Patterns and Pathways of Adolescent Substance Use Relapse: An Exploratory, Hybrid-Grounded Analysis of Recovery High School Students’ Node-Link Relapse Portrayals

Sigurd Zielke, D.Min., LMHC, LCAC, LCSW, FAPA, BCPC, Hope Academy, Fairbanks Hospital
Tracy Garrett, MSW, LCSW, LCAC, Fairbanks Hospital
Sarah Heck, M.A., Indiana Wesleyan University
Gale Stone, M.A. Ed., Hope Academy
Charlotte Pontius, B.S., LCAC, CADAC-II, CCS, Fairbanks Hospital
Douglas Daugherty, Psy.D., HSSP, Indiana Wesleyan University
Debra Zielke, M.S. Ed., IMH-E®(II), Goddard Schools

Abstract

Background:
Investigators who study the application of evidence based practices (EBPs) suggest that to achieve the highest quality results from their use, clinicians should adjust the EBPs to the specific needs and circumstances of the clients served. In accord with this suggestion, we adapt a node-link mapping EBP to use with substance use disordered (SUD) students attending a recovery high school to assist them in processing their relapse events. We then use a qualitative investigational design to explore select student relapse maps to (1) identify and conceptualize the varying patterns of factors, features, and unfolding experience that constitute pathways to and through student relapse events, in order to (2) generate new micro-frames of understanding so that (3) practitioners might align protective interventions to specific relapse pathways.

Method:
A total of 21 node-link relapse maps, co-generated by SUD students and staff at a recovery high school, were sampled (10 in sequence and 11 purposively) from 154 maps archived by the school over a three school-year period. A field driven, hybrid-grounded, five-round study procedure was constructed and applied to analyze the sampled maps.

Emergent Patterns and Pathways:
Our hybrid-grounded, exploratory analyses of 21 sampled node-link relapse maps revealed three dissimilar experiential pathways leading students to and through their substance use relapses. These conceptually defined relapse pathways each disclosed salient demographic factors, imbedded features, and unfolding sequences of experience that marked them as distinct. As constructs, these experiential relapse pathways serve as new micro-frames through which relapse among SUD recovery high school students can be understood. Additional relapse pathways needing confirmation were also identified.

Conclusion:
By using an adapted EBP coupled with a field-driven, hybrid-grounded study design, the investigators confirm the existence of qualitatively differing experiential pathways to recovery high school students’ relapses. Specifically, the investigators conceptualize how demographic factors, contextual and imbedded features, and sequences of experience dynamically mix and unfold into real-life relapse pathways. These pathway conceptualizations give practitioners new micro-frames from which to develop pathway-congruent protective interventions.

Key Words:
Adolescent, youth, students, substance use disorder, addiction, recovery, relapse, node-link mapping, recovery high school, evidence-based practices.

Preface

What problem does this study address?
This study explores a field observation consistently made by recovery high school (RHS) practitioners when co-processing substance use relapse events with students—RHS students seem to travel varied and distinct experiential pathways to and through their substance use relapses.

Why is the study important?
Identifying the factors, features, and unfolding experience that constitute each distinct experiential relapse pathway makes possible a more precise, practical understanding of students’ relapse events.

How will the study’s findings help recovery educators work with RHS students?
The findings will enable RHS practitioners to develop interventions that offer more congruent, pathway-specific relapse protection.
Introduction

Addiction has been conceptualized as a chronic, relapsing brain condition characterized by compulsive drug seeking and use in the face of harmful consequences (National Institute on Drug Abuse, 2007, 2010). Relapse, therefore, stands as a defining element of addiction itself, the dynamic that moves an abstinent alcoholic/addict to return to use despite the probability of further unwanted consequences (Hendershot, Witkiewitz, George, & Marlatt, 2011). Ramo and Brown (2008) documented the power of relapse among the addicted as they reviewed post-treatment outcome studies and found between two-thirds and four-fifths of adults and youth use again within six months of completion of treatment. Because the aim of addiction treatment is “the broad goal of recovery, which is defined as abstinence plus improved quality of life” (Laudett, 2011, p. 44), the prevention of relapse is the central challenge facing addicted clients and their stakeholders across all developmental periods (Ramo, Meyer, & Brown, 2010).

At the present time, the dominant frame for understanding and preventing substance use relapse is Marlatt and Gordon’s 1985 cognitive-behavioral Relapse Prevention (RP) Model (Ramo, 2008). Overall, the RP model proposes that two mutually operating clusters of determinants (i.e., factors) dynamically interact to contribute to a relapse event (Larimer, Palmer, & Marlatt, 1999; Hendershot, et al., 2011). Cluster I, Immediate Antecedents consists of (1) internal and external contexts that contribute to relapse vulnerabilities and constitute high-risk situations, (2) efficacy of the individual’s coping that involves his/her ability to utilize cognitive or behavioral compensatory strategies, (3) the individual’s outcome expectancies of anticipated effects of substance use, (4) the presence or absence of abstinence violation effects, including sense of failure and guilt, and (5) the abandonment of desire to change. Cluster II, Covert Antecedents consists of lifestyle factors, urges, and cravings.

In terms of understanding abstinence and relapse, the RP model predicts that when individuals adequately meet the challenge of coping with high-risk situations without using, they gain confidence in their ability to abstain and strengthen their sense of self-efficacy, which increases the probability of future sobriety. Conversely, if individuals employ ineffective coping strategies, they decrease their sense of efficacy and more often employ positive drug outcome expectancies, resulting in more lapses. Lapses then trigger abstinence violation effects (i.e., guilt, shame, powerlessness) and motivate relief-seeking, which in turn increase the odds toward future failure and relapse.

Marlatt and Gordon’s RP model is essentially an adult model, conceptualized and tested using adult populations with little consideration given to developmental differences that might have import to adolescents. It wasn’t until two decades later that Ramo (2008) suggested that differences in both content and process distinguish the two populations (2008, pp. 3-4). Among the differences: (1) contextual features in regard to high-risk situations with youth being more vulnerable to social pressure, utilizing less discriminating cognitions, and showing reduced vigilance with heightened cue reactivity; (2) coping skills employed; and (3) substances used during relapse. To model these and other hypothesized differences, Ramo (2008) crafted the Youth Addiction Relapse Model by incorporating “developmental dynamics” that were hypothesized to impact Marlatt and Gordon’s eight determinants of relapse. What this developmentally-tuned extension of Marlatt and Gordon’s RP model gives youth practitioners
is (1) a dynamic frame to better understand how relapse risk and protective factors interact, (2) a cluster of identified risk factors, and (3) suggestions for preventive action. Overall, both the adult and youth RP models have become the standard frame used by addiction professionals to understand and prevent substance abuse relapse.

