Collaborative Research Grant Initiative: Mental Wellness in Seniors and Persons with Disabilities

Ideas Fund Final Report

Evaluation of a Group Intervention for People with HIV, Substance Use and Trauma

April, 2012 – Jakalin MacGregor
EXECUTIVE SUMMARY

This mixed method study evaluated the utility and perceived impact of a twelve week trauma and substance-use group intervention for people who have HIV and histories of substance abuse, and who are considered at risk for poor psychosocial and health outcomes. Administration of a psychometric measure, the Detailed Assessment of Post traumatic Stress (DAPS) was conducted to pre group (n=25) and post group (n=7) participants to determine traumatic symptomatology levels. Semi-structured interviews were conducted with participants post group (n=7).

Findings demonstrated that a group for people with HIV which provides concurrent treatment for trauma and substance use, utilizing cognitive-behavioural, case management and interpersonal strategies, shows promise for its ability to serve as a catalyst for moving participants into contemplation and action toward decreased substance abuse and increased medication adherence. It may also provide an increased sense of agency in key areas of psychosocial functioning. The mechanisms behind positive and negative feedback loops, that function as triggers and re-enactments to traumatic stress and substance use, were explored as useful clinical tools. Recommendations for practice noted that short-term, clinical interventions should be seen as part of a more holistic, trauma-focused, ongoing treatment plan for those patients who have complex post-traumatic stress diagnoses. Trauma-informed training should be incorporated both at the individual clinical levels and may also be useful to include at the programming or policy level.

RESEARCH OVERVIEW

Objectives

The objectives of this study were to implement and evaluate an innovative intervention. Specifically, the study examined the experiences of participants as well as the utility and efficacy of a manualized, psychotherapeutic twelve-week cognitive-behavioural psycho-educational treatment group provided by the interdisciplinary team of the Northern Alberta HIV program.

The group addressed concurrent substance use and trauma symptomology. Increasing socio-economic stability and both mental and physical health outcomes were the goals of the intervention and, toward this end, there was an active goal setting and case management component for participants. The group was conducted within a harm reduction framework and was designed to be offered to individuals at all stages of change rather than only providing services for individuals who were already abstinent.

Background

Between 40%-50% of HIV positive people in Alberta identify issues with substance use. Substance abuse and dependence reportedly have a profound impact on one's ability to maintain well-being and socio-economic stability, thereby rendering this HIV population at even greater risk. Studies show that this in turn affects health outcomes and the ability to maintain optimal medication adherence. In the general population, people with addictions have a high prevalence (28%-52%) of trauma histories. Post-traumatic stress diagnoses (PTSD) in HIV positive people are estimated to be three times higher than in the non HIV positive population. Interventions that concurrently address trauma symptoms...
and substance dependence, while acknowledged as best practice for almost a decade, have yet to be adopted as mainstream treatment practices. Detoxification and abstinence are usually required to begin the majority of addiction treatments. However, people with traumagenic issues have better addiction treatment outcomes if they learn trauma-focused skills, which also provide a buffer for managing traumatic symptoms that may surface during sobriety.

**Approach and Method**

We used a sequential transformative mixed-method design. The qualitative phase included post-group interviews with participants (n=8-10), who were HIV-infected, substance-dependent individuals who attended the intervention. This phase documented their experiences of the group as it pertained to the phenomenon of trauma and addiction. We used the standardized measurement tool, the Detailed Assessment of Post Traumatic Stress (DAPS) which can provide a DSM IV diagnosis of PTSD and also trauma symptomatology. The test was administered to the pre and post group participants with the goal of enriching the descriptive data and qualitative findings.

Eligible participants for the study were identified using records maintained by Alberta Health Services that is specific to all patients who have been diagnosed with HIV in Northern Alberta. Inclusion criteria was comprised of HIV positive individuals with known current or historical substance use or dependence. Substance use was determined by any historical self-report, as documented in their health records. The exclusion criterion was a significant mental health diagnosis such as schizophrenia or aggressive behaviour that the clinical team felt could not effectively be managed in the group.

