BSc in Psychology

The Prevalence of Trauma and Post-Traumatic Stress Disorder among Individuals Who Seek Treatment for Substance Abuse

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Foreword

Submitted in partial fulfillment of the requirements of the BSc Psychology degree, Reykjavik University, this thesis is presented in the style of an article for submission to a peer-reviewed journal.

Abstract

This study was conducted to examine the prevalence of trauma and post-traumatic stress disorder among individuals who seek treatment for substance abuse. A sample of 132 participants was enrolled, where 88 were psychology and preliminary department students from Reykjavik University. The comparison group consisted of 43 participants that were on a waiting list for substance abuse treatment at Teigur. The results provided support for all three hypothesis in the study. Participants in substance abuse treatment had experienced 5.2 traumas on average while participants in the comparison group had only experienced 2,1 trauma on average. In excess of 70% in the substance abuse group met the criteria for PTSD symptoms, whereas only 13% met the criteria in the comparison group. Of those participants who had been sexually assaulted, 61.5% met criteria for PTSD compared to 36.4% who had experienced other types of trauma. It is concluded that individuals with substance abuse problems are in more danger of encounter in traumatic situation and developing PTSD rather than healthy population. That indicates that there is a need for attention to individuals in substance abuse treatment and it would be interesting to examine how well trauma predict substances later on in life.

Keywords: PTSD, Substance Abuse, Trauma

Útdráttur

Þessi rannsókn var framkvæmd til þess að kanna algengi áfalla og áfallastreituröskunar hjá einstaklingum í meðferð á fíknigeðdeild. Notast var við úrtak af 132 þátttakendum, þar sem 88 þátttakendur voru sálfræðinemar og nemar við frumgreinadeild Háskólans í Reykjavík. Í rannsóknarhópnum voru 43 þátttakendur á biðlista fyrir fíknimeðferð á Teigi fíknigeðdeild. Niðurstöðurnar studdu allar þrjár tilgáturnar sem lagðar voru fram í rannsókninni. Þátttakendur í fíknimeðferð höfðu upplifað að meðaltali 5,2 áföll miðað við þátttakendur í samanburðarhópnum höfðu einungis upplifað 2,1 áfall að meðaltali. Um það bil 70% af fíknihópnum mættu skilyrðum fyrir áfallastreituröskun, en einungis 12,6% í samanburðarhópnum mættu þeim skilyrðum. Af þeim þátttakendum sem höfðu lent í kynferðislegu ofbeldi, uppfylltu 61,5% skilyrðin fyrir áfallastreituröskun, samanborið við 36,4% sem upplifað höfðu aðrar tegundir af áfalli. Þessi rannsókn sýndi að einstaklingar með vímuefnavandamál væru í meiri hættu á að lenda í áfalli og þróa með sér áfallastreituröskun heldur en samanburðarhópurinn. Það gefur til kynna að þörf sé á að veita einstaklingum í fíknimeðferð athygli og væri áhugavert að rannsaka hversu vel áfall spáir fyrir um vímuefnaneyslu síðar meir.

The Prevalence of Trauma and Post-Traumatic Stress Disorder among People Who Seek Treatment for Substance Abuse

Trauma has been defined as an emotional response to a terrible event (American Psychiatric Association, 2013). Instantly after the event, shock and denial are normal reactions. Longer term reactions involves unwanted emotions, flashbacks, tension relationships and even physical symptoms. Additionally, trauma can also include witnessing a trauma, hearing about trauma with someone close to you, or being constantly exposed to trauma during work. It is different how people experience events and respond to them, and an event that is traumatic to one person might not be traumatic to another person (Black, Woodworth, Tremblay & Carpenter, 2012). Trauma is a response to an event that is causing the individual so much stress, that normal coping is not sufficient to cope (Trippany, White Kress & Wilcoxon, 2004). Among the most extreme shocks are those which are unexpected, arbitrary and without any understandable purpose. People can face a variety of shocks in their lifespan like sexual abuse, physical assault, natural disasters, school and work-related violence as well as domestic violence.

The relationship between trauma and substance use has been widely studied (Brady, 2001). Substance use disorders are very common among patients with PTSD and show high rates of comorbidity (Jacobsen, Southwick, & Kosten, 2001; Reynolds et al., 2005). Studies have shown that about 25-45% of individuals who are alcohol and drug abusers meet the diagnosic criteria for PTSD (Bonin et al., 2000; Dell' Osso et al., 2014). Up two two-thirds of individuals who are diagnosed with both substance use disorder and PTSD, substance use disorder followed after their most traumatic event (Khantzian, 1997). In Brown's and colleges study (1995), they investigated 48 male and 36 female in a substance-abuse treatment program. They found that females were more likely than males to have been sexually abused (25% vs 4%), and abused physically (31% vs. 6%). Studies have repeatedly found that males

and females differ in their risk of Post-traumatic Stress Disorder after trauma (Ditlevsen & Elklit, 2012; Tolin & Foa, 2006).

Two main hypotheses have been suggested to explain this high comorbidity. The first hypothesis is that substance abuse precedes PTSD (Brady, 2001; Leslie, Steven & Thomas, 2001; Raghavan & Kingston, 2006). Because of many substance abusers' way of life, they are more likely to be in dangerous situations and therefore they can experience trauma frequently. According to that hypothesis people who have experienced traumatic life events use substances as a form of self-medication to cope with traumatic memories, sleep disturbance, and other painful symptoms. This pattern may apply when trauma that leads to PTSD occurs during adulthood (Brady, 2001; Leslie, Steven & Thomas, 2001; Raghavan & Kingston, 2006).

