Increasing Engagement using Motivational Interviewing with a 29-Year-Old Male Diagnosed with Schizophrenia

by

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DEDICATION

For all those living with a mental illness.

“You never know how strong you are until being strong is the only choice you have”

- Unknown
ABSTRACT

The present research was designed to evaluate the efficacy of a hybrid Cognitive Behavioural Therapy (CBT; including Motivational Interviewing) and Applied Behaviour Analysis (ABA; including behavioural momentum, modelling, and positive reinforcement) approach to increase engagement in therapy in a forensic setting. The research included one participant (a 29-year-old man diagnosed with paranoid schizophrenia). The Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984) was used to measure adaptive functioning. The Readiness Assessment Scale and Overall Readiness Scales (adapted from Cohen, Farkas, & Cohen, 1992), the Readiness for Change Ruler (“Readiness to Change Ruler,” 2006), the University of Rhode Island Change Assessment Scales (CASSA Research Division, 1996), and a nursing staff survey were used pre- and post-treatment to measure the participant’s level of engagement and readiness for change. Although the results of the measures did not show a statistically reliable increase in engagement, this was potentially the result of the limited sensitivity of the selected measurements to detect slight changes, and a lack of statistical power in the t-tests used. However, the clinical observations revealed a socially valid improvement. The study used an informal method of data collection in order to create a more comfortable situation for the client. It is recommended that this method of data collection be used in the future with clients who have symptoms of paranoia. Additionally, it is recommended that the Vineland Adaptive Behaviour Scales not be used in a forensic setting because the results were inconclusive due to the limited applicability of several items.
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Chapter I: Introduction

Secure forensic psychiatry services provide rehabilitative treatments to clients who have a mental illness and who have come in contact with the law. If individuals with mental illnesses behave in such a way which requires them to be prosecuted under the Criminal Code of Canada, but are found to be at a diminished capacity to make decisions due to their mental illness, they then are referred to a provincial system of detention which adheres to the Mental Health Act. In this sense, forensic services adhere to the Criminal Code of Canada, as well as the Mental Health Act (Bettridge & Barbaree, 2008). According to Bettridge and Barbaree, clients are admitted to the forensic ward after an encounter with the law if the court determines that they are either unfit to stand trial, or not criminally responsible on account of a mental disorder. If a client is deemed to be unfit to stand trial, it is the responsibility of the forensic team to provide treatment and education in order to help the client become fit. In the event that the court requires the assistance of a psychiatric team in order to determine the criminal responsibility of a client, the client is referred to a forensic psychiatry unit to do a 30-day pre-trial psychiatric assessment. If the client is deemed to be not criminally responsible, it is the responsibility of the team to reduce that individual’s risk to reoffend to a point where the person can safely live in the community without posing a risk to public safety (Bettridge & Barbaree, 2008).

One of the challenges with clients living with mental illness is their willingness to engage in therapy and adherence to treatment plans. This is especially true with regards to clients who have been diagnosed with schizophrenia (National Institute of Mental Health [NIMH], 2009, p.14).

Roger\(^1\) is a 29-year-old male diagnosed with paranoid schizophrenia. He was residing on a medium-security forensic unit at the time of referral. He had a history of aggressive behaviour for which he was found not criminally responsible. Roger had requested very little treatment and became disengaged when approached by staff and/or clinicians regarding his symptoms. Roger’s insight into his condition was minimal. He would soon be given the opportunity to live in the community, pending approval from the Ontario Review Board. With the proper treatment, Roger could begin to take steps toward achieving his freedom and independence. The first step, however, was to increase Roger’s willingness to engage with professionals who could provide him with the appropriate treatments to safely rehabilitate him into the community.

The two main purposes of the present study were to (1) utilize a variety of evidenced-based techniques, and (2) to enhance Roger's willingness to engage in therapy with clinicians. The techniques selected for this study included both applied behaviour analysis (ABA), including shaping, modelling, behavioural momentum, reinforcement, and social praise, and cognitive behaviour therapy (CBT), including motivational interviewing (MI). It was hoped that the hypothesized increase in engagement would lead to Roger having more opportunities for improvements in adaptive functioning and critical social skills through direct therapy to target these deficits with a psychologist, psychiatrist, social worker, and occupational therapist. Finally, it was hoped that the intervention would lead to Roger’s eventual reintegration into the community.

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\(^1\) For reasons of confidentiality, all names in this study are fictional.
The following chapters will present: a review of the relevant literature regarding schizophrenia and treatment engagement, the methodology of the present study, the results, and a discussion of the findings.
Chapter II: Literature Review

Schizophrenia

Schizophrenia is an Axis I disorder according to the Diagnostic and Statistical Manual IV (DSM-IV-TR). According to Davison, Blankstein, Flett, and Neale (2008), “schizophrenia is a psychotic disorder characterized by major disturbances in thought, emotion, and behaviour: disordered thinking in which ideas are not logically related, faulty perception and attention, flat or inappropriate affect, and bizarre disturbances in motor activity” (p. 325). Schizophrenia consists of both positive and negative symptoms. Positive symptoms are those which are considered cognitive or behavioural excesses, including “disorganized speech, hallucinations, and delusions” (Davison et al., 2008, p. 327). Negative symptoms are cognitions and behaviours that are absent for individuals with schizophrenia (Davison et al., 2008). Some examples of negative symptoms include “avolition, alogia, anhedonia, flat affect, and asociality” (Davison et al., 2008, p. 329).