In addition to the application of the RP model to reduce relapse among populations of treated substance use disordered (SUD) youth, addictions professionals began to develop and establish recovery high schools. The recovery high school is a special high school designed to promote the dual mission of supporting student sobriety while facilitating educational and life success (Moberg & Finch, 2008). Presently, the Association of Recovery Schools lists the number of member schools nationally at twenty-five (The Stacie Mathewson Foundation, 2013). Despite the numerous student success stories coming out of these schools, it was while operating in a public charter recovery high school that staff involved in the present study found the RP model had little import among its students who relapsed, as distinct from students who maintained their sobriety. That is, students who relapsed did not seem to recognize relapse risks as distinct realities, or high risk situations as distinct occasions; rather, they appeared to conflate these risks into chains of perceived risk-irrelevant experiences, blurring and dynamically repackaging them into chains of experience that unfolded into qualitatively different relapse pathways.

Using this observation as our launching point, the recovery school’s practitioner-investigators joined with local university-investigators and together proposed and conducted the present exploratory study. The purpose of the study—to explore: (1) the observation that recovery high school students who relapse seem to function out of qualitatively differing patterns of risks and unfolding experience, (2) how these lines of risk and experience serve as distinct pathways to and through relapses, (3) how these relapse pathways might be conceptualized into practitioner-usable micro-frames that expand our understanding of relapse, and (4) how clues within and along each conceptualized pathway might be used to develop pathway-congruent protective interventions.

**Method**

**Approach**

As knowledge of evidence-based practices became ubiquitous among addictions professionals, issues concerning how best to apply them and retain their efficacy arose (Sorensen & Kosten, 2011). A growing realization emerged that “evidence, however strong, cannot provide clear guidance for treating every client in every circumstance,” and that clinicians need to adapt EBPs to the unique needs, characteristics, and circumstances of each client and to the demands of each service setting (Prendergast, 2011). For example, in regard to applying EBPs to populations of minority youth, Huey and Polo (2008) point out that EBPs need to be structurally tailored to enable clinicians to “respond flexibly to circumstances unique to the individual clients” (p. 277).

Earlier, Bensimon, E.S., Polkinghorne, D., Bauman, G., and Vallejo, E. (2004) present a similar notion with a twist. They suggest that evidence-based practice be fit to clients by making field adjustments based upon practitioner-researcher inquiry that uses close-to-the-issue study techniques to produce knowledge that directly informs practice. In presenting this notion, they advocate for the collapse of the traditional division of labor between researchers as
the manufacturers of knowledge, and practitioners as the consumers who apply it, and instead envision a mutual work of dynamic and integrated exchange through which the assets of each professional perspective are utilized. That is, practitioner strengths of nearness to a phenomenon, clinical insight, and sense of practical relevance are merged with researcher strengths of theoretical perspective, objectivity, and knowledge of the literature and measurement approaches. These diverse strengths are then coalesced into field-driven, practice-oriented investigations. In this approach, practitioners and researchers join to study a phenomenon of common interest to produce knowledge within the local context of the phenomenon itself to create micro-theoretical frames for new understanding and action (Shields & Tajalli, 2005). The authors of this present investigation use this ground-up, joint practitioner-researcher approach to study EBP-captured relapse events among SUD students attending a recovery high school.

Procedure and Data
As part of the recovery high school’s mission to promote sobriety and school success, students who relapse are obligated by school policy to make repairs as a condition for re-engagement with their sober classmates. One of the repairs is to “unpack,” that is graphically co-process, their relapse event with trained staff through an adapted form of node-link mapping (see Appendix A).

Node-link mapping is an EBP counseling technique that uses visual representation to enhance the counseling process (Czuchry & Dansereau, 1998). Specifically, clusters of information (nodes) and connective lines between them (links) are used to represent the progression of actions, thoughts, and feelings, and how they combine, unfold, and relate over the duration of a relapse event. Node-link mapping techniques have been found to benefit multi-problem individuals including addicted adolescents (Bartholomew, 2011) by having a positive impact on motivation, self-efficacy, emotional control (Newbern, Dansereau, & Pitre, 1999), and focus/attention (Czuchry, Dansereau, Dees, & Simpson, 1995).

Unpacking a relapse via node-link mapping requires the school’s clinical specialist and/or designee to systematically record a student’s personal memories of his or her relapse event on a whiteboard via a step-by-step, memory-frame by memory-frame process. First, after basic demographic information is recorded, a map of the overall event is constructed... “What happened?” “Then what happened?” “And, then what happened?” and so forth, until a sequence of events/actions along with corresponding circumstances is established and recorded in black. Next, thoughts are explored... “What were you thinking here?” “And, here, what were you thinking?” and so forth. Thoughts are recorded in blue next to the corresponding event/action identified. This is followed by recording associated feelings in the same manner... “What were you feeling here?” “And, here, what were you feeling?” with responses recorded in green. The whole process results in a self-expressed, experience-based, memory-mediated, systematic portrayal of the student’s relapse. The student is then invited to step back, so to speak, to make observations as to what stands out to him or her. What is personally significant? What areas of the map seem to relate? At what points does the student see that doing or thinking something different might have contributed to a clean/sober outcome? These observations, along with their points of potential self-intervention, are recorded in red.
The final product of the relapse unpacking is a node-link map, i.e., a series of sequentially connected experiential units of information. Each constructed map is then copied and secured for recovery coaching purposes.

Population

A total of 154 node-link relapse maps were generated by 101 SUD students and staff over a three school-year period at the aforementioned public charter, recovery high school, from which 21 maps were sampled. Of this original map pool, 62% (96) of the maps represent male relapses, whereas 38% (58) of the maps represent female relapses—a ratio similar to that of males to females enrolled at the school during the study period. Twelve students (nearly 8% of the study population) identified themselves as being non-white, which is lower than the state’s non-white population of 11.5%. Of the 21 sampled relapse maps, 11 involved male relapses, 10 involved female relapses; 19 of those students self-identified as white, and two students self-identified as non-white. The age span represented in the 21 sampled maps included two 14- and 15-year-olds, sixteen 16-and 17-year-olds, and three 18- and 19-year-olds.

Sample

Our sampling strategy is congruent to the purpose of the study and its qualitative, exploratory hybrid-grounded design. We first utilized random-nested sampling by extracting 10 node-link relapse maps from the overall map study pool for initial exploration, and then purposively sampled (Oliver, 2006) additional relapse maps to embellish and refine resulting emergent findings. Therefore, we employed a meld of random and purposive sampling through a three-part process: (1) determine a point of map adequacy, (2) utilize nested sampling, and (3) test and refine emergent findings from the nested sample through purposive sampling.

Map adequacy

To determine a point of “map adequacy,” three investigators most familiar with node-link maps screened the 154 archived maps. School staff had used node-link mapping for six years prior to the present study and, during that time, had steadily improved the quality of the maps. It was important to the study that we used “adequate maps,” i.e., maps that (1) had complete and consistently recorded demographic and precursor descriptions, (2) used links consistently, (3) contained adequate information within nodes, (4) used time markers, (5) clearly recorded portrayals of thoughts and affects in regard to events/actions, and (6) included student observations and suggestions for restorative action.