As the second hypothesis reveals, individuals who experienced trauma are more likely to use drugs as a coping strategy (Brown, Read & Kahler, 2003). Coping strategies people use after experiencing trauma can have both positive and negative affects. Going to therapy is an example of positive coping, that involves reducing the impact of negative emotions that arise as a result of trauma (Austenfeld & Stanton, 2004). Negative coping includes strategies that prevent a person from getting better, like drug abuse. Negative coping can affect the development of substance abuse and PTSD (Brown et al., 2003). People who live with the consequences of trauma tend to use alcohol and drugs to numb the pain that follows the reminiscences of the event (American Psychiatric Association, 2013). By using drugs to suppress the pain, people feel they have greater confidence, less anxiety and less indisposition. That way people can see drugs as a solution to their problems, rather than seek some assistance. However, this mind set prevents recovery when looking at longer terms. It prevents the use of positive coping strategies and mental process about the trauma.

Studies have shown that individuals who experience a traumatic event in their life are at a higher risk of getting involved in substance abuse than others (Covington, 2008; Emmerson, 2011; Marich, 2009; Miller, 2012). In Giordano's study (2016) they found that 85.12% of 121 adults in outpatient substance abuse treatments had experienced at least one trauma in their life. They also found that more females reported that they had experienced sexual abuse and more males reported witnessing violence which is in accordance with other sudies (Buzi, Weinman & Smith, 2007; Ompad et al., 2005).

A study by Langman and Chung (2012) examined two groups. The first group included drug addicts and the second group consisted of individuals who were not drug addicts. The study revealed that the drug addicts group announced much more trauma than the control group. Of those in the drug addicts group, 95% reported a traumatic experience, 77% reported three or more traumatic experience, and 78% had experienced physical or sexual abuse in childhood. In the control group, 27% had experienced a trauma due to sudden death of a loved one, 21% because of accidents and 17% of assaults. This study by Langman and Chung among other studies shows that prevalence is much higher among individuals with drug addiction rather than individuals who have not been involved with drugs.

The consequences of trauma can be serious, such as the development of PTSD (Gerge, 2010). Post-traumatic stress disorder (PTSD) is a psychological response to major crises that last at least one month and include strong fear, helplessness or horror (Wade & Tavris, 2010). A person with PTSD often has difficulties sleeping, is always on alert and has difficulties with concentraiting. This person avoids situations and events that recall the trauma and it's very common that the a person re-experiences the trauma repeatedly, through dreams or flashbacks (Wade & Tavris, 2010). The experience of trauma can also lead to the development of other disorders including anxiety disorders, stress symptoms and depressive symptoms (Foa, Keane, Friedman & Choen, 2009). Therefore it is important to work

immediately with the trauma so it does not lead to long-term problems (Levine & Frederick, 1997).

The prevalence of developing PTSD are different for various of trauma (Domhardt, Münzer, Fegert & Goldbeck, 2015). Most people do not develop PTSD after a trauma even though these individuals did not get any kind of treatment follow the trauma. It depends on their personality and the type of trauma. People also have different coping strategies to manage their problems. It is important to have good protective factors to help people to resilience, such as social support, family support and education (Domhardt, Münzer, Fegert & Goldbeck, 2015). However, some people develop PTSD after a trauma. In Davey's book (2014) he found out that people who have been raped experience PTSD in 90% of cases, people who have been tortured experience PTSD in 50% of cases, earthquakes and floods in 20-25% cases and car accidents in about 15% cases (Davey, 2014). Individals who have experienced sexual abuse are also more likely to engage in substance abuse (Asberg & Renk, 2013). Both genders will generally come across similar amounts of trauma experiences in their life but a lot more trauma is related to sexual abuse when it comes to females (Bonin, Norton, Asmundson, Dicurzio & Pidlubney, 2000; Danielson et al., 2009; Ouimette, Kimerling, Shaw & Moss, 2000).

Trauma in childhood can lead to substance abuse later on. When children are traumatized, they show increased emotional reactions, including sensitivity, fear and guilt (Dyregrov, 2010). They also show signs of anger and sadness and can have difficulties with social relationships. The most serious consequences of trauma in children are after sexual- and physical abuse (Cusack, Grubaugh, Knapp & Frueh, 2006), but sexual abuse in childhood can lead to emotional problems and impaired social abilities in adulthood (Ullman, Townsend, Filipas & Starzynski, 2007). Chronic incidents of violence on children can have extensive consequences for health and could appear later as stress symptoms, suicide

attempts, alcohol and drug use, along with chronic depressive and anxiety symptoms (Tanaka, Wekerle, Schmuck & Paglia-Boak, 2011).

A study by Asberg and Renk (2013) showed that individuals who have been sexually abused are more likely to show psychological and physicial symptoms and are more liable to engage in substance abuse. When looking at studies examining the association between sexual abuse, mental disorders and substance abuse, most findings shows that sexual abuse has a negative effect on an individuals' future (Freeman, Collier and Parillo, 2002; Johnstone et al., 2009). Research by Ompat et al. (2005) showed that experiencing a stressor like sexual abuse in childhood might be a cause of substance abuse in adolescents. It follows that, adolescents' substance use can be an easy way to avoid unpleasant thoughts that childhood sexual abuse brings and escape their environment (Lansford et al., 2008).