More specifically, paranoid schizophrenia, a category of schizophrenia in the DSM-IV-TR, tends to be the diagnosis given to individuals who experience a heightened presence of delusional thinking (Davison et al., 2008, p. 333). For example, Roger had common somatic symptoms (i.e. shortness of breath, back aches, etc.) which he explained away with delusional thinking (e.g. there was a man poking him in the spine with a hot metal pole).

Engagement in Treatment for Clients with Schizophrenia

The research literature has repeatedly shown that engagement with services is significantly reduced among clients who have been diagnosed with schizophrenia (Tait, Birchwood, & Trower, 2003; Rusch & Corrigan, 2002). This is due to the fact that those experiencing the symptoms of schizophrenia often show little to no awareness of how their illness affects their daily lives (Rusch & Corrigan, 2002). The lack of insight regarding deficits caused by having a mental illness has often been associated with limited engagement in therapy, low treatment adherence, and limited positive outcome (Rusch & Corrigan, 2002, p. 23). Without engaging in therapy to improve deficits, it is unlikely that the clients experiencing the symptoms of schizophrenia will experience the potential for a greater quality of life.

Another frequent problem experienced by individuals with schizophrenia is a significant lack of adherence to medication treatment. According to Amador (2007) nonadherence rates in schizophrenia, among other major mental illnesses, are 40% to 60%. Robinson et al. (1999) conclude that “medication discontinuation substantially increases relapse risk” (p. 245) for patients with schizophrenia and schizoaffective disorders. More specifically, Dassa et al. (2010) identified the following factors as the most highly associated with medication non-adherence for individuals diagnosed with schizophrenia: (1) duration of untreated psychosis, (2) lack of insight into the effects of medication, (3) low levels of therapeutic alliance, and (4) being prescribed typical antipsychotics (pp. 923-924). Not surprisingly, they also found that the frequency of psychiatric hospitalizations is higher for patients who are treatment nonadherent (Dassa et al., 2010, p. 924). Evidently, interventions which target engagement in treatment and adherence to medication are valuable.
The American Psychiatric Association (APA; 2004) provides recommendations for the treatment of schizophrenia. In addition to antipsychotic medication and the treatment of any comorbid disorders, the APA suggests the use of “family interventions/psychoeducation, social skills training, cognitive-behavioural therapy (CBT), assertive community treatment, and supported employment” (as cited in Davison et al., 2008, p. 349). The treatment team was anticipating engaging Roger in CBT at the time of the current intervention. In order to reduce the likelihood of premature termination of cognitive behavioural interventions, Applied Behaviour Analysis (ABA) techniques can be put in place to supplement treatment. Tarrier et al. (1998; as cited in Rusch and Corrigan, 2002) reviewed the literature and concluded that approximately 25% of participants discontinue CBT prematurely. The authors hypothesize based on the literature that supplementing CBT with ABA techniques such as reinforcement (Maia & Frank, 2011), modeling (Newbill et al., 2011) desired behaviour, and behavioural momentum (Mace et al., 1988) should promote an increase in engagement as well as the adaptation of new skills.

Another aspect of treatment compliance is the level of insight that individuals have into their mental illness (Rusch & Corrigan, 2002; Tay, 2007). In fact, Rusch and Corrigan state that “given that insight has important clinical consequences, therapies to improve insight and compliance are essential for a comprehensive therapeutic approach to schizophrenia” (p.23). Tait et al. (2003) present the concept that a lack of insight into one’s condition may be virtually synonymous with treatment non-compliance. They state that “sealing-over recovery styles were associated with considerably lower service engagement than the integration recovery styles” (p.126). A client using the sealing-over recovery style is seen as “minimising the significance of symptoms and the impact of psychosis and showing a lack of curiosity about the experience” (p.123), while a client using an integration style shows “acknowledgement of, and curiosity about, the significance of psychosis and... attempts to cope in managing the illness” (p.124).

**Stages of Change**

**Application.** In order to increase willingness to engage in treatment, the Stages of Change model (Prochaska & DiClemente, 1984) may be adapted to fit the desire to change and acceptance and adherence to psychotropic medications and therapy (Rusch & Corrigan, 2002; Tay, 2007; Norcross & Prochaska, 2002). Norcross and Prochaska (2002) make suggestions to enhancing treatment success when using the stages of change. Their suggestions include: (1) setting realistic goals, (2) letting patients understand that virtually everyone who attempts to make change experiences some form of initial failure, (3) matching treatment to the stage of change of the client, and (4) promoting insight, because “change resulting from action without insight is likely to be temporary” (p. 6).

In order to adhere to best-practice treatments, a client’s stage of change must be assessed prior to designing the intervention. For example, insight into one’s mental illness, as discussed above, is critical to treatment compliance. If the client seeks therapy and displays no insight into his or her condition, treatment is unlikely to be successful. However, if the client’s stage of change is assessed and it is established that the client is in a precontemplative stage of change, treatments can be adapted to meet the needs of the client. Treatment can be significantly influenced by what stage the client is in prior to treatment. The following presents a description
of the stages of change, the importance of its assessment, and how it can be applied in a treatment setting.

