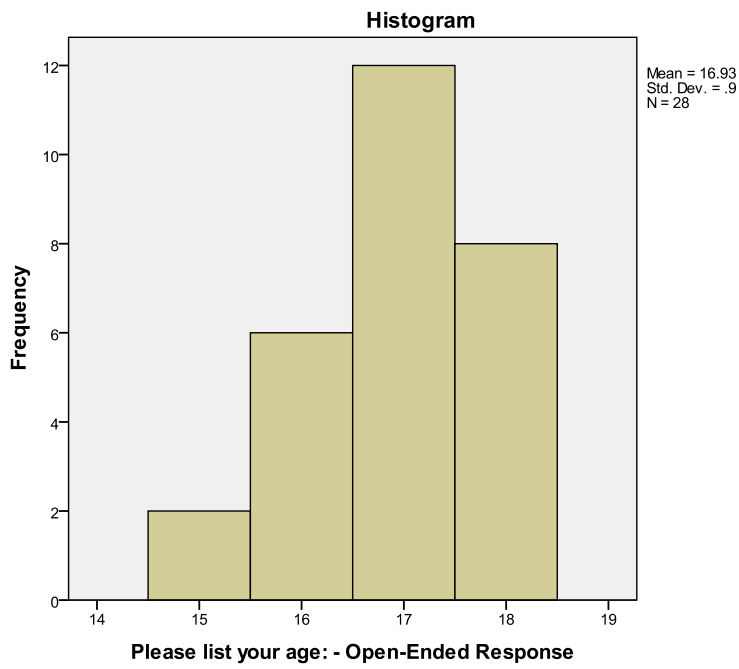


Table 6

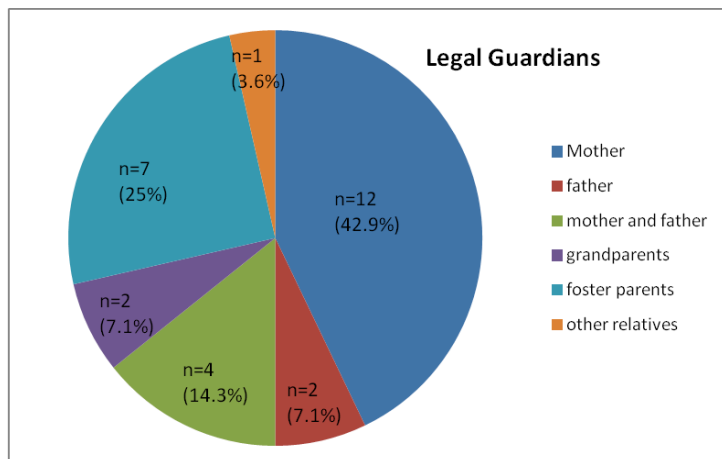


Table 7

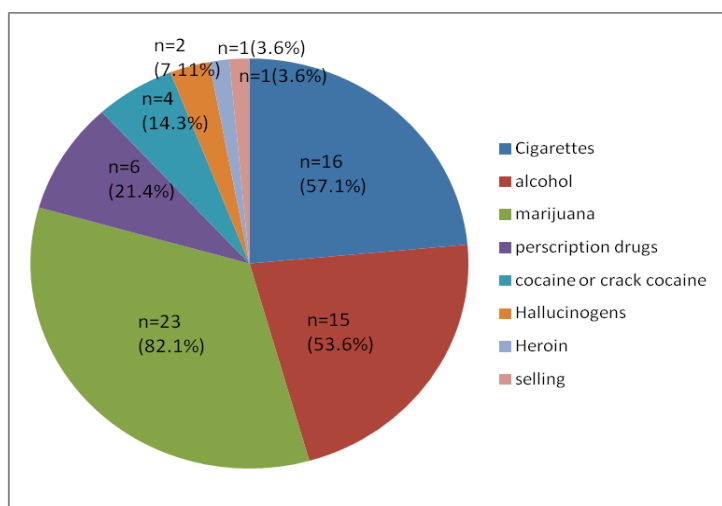


Table 8

		ISSA Total Score	SD Total Score	PPI Total Score	Sobriety dates in months
ISSA Total Score	Pearson	1	.074	.260	-.062
	Correlation				
	Sig. (2-tailed)		.744	.231	.770
	N	25	22	23	25
SDS Total Score	Pearson	.074	1	-.432	-.014
	Correlation				
	Sig. (2-tailed)	.744		.057	.948
	N	22	23	20	23
PPI Total Score	Pearson	.260	-.432	1	.273
	Correlation				
	Sig. (2-tailed)	.231	.057		.187
	N	23	20	25	25
Sobriety dates in months	Pearson	-.062	-.014	.273	1
	Correlation				
	Sig. (2-tailed)	.770	.948	.187	
	N	25	23	25	28

Table 9: Group differences by parental-non-parental guardianship

1=parental 2=non parental	<b>T</b>	<b>M</b>	<b>SD</b>	<b>p</b>
<b>ISSA</b>	-.931	2.2478 2.4483	.10221 .22473	.362
<b>PPI</b>	-1.587	64.2941 72.0000	1.95870 5.83401	.126
<b>SDS</b>	-1.569	47.8750 51.0000	1.15425 1.43095	.132
<b>Length of Sobriety (M)</b>	-1.465	1.89 <b>5.70</b>	<b>4.042</b> <b>9.742</b>	.155



Table 10: Group differences by gender

1=male, 2=female	<b>T</b>	<b>M</b>	<b>SD</b>	<b>p</b>
<b>ISSA</b>	-1.056	2.1975	.39107	.302
	-1.109	2.4163	.59164	.279
<b>PPI</b>	-2.031	61.7273	7.18458	.054
	-2.173	70.7143	13.18174	.041
<b>SDS</b>	-.262	48.5833	3.14667	.796
	-.256	49.0909	5.85584	.802

Table 11: Group differences by age

	<b>F</b>	<b>M</b>	<b>SD</b>	<b>p</b>
<b>ISSA</b>	.385	2.3200	.51537	.765
<b>PPI</b>	.085	66.7600	11.67719	.968
<b>SDS</b>	.321	48.8261	4.53924	.810

Table 12: Group differences by family history of substance use disorder

	<b>T</b>	<b>M</b>	<b>SD</b>	<b>p</b>
<b>ISSA</b>	-.438	2.2759	.61104	.665
<b>PPI</b>	.332	67.5833	8.82618	.743
<b>SDS</b>	-.535	48.3333	5.48276	.598