The current study was conducted to examine the prevalence of PTSD and trauma among people who seek treatment for substance abuse compared to healthy population. Studies shows that individuals with substance abuse problems have experienced more trauma than healthy population and therefore the first hypothesis put forward is that participant at Teigur treatment center have experienced more trauma than healthy population. Second, research claims that not everyone who experiences trauma gets PTSD symptoms. Therefore, we compared participants who had experienced trauma at Teigur treatment center and participant in the comparison group and examined whether there are differences in prevalence of PTSD symptoms. Therefore, the second hypothesis was that more participants at Teigur have PTSD symptoms. Third, we examined the variety of trauma among those who had PTSD symptoms. The third hypothesis stated that participants who had been sexually assaulted are more likely to develop PTSD symptoms compared to those who had experienced other types of trauma.

Method

Participants

This experiment was conducted on participants at Teigur treatment center and students at Reykjavik University in Iceland. The substance abuse group consisted of people on waiting list for a treatment at Teigur which is a department at National University Hospital of Iceland for people diagnosed with substance abuse and mental illnesses. The qualification for being on the waiting list is to be no longer using drugs. The comparison group was a convenience sample of students at Reykjavik University in Iceland. The participants from the Reykjavik University were from two departments; psychology department and the preliminary department. These two departments were chosen by the researcher to prevent homogeneity in the comparison group. The psychology students in the University of Reykjvik received course credit, up to 10% of final grade, by making themselves available to participate in the study.

Participants enrolled in the study were 132 altogether, 88 were students from Reykjavík University and 43 participants were on waiting list for substance abuse treatment at Teigur. The final sample consisted of 72 females (55%) and 59 males (45%) so the gender differenes was quite equal. The youngest participant in the comparison group was 20 years old, the oldest 39 years old and the mean age of the comparison group was 24.45 years (*SD* = 3.6). The youngest participant in the substance abuse group was 20 years old, the oldest 75 years old, and the mean age of the substance abuse group was 38.63 years (*SD* = 13.7).

All participants received an information sheet covering information relevant to the study and it's potential risks and benefits (Appendix A). The participants were encourages to respond to the questionnaire honestly and by their best ability. The participants had every right to stop the study if they were feeling unwell or if they did not want to answer the questions for unspecified reasons. This study was anonymous and it was not possible to trace

answers to each participants. The study got permission from the ethics committee at University hospital (no. 52/2016) and was announced to Icelandic data protection authority. Beside the aforementioned course credit, there were no other incentives offered for participation in the study.

Instruments and measures

Background information was assessed using questions about age and gender as well as a question on what school degree people had finished, whether the participants were in school, work or unemployed (Appendix B). Participants were also asked to evaluate their health. *Alcohol and drug use* were assessed with yes and no questions. The participants were also asked to specify how many drinks they drank on average, and to tell the number of drinks the participants drank on average per day. They were also asked whether they had used drugs in some other purpose than a medical purpose.

Trauma was evaluated with the Life Event Checklist (LEC-5), a self report list that contains questions about difficulties or stress related events which people have experienced in their lifetime (Weathers et.al., 2013) (Appendix C). The list has 16 different items that are known to cause post-traumatic stress disorder (PTSD), and evaluates whether the events happened to the participant, he witnessed the event, had some knowledge of it, or the event was related to work. The LEC-5 demonstrated adequate psychometric properties as a stand alone assessment of traumatic experience, especially when evaluating consistency of trauma that happened to a respondent (Weathers et al., 2013). It also demonstrated convergent validity. Cronbach's alpha indicated good internal consistency $\alpha = .84$. The list has been translated to Icelandic (Berglind Guðmundsdóttir, Ingunn Hansdóttir, Agnes B. Tryggvadóttir og Guðlaug Friðgeirsdóttir, 2015), and is used in clinical work at Landspitali but the translation has not been published.

Post-Traumatic Stress Disorder (PCL-5) was assessed by a recent instrument, which has also been adapted to DSM-5 (Weathers et.al., 2013) (Appendix D). This is a self-assessment list that evaluates the 20 PTSD symptoms listed in the DSM-5 on a five point scale where the answers possibilities were from zero to four. Zero means "nothing", one means "a little", two means "on average", three means "considerably" and four means "very much". Participants with a score of 33 or higher on the scale were considered to meet PTSD criteria according to DSM-5, based on previous studies (Weathers et al., 2014). Icelandic studies have not research the PCL-5 cut off score and therefore the score of 33 or higher on the scale was used. Psychometric studies on the instrument have shown good psychometric quality (Blevins et.al., 2015; Bovin et.al., 2015; Wortmann et.al., 2016) and in this study, cronbach's alpha indicated good internal consistency $\alpha = .96$. This list has also been translated to Icelandic (Berglind Guðmundsdóttir, Ingunn Hansdóttir, Agnes B. Tryggvadóttir og Guðlaug Friðgeirsdóttir, 2015), and is used in clinical work at Landspitali but the translation has not been published.

Procedure

The experiment was conducted over a three month period, from January until Mars 2017. The study took place at Teigur treatment center and the Reykjavik University in Iceland. The study was presented by an assistant which was not a therapist at Teigur, and participants were invited to participate. At Reykjavík University, the researcher presented the study. First, participants received an information sheet where they read the aims of the study and what it meant to participate. After the participants had finished reading the information sheet, they answered the questionnaire. However, participants were able to ask the researchers for explanations and further assistance if required.

First, participants responded to a questionnaire containing items covering background information. The questionnaires were all answer on a piece of paper with a pen to write with.

Then they answered questions about possible use of alcohol in the past three months. After that, participants were asked questions about possible use of other drugs than alcohol over the last three months. If people answered the first question negative, which was about drug use in other purposes than medical, they were asked to drop the next four questions and turn to the next page. On the other hand, if they answered yes they completed questions about drug use.

After participants had completed the questions on alcohol and drug use, they answered questions about depression, anxiety and stress, then about traumatic life event and the last questions on the questionnaire were regarding PTSD. After the participants had completed the questionnaire they returned the list to an empty box. The whole procedure took about 30 minutes.