**Description.** The Stages of Change (Prochaska, Diclemente, & Norcross, 1992) provide a guideline to assist in the understanding of shifting attitudes in clients with regard to their readiness for change. Norcross and Prochaska (2002) describe each of the stages as follows:

*Precontemplation:* the client does not demonstrate a serious intention of making change now or in the foreseeable future. The client is generally unaware of their problem or minimizes its significance. The only circumstances under which these clients seek treatment, is when they are experiencing pressure from others to do so.

*Contemplation:* the client is aware that there is a problem and has been considering making a change. It is common for clients to spend a long period of time at this stage. The greatest amount of ambivalence regarding change lies within this stage. Although clients begin to see the benefits of changing their current behaviour, they still see greater costs and do not foresee change in the near future.

*Preparation:* the client has already made attempts to change, but with little success. The client is still considering change and intends to take action in the next month.

*Action:* this is the stage during which major change occurs. It requires time and energy commitments on the part of the client. The action stage can be classified as having occurred if successful change has occurred anywhere between one day and six months.

*Maintenance:* during this stage, avoiding relapse is the key. Successful change has already occurred and the goal in this stage is to prevent the problem from resurfacing. The maintenance stage is in progress when successful change has been maintained for more than six months. (Norcross & Prochaska, 2002; Rusch & Corrigan, 2002).

Engle and Arkowitz (2006) discuss an explanation for resistance to change: ambivalence. They suggest that perhaps one of the reasons that clients are so resistant to change can be attributed to the fact that they are facing an internal battle of whether or not to engage in making a change (Engle & Arkowitz, 2006). Additionally, Westra (2004) uses the terms ‘resistance’ and ‘ambivalence’ interchangeably. However, Corrigan, McCracken, and Holmes (2001) indicate that in order to progress through the stages of change, the client must be “participating in activities that foster change” (pp. 114-115). There is a significant gap between clients who resist treatment to change, and those who are actively engaging in activities that lead to change. Motivational interviewing is designed to reduce that gap.

**Assessment.** McConnaughy, Prochaska, and Velicer (1983) provide predictions regarding the outcome of treatment according to the therapist’s consideration of the current stage of change of his or her client. Most relevantly, McConnaughy et al. (1983) predict that “resistance to therapy increases if the therapist is working on a different stage of change than the client is in” and “by matching the client’s stage profile with the appropriate processes of change, progress in psychotherapy can be optimized” (p. 375). Therefore, treatment does not adhere to empirically-
based evidence of best practice, unless the client’s current stage of change is assessed prior to the commencement of therapy.

An empirically supported measure for assessing a client’s current stage of change is the University of Rhode Island Change Assessment (URICA; CASAA Research Division, 1996). The URICA was developed to measure the five stages of change (McConnaughy et al., 1983, p. 368). The items on the measure were generated based on the reduction of a list of 165 items by three judges down to 145 items. Each judge categorized the items into which stage of change they believed each item was intended to measure. Only the items which achieved 100% inter-rater reliability were kept. Of the 145 items with 100% inter-rater reliability, 125 were used. The questionnaire was then reduced to a 75-item questionnaire through a principle components analysis on the interitem correlations matrix. Next, “the correlation between each item and total score for all items theoretically measuring that stage was obtained” (McConnaughy et al., 1983, p. 370). This procedure reduced the number of items in the questionnaire to 50. Finally, “the value of coefficient alpha for the items theoretically measuring each stage with and without a particular item included was examined” (McConnaughy et al., 1983, p. 370). This step reduced the number of items to 32, leaving 8 items for each remaining category: Precontemplation, contemplation, action, and maintenance. The decision making category was dropped due to its overlap with items from other stages.

According to Rossi, Rossi, Velicer, & Prochaska (1995), "the stages of change have been empirically investigated and have been shown to be predictive of treatment outcome for adult samples" (as cited in Greenstein, Franklin, & McGuffin, 1999, p. 48).

**Adaptive Functioning**

**Adaptive functioning and schizophrenia.** The most common deficit in adaptive functioning for clients with schizophrenia is in the social skills domain (Burns & Patrick, 2007; Ferguson, Conway, Endersby, & MacLeod, 2009; Schaub et al., 2011; Newbill et al., 2011; Ikebuchi, 2007; Kern et al., 2005; Galderisi et al., 2010). Clients who experience these deficits may have difficulty maintaining relationships with family or friends, finding or keeping work (Burns & Patrick, 2007), and using social problem-solving (Kern et al., 2005). In fact, the DSM-IV-TR lists social skills deficits as something that is directly affected by both positive (i.e. auditory or visual hallucinations and delusions) and negative symptoms (i.e. limited motivation and initiative, flat affect, or poverty of speech) of schizophrenia and often leads to social withdrawal (as cited in Burns and Patrick, 2007). As a result, assessing and treating adaptive functioning skills such as social skills deficits is important for decreasing the severity of symptoms and the possibility of re-hospitalization (Ikebuchi, 2007). In addition, according to Davison et al. (2008), the negative symptoms of schizophrenia are often more difficult to treat than the positive symptoms.