Nested sampling

Once a point of map adequacy was determined, 10 maps were then sequentially sampled with the intention of taking a “nested slice” of maps from the overall map data pool to observe if and what relapse pathway variabilities might emerge simply as a result of their occurrence in daily practice. Nested sampling is a qualitative sampling strategy where a subsample is randomly “sliced out” (authors’ term) of the sample as a whole, and then analyzed by constant
comparative techniques until subgroups nested within the subsample separate or cohere, thereby yielding further patterns and information (Onwuegbuzie & Leech, 2007).

Purposive samplings
To clarify the potential relapse pathway subgroups found within the nested subsample, purposive sampling was employed which resulted in the selection of 11 additional student node-link relapse maps. Purposive sampling is used in grounded theory (GT) research to specifically test, i.e., embellish, refine, confirm, or negate emerging theoretical frames. Thus, samples selected are not representative of the population as in quantitative random sampling; rather, samples selected are representative of what additional theoretical work needs to be done. This is why theoretical purposive sampling has become known as a hallmark of grounded theory study designs (Glaser & Strauss, 1967).

A time-limited saturation cut-off point (e.g., Christiansen, Scott, & Sorensen, 2013) of three relapse maps was used to confirm a relapse pathway. That is, if three maps were found to be of such congruence that they could be structurally assimilated into one conceptualization, then a confirmation of a relapse pathway was reached. Relapse pathways that fell short of a three-map confirmation were held in suspension and given the status of tentative relapse pathways, to be further investigated in subsequent studies.

All the sampled relapse maps used in the study were de-identified by an independent, university-certified clinical research assistant. A local university Institutional Review Board (IRB) assigned the study an exempt status due to its secondary analysis design of anonymous, de-identified, public school data.

Design
From the outset, the study’s investigators sought to construct micro-frames that capture the dynamic, progressive, and “lived” nature of relapse variabilities as portrayed by students in node-link maps of their relapse events. To create such frames the investigators hypothesized that the study’s procedures would need to be likened to those of an ophthalmologist conducting a retinal exam. These procedures incorporate a variety of assessment techniques (including different eye drops, light spectrums, lenses, and angles) all in order to bring forth the retina’s features, qualities, and structural integrity. Likewise, the investigators believed that in order to observe and subsequently identify the various configurations of factors, elements, and features embedded within student node-link maps as well as their unique patterns of expression, a mix of inductive methods would need to be employed. Put anthropomorphically, we needed the sampled maps to “speak” to us, to give us their unique patterns of factors and features that actually served as pathways to and through student relapses.

Therefore, in designing the study to accurately observe map contents, precisely capture their patterns of expression, and then faithfully construct these into relapse pathway micro-frames, we used a hybrid of three inductive-oriented qualitative research strategies: (1) inductive analysis (Thomas, 2003), (2) grounded theory (GT) study (Glasser & Strauss, 1967; and Strauss & Corbin, 1994), and (3) content and conceptual analyses (Stemler, 2001; and Axley,
 Specifically, this hybrid study design entailed the use of the following methods: (1) **forced coding** (instead of theoretical coding as in GT) that used coding sheets to fracture content based upon categories found in the node-link maps themselves; (2) **statistical analyses** of the fractured content (which was later discarded); (3) **systematic observation** of coded content that immersed investigators in a map’s data; (4) **constant comparison** both within and across maps to generate observations and ascending categories, i.e., frames; (5) **memoing** observations and the categories generated within and across maps as a means of conserving emerging insights and categories for the next level of constant comparative analysis; (6) **arbitrary saturation** at a three-map cut off point due to study time constraints; (7) **content analysis** to check the congruence of the pathway labels with essential content; and (8) **concept analysis** to check the adequacy of pathway labels.

**Five Round Analysis**

In order to execute all these methodologies in a systematic and rigorous manner and do so in a way that increased the study’s trustworthiness, two steps were taken. The first step involved integrating seven qualitative investigative strategies associated with study credibility (Johnson, 1999): (1) use of low inference descriptors, (2) data triangulation, (3) methods triangulation, (4) investigator triangulation, (5) reflexivity, (6) pattern matching, and (7) use of adversarial peer review. The second step then involved the ordering of all the aforementioned study strategies and methods into a systematic, five round analysis of the data. The following identifies each round and sets forth the steps found within.

**Round one—coding and initial memo analysis**

In round one analysis, investigators: (1) coded each nested-sampled relapse map’s data points (up to 338) onto a master coding sheet; (2) memoed observations on “e” templates; (3) abstracted each map’s flow of events in sequence along with corresponding student experiences; (4) met together weekly to review the week’s aforementioned work and then made additional observations and memos; (5) as convened colleagues, identified tentative pathway conceptualizations for each map considered, and labeled them; (6) evaluated submitted conceptualizations and labels for general fit, i.e., congruence with map substantive data; and finally, (7) nominated high congruence maps for tentative relapse pathway status, while holding map conceptualizations and labels of lesser distinctiveness and congruence in suspension.

**Round two—retesting fit analysis**

Round two analysis involved three investigators retesting round one nominated pathway labels and conceptualization for fit, through a one-map-at-a-time four-step evaluation process. First, the round one label and conceptualization was posted in the left column on an electronic copy board—a column entitled Tentative Pathway Labels & Conceptualizations. Second, summative data was posted to the right of this information in a column labeled Map Summative Data, which included five sub-columns: a) total nodes, b) demographic factors, c) precursor elements and features, d) salient pathway elements and features, and e) sequence highlights. Third, the investigators reviewed each map’s summative data in reverse direction (from right to left) to determine if the data recorded was at
face value, congruent with the given tentative label and conceptualization. Fourth, if the label and conceptualization appeared to be congruent with the summative data, then the pathway label with its corresponding conceptualization was tentatively confirmed. Fifth, if the label, conceptualization, and summative data appeared to be incongruent, adjustments to the label and conceptualization were made until either congruence was achieved, or the map’s tentative pathway candidacy was denied and the map suspended for possible future study.

Round three—purposive sampling analysis
In order to confirm or deny the tentative pathways found among the 10 nested-sampled maps, investigators purposively sampled (see above pp. 5-6) 11 additional node-link maps. As each additional map was sampled, it was immediately put through rounds one and two analyses. Emergent pathway characteristics and conceptualizations were then used to further interpret all the extant summative data for each tentative pathway. If, through this process, a purposively sampled map was found to fit a standing map’s label and conceptualization, it was assimilated into the pathway, thereby strengthening it. If, however, a purposively sampled map was found not to assimilate into any of the schemas of tentative relapse pathways, it was accommodated into its own pathway, thereby generating a new tentative relapse pathway. The end result of round three analysis was the corroboration of relapse pathways found in our original subsample of relapse maps, and/or the identification of additional tentative relapse pathways.