Design and Data Analysis

This was a cross-sectional correlational study aimed to examine the difference between subjects in the substance abuse treatment and healthy population. The independent variables were two. The first one was the group and it had two levels; whether you were on a waiting list for a substance abuse treatment or not. The second independent variable was type of trauma and it also had two levels; whether you had experienced sexual abuse or had experienced other kinds of trauma. The depend variables were two. The first was number of traumatic events, measured with the LEC-5 questionnaire, the second was symptoms of PTSD, measured with the PCL-5 questionnaire.

A chi-squere test of independence along with independent sample T-test were used to examine the association between the variables. The Kolmogorov-Smirnov test assessed the assumption of normality and the Levene's test examined the assumption of homogeneity of variance. A criterion of $\alpha = .05$ was used in significance tests.

Results

The total number of trauma were measured with independent sample T-test to examine whether more traumatic events were related to the substance abuse group rather than the comparison group. In the comparison group, 68 participants of 88 had experienced one or more traumatic life event compared to 39 participants of 40 in the substance group.

Figure 1 shows that participants in the comparison group had experienced 2.1 trauma on average (SD = 2.0), but in the substance abuse group, participants had experienced 5.2 trauma on average (SD = 3.3). There were a significant difference between the groups $t(52.7) = 5.38$; $p < .001$. Separate Kolmogorov-Smirnov tests for both the comparison group and the substance abuse group indicated that the assumption of normality was not violated (both $p > .05$). Levene's test showed the assumption of homogeneity was not met for traumatic life events $F(1,126) = 15.07 < .001$ Therefore, the assumption of equal variances between groups was violated.

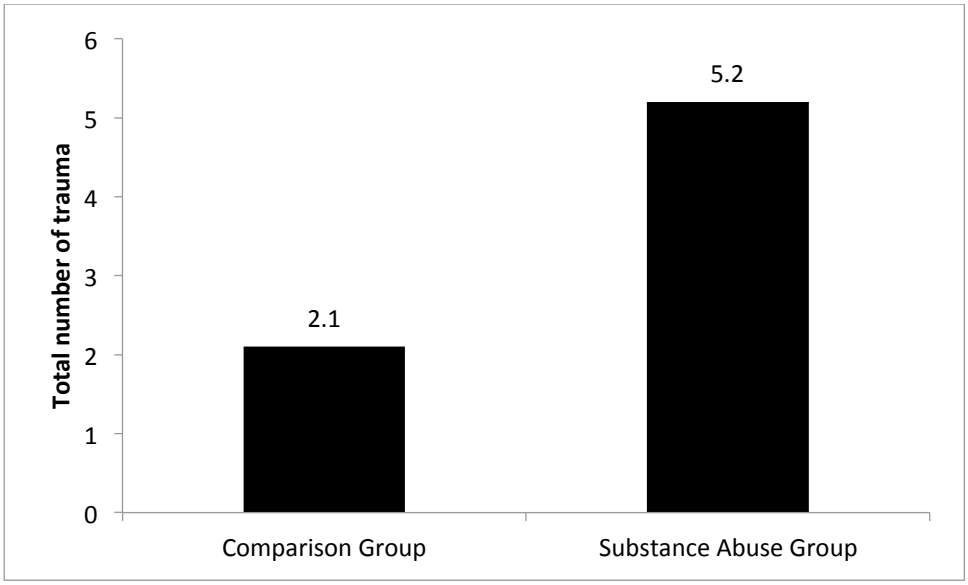

Figure 1. Mean values of total scores on trauma for participants in the comparison and substance abuse groups.

Whether more participants in the substance abuse group had PTSD symptoms then in the comparison group were measured with chi-square test. Table 1 below shows how many

participants met the criteria for PTSD. In the comparison group 12.8% met the criteria for PTSD symptoms and in the substance abuse group, 70.3% met the criteria for PTSD symptoms, i.e. The substance abusers were more likely to be diagnosed with PTSD than the students. There were significant association between the participants in the substance abuse group and the comparison group $\chi^2(1) = 42{,}64$, $p < .001$.

Table 1

Prevalence of PTSD among both the Comparison Group and the Substance Abuse Group

	Comparison group	Substance abuse group
PTSD	12.8%	70.3%
No PTSD	87.2%	29.7%
Overall	100%	48%

Those participants who had been sexually assaulted are more likely to develop PTSD symptoms compared to those who had experienced other types of trauma were measured with Chi-square test. Results show significant association between whether participants had been sexually assaulted and whether they met criteria for PTSD symptoms, compared to those who had experienced other types of trauma according to PCL-5, $\chi^2(1) = 6{,}26$, $p = .012$. The bar chart in figure 2 shows that 61.5% people who had been sexually assaulted met criteria for PTSD compared to 36.4% who had experienced other types of trauma.