**Assessment.** The Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984) is a norm-referenced, semi-structured interview completed with people who know the participant best and measures adaptive behaviour functioning across communication, daily living skills, and socialization domains. The Vineland Adaptive Behaviour Scales is an empirically supported measure of adaptive functioning. Most importantly, the Vineland captures the level of
functioning in the socialization domain. Gathering baseline knowledge of a participant’s level of adaptive functioning contributes to intervention development, by providing a guideline for the most severely impaired aspects of each domain to target during treatment.

**Treatment.** Once the treatment targets have been established, adaptive functioning can be treated in accordance with the recovery paradigm, which is empirically supported for Forensic treatment settings (Ferguson et al., 2009; Simpson & Penney, 2011). This paradigm focuses on the client’s current strengths and self-determination (Simpson & Penney, 2011). The following treatments are designed to improve adaptive functioning, can be adapted for clients in Forensic settings who have been diagnosed with schizophrenia, and are based on principles similar to those of the recovery paradigm (Simpson & Penney, 2011).

**Motivational Interviewing**

Precontemplative stages of change are associated with very low levels of treatment adherence, and require modification in order to achieve treatment compliance (Tait et al., 2003; Bowie, Reichenberg, Patterson, Heaton, & Harvey, 2006). Westra, Aviram, and Doell (2011) concluded that MI is highly valuable when it precedes other therapies. They further state that “limited patient engagement and noncompliance remains a major factor limiting the efficacy of existing treatments” (Westra et al., 2011, p. 644). This implies that using MI to increase engagement and compliance will make existing treatments more effective. Martino, Carroll, O’Malley, and Rounsaville (2000) conducted a randomized control trial with 23 adults who had been diagnosed with a substance abuse disorder and a co-morbid mood or psychotic disorder. They assigned some clients to a Motivational Interviewing intake interview, while other clients received the standard psychiatric intake interview. They found that MI-based assessment interviews, rather than standard psychiatric interviews, significantly increased attendance to treatment programs and engagement in subsequent treatment.

The research literature has found that Motivational Interviewing (MI) is the most widely accepted treatment to assist clients in progressing through the stages of change in order to adhere to treatment, and generally results in beneficial alterations to their behaviours and cognitions (Miller & Rollnick, 2013; Brabben & Turkington, 2009; Rusch & Corrigan, 2002). The exact definition of MI has changed over time, and there are currently several variations. Moyers and Rollnick define MI as “a person-centered, directive method for enhancing intrinsic motivation to change by exploring and resolving ambivalence” (Miller & Rollnick, in press; as cited in Moyers & Rollnick, 2002, p. 185). Miller and Rollnick (2013) describe the technical definition of MI as “a collaborative, goal-oriented style of communication with particular attention to the language of change. It is designed to strengthen personal motivation for and commitment to a specific goal by eliciting and exploring the person’s own reasons for change within an atmosphere of acceptance and compassion” (p. 43).

**Principles of MI.** There are four principles commonly referred to in MI: (1) express empathy, (2) develop discrepancy, (3) roll with resistance, and (4) support self-efficacy (Moyers & Rollnick, 2002, p. 186).

The importance of *expressing empathy* is stressed by Rusch and Corrigan (2002), because it provides an accepting environment in which the client feels comfortable exploring
their ambivalent thoughts about change without fear of judgement. Some recommended strategies for expressing empathy are using reflective listening (Moyers & Rollnick, 2002), showing interest in the client’s perspective and attempting to understand, and validating the client’s perspective (Miller & Rollnick, 2013).

**Developing discrepancy** is the elicitation of the client’s own arguments for change by the counselor (Rusch & Corrigan, 2002; Miller & Rollnick, 2013; Drymalski & Campbell, 2009; Moyers & Rollnick, 2002; Moyers, 2011). The discrepancy, according to Moyers and Rollnick (2002) is ideally going to be between the client’s values and their current behaviour.

Miller and Rollnick (2013) describe the opposite of **rolling with resistance** – the “righting reflex” as “the desire to fix what seems wrong with people and to set them promptly on a better course, relying in particular on directing” (p. 20). They further discuss the counterproductive impact of the righting reflex on individuals who are experiencing ambivalence. When people are “stuck” in an ambivalent state, they are most likely already weighing the ‘for’ and ‘against’ arguments in their minds. The counsellor arguing for change most likely causes the client to defend the opposite position, strengthening their resistance to change (Miller & Rollnick, 2013). In fact, Petrocelli (2002) suggests that the counselor is responsible only for identifying tasks and techniques with the client in order to assist them in meeting their goals.

**Supporting self-efficacy** involves building a client’s confidence in their ability to change and their view that change is, in fact, possible (Moyers & Rollnick, 2002). Miller and Rollnick (2013) also refer to this principle as ‘affirmation.’ Affirmation builds on the current strengths of the client in order to improve their sense of ability.