Round four—content and concept analysis
As a means to further tighten each tentative pathway label and corresponding conceptualization, investigators applied an abbreviated form of content and concept analysis. First, investigators used content analysis to retest again, the congruence between a relapse pathway’s salient, essential, and defining content and its assigned label (note, a reversed right to left logic—see p. 8). Content analysis is “a systematic, replicable technique for compressing many words of text into fewer content categories” (Stemler, 2001, p.1) to determine the most important notions within a given content. To do this, investigators checked the elements and features found across the maps of a tentative pathway to affirm its essential content, i.e., the criteria for inclusion in each distinct pathway.

To check a pathway’s congruence in the opposite direction, from its label to its essential content (i.e., from left to right) concept analysis was applied. Concept analysis has been defined as a process “to establish the essential components,” i.e., contents (Axley, 2008, p. 215), of a construct/label that differentiates it from other similar or related labels. Conceptual analysis involved investigators (1) defining each pathway label conceptually; (2) determining inclusion and exclusion criteria based upon a label’s positive, negative, associated, and idiosyncratic features and notions; and (3) re-testing each pathway label in accordance to its presenting content.

Round five—adversarial analysis
For the final round of analysis, investigators applied an adversarial strategy to evaluate the veracity of each of the study’s pathway findings. Two study investigators who were involved in the formation of the study and in the round one analysis, but were not involved in subsequent rounds, were employed to challenge or confirm each identified pathway through a two-stage process. The first stage involved a thorough review of the node-link study maps, their
coding, memos, procedural notes, and subsequent analysis documents that pertained to each nominated, tentative pathway. Factual and procedural accuracy was checked along with pathway inclusion and exclusion criteria. The second stage evaluated the credibility, i.e., the uniqueness, wholeness, and independent standing, of each proposed pathway through the means of intra-pathway comparison and trans-pathways comparisons. From this two-stage analysis, each proposed pathway was either confirmed as a study finding, or challenged, suspended, and given the status of a potential pathway to be further studied after the completion of the present investigation.

Emergent Patterns and Pathways

Our rigorous application of a five-round, hybrid-grounded, exploratory analysis of 21 sampled student node-link relapse maps revealed three dissimilar experiential pathways leading to and through relapse events. These conceptually separate relapse pathways each disclose salient demographic factors, contextual precursor and imbedded pathway features, and unfolding sequences of experience that mark them as distinct. They are: (1) The Depressed-Dissociative Pathway; (2) The Empty, Automatic, Enmeshed Pathway; and (3) The Antisocial Narcissistic Pathway. In addition to these three identified pathways, a number of maps indicating potential for relapse pathway status, yet needing to demonstrate saturation for confirmation, were tentatively identified.

Pathway I: The Depressed-Dissociative Relapse Pathway

The first node-link map studied was that of a 16-year-old white male who reported having been “pretty depressed of late” and didn’t “see the point to life.” By the end of Round One analysis (i.e., the forced coding and memoing), the investigators were impressed by the artifact’s demographic factors, distinct features, and unique experiences (see Figure 1 below). The artifact opens with the student stating it was “just another day,” yet he reports experiences of “not here at times,” “sees shadows,” and “hear[s] name.” Then in short order, the student relapses alone on 13 hydrocodones, resulting in a numbing high, a crash into deep sleep and his waking at 1 a.m. to “start the day” by making coffee, smoking cigarettes, and playing guitar. In addition, the student makes reference to experiences that suggest a poverty of thought that roughly mirrors the prodrominal phase of a psychotic episode—he “sees shadows,” “listens to voices in the music,” and experiences the intrusion of a “drum line,” which he states all serve to take him “out of reality” and “away from life.” Upon observing what had been mapped on the whiteboard, the student attributed these experiences to a three-week period of daily, heavy dextromethorphan (DXM) use (twenty-five pills at a time) which resulted in him having bad trips, having auditory hallucinations, staying in his room, not sleeping or eating, and “being up for days.” At the end of round one analysis the investigators agreed that the map possessed enough peculiar and distinct features to qualify it as a candidate for a relapse pathway. It was tentatively labeled the Dissociative, Nihilistic, Autopilot Relapse Pathway. Through rounds four and five analyses, this title was revised to its current reading.

As the other nine of the study’s original ten node-link maps were analyzed, investigators did not find even one map that possessed similar factors, features, or quality of unfolding experience. Uncomfortable with assigning a relapse
pathway on the basis of a single map, and because the map under consideration could very well represent a young person under the duress of a co-occurring mental disorder, three additional maps involving students using high doses of DXM were selectively sampled. The logic applied in this purposive sampling: that young addicts seeking DXM would have more experience with dissociative and hallucinogenic type of experiences and this would give further clarity and definition to the proposed pathway, or provide evidence that the pathway under consideration was nothing more than one student’s idiosyncratic experience. As the round one analysis of the three additional, selectively sampled artifacts concluded, it was apparent that one of the sampled maps did not fit the purposive sample and represented nothing more than a student’s opportunistic use of DXM when no other intoxicants were available—this artifact was excluded, leaving a total of three artifacts to represent the pathway.

Demographic factors
Five unique demographic factors characterized the students traveling down the Depressed-Dissociative Relapse Pathway: All three students report (1) being 16 or 17 years of age; (2) having a three-plus-year history of drug use; (3) having received formal addiction treatment; (4) maintaining between 45 and 110 days of clean time before relapsing (suggesting personal background and resources to contain their use for a modicum of time); and (5) having no legal issues (even though their node-link maps indicate they had broken the law—bought drugs at school, used drugs at school, drove a vehicle while under the influence, and stole over-the-counter medications). It should be noted that all three students sampled for this pathway self-identified as being family history positive (FHP), i.e., mother, father, or both were noted by the student to be either alcoholic, drug addicted, or both. Yet, we did not use this demographic factor to determine the pathway, for all study maps sampled (n = 22) indicated an FHP status.

Precursor and pathway features
In all three sampled maps, students indicate they had no intent to use as they began the day of their relapse. Also, all three students report experiencing existing and increasing depression, meaninglessness, and in one case suicidality; then directly seek and take drugs that produce overwhelming, bizarre, dissociative states. In each case, the students’ unfolding depression led to high risk drug-acquiring behavior, combined with impulsive, unaccompanied use of a substance, and/or quantities of a substance, that would bring about dissociative states, i.e., states that detached self from immediate surroundings, from one’s body, and from one’s emotional reality. In other words, the highs these students pursued were self-only-oriented—they wanted to be consumed by an altered state. In two of the three artifacts, students noted ego-systonic responses to bizarre states; they embraced states that would normally be perceived by most teens as aversive: “feeling not here at times;” “really tired and numb;” “crashing-like dying;” “hallucinations—people talking, hearing music, seeing things,” etc. Contrary to typical adolescent social orientation, students who produced the Depressed-Dissociative Relapse Pathway node-link maps did not indicate seeking socially-mediated drug use or highs—just the opposite, they isolated.
Pathway II: The Automatic Pot-Enmeshed Relapse Pathway

At the completion of the round one and round two analyses of the study’s 10 nested, in-sequence sampled node-link relapse maps, three maps stood out as representing a marijuana-enmeshed relapse pathway which was labeled Pathway II: The Automatic Pot-Enmeshed Relapse Pathway (see Figure 2 below). All three of these maps (the saturation threshold needed to determine a relapse pathway) displayed demographic factors, precursor, and pathway features that placed them in clear juxtaposition to the three relapse maps establishing the first identified relapse pathway.