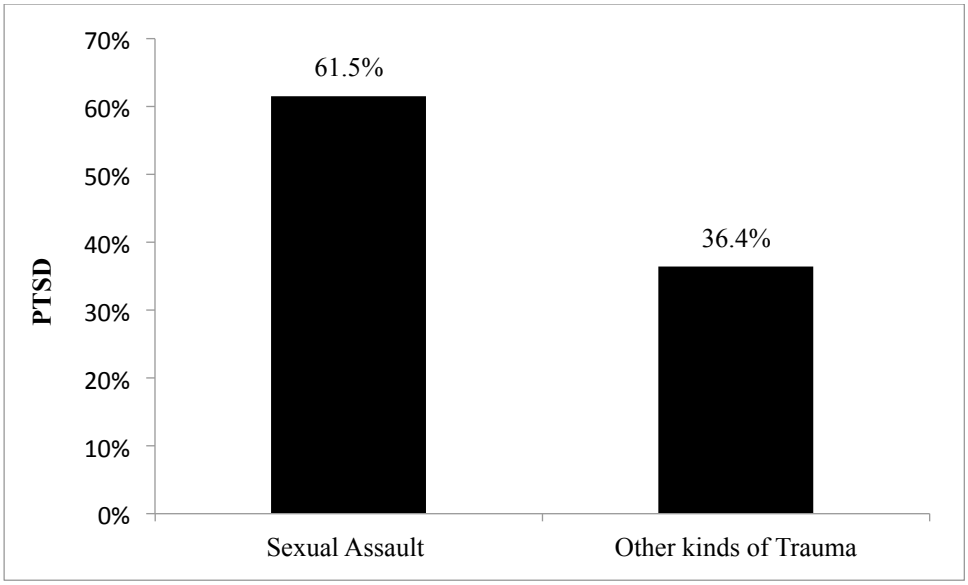

Figure 2. PTSD scores with participants who had experience sexual assault compare to other kinds of trauma.

Discussion

The aim of the study was to examine the prevalence of trauma and post-traumatic stress disorder among individuals who seek treatment for substance abuse. First, the results indicate that participants seeking treatment for substance abuse had experienced more trauma then participants in comparison group, which is in harmony with other studies in this area (American Psychiatric Association, 2013; Brown, Read & Kahler, 2003; Covington, 2008; Emmerson, 2011; Marich, 2009; Miller, 2012). These results are not surprising whereas studies shows that individuals who experiences trauma can use drugs as a coping strategy to embrace the trauma (Brown, Read & Kahler, 2003). The most important factors after a trauma are family support, social support and educational status. If individuals have a good backend they are more likely to use positive coping strategies to deal with the trauma, like to tell family or friends about the trauma and seeking some assistance.

Secondly, significantly more participants in the substance abuse group met criteria for PTSD compared to the comparison group. That also confirm with recent studies above (Bonin et al., 2000; Dell' Osso et al., 2014; Jacobsen, Southwick & Kosten, 2001; Reynolds

et al., 2005). However, the results of this study showed shocking high prevalence of students in the comparison group who met criteria for PTSD, or 12.8% students. The reason could be that the comparison group consisted of both psychology students and students from preliminary department. Students who are in preliminary department are individuals who have not finished high school, and went other ways than what is considered to be mainstream; to finish high school straight after elementary school. Also, individuals who are in preliminary department are sometimes individuals who took a wrong turn in their life, and are trying to get back on their feet. Therefore they might have experiences other and more things than individuals who went straight to high school and did not take a wrong turn in their life.

There is a risk that an individual who experiences trauma uses substances to reduce the symptoms of PTSD. The drugs are used to avoid facing problems and to suppress emotions. This is an example of a negative coping strategies (Brown et al., 2003). Several speculations are going on to explain the comorbidity in substance use disorder and PTSD. Some studies indicate that the way substance abusers live their lives, they are more likely to be in dangerous situations and therefore they are more likely to experiences trauma (Brady, 2001; Raghavan & Kingston, 2006). However, other studies suggest that individuals who suffer from trauma are more likely to use drugs as a resort to deal with the trauma (Brown, Read & Kahler, 2003). Up two two-thirds of individuals who are diagnosed with both substance use disorder and PTSD, substance use disorder followed after their most traumatic event (Khantzian, 1997). That suggests that the dominance part of those with both substance use disorder and PTSD may be self-medicating their PTSD. Consequently, that tells us that the second hypothesis about that individuals first experiences trauma and then they misuse substances are more common than the other way around.

Thirdly, Results show that people who have been sexually assaulted are significantly more likely to develop PTSD symptoms compared to those who had experienced other types

of trauma. Studies shows that the greates likelihood of getting PTSD is following a sexual abuse (Bendall, Jackson, Hulbert & McGorry, 2008; Davey, 2014). Previous studies have also shown that a history of sexual abuse increases the likelihood of substance abuse in the future (Asberg and Renk, 2013; Bergen et al., 2004).

The study had some limitations, the most important of which had to do with the sample of the study. The comparison group only consisted of students in the Reykjavik University, from two departments; psychology students and preliminary and therefore, cannot be considered representative for all students or any larger population. Also, there were far more participants in the comparison group then in the substance abuse group, or 88 students in the comparison group but only 43 individuals in the substance abuse group. This greatly limited the external validity of this experiment. The reason for such a big differences in the two groups were that only around four to five individuals at the waiting list at Teigur can make it to treatment every week. The study only took place for about two months and therefore the time was limited. Not all individuals were able to answer the questionnaires in the study, some participants quit after the first page and then some individuals did not want to participate. It was expected to get more participants from Teigur and hopefully get around 80 participants. Like said before, the time was limited and therefore it was decided to work with the sample that had finish participate in the study aside from the discrepancy in the groups.

There is a considerable difference in average age of the two groups, where the mean age of the comparison group was 24.45 years, but the mean age for the substance abuse groups was 38.63 years. This differences in age was significant $t(95.01) = 9.08$; $p < .001$. The main reason for this age differences is that individuals who are in school are often young adults where individuals who are in treatment are normally individuals who have live longer and maybe are not going to treatment until they have been using drugs for years. This can mostly affect the first hypothesis, that individuals with substance abuse problems have

experienced more trauma than healthy population. The reason might be that older individuals are more likely to have experiences more traumas than younger individuals because of years lived. It is also limitation that the Levene's test showed that the assumption of homogeneity was not met for traumatic life event and therefore the assumption of equal variances between groups was violated. That can affect the type 1 error rate, which tells us that there might not been a real significiant different even though significiant test showed us difference.