**MI and schizophrenia.** Due to the limited engagement of clients with schizophrenia in therapy, MI is an empirically supported treatment for these individuals. Moyers and Rollnick (2002) and Drymalski and Campbell (2009) provide evidence that MI is efficacious for increasing engagement when treating resistance in psychotherapy. Additionally, Moyers and Rollnick (2002) state that “motivational interviewing is a brief intervention that facilitates self-change, natural change, or treatment seeking” (p. 186). The average number of sessions for MI treatments is five – one session, twice per week (Rusch & Corrigan, 2002).

Some modifications and flexibility are necessary in order to make MI an appropriate treatment for those individuals with schizophrenia (Rusch & Corrigan, 2002, Westra et al., 2011). For example, Rusch and Corrigan (2002) recommend focusing mainly on problem behaviours with clear consequences that have a significant impact on the individual. Furthermore, Rusch and Corrigan (2002) concluded that “MI is the appropriate tool to help persons face the reality of their mental illness rather than continue to deny it” (p. 29). Garety et al. (2000) also recommend combining MI with other treatments, such as CBT, in order to achieve the client’s goals (as cited in Rusch & Corrigan, 2002).
Brief Cognitive Behaviour Therapy (CBT)

According to Salvatore et al. (2012), CBT for clients with schizophrenia is designed to provide the skills necessary to reduce distress associated with delusions and hallucinations. It utilizes collaborative processes to normalize symptoms by testing, evaluating, and using behavioural strategies to make sense of those experiences (Salvatore et al., 2012). Salvatore et al. noted specific difficulties experienced by individuals with schizophrenia surrounding self-awareness: “difficulties describing their emotions and thoughts and establishing psychologically valid cause-effect chains among events, thoughts, emotions, and actions” (p. 87). They have suggested using those common difficulties as targets during treatment. They suggest that before engaging in other forms of treatment, these difficulties must be targeted in order to optimize the outcome.

Brabban, Tai, and Turkington (2009) conducted CBT with individuals who had been diagnosed with schizophrenia. Although generally more effective for women, their findings revealed a decrease for both men and women in negative symptoms and emotional blunting. They concluded that these reductions resulted in an increased ability to engage in therapy. Cather (2005) tested the efficacy of Functional CBT on the treatment of functional impairments caused by psychotic symptoms in schizophrenia. Functional CBT differs from CBT in that it focuses on goal attainment (specifically social functioning goals) while experiencing symptoms rather than symptom reduction. Cather (2005) refers to this treatment as a motivational interviewing approach because it provides therapists with “a context for challenging maladaptive responses to symptoms by evaluating whether these beliefs and actions help or hinder psychosocial goal attainment” (p. 258). The main CBT strategies used in this type of intervention are the teaching of coping skills and cognitive restructuring (Cather, 2005). When compared with a psychoeducational program, Functional CBT showed much greater reductions in positive symptoms and an increase in social functioning (Cather, 2005).

Compliance Therapy

Compliance therapy (CT) is described by Tay (2007) as a brief intervention which combines motivational interviewing with cognitive behaviour therapy. According to Tay, the aim of CT is to improve a client’s attitude toward treatment, thus increasing engagement and adherence. Included in the key principles outlined by Tay are increased client autonomy, avoiding judgement, conveying empathy, and encouraging the acceptance of responsibility for one’s choices. One major limitation discovered by Tay was that although patients were conforming to ward routines by taking medication daily, medication compliance may be diminished upon release into the community.

Westra (2004) supplemented CBT with MI, when engagement in therapy appeared to be declining for clients experiencing major depression and multiple anxiety disorders. Westra (2004) concluded that CBT combined with MI “represent potentially powerful alternatives therapists can utilize to empower themselves and their clients to move forward in the change process” (p. 174).
Applied Behaviour Analysis (ABA)

**Behavioural momentum.** Mace et al. (1988) expressed the importance of addressing noncompliance to treatment recommendations due to its prevalence as well as its hindrance of increasing adaptive behaviours. They concluded that “intervention to increase compliance appears to be an efficient means of improving a range of socially important behaviors” (Mace et al., 1988, p. 123). Regarding the application of ABA techniques, Mace et al. suggest that using a heightened rate of reinforcement will have a direct impact on the reduction of resistance to change. They recommend reinforcing the occurrence of high-probability behaviours before requesting the performance of low-probability behaviours. For example, casual conversations with staff would be reinforced before asking a client to engage in therapy. They refer to this sequence as the creation of a type of behavioural “momentum,” which increases compliance to tasks which may have been deemed unlikely to happen prior to the implementation of increased reinforcement. In an experiment conducted to demonstrate its effectiveness, Mace et al. elicited increased compliance in low-probability behaviours after first issuing requests for and subsequently reinforcing high-probability behaviours for a 36-year-old man with a developmental disability. Dube, Ahearn, Lionello-Denolf, and McIlvane (2009) demonstrated the efficacy of behavioural momentum theory application to the treatment of human and non-human subjects who displayed resistance to change.