There are approximately 1,100 adult patients with HIV enrolled in the Northern Alberta HIV clinic within Alberta Health Services. This program services patients with HIV within the geographical area from Red Deer and all areas north including the Northwest Territories, while a Southern HIV clinic services the rest of the population in Alberta. Of this regional population in the Northern Alberta HIV program, there is a male/female ratio of 70% to 30%; however, the ratio of females increases slightly within the subgroup of identified drug use as the risk factor that contributed to infection. Aboriginal people are also overly represented in this group. This subgroup of people who have been identified as having substance use or addiction issues represents approximately 40% of the total HIV infected population in northern Alberta.

For this convenience sample, eligible patients identified through the clinic’s records, were approached by various members of the Northern Alberta HIV program’s interdisciplinary team, and asked if they were interested in participating in the study. The recruitment period lasted approximately four weeks during regularly scheduled medical appointments. A signed informed consent was obtained from each participant who agreed to be part of the study. No incentives were offered to participants. 25 individuals consented to be given the Detailed Assessment of Post Traumatic Stress questionnaire. 12 people (6 women and 6 men) were recruited and available to participate in two 12-week ‘Seeking Safety’ groups. The remaining individuals, who participated in pretest data collection were placed on a waiting list for a future group.

Ethics approval was obtained through the University of Calgary Health Review Ethics Board, and the University of Alberta Health Ethics Board. Administrative approval was received from Alberta Health Services.

**Key Findings**

The study examined research questions related to the experiences of participants, and the utility and perceived impact of a concurrent cognitive behavioural group addressing trauma and substance use. The research specifically addressed three areas: (i) participants’ experiences and perceptions of the Seeking Safety Group intervention, and its perceived impact on, (ii) their substance use, and (iii) their trauma symptoms. The study brought to light some of the barriers to psycho-social stability, with the acknowledgement that traumatic symptoms and substance use are components of many of these barriers.
Participants were in varying stages of poly-substance use or recovery and thus fit into different stages of change. Over half of the participants were in the clinically severe range of active substance use based on the psychometric DAPS sub scales, with crack cocaine and alcohol being the main substances of choice.

Administration of the DAPS questionnaire served to situate and describe the sample in terms of participants’ experiences of trauma. These findings offered corroboration with interview themes by illuminating traumatic experiences, substance use, and subsequent, self-report post-group changes in these areas.

The descriptive results from the pre-group administration of the Detailed Assessment for Post Traumatic Stress, albeit preliminary due to the small sample size (n=25), showed that people with lower immune functioning had a higher percentage of Post Traumatic Stress Disorder diagnoses. The data are noteworthy in that the majority of the scores in the ten sub-scales were well above the norm, compared to the mean of a trauma-exposed group of 400 individuals.

- 56% of the participants had CD4’s under 400 and in that group, 71% qualified for a PTSD diagnosis
- 44% of the participants had CD4’s 400 or over, and in that group, the percentage of participants with a PTSD diagnosis was 55%.
- Note: Measuring CD4 is a useful health marker of immune function specific to HIV care, CD4 measurements above 400 generally mean that the immune function is in a normal range.
- Of the 25 patients who consented to the pre-group test, 64% qualified for a DSM IV PTSD diagnosis, with many of the remaining participants showing subclinical trauma symptomatology on the DAPS charts.
- 52% reported child sexual assault and 72% reported child physical assault. As trauma in childhood is connected to more complex trauma involving self-harm, dissociation and long term attachment issues, this finding is clinically important and concerning.
- Finally, 85% of reported traumas in this group were interpersonal type traumas, versus 15% in non-intimate accidental categories

Trauma symptoms were often recorded in the moderate to severe range on the ten sub-scales. Clinical improvement in trauma symptomatology for many of the group participants in the post group DAPS scores was noted. These results serve to support the relevance of a trauma-informed approach with this HIV infected cohort.