This study also had some important strengths. The choice of treatment department, Teigur, was a good choice since Teigur is a day-ward and the individuals there have stopped the consumption. Therefore, they should be aware about the answers they give on the study. Only three people from the comparison group dropped from the study after answering the first sheets, so a sample of 129 participants finished the study. That shows that the internal validity of the study is high. There were specially made instruction sheet for each participant at the beginning of the study so all participants got the same instruction. The aim of the study was also notified in the instruction sheet and that hopefully help participant to understand the importance of honourable answers. The gender distribution was also quite equal, where 72 were females and 59 were males.

In conclusion, this study found that participants who engage in a substance abuse treatment were more likely to have PTSD symptoms and had experienced more trauma compared to healthy population. In addition, these results indicated that participants who experienced trauma after sexual abuse were most likely to develop PTSD, compared to individuals who had experienced other types of trauma. Trauma and PTSD are unusually high in this group but the study did not examine what approach is the best way to help individuals with substance abuse problems. And the study does not tell whether trauma automatically reduces when consumption is reduces, or whether individuals reduces consumption when they are working with the trauma.

Future studies along these lines should focus on causes and consequences. It would be interesting to do a long-term study of adolescents and young adults to examine what occurs first, the addiction or PTSD, and how well trauma predict substances later on. Also it might be possible to see whether the nature of the trauma is different among addicts than others. Perhaps are healthy population more likely to be in a car accidents but substance abusers are more likely to be assaulted physically. it is also important to help these individuals to seek appropriate assistance to deal with the consequences of traumatic events and to prevent PTSD.

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Appendix A

Instruction sheet

Kynningarbréf til þátttakenda í rannsóknarhópi

Algengi áfalla og áfallasögu meðal fólks sem sækir þjónustu á Teigi fíknigeðdeild

Kæri viðtakandi,
Teigur fíknigeðdeild leitar eftir þátttakendum í rannsókn á algengi áfalla og áfallastreitu. Rannsóknin hefur fengið leyfi siðanefndar Landspítala og hefur verið tilkynnt til Persónuverndar. Verkefnið er hluti af BSc ritgerð við sálfræðisvið Háskólans í Reykjavík.

Markmið rannsóknar
Að kanna algengi áfalla og áfallastreitu meðal þeirra sem sækja meðferði á Teigi fíknigeðdeild Landspítala. Rannsóknin er sú fyrsta sem kannar algengi meðal þessa hóps hérlendis en erlendar rannsóknir benda til hærra algengis áfalla og áfallastreitu samanborið við algengi í samfélaginu öllu. Upplýsingarnar munu nýtast til að auka skilning á þeim hóp sem sækir meðferð á Teigi með það að markmiði að þróa enn frekar meðferðina.

Þátttakendur
Öllum einstaklingum eldri en 18 ára sem mæta í undirbúningshóp á Teigi fíknigeðdeild Landspítala verður boðið að taka þátt og vera í rannsóknarhópi. Í samanburðarhópi verða nemendur við Háskólann í Reykjavík.

Hvað felst í þátttöku?
Þátttakendur eru beðnir að fylla út spurningalista þar sem spurt er um sögu um áföll, einkenni áfallastreitu og tilfinningalega líðan. Einnig er óskað eftir bakgrunnsupplýsingum, s.s. aldri og kyni. Ekki er óskað eftir neinum persónugreinanlegum upplýsingum um þátttakendur. Áætlað er að það taki um 10 mínútur að svara spurningalistunum.

Appendix B

Bakgrunnsupplýsingar og spurningar um mögulega neyslu áfengis og annarra vímuefna

1. Hver er aldur þinn _____

2. _____ Kona

_____ Karlmaður

3. Hvaða námi hefur þú lokið? *(Merktu við hæstu gráðu sem þú hefur lokið)*

_____ Hætti í skyldunámi

_____ Skyldunámi *(t.d. grunnskólaprófi, landsprófi, gagnfræðiprófi)*

_____ Starfsnámi, iðnnámi, bóklegu framhaldsnámi *(t.d. stúdentspróf, samvinnuskólapróf, verslunarpróf, vélfræðingar, skipstjórnarnám)*

Sérskólanámi á eða við háskólastig *(t.d. iðnfræði- eða tæknínám)*

Háskólanámi *(3ja ára eða lengra)*

_____ Annað. Vinsamlegast tilgreinið: _____

4. Hvað gerir þú? *(Starf, nám, orlof, annað)*

_____ Í fullu starfi

Í hlutastarfi

_____ Atvinnulaus/í leit að vinnu

_____ Öryrki/frá vinnu vegna veikinda

_____ Námsmaður

Í fæðingarorlofi

_____ Heimavinnandi

_____ Á eftirlaunum

Annað. Vinsamlegast tilgreinið: _____

1. Að þínu mati, hve góð er heilsa þín miðað við aldur?

_____ Mjög góð

Góð

_____ Í meðallagi

_____ Slæm

Mjög slæm

_____

Eftirfarandi spurningar fjalla um mögulega notkun áfengis **<u>síðastliðna 3 mánuði</u>**.

Lestu hverja staðhæfingu vandlega og taktu afstöðu til þess hvort þú svarir játandi eða neitandi. Merktu svo við viðeigandi svarmöguleika.