**Shaping, modelling, reinforcement and verbal praise.** Silverstein et al. (2008) used shaping to increase attentiveness to treatment, leading to enhanced skills for clients with schizophrenia. The clients were rewarded for successive approximations of attentiveness and found significant improvements in both attentiveness and overall skill acquisition post-treatment. Additionally, Ikebuchi (2007) suggests that providing opportunities for clients with schizophrenia to interact with clinicians on a prosocial level will ultimately lead to an increased level of social skills. Ikebuchi further suggests that simply observing appropriate social skills modeled by the therapist will enable clients to learn appropriate behaviour. Maia and Frank (2011) identified a strong connection between reinforcement and the release of dopamine in the brain. Dopamine has also been linked to schizophrenia, which Maia and Frank conclude is the reason for decreased sensitivity to rewards for individuals with schizophrenia. However, although neurochemical responses for individuals with schizophrenia to reinforcement may be reduced, it is not non-existent. Thus, reinforcement, both tangible and in the form of verbal praise, is still a beneficial method of treatment.

**Relationship between the Current Study and the Research Literature**

Individuals with schizophrenia have difficulty both engaging in and adhering to treatments that involve psychotherapies and medication (Tait et al., 2003; Rusch & Corrigan, 2002; Amador, 2007; Robinson et al., 1999; Dassa et al., 2010). As a result, these clients often relapse and are re-admitted to psychiatric hospitals (Robinson et al., 1999; Dassa et al., 2010). Therefore, to prevent re-hospitalization and improve quality of life, it is imperative that an intervention plan is developed based on the research literature in order to develop increased engagement in treatment.
ABA techniques, in addition to MI and CBT, are the treatments which most closely adhere to best practices and procedures as outlined in the research literature to promote engagement in treatment and enhance adaptive functioning for clients with a major mental illness. It is hypothesized that this combination of empirically supported treatments will aid the participant in becoming more engaged in therapy, which may lead to the enhancement of basic social skills and overall adaptive functioning, which are commonly found to be major deficits for individuals diagnosed with schizophrenia. As this section of the thesis presents, the treatment of these deficits has been empirically shown to improve the quality of life of inpatients diagnosed with schizophrenia, and even of those in forensic settings.

Based on the above research literature, the techniques of MI, CBT, and ABA were selected to treat an inpatient in the forensic setting. This treatment was designed to increase engagement in treatment and adaptive functioning, specifically social skills. Motivational interviewing enhances a client’s autonomy, ability to handle ambivalence, and desire to make change. When combined with CBT, MI promotes treatment engagement and adherence. In order to promote engagement in discussions with clinicians for individuals who tend to avoid such interactions, ABA strategies such as behavioural momentum sequences were also selected.

**Word Count:** 4,183
Chapter III: Method

Participant

In 2010, Roger was charged with aggravated assault causing bodily harm after he attacked a man outside of a bank due to thought override symptoms. Later that year, Roger was found not criminally responsible for the charges and was admitted to the Psychiatric Hospital where he resided on the Forensic unit throughout the duration of the study. Roger, who was diagnosed with paranoid schizophrenia, demonstrated very little insight, which had caused him trouble with medication non-compliance, and failure to engage in aftercare services in the community.

He was referred for treatment by his Forensic Services team. The team was finding it difficult to offer services to Roger because he declined offers of counselling and never sought any formal treatment. They recommended that he become more involved in programs and be fully engaged in order to make progress. The forensic team was interested in moving Roger out of the hospital and into the community. However, without engaging with the team and participating in some form of group or individual therapy targeted to safely reintegrate him into the community, Roger could not be approved for a conditional discharge.

Design

The case study used an AB design. Increasing Roger’s readiness for change was designed to encourage him to gain knowledge of his diagnosis and develop new skills. Treatment consisted of two, 20- to 60-minute informal sessions each week during which ABA and CBT treatment techniques were used. Measures to determine the overall readiness for psychosocial rehabilitation and adaptive functioning skills were administered before and after the intervention.

Setting/Apparatus

Treatment took place inside the psychiatric hospital, on hospital grounds, or while walking to/sitting at a coffee shop in close proximity to the hospital. The following measures were required: the Readiness Assessment Scale and Overall Readiness (adapted from Cohen, Farkas, & Cohen, 1992), the University of Rhode Island Change Assessment (URICA) Scale which was adapted for scoring purposes (CASSA Research Division, 1996), the Readiness-to-Change Ruler (“Readiness-to-Change Ruler,” 2006), The Vineland Scales (Sparrow et al., 1984), and a nursing staff survey developed by the author on a Likert-type scale based on a list designed by the student researcher compiled according to direct observations. The duration of time spent in treatment, as measured by the time spent in each session and the number of sessions was recorded each week.

Measures

Please note that appendices containing samples of the following measures are referred to in the Results section.

The Readiness Assessment Scale and Overall Readiness. This measure was adapted from Cohen, Farkas, & Cohen, (1992) and provides an algorithm for the assessment of a client’s
readiness for psychiatric rehabilitation. The Readiness Assessment Scale consists of five categories: (1) Need for Change, (2) Commitment to Change, (3) Environmental Awareness, (4) Self-Awareness, and (5) Personal Closeness. Each category has ratings from 1 (No Need, Not Committed, No Awareness, Very Low Closeness) to 5 (Urgent Need, Very Committed, Very Aware, Very High Closeness). There are criteria in each category in order to select the appropriate rating. Once the ratings are obtained, the Overall Readiness Scale can be completed. Based on the ratings from the Readiness Assessment Scale, the Overall Readiness Scale gives the client an overall rating out of 5. A rating of 1 indicates the need to develop readiness to set an overall rehabilitation goal, and 5 indicates a definite readiness to set an overall rehabilitation goal.