Qualitative findings identified participants’ experiences related to their HIV and examined perceptions, impact and underlying mechanisms of this intervention.

Emergent Diametrical Themes of Trauma and Safety: We developed a framework that depicts the diametrical themes of “Trauma” and “Safety”. Our framework incorporated trauma theory, and was reflective of the findings in this study. The framework is helpful in understanding the themes, reflections, observed behaviours, thoughts and responses generated in the study through the lens of positive and negative feedback loops. It considers the complex systems and issues surrounding the assessment and treatment of trauma, HIV related issues, and substance use as discussed throughout the study. Reenactments, exaggerated startle responses to triggers, and avoidance and numbing that are sustained or repeated over and over again, can be described as a positive feedback loop. These positive feedback loops are unstable and active and are characterized by their self-reinforcing, self-amplifying qualities. Negative feedback loops happen when a change in the system occurs that dampens typical non-helpful patterns. Negative feedback loops are characterized as self-sustaining, self-maintaining, dampening, stabilizing or balancing. Reenactments can manifest in various ways for each individual, it is crucial to identify existing patterns. Then the challenge is to create different paths and mechanisms in order to consciously work toward changing these frequently automatic reenactments.
As mentioned above, findings addressed the perceived impact of an HIV diagnosis and difficult experiences of trauma and substance abuse in the lives of the participants. The study did not examine knowledge gain from the material, but rather explored participants’ experiences and perceptions of the group intervention on these issues. The findings found promising effects and perceived impacts from the invention in the three main areas of inquiry:

- Interrupting feedback loops that function as triggers and re-enactments to traumatic stress and substance use, while paving the way to creating more stabilized feedback loops,
- Movement from pre-contemplation to contemplation/action in relation to substance use, and
- An increased sense of agency for better health management related to HIV and other important areas of psychosocial functioning.

The Seeking Safety group was largely experienced by participants as engaging and as having general overall benefits. These particularly related to their substance use including more awareness of trauma in their daily lives. Participants generally appeared to demonstrate some degree of advancement in terms of contemplation/change regarding their substance use.

During the group, elements of shame or other negative portrayals of the self appeared, for some, to be recast in terms of traumatic events, which in turn allowed for a degree of externalization and perhaps somewhat less self-responsibility. This yielded opportunities to examine important generative issues with greater comfort and less self-imposed shame. The pervasiveness of trauma in the lives of the participants seemed to be effectively addressed by engagement in the Seeking Safety group. This approach to grappling with trauma, in the group, appears to offer an important impetus for discussion and exploration in moving forward.

Conclusions
This small pilot study highlights that individuals who are HIV positive may be at risk for both uncomplicated and complex post-traumatic stress disorders which can then act as a significant barrier to achieving optimal health outcomes. While research has shown that trauma and substance use are implicated for many people in acquiring the virus, it is less clear how these complicated dynamics also continue to affect people’s behaviour while in treatment: how they look after themselves and whether they have areas of denial that cause them to miss important health-related symptoms.

The clinical findings showing the extent and severity of trauma symptomatology, validate the subjective observations that the interdisciplinary team gleaned from their everyday practice with this complex and chaotic patient sub-group in an HIV outpatient clinic. Taken together, the literature, clinical experience, and the findings from this study, demonstrate that HIV positive individuals with addictions are a unique population that may benefit from clinical psychosocial interventions that are tailored to their needs. Health outcomes cannot adequately be measured in the limited time period of the study. However, it seems critical that clinical interventions address the core connection between loss of identity, diminished self-esteem and the feedback loops that promote re-enactments and dysfunction for people with complex trauma symptomatology and which appear to be implicated in medication adherence.