	Nei	**Já**
2. Drekkur þú stundum áfenga drykki eins og bjór, léttvín eða aðra áfenga drykki?		
Ef ***nei*****,** þá skaltu svara spurningu **13** næst		
3. Hefur þér einhvern tíma fundist að þú þyrftir að draga úr drykkjunni?		
4. Hefur fólk gert þér gramt í geði með því að setja út á drykkju þína?		
5. Hefur þér einhvern tíma liðið illa eða haft sektarkennd vegna drykkju þinnar?		
6. Hefur þú einhvern tíma fengið þér áfengi að morgni til að laga taugakerfið eða losa þig við timburmenn?		
	Fjöldi drykkja	

7. **H**versu marga drykki drekkur þú á viku að meðaltali? (*einn drykkur er einn einfaldur, einn bjór, eða eitt léttvínsglas*)	
8. Hver er mesti fjöldi drykkja sem þú hefur drukkið á einum degi á síðasta ári?	

Eftirfarandi spurningar fjalla um mögulega notkun efna annarra en áfengis, þ.e. önnur vímuefni eða lyfseðilskyld lyf, **<u>síðastliðna 3 mánuði</u>**. Lyf/vímuefni vísa til þess að nota lyf ávísað af lækni eða fengin frá öðrum. Efnin sem um ræði eru t.d. kannabis, róandi lyf, svefnlyf, kókaín, örvandi lyf, ofskynjunarlyf, eða sterk verkjalyf (eins og morfín og parkódín forte).

Lestu hverja staðhæfingu vandlega og taktu afstöðu til þess hvort þú svarir játandi eða neitandi. Merktu svo við viðeigandi svarmöguleika.

	Nei	**Já**
1. Hefurðu notað lyf og/eða vímuefni í öðrum tilgangi en til lækninga? Ef ***nei*****,** þá skaltu svara spurningu **18** næst		
2. Hefur þér einhvern tíma fundist að þú þyrftir að draga úr lyfja/vímuefnaneyslu þinni?		
3. Hefur fólk gert þér gramt í geði með því að setja út á lyfja/vímuefnaneyslu þína ?		
4. Hefur þér einhvern tíma liðið illa eða haft sektarkennd vegna lyfja/vímuefnaneyslu þinnar?		
5. Hefur þú einhvern tíma fengið þér lyf/ vímuefni að morgni til að laga taugakerfið eða losa þig við timburmenn?		

Appendix C

Erfiðir eða streituvaldandi atburðir LEC-5

Hér að neðan eru erfiðir eða streituvaldandi atburðir sem fólk upplifir stundum. Fyrir hvern atburð merktu við reitina til hægri til að gefa til kynna: (a) hann *kom fyrir þig* persónulega; (b) þú *varðst vitni að honum* þegar hann kom fyrir einhvern annan; (c) þú *fékkst vitneskju um* að hann hafði komið fyrir náinn fjölskyldumeðlim eða vin; (d) þú upplifðir hann sem *hluta af starfi þínu* (t.d. sjúkraflutningamaður, lögregla, her eða aðrir sem mæta fyrstir á vettvang); (e) þú ert *ekki viss* ef þetta á við, eða (f) á ekki við um mig.

Gættu þess að hafa *allt líf þitt* í huga (æskuna sem og fullorðinsár) þegar þú ferð yfir listann.

Atburður	Kom fyrir mig	Varð vitni að	Fékk vitneskju um	Hluti starfs míns	Ekki viss	Á ekki við
1. Náttúruhamfarir (t.d. flóð, fellibylur, hvirfilbylur, jarðskjálfti)						
2. Eldur eða sprenging						
3. Samgönguslys (t.d. bílslys, sjóslys, lestarslys, flugslys)						
4. Alvarlegt slys í vinnu, heima eða í frítíma						
5. Komast í snertingu við eitruð efni (t.d. hættuleg efni, geislun)						
6. Líkamlegt ofbeldi (t.d. verða fyrir árás, kýld/ur, slegin/n, sparkað í eða barin/n)						
7. Árás með vopni (t.d. vera skotin/n, stungin/n, ógnað með hnífi, byssu eða sprengju)						
8. Kynferðislegt ofbeldi (nauðgun, nauðgunartilraun, þvingun til hvers konar kynferðislegra athafna með valdi eða hótun um skaða)						
9. Önnur óvelkomin eða óþægileg kynferðisleg reynsla						
10. Stríð eða nálægð við stríðshrjáð svæði (í hernum eða sem almennur borgari)						
11. Frelsissvipting (t.d. mannrán, numin á brott, gíslataka, stríðsfangi)						
12. Lífshættuleg veikindi eða meiðsli						
13. Alvarleg mannleg þjáning						
14. Skyndilegt ofbeldisfullt dauðsfall (t.d. morð, sjálfsvíg)						
15. Skyndilegt dauðsfall af völdum slyss						
16. Alvarlegir áverkar, skaði eða andlát sem þú ollir einhverjum öðrum						
17. Annar mjög streituvaldandi atburður eða reynsla						

VINSAMLEGAST FYLLTU ÚT ANNAN HLUTA Á NÆSTU BLAÐSÍÐU

Annar hluti:

A. Ef þú hefur upplifað fleiri en einn atburð í fyrsta hluta, hugsaðu um þann atburð sem þú telur vera versta atburðinn, sem í þessum spurningalista þýðir sá atburður sem truflar þig mest í dag. Ef þú hefur aðeins upplifað einn af atburðunum í fyrsta hluta, notaðu þá þann atburð sem versta atburðinn. Vinsamlegast svaraðu eftirfarandi spurningum um versta atburðinn (merktu við alla valmöguleika sem eiga við).