**The URICA scale.** The URICA (CASSA Research Division, 1996) is a 32-item questionnaire which asks clients about their agreement with a series of statements. Level of agreement is rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Clients first write the problem that they are facing at the top of the assessment, and circle their current level of agreement with the statement. A scoring matrix places each question into one of four categories (Pre-contemplative, Contemplative, Action, or Maintenance). Each category is then summed independently and a mean score is calculated. The mean scores for the Contemplative, Action, and Maintenance categories are summed, and the Pre-contemplative mean is subtracted. This provides an overall readiness score (McMurran, Theodosi, & Sellen, 2006). The cut-off scores for the URICA are as follows: 8 or lower classified as being in the precontemplative stage of change, 8 to 11 classified in the contemplative stage, 11 to 14 classified as preparing for or taking action to change (“Readiness Score for URICA,” n.d.).

**Semi-structured interview with Roger.** A semi-structured interview for use with Roger was designed by the author, in collaboration with the supervising Psychologist based on Motivational Interviewing techniques. Questions regarding Roger’s likes and dislikes about his current situation were asked, as well as his rating of his readiness for change, and reasons why.

**Readiness-for-Change Ruler.** The ‘Readiness-for-Change Ruler’ is a self-report measure wherein clients rate their level of readiness for change on a 10-point scale. A rating of 1 means that the client is ‘not prepared to change’ and a rating of 10 means that the client is ‘already changing.’ A discussion may be held following the completion of the Readiness Ruler, including questions such as: Why not 0? What potential barriers do you see when you think of making a change? or What would 10 look like for you?

**Vineland Adaptive Functioning Scales.** The Vineland Adaptive Behavior Scales – Interview Edition: Expanded Form² (Sparrow, Balla, & Cicchetti, 1984) is a norm-referenced, semi-structured interview with people who know the participant best. It measures adaptive behaviour functioning across four domains: (1) communication, (2) daily living skills, (3) motor skills, and (4) socialization.

**Nursing Staff Survey Assessing the Probability of Various Behaviours.** A nursing staff survey of probability of behaviour was designed and administered by the researcher. Nurses were asked to rate each behaviour on a Likert-type 5-point scale, with 1 meaning not at all likely and 5

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meaning *very likely*, the likelihood that the behaviour would occur without encouragement or instruction. Each behaviour was related to Roger’s interactions with staff. Items ranged from Roger allowing staff to approach him to have a casual conversation to Roger initiating and maintaining a conversation about problems/symptoms with staff.

**Procedures**

**Intervention.** After receiving approval from the St. Lawrence College Research Ethics Committee, a combined treatment approach between ABA (including shaping, behavioural momentum, and modeling) and CBT (including motivational interviewing) was implemented. Initially, sessions were casual interactions that were intended to form a case conceptualization, and a working therapeutic relationship that is empathetic, supportive, non-confrontational, and trusting. The next stage of treatment incorporated Motivational Interviewing strategies and promoted increased readiness for change. Further CBT was implemented along with behavioural techniques to promote engagement in treatment, and improvement in areas of adaptive functioning, such as the acquisition of new social and communication skills.

**ABA and CBT techniques.** Behavioural momentum guided the intervention such that the initial behaviours that were reinforced by social praise were most likely to occur. Once Roger began to show progress with regards to his overall readiness to engage in treatment, further CBT was implemented to promote further engagement in treatment and improvement in areas of adaptive functioning. More specifically, deficits in social and communication skills identified by the Vineland were taught using ABA techniques such as modelling and reinforcement.

**Motivational interviewing.** This stage of treatment incorporated Motivational Interviewing strategies such as decisional balance worksheets, discussions about successful change-making, and discussions about confidence in his ability to make change, to promote increased readiness for change. Because the procedure involves several counselling techniques, Appendix A provides a detailed session-by-session summary.

**Session parameters.** There were 14 sessions that totalled 745 minutes (12.4 hours) in duration (see Figure 4.1). The shortest session duration was 15 minutes in session 1, and the longest was 90 minutes in session 12. Session length was dependent upon Roger’s ability and willingness to remain focused, as well as the content of the sessions. The mean session duration was 48.9 (SD = 20.8) minutes. Session summaries are located in Appendix A.

**Data collection and analysis.** Data collection on engagement took place informally using a variety of measures during the first and last weeks of treatment. Data was collected on Roger’s overall readiness for change, his current stage of change, his personal rating of his readiness for change, his level of adaptive functioning, and the nursing staff’s perspective on his probability to engage in different types of conversation with clinicians. To avoid the creation of an uncomfortable situation for Roger, all data was collected in an informal manner. Finally, treatment effectiveness was evaluated in the last week of intervention with post-test data collection. Samples of the data collection tools are located in the Appendices that are detailed in the Results section.
Quantitative data is presented in comparative pre- and post-test tables and figures. The data are graphed using an AB design and represent data taken before and after the intervention. As well, measures of central tendency pre- and post-treatment are presented in tables.