Demographic factors and a precursor

Two demographic factors and a significant precursor mark the students traveling down the second relapse pathway. In contrast to the node-link maps representing the first pathway, Pathway II maps indicate (1) all three students had legal issues (none of Pathway I students had legal issues), (2) all three students were not involved in traditional recovery activities (two of the three Pathway I students were extensively involved), and (3) all three Pathway II students indicate either active or passive intent to use at the start of their relapse day (all three Pathway I students indicated no intent to use). The significance of the variance in the two demographic factors with the precursor variance of “intent” seem to be that students traveling Pathway II used and behaved in ways that engaged them with the law, and at the same time disengaged them from recovery activities and the recovering community. This distinct engagement-disengagement marker might very well be related to Pathway II students’ intent to continue using.

Pathway features

All three Pathway II students started their maps indicating an active or passive intent to use, which then quickly turned into a series of actions and events that suggest an automatic type of habitual functioning—“Just did it,” “Just what I do every day,” “Like breathing,” “It’s the way life is,” “Feels like autopilot.” With this they then traveled through periods of boring and meaningless experiences—“Bored,” “Find something to do/watch,” “If nothing, sleep,” “Can’t remember,” “Don’t know,” “None,” “Lost most of the time,” “Something is missing here,” “[Have] no life.” Their continued use of marijuana was their solution to and escape from this bleakness which was their lives—“Concentrate on weed,” “Excitement!” “Relief,” “Feel good,” “Something to do,” “[Use] to pass time,” “Who am I without smoking pot?”

Overall, when standing back and comparing and contrasting Pathway II artifacts with other study artifacts, five distinct features emerge: (1) Pathway II artifacts are relatively visually sparse/empty (i.e., significantly fewer nodes at all levels—actions, thoughts, and feelings); (2) Pathway II students exhibit a passive approach to life, i.e. students use a “time-moving” metaphor (TMM) where their egos are fairly passive as time moves by them as if it was on a conveyor belt (Alloway, Ramscar, and Corely, 2001); (3) Pathway II students function in automatic ways, i.e., they seem to live out of procedurally-learned “response-sets” (Grigsby & Hartlaub, 1994; Zielke & Zielke, 2010) mastered while involved in the culture of addiction (White, 2001); they “just do it” with little forethought or reflection; (4) Pathway II students’ use is socially grounded and mediated—they use social interaction to initiate and
sustain their use; and, (5) Pathway II students do not simply use marijuana, they are marijuana-enmeshed. That is, they go far beyond just seeking a high, they are ensnared in marijuana-focused living and function as potheads—“someone who believes any problem can be fixed by smoking marijuana, and any activity is more enjoyable [while] stoned; [who] when not smoking pot still show the effects, are a more habitual cannabis smoker than your average, and who care very little [i.e., less] about the outside world” (Urban Dictionary, 2012).

**Pathway III: The Narcissistic, Antisocial Relapse Pathway**

Two additional maps stood out as unique among the study’s 10 sampled relapse maps. These maps suggested a distinct relapse pathway that a third purposively sampled map confirmed. Together they stood in clear juxtaposition to relapse maps establishing pathways one and two. The three maps were labeled the Antisocial Narcissistic Relapse Pathway. Below, Figure 3 represents the pathway’s distinguishing demographic factors, pathway features, and unfolding experience.

**Demographic factors and precursors**

Two unique demographic elements marked students traveling this third relapse pathway. In contrast to the artifacts representing the first two pathways, Pathway III students (1) had between a 4- and 6-year history of polydrug use (including alcohol), and (2) were overall older, 17- and 18-years of age. Yet at the same time, all Pathway III students indicated demographic and precursor similarities to Pathway II students, in that (1) all had legal issues, (2) all were in continuous use, and (3) all report no meetings or sponsor contacts (one student did report going to a meeting, yet was quick to qualify it as nothing more than a form of “cover”).

**Pathway features**

All Pathway III students traveled down relapse pathways marked by deception, lying, stealing, vacuous recovery work, and continuous use. Unlike Pathway II students, Pathway III students were active—early in the unpacking they pursued using friends, and/or getting high or drunk as they moved from one situation to another. Once they used, they continued their use, or at least sought multiple intoxications before the mapped relapse ended. All Pathway III students took risks—engaged strangers in a high risk area of town to buy drugs, drove drunk twice (after 10 shots), and were “really high” and/or used to dangerous levels. Other distinguishing features marking the students of Pathway III are as follows:

1. **Narcissistic Features.** All three students manifest narcissistic features, including (1) a sense of superiority—feels older, more level-headed, “Won’t get caught,” “How do you dumb guys get caught?” “Thought I was smart about this stuff;” (2) feeling untouchable —“Slippery,” “Like a cat with nine lives,” “Have to catch me first,” “Street savvy;” (3) having expansive, irritable affective states—“Happy the whole time,” “Feeling good,” “Feeling better,” “Having fun,” “Recovery shit gets annoying,” “Her friends irritate me,” “She [girlfriend] was annoying as shit,” “Constantly pissed off” and/or (4) privately relishing their sense of superiority and their perceived accomplishments over others.
2. **Antisocial Attributes and/or Behavior.** All three students manifested antisocial features and/or behaviors including: (1) “fake it personality,” (2) history of stealing candy and bikes and selling them, (3) numerous arrests, running away, driving when highly impaired, (4) lying to sponsor, (5) stealing checks from father, “stealing stuff from grandmother, (6) going to clinics and lying to medical doctors to get painkillers, (7) wanting to knock one’s mother out, and (8) having little regard for others and their rights.

3. **Active Approach to Life and Using.** In all Pathway III maps, students used an “ego-moving” metaphor (EMM), rather than a “time-moving” metaphor (TMM, c.f., p. 15), where their egos moved forward to desired ends (Alloway, Ramscar, and Corely, 2001) from one situation to another.

4. **Polydrug Orientation with Heavy Use.** All Pathway III students used or at least sought to use more than one drug during their relapse. One student first used marijuana and then with peers sought alcohol, but when those plans were frustrated, bought and smoked salvia in such quantity that he “turned into just a head.” Another student “passed on pot” so he could “get wasted” on alcohol; yet, after 10 shots, smoked marijuana until he got “really high.” The third student sought heroin, but when she couldn’t make a buy, bought and smoked a quarter ounce of marijuana.

**Other Possible Pathways**

The present exploratory, hybrid-grounded study of ten in-sequence-sampled and eleven purposive sampled node-link relapse maps yielded the identification and conceptualization of three qualitatively dissimilar experiential pathways leading recovery high school students to and through their relapse events. Because of the labor intensive nature of grounded study and practical time constraints on the practitioner-investigators, a three artifact saturation point to substantiate a pathway was used. In other words, the purposively sampled maps were used to confirm or disqualify tentatively identified pathways if they did not have three such maps within the original 10.