2. Hvað er langt síðan hann átti sér stað? _____ (vinsamlegast áætlaðu ef þú ert ekki viss)

3. Hvernig upplifðir þú hann?

____ Hann kom fyrir mig

____ Ég varð vitni að honum

____ Ég fékk vitneskju um að þetta hefði komið fyrir náinn fjölskyldumeðlim eða vin

____ Ég var endurtekið að upplifa smáatriði um hann sem hluta af starfi mínu (t.d. sjúkraflutningamaður, lögreglan eða aðrir sem fyrstir eru á vettvang)

____ Annað, vinsamlega lýstu:

4. Var líf einhvers í hættu?

____ Já, mitt eigið líf

____ Já, líf einhvers annars

____ Nei

5. Slasaðist einhver alvarlega eða lést

____ Já, ég slasaðist alvarlega

____ Já, einhver annar slasaðist alvarlega eða lést

____ Nei

6. Fól hann í sér kynferðislegt ofbeldi? ____ Já ____ Nei

7. Ef atburðurinn fól í sér dauðsfall náins fjölskyldumeðlims eða vinar, var það sökum einhvers konar slyss eða ofbeldis eða var það af eðlilegum orsökum?

____ Slys eða ofbeldi

____ Eðlilegar orsakir

____ Á ekki við (atburðurinn fól ekki í sér dauðsfall náins fjölskyldumeðlims eða vinar)

8. Samanlagt hversu oft hefur þú upplifað svipaðan atburð álíka streituvaldandi eða nærri því jafn streituvaldandi og versta atburðinn?

____ Aðeins einu sinni

____ Oftar en einu sinni (vinsamlegast tilgreindu eða áætlaðu fjölda skipta sem þú hefur upplifað þetta ____)

Höfundar: Weathers, Blake, Schnurr, Kaloupek, Marx, & Keane (2013).
Þýðendur: Berglind Guðmundsdóttir, Ingunn Hansdóttir, Agnes B.Tryggvadóttir og Guðlaug Friðgeirsdóttir (2015).

Appendix D

Einkenni áfallastreitu - PCL-5

Leiðbeiningar: Hér að neðan er listi yfir vandamál sem fólk upplifir stundum eftir mjög streituvaldandi reynslu. Vinsamlega lestu vandlega yfir hvert vandamál með versta atburðinn í huga og dragðu hring utan um tölu til hægri til að gefa til kynna hversu mikið hvert vandamál hefur truflað þig síðastliðinn mánuð.

Síðastliðinn mánuð, hversu mikið truflaði eftirfarandi þig:	***Ekki neitt***	***Lítið***	***Miðlungs***	***Töluvert***	***Mjög mikið***
1. Endurteknar, truflandi og óvelkomnar minningar um hina streituvaldandi reynslu?	0	1	2	3	4
2. Endurteknir truflandi draumar um hina streituvaldandi reynslu?	0	1	2	3	4
3. Skyndilega liðið eða hegðað þér eins og streituvaldandi reynslan sé raunverulega að gerast aftur (eins og þú sért að endurupplifa hana)?	0	1	2	3	4
4. Komast í mikið uppnám þegar eitthvað minnti þig á hina streituvaldandi reynslu?	0	1	2	3	4
5. Fá sterk líkamleg viðbrögð þegar eitthvað minnti þig á streituvaldandi reynsluna (t.d. hraður hjartsláttur, öndunarerfiðleikar, svitna)?	0	1	2	3	4
6. Forðast minningar, hugsanir og tilfinningar tengdar streituvaldandi reynslunni?	0	1	2	3	4
7. Forðast ytri áminningar um hina streituvaldandi reynslu (t.d. fólk, staði, samtöl, athafnir, hluti eða aðstæður)?	0	1	2	3	4
8. Eiga í erfiðleikum með að muna mikilvæga hluta streituvaldandi reynslunnar?	0	1	2	3	4
9. Hafa sterk neikvæð viðhorf um sjálfa/n þig, annað fólk eða heiminn (t.d. hugsanir eins og: Ég er slæm/ur, það er eitthvað alvarlegt að mér, engum er treystandi, heimurinn er hættulegur)?	0	1	2	3	4
10. Ásaka sjálfa/n þig eða einhvern annan um hina streituvaldandi reynslu eða það sem gerðist í kjölfar hennar?	0	1	2	3	4
11. Hafa sterkar neikvæðar tilfinningar eins og ótta, hrylling, reiði, sektarkennd eða skömm?	0	1	2	3	4
12. Missa áhuga á athöfnum sem þú áður hafðir gaman af?	0	1	2	3	4
13. Finnast þú vera fjarlæg/ur eða úr tengslum við annað fólk?	0	1	2	3	4
14. Eiga í erfiðleikum með að upplifa jákvæðar tilfinningar (t.d. að vera ófær um að finna hamingju eða væntumþykju gagnvart fólki sem er þér nákomið)?	0	1	2	3	4
15. Pirringur, reiðiköst og árásargjörn hegðun.	0	1	2	3	4
16. Taka of oft áhættu eða gera hluti sem gætu valdið þér skaða?	0	1	2	3	4
17. Vera ofurárvökul/l eða vakandi fyrir umhverfinu eða á verði?	0	1	2	3	4
18. Vera viðbrigðin/n eða bregða auðveldlega?	0	1	2	3	4
19. Eiga erfitt með einbeitingu?	0	1	2	3	4
20. Vandi við að sofna eða sofa?	0	1	2	3	4

*****Posttraumatic *stress disorder checklist for DSM-5 (PCL-5).*

Höfundar: Weathers, Litz, Keane, Palmieri, Marx og Schnurr (2013).

Þýðendur: Berglind Guðmundsdóttir, Ingunn Hansdóttir, Agnes B.Tryggvadóttir og Guðlaug Friðgeirsdóttir.