Implications for Policy or Practice
The development of Highly Activated Antiretroviral Therapy and other advancements has dramatically increased expectations for HIV longevity. In fact, if you see a specialist regularly and closely adhere to treatment, you expect to live a normal lifespan. However, in order for these medical advances to work, people need to have a near 100% daily medication adherence. This means that missing a few doses a month could allow the virus to become resistant which severely limits the treatment options and also has implications for public health. External factors such as income, housing and family supports are inextricably tied to how well a patient is able to navigate the daily medication for HIV. Some patients manage to take their medications regardless of whether they are homeless or in active addiction. But for
others, chaotic lifestyles and substance use are real barriers to medication adherence. Many of these people are also impeded in other ways and are accessing multiple community service providers.

The literature and this study’s participants’ accounts both show that the effects of trauma often involve putting oneself into risky situations. This risk-taking behaviour may not only extend to unsafe interpersonal relationships and places, but also extend to mechanisms of denial and self-harm. These mechanisms appear to be key factors in medication adherence. One of the core safety lessons to teach to people with concurrent trauma and substance abuse issues is that their health can be adversely affected either overtly or in more subtle or insidious ways. For people with HIV, the traumatic phenomena of denial, dissociation, self-harm, etc, are even more relevant to their long-term health outcomes as these symptoms and coping strategies may affect their ability to maintain optimal medication adherence.

This poignant comment from a woman who has lived with HIV for many years and has experienced serious negative consequences of poor health, illustrates the challenges for this vulnerable group:

_It’s not even worth living if you’re sick - you know what I mean. You can have all the money in the world, but if you don’t have your health, you’ve got nothing and that’s a fact eh. You know you’re a slug, you can’t do nothing, you can’t even get up and do the dishes, or you don’t even feeling like getting up and plugging in the kettle_ (Karen).

Post treatment interviews recorded group participants’ self-reported changes in areas of substance use and trauma symptoms. Many also reported changes in health-related attitudes and improved medication adherence.

**DIRECTIONS FOR FURTHER RESEARCH**

Interdisciplinary team members can bracket structured interventions by providing ongoing supportive counselling and de-mystifying HIV-related health interventions. Clinicians should find ways to validate complex trauma histories and ongoing trauma from a stigmatizing disease. These multi-level team supports can provide a foundation to rebuild or retain people’s identity, help with coping skills on a variety of levels, and possibly facilitate the desire and skills to pursue sobriety.

Clinicians working with people with HIV, should participate in trauma-informed training to understand the complex social interactions that can serve to alienate patients from potential supports and helpers. Professional development and collegial support in developing advances in interventional skills and clinical acumen are advised. This study provided insight into a complex population and will enhance knowledge to address barriers or gaps in the socio-economic stability and health outcomes both to the HIV positive population as well as other complex populations that have high percentages of concurrent mental health, addictions and physical disorders. This study showed that interventions, such as a non-abstinent trauma-based group, may appeal to people with addictions who are in a pre-contemplation stage that may otherwise not be engaged in treatment. This approach may be useful for people who are not HIV positive, but who have complex and concurrent disorders.

**RESEARCH GAPS/LIMITATIONS**

Several limitations emerged in the study. Obtaining the desired sample size and maintaining enrollment presented challenges. Data collection for follow-up may be challenging in a population with a high rate of homelessness and chaotic lifestyles. However, the largely qualitative methods allowed for findings to be analyzed, even with a small sample size. Accordingly, the findings largely emerge as qualitatively based group perceptions, inviting further research examining interventional outcomes on medication adherence, health and quality of life.

Health outcomes could not be measured in the limited time period of this study, especially as HIV related health status can vary widely for each individual. Trends in CD4 counts and viral loads, which are objective indicators of medication adherence, take many months to measure. Medication refill records are a valid method of tracking adherence for most patients and should be included in a study that has a larger sample size.
There is a high rate of people with HIV who have different sexual and gender identity orientations. Some of the participants identified this as a consideration for them in attending the group. This may have posed a limitation for some people who do not feel comfortable raising this issue in the enrollment process.