Through this process, a number of artifacts seemed to show distinct demographic factors, precursor and/or pathway features with unfolding experience that suggest the possibility of additional relapse pathways; however, three-artifact saturation confirmation was precluded by the study’s time limits. According to protocol, these artifacts were designated as tentative relapse pathways to be confirmed or denied through subsequent study. Among these potential relapse pathways are the “Family Enmeshment/Co-Dependent Pathway,” the “Dealer Pathway,” the “Anxious-Obsessed Pathway,” the “Not Yet Finished Using Pathway,” and the “Anxious, Impulsive, Manipulative Pathway.”

**Discussion**

After node-link mapping over 400 student relapse events, it became obvious to the study’s practitioner-investigators that the relapsing students we encountered had (1) deactivated their vigilance to relapse, (2) obfuscated high-risk situations, and (3) discounted previously taught protective skills. Instead, they (4) appeared to have engaged in patterns of risks and unfolding experience that had been procedurally learned and ingrained while in active addiction that leads them to and through their various relapse events.
The purpose of the current study is to explore these observations through analyzing 21 student node-link relapse maps, and offer clinically relevant findings. The study findings show clearly: (1) across the maps we sampled, students relapse in qualitatively different ways as they experience disparate patterns of unfolding risks on the way to and through their relapse events; (2) these unfolding patterns of risks serve as dissimilar relapse pathways; (3) these pathways can be distinguished, categorized, labeled, and conceptualized as discrete relapse pathways; (4) three relapse pathways were identified with five additional tentative pathways awaiting confirmation by saturation; and (5) as the practitioner-investigators of the study found, identified pathways did provide them additional micro frames to better understand relapse among their recovery high school students. From the original purpose of the study, only one designated intent remains unmet—use of the study findings to generate more congruent, in-context, targeted, protective interventions. To meet this intent and fulfill the study’s final purpose, we use the following discussions to identify literature-based pathway congruent protective responses.

**Risk Structure and Protective Actions**

**Pathway I: The depressed-dissociative relapse pathway**

Having a chronic history of depression with current acute episodes, being ego-syntonically attracted to dissociative experiences, and having tendencies toward social isolation all mark the three students traveling down Pathway I. Youth relapse investigators (Ramo, Myers, and Brown, 2010) suggest that among SUD adolescents, depression as an internalizing disorder puts recovering youth at risk for “more rapid and persistent return to substance use following treatment” (p. 2303), and note that depression is the most frequent psychiatric symptom to precede relapse among youth. As an interventional remedy, these authors found that a youth’s “capacity to organize and execute courses of action,” i.e., the proximal exercising of self-efficacy in regard to prospective challenging situations, increases abstinence. Interestingly, all three of Pathway I’s students seem to recognize their inability to act. Yet, when asked what they might do to reinstate their recoveries (a standard protocol in each unpacking), all three students mention: (1) talk to someone (sponsor, peers, counselor); and (2) take action and do something positive (“go for a walk,” “listen to music,” “go to a meeting,” “do something pleasurable”). Intuitively, these students seem to know that action which moves self through the depression is protective in nature. Unfortunately, missing from all Pathway I relapse maps was any indication that students were provided with sufficient scaffolding to engage them in taking self-suggested positive actions, including prescribed supports and practiced drills to build positive “procedural response sets” (Grigsby & Hartlaub, 1994; Zielke & Zielke, 2010).

Therefore, protective actions for Pathway I students need to include (1) a consistent way for them to monitor their level of depression through caring adults (e.g., Kauer, Reid, Hew, Hearps, and Sanci, 2012); (2) the engagement of regularly scheduled, pro-social, peer-involved, physical and pleasurable activities (Lyubomirsky, S., & Layous, et al., 2011; Lyubomirsky & Layous, 2013); (3) the use of a sponsor, life- or recovery-coach to guide them in using a weekly, positive activity calendar; and (4) a nexus of individuals that contact them and/or are available for immediate contact (Thapar, et al., 2012; Pfeiffer, et al., 2011).
Pathway II: The automatic, enmeshed relapse pathway

Being in continuous use, having legal issues, not engaging in recovery activities, and being bored define students traveling this empty, “autopilot-like” functioning relapse pathway. We conceptualize this pathway as a series of procedurally learned, automatic responses students developed while engaged in the culture of addiction. As a result, these students seem to attempt recovery without significant intention or design, and, let time pass them by and bring what it may. Nilsen, et al. (2012) suggest such chains of behavior have been repeated in context until they become automatic, without intention, and largely without awareness, as the individual’s control of behavior shifts from being internal and intentional to being determined by triggered contextual cues. Cousijn, et al., (2011) argue that this type of implicitly learned functioning is closely tied to an accompanying phenomenon, that of approach-bias; the automatic tendency to approach rather than avoid drug-related stimuli.

If Pathway II students do indeed rapidly relapse as the result of implicitly learned automatic behavioral operations and by approach-bias dynamics, then relapse protection interventions for these students must address these implicit systems of functioning in real-life contexts. As Nilsen (2012) and colleagues point out, to do this, two essentials must be exercised: (1) creating a “contextual disturbance,” like in football, when at the end of the game one team is poised to kick a game-winning field goal and the other team calls for a time-out that provides a window of opportunity for the kicker “to think about” the kick, thereby interrupting the automatic efficiency of making a successful kick; and (2) providing explicit-implicit alternative sequences of positive behavior to be strengthened through practice over time. Shrier, et al., (2014) used this basic psychology as they applied real-time, contextual self-monitoring through mobile technology to heavily using adolescent marijuana abusers, and then paired this “interruptive intervention” with positive alternative response messaging to address patient-identified relapse triggers. The overall result, marijuana desire and use related to relapse trigger contexts decreased over the study.

Pathway III: The antisocial, narcissistic relapse pathway

Unique to students traveling the antisocial, narcissistic relapse pathway is (1) their substantial history of polydrug use; (2) their acts of deception, stealing, lying, etc. (beyond the usual subterfuge that accompanies youth substance abuse); and (3) their perceptions and feelings of superiority coupled with incidentally triggered annoyance and irritability. When considered against larger developmental pathway studies (e.g., Moffit, 1993), Pathway III students could indeed represent nothing more than adolescent-limited conduct problems of which substance abuse is most often a part. Or, to the contrary, these Pathway III students could represent a population manifesting precursors to antisocial alcoholism and drug addiction (e.g., Zucker, R.A., Chermack, S.T., and Curran, G.M., 2000). Both the current study’s limited data pool, plus its qualitative study approach limit any conclusions at the current time. What can be safely said about these students is: (1) they readily involved themselves in lying, conning, and stealing; (2) they ignored behavioral expectations; (3) they violated others; (4) they were impulsive and/or irritable; (5) they lacked a general concern for others as they disregarded personal and others’ safety; (6) they
showed little remorse for wrong-doing; and, (7) they wove these characteristics and behaviors into a fabric of unfolding experience that constituted their relapses.

For almost three decades, prevention studies suggest a multidimensional intervention plan for youth progressing along an antisocial, narcissistic developmental pathway. Even though there is a tendency of adults to let the juvenile justice system handle these students, the good news is there are interventions that can moderate these students’ substance use and delinquent behavior by: (1) helping them establish bonds with prosocial adults, (2) increasing positive adult feedback and monitoring, (3) encouraging prosocial involvements, and (4) enhancing their social skills and problem solving abilities (Hawkins & Weis, 1985; Hawkins, Catalano, & Arthur, 2002; YID, 2011).

Limitations and Implications
In this study, there is a built-in weakness and two limitations that need to be noted. First, a study challenge emerged as school policy implicitly defined relapse as non-prescribed use of a psychoactive substance. This definition has been challenged by the RP model (pp. 2-3) that makes a significant distinction between a lapse as a momentary engagement with a psychoactive substance (e.g., taking a hit off a joint as it is being passed around a group of peers) and a relapse as a re-engagement with a substance(s) with often a corresponding breakdown of personal recovery commitments and activities. The data and coding used in this study did not make such a distinction. Future studies will include both categories.

Second, the small sample precludes the investigators’ making inferences from the representative sample and then applying it to the population from which the sample was drawn (Onwuegbuzie & Leech, 2007). As Onwuegbuzie and Leech point out, qualitative researchers rarely make such generalizations “because their goal usually is not to make inferences about the underlying population, but to attempt to obtain [analytical] insights into particular” (p. 240) substantive areas of concern. Qualitative investigators, and most especially grounded study investigators, do though make “analytic generalizations” in which they apply a “discovered construct” to extant frames of understanding. In doing this, they test the construct’s “transferability,” that is, its ability to shine new light and understanding on the area of interest. It is only in this vein of understanding that the exploratory grounded findings of this study can be of any relevance to relapse among recovery high school students in general, and beyond to treated populations of SUD adolescents.

Third, the study’s exploratory purpose of probing the credibility of practitioner observations concerning the nature of recovery high school students’ relapses, based upon student co-generated phenomenological data captured during node-link mapping of their relapse events, also limits application of its findings. As exploratory findings, they are not empirical evidence that can be used to support or deny an existing hypothesis. Yet, at the same time, the study’s emergent findings have broad applicability in terms of providing new frames to more fully understand the phenomenon of youth relapse, and from these fresh perspectives, generate future empirical tests.
With this said, the next steps for *Patterns and Pathways* investigations are: (1) to use node-link relapse data and the developed study modalities to investigate the influx of recovery school students who relapse on heroin and related opiates. The generation of new heroin-related micro frames is being clamored for by recovery high school personnel and youth chemical dependency counselors. A Ph.D. student has been recruited for this study. (2) The five tentative relapse pathways still requiring saturation confirmation or denial need to be completed. Graduate students are being encouraged to do so through their masters’ theses or doctoral dissertations. And, (3) emergent micro frames need to be turned into mid-level relapse models with corresponding empirical strategies to test their validity and reliability.

**Acknowledgments**

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**References**


Appendix A

Pathway I: The Depressed-Dissociative Relapse Pathway

<table>
<thead>
<tr>
<th>Map 1</th>
<th>Map 2</th>
<th>Map 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td><strong>Demographic Factors</strong></td>
<td><strong>Demographic Factors</strong></td>
</tr>
<tr>
<td>• 16-year-old, white male</td>
<td>• 16-year-old, white female</td>
<td>• 17-year-old, white female</td>
</tr>
<tr>
<td>• Four-year history of mixed drug use</td>
<td>• Three-year history of DXM use</td>
<td>• Four-year mixed drug use</td>
</tr>
<tr>
<td>• Multiple treatments</td>
<td>• Multiple treatments</td>
<td>• Single treatment</td>
</tr>
<tr>
<td>• No legal history</td>
<td>• No legal history</td>
<td>• No legal history</td>
</tr>
<tr>
<td>• Family history positive</td>
<td>• Family history positive</td>
<td>• Family history positive</td>
</tr>
<tr>
<td>• Meetings &amp; sponsor contacts</td>
<td>• Meetings &amp; sponsor contacts</td>
<td>• No meetings or sponsor contacts</td>
</tr>
<tr>
<td>• 113 clean days</td>
<td>• 45 clean days</td>
<td>• 76 clean days</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td><strong>Features</strong></td>
<td><strong>Features</strong></td>
</tr>
<tr>
<td>• Depression</td>
<td>• Depression throughout artifact; bad self-others-talk</td>
<td>• Depression: “real bad,”</td>
</tr>
<tr>
<td>• Nihilism: “No point to life,” “if die, die”</td>
<td>• Nihilism: None indicated</td>
<td>“isolated,” “cry a lot,” suicidal</td>
</tr>
<tr>
<td>• Dissociation/Hallucinations: “not here at times,” “sees shadows,” “hears name,” intrusive “drum line”</td>
<td>• Dissociation/Hallucinations: “Brain decides to do,” “Hear people talking,” “hear music,” “can see things.”</td>
<td>• Nihilism: “Mode where I don’t care.”</td>
</tr>
<tr>
<td><strong>Unfolding Experience</strong></td>
<td><strong>Unfolding Experience</strong></td>
<td><strong>Unfolding Experience</strong></td>
</tr>
<tr>
<td>No expressed intent to use. The artifact opens with the student stating it was “just another day,” yet reports experiences of “not here at times,” “sees shadows,” and “hears name,” and recounts the “best feeling ever—shooting heroin.” The next nodes depict a peer offering him pills, which then rapidly unfold into the student relapsing on 13 hydrocodones [suspect] which he takes while alone in the boys’ bathroom. Then comes the numbing high, his crash into deep sleep (which he calls the “drill” as a means to avoid his parents), and his waking at 1 a.m. to “start the day,” by making coffee, smoking cigarettes and playing guitar.</td>
<td>No expressed intent to use. Calls mother about getting out of school early; her mother picks her up and they go to a discount store. Student knows she is going to steal and use DXM (“Happy, Yes!”) She steals 30 DXM tablets while shopping; takes them at store’s water fountain. She then drives intoxicated, reports having no depth perception, running stop signs and signals; her mother had to take over driving. Two hours later she experiences dissociative and prodrominal types of symptoms including: (1) hallucinations where she hears people talking, hears music, and can see things; (2) talks crazy; and, (3) dissociates as her “brain does its own thing.” She reports later having apocalyptic type of dreams where she awakes sweating.</td>
<td>No expressed intent to use. Her depression moves her into a suicidal state; driving home from school she thinks about ways to kill herself. A friend texts her “not to do it;” a short lift of mood; the “depression takes over” again. She sees herself at her own funeral—overdosed on pills. She immediately goes to a local drug store to get sleeping pills and kill herself. Instead, she sees cough medicine, suddenly 40% of her wants to live. With this swing toward living, she impulsively steals cough syrup/DXM, returns home briefly, goes to a counseling appointment, then returns home, goes to her room and drinks the DXM. She got a “good high,” was excited, isolated herself, kicked into “autopilot,” started writing and watching TV, then crashed, and slept for 18 hours—9pm to 3pm the next day.</td>
</tr>
</tbody>
</table>
# Appendix B