Attendance was not addressed when analyzing the results for this primarily qualitative study. The majority of participants each only missed one or two sessions, and thus were considered to have successfully completed the material. However, future studies which analyze pre and post group DAPS scores should include attendance as an important variable in determining group effect.

Although The DAPS questionnaire provides a DSM IV diagnosis of PTSD, and insight into an individual’s particular range of symptom responses to trauma, it appeared to be limited in assessing some aspects of the participant’s day-to-day realities. Many participants had difficulty assigning a single traumatic experience that they could identify as their ‘index’ trauma (the experience that was most distressing). The instruction to respond with symptoms that were occurring during ‘the last month’ was also confusing for many. This may reflect the flux of post-traumatic stress symptoms over the life course, and the phenomena of ongoing and/or multiple traumas that may add to historical trauma for this group.

**KNOWLEDGE DISSEMINATION AND TRANSLATION ACTIVITIES**
400 copies of the Executive Summary of the research have been formatted into a booklet which has been graphically designed to appeal to a wider audience, including community based practitioners, persons living with HIV and clinical practitioners and program heads and are being distributed to various programs and at events. There is also an electronic version.

Presentations and posters at conferences specific to HIV care, trauma, and Harm reduction advocates will be pursued.

Journal Article(s) to appropriate publications to be pursued.

**PRINCIPAL APPLICANT (TEAM LEADER)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position Title</th>
<th>Topics of interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jakalin MacGregor</td>
<td>Case Manager, Castlegar Mental Health and Addictions Interior Health</td>
<td>Addictions, Concurrent Disorders, Complex Trauma,</td>
</tr>
<tr>
<td>MSW RSW</td>
<td>British Columbia (Formerly with Northern Alberta HIV Program, Alberta Health Services)</td>
<td></td>
</tr>
</tbody>
</table>

**PROJECT PARTNERS (TEAM MEMBERS)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position Title</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lynda Phillips</td>
<td>Psychologist</td>
<td>Group Facilitator /Recruitment / Data Collection</td>
</tr>
<tr>
<td>Cindy L’Hirondelle</td>
<td>Social Worker</td>
<td>Group Facilitator /Recruitment / Data Collection</td>
</tr>
<tr>
<td>Bernadette Modrovsky</td>
<td>Social Worker</td>
<td>Group Facilitator /Recruitment / Data Collection</td>
</tr>
<tr>
<td>Tammy Hornby</td>
<td>Social Worker</td>
<td>Group Facilitator /Recruitment / Data Collection</td>
</tr>
<tr>
<td>Cara Hills-Neiman</td>
<td>Pharmacist</td>
<td>Adherence Analysis / Project consult</td>
</tr>
<tr>
<td>Pam Nickel</td>
<td>Pharmacist</td>
<td>Adherence Analysis / Project consult</td>
</tr>
<tr>
<td>Christine Hughes</td>
<td>Pharmacist</td>
<td>Adherence Analysis / Project consult</td>
</tr>
</tbody>
</table>
PUBLICATIONS AND PRESENTATIONS

- Oral Presentation. and Draft Summary presented to Annual Northern HIV Program Team Retreat. June 2011
- Executive Summary Booklet Produced, March 2012.
- Poster Presentation. Found In Translation Conference in Edmonton, March 8, 2012

ABOUT THE ALBERTA ADDICTION AND MENTAL HEALTH RESEARCH PARTNERSHIP PROGRAM

The Alberta Addiction and Mental Health Research Partnership Program is comprised of a broad-based multi-sectoral group, representing service providers, academic researchers, policy-makers and consumer groups, working together to improve the coordination and implementation of practice-based addiction and mental health research in Alberta.

The mission of the Research Partnership Program is to improve addiction and mental health outcomes for Albertans along identified research priority themes, by generating evidence and expediting its transfer into addiction and mental health promotion, prevention of mental illness, and innovative service delivery.

The Research Partnership Program sets out to increase Alberta’s excellence and output of addiction and mental health research findings, and to better translate of these findings into practice improvements.