## Pathway II: The Automatic Pot-Enmeshed Relapse Pathway

<table>
<thead>
<tr>
<th>Map 1</th>
<th>Map 2</th>
<th>Map 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demographic Factors</strong></td>
<td><strong>Demographic Factors</strong></td>
<td><strong>Demographic Factors</strong></td>
</tr>
<tr>
<td>• 17-year-old, black male</td>
<td>• 17-year-old, white male</td>
<td>• 15-year-old, white female</td>
</tr>
<tr>
<td>• Three-year history of marijuana use</td>
<td>• Seven-year history of marijuana use</td>
<td>• Two-year history of marijuana use</td>
</tr>
<tr>
<td>• Single treatment</td>
<td>• Expelled from treatment due to relapsing</td>
<td>• No treatment</td>
</tr>
<tr>
<td>• Legal history</td>
<td>• Legal history</td>
<td>• Legal history</td>
</tr>
<tr>
<td>• Family history positive</td>
<td>• Family history positive</td>
<td>• Family history positive</td>
</tr>
<tr>
<td>• No meetings or sponsor</td>
<td>• No meetings or sponsor</td>
<td>• No meetings or sponsor</td>
</tr>
<tr>
<td>• Continued use</td>
<td>• Lied about clean time, may have 30 days?</td>
<td>• Continued use</td>
</tr>
<tr>
<td><strong>Features</strong></td>
<td><strong>Features</strong></td>
<td><strong>Features</strong></td>
</tr>
<tr>
<td>• Tired</td>
<td>• Recovery is pointless because of failures</td>
<td>• Bored</td>
</tr>
<tr>
<td>• Bored</td>
<td>• “Just did it”</td>
<td>• Lost</td>
</tr>
<tr>
<td>• Continued use</td>
<td>• Devoid of thinking and feelings.</td>
<td>• “Same thing every day”</td>
</tr>
<tr>
<td>• “Same thing next day”</td>
<td></td>
<td>• “Feels like autopilot”</td>
</tr>
<tr>
<td><strong>Unfolding Experience</strong></td>
<td><strong>Unfolding Experience</strong></td>
<td><strong>Unfolding Experience</strong></td>
</tr>
<tr>
<td>Typical day, “un-rested,” get up, had intent, go to school, school is out, bored, as soon as out of school thinks about using, meets up with whomever, for four to five hours shoots hoops and smokes 1 or 2 blunts, goes home, watches TV, bored, gets on the computer until tired, goes to bed….same thing next day.</td>
<td>Passive intent, “not planning on using, but if it comes my way…,” can’t remember if at mom or dad’s, went to old using buddy’s, think “going to fail UDS anyway,” buddy has pot, “just did it,” smoked half a joint, paranoid, went to other buddy’s house, “smoked the rest of it,” went home and went to sleep, very few feelings.</td>
<td>“Just what I do every day,” “like breathing,” gets up-- had intent, goes to school, goes home, calls using girlfriend, male friend calls to use, all meet at park and use, smoke cigs, walk back to house, watch TV, eat dinner, go bed.</td>
</tr>
</tbody>
</table>
### Pathway III: The Narcissistic, Antisocial Relapse Pathway

<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>Features</th>
<th>Unfolding Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Map 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-year-old white male</td>
<td>“Fake it” personality</td>
<td>Lying to sponsor about being clean, continuous use, yet no intent, uneventful school day, hang around old using friend, didn’t want to wait to use, went to guy’s apartment, offered pot, at first said no then took X2 hits, picked up another peer, drove around; next day hang out with school peer, he wants to get drunk, couldn’t get alcohol, went to head shop, got salvia, smoked it; next day wants to drink, plays beer pong, keeps smoking salvia.</td>
</tr>
<tr>
<td>Six-year history of polydrug use</td>
<td>History of stealing and lying</td>
<td></td>
</tr>
<tr>
<td>Multiple treatments</td>
<td>Won’t get caught attitude; “Dumb guys get caught,” “Have to catch me first”</td>
<td></td>
</tr>
<tr>
<td>Legal issues</td>
<td>Thought was “smart” about stuff</td>
<td></td>
</tr>
<tr>
<td>Family history positive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1 meeting (use as cover), Lied to sponsor about sobriety date (use as cover)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous use (X3 a week)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Map 2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-year-old white male</td>
<td>“Just trying to have fun.”</td>
<td>Knew going to drink; stayed previous night at friends, met using girlfriend, went to her friend’s house, they were “smoking,” passed, tired, got sleep, energized to get wasted, they were drinking, drank 10 shots, got drunk, smoked “bud,” really got high, drank more, just having fun, drove back to friend’s house where I stayed the night, girl was there that was annoying, guy had my car, he got back, girlfriend and I left for her house, had sex, left for friend’s house around 2 am, drove drunk.</td>
</tr>
<tr>
<td>Five-year history of polydrug use</td>
<td>History of chronically irritable, easily irritated/angered</td>
<td></td>
</tr>
<tr>
<td>Single treatment</td>
<td>“Recovery shit gets old.”</td>
<td></td>
</tr>
<tr>
<td>Legal issues</td>
<td>Tired, sleeps to party better</td>
<td></td>
</tr>
<tr>
<td>Family history positive</td>
<td>Bored, annoyed, or when drunk/high having fun.</td>
<td></td>
</tr>
<tr>
<td>No meetings, no sponsor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stayed sober for short while for girlfriend until she relapsed</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Map 3</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-year-old white female</td>
<td>Survivor “A cat with nine lives”</td>
<td>Goes to school, goes home, fights with mother and brother, immediately seeks drugs, drives to fairgrounds, meets stranger, buys a ¼ ounce of marijuana, goes to park and smokes a lot, drives high around a high risk part of town and looks for heroin, attempts to buy, places self in danger, now early morning and returns home.</td>
</tr>
<tr>
<td>Four-year history of polydrug use</td>
<td>Feels older, superior, more level headed</td>
<td></td>
</tr>
<tr>
<td>Mental/behavioral health treatment</td>
<td>History of stealing checks from father, stealing “stuff” from deceased grandmother</td>
<td></td>
</tr>
<tr>
<td>Legal issues</td>
<td>History of lying to MDs at med checks to get pain killers</td>
<td></td>
</tr>
<tr>
<td>Family history positive</td>
<td>History of chronic aggravation/anger</td>
<td></td>
</tr>
<tr>
<td>No meetings, No sponsor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous use</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>