Program Changes

It was predicted that by the end of the intervention, Roger would be prepared to make a rehabilitation goal. However, Roger’s response to the initiation of goal-related conversations delayed this process. Therefore, the Motivational Interviewing portion of the intervention was extended. Additionally, Roger’s aversion to written activities reduced the number of traditional MI tools that were used. This prompted the addition of a visual representation of the Forensics privilege system.

The visual representation of the privileges that he could earn if he engaged in a variety of activities was designed in order to demonstrate to Roger that he would need to make changes in his own behaviour in order to meet his overall goal of being released from the forensic ward. Roger was under the impression that if he simply waited, he would eventually be released regardless of his behaviour. The visual representation showed him a variety of simple behaviours (e.g. meeting with clinicians, using his current privileges, coming back to the ward on time, etc.) that he could change in order to gain increased privileges, and progress through the forensic level system, which would lead to his eventual release into the community.

Maintenance, Generalization, and Follow-up

In the last week of the intervention, Roger met with the author and one of the Transitional Case Managers. Roger was informed that the Transitional Case Managers would be continuing to meet with him two times per week. An information package was created including information about Motivational Interviewing, some of the tools used during the intervention, a list of Roger’s preferred terminology, and a summary of communication techniques in order to maintain Roger’s engagement. This information package was given to the Transitional Case Managers, and will be expanded as needed and passed along to any other counsellor who sees Roger in the future.

Roger met with the author in a variety of settings on and off of the ward. This allowed for the opportunity to generalize Roger’s engagement in therapy to settings other than a counsellor’s office. The counsellors who took over Roger’s sessions had already formed some therapeutic rapport with him prior to working with him on a more regular basis. This allowed for Roger to comfortably share information with the new counsellors that he may have held back with someone whom he did not know.

Follow-up will be completed at the agency, and Roger will continually have access, and be encouraged, to engage in therapy with other professionals.
Chapter IV: Results

Readiness Assessment Scale and Overall Readiness Scale

It was predicted that Roger’s Overall Readiness rating (adapted from Cohen et al., 1992; see Appendix B) would increase from 1 (pre-treatment) to 3 (post-treatment). The Readiness Assessment and Overall Readiness Scales were completed by the researcher on October 9, 2012 and November 29, 2012. These data (see Appendix C for raw data and D for graph) indicated that the client felt a moderate need for change because he felt ambivalent about his current environment (rating of 3 out of a possible 5 post-treatment as compared to a rating of 2 pre-treatment). Roger demonstrated commitment to change because he believed that change was positive, possible, and believed that the supports for change existed. He did not, however, believe that change was necessary, giving him a rating of 4 out of 5 post-treatment (compared to a rating of 2 pre-treatment). Roger demonstrated environmental awareness through his ability to talk about his past/future environments in general in terms of people, places, and activities (rating of 4 out of 5 both pre- and post-treatment). Self-awareness was rated as 4 out of 5 post-treatment because Roger described his interests, values, and experiences when asked, and displayed some experience selecting places to live, work, learn, and socialize (compared to a rating of 2 out of 5 pre-treatment). Roger’s personal closeness was rated as moderately close because he was somewhat isolated, somewhat liked closeness, and felt neutral about practitioners (rated 3 out of 5 post-treatment compared to a rating of 2 pre-treatment). The Overall Readiness Scale (see Appendix B and Appendix C) indicated a rating number of 4 on a 5-point scale post-treatment. The definition for this level suggests that the client is probably ready to set an overall rehabilitation goal. This rating increased from a rating of 1 pre-treatment, which suggested that the client was initially not at all prepared to set an overall rehabilitation goal. Refer to Figure 4.1 for a visual representation of the changes from pre- to post-treatment as measured by the Readiness Assessment Scale and Overall Readiness rating.
University of Rhode Island Change Assessment (URICA) Scale

It was hypothesized pre-treatment that Roger would move from a pre-contemplative stage of change to a contemplative stage of change post-treatment as measured by the URICA, on the basis of the effectiveness of MI in the literature in assisting clients in moving to a new stage of change (CASSA Research Division, 1996; see Appendix D). The data were collected on October 9, 2012 and November 29, 2012. Results from the URICA scale (see Appendix E for raw data and Appendix F for graph) place the client in a pre-contemplative stage of change. The 32-item version was completed and the mean post-treatment scores are as follows (with pre-treatment mean scores in parentheses): Pre-contemplative, 4.0 (4.1); Contemplative, 2.3 (2.7); Action, 2.3 (2.6); and Maintenance, 2.0 (1.9). An overall readiness score is calculated by adding the values of the Contemplative, Action, and Maintenance categories, and subtracting the Pre-contemplative category. Roger’s overall readiness score was 3.4 (3.0). The cut-off score for the Pre-contemplative category is 8 or less according to the University of Maryland Baltimore County Health and Addictive Behaviors: Investigating Transtheoretical Solutions (UMBC HABITS) lab, qualifying the client for this stage of change. Roger’s post-treatment URICA score increased 13.1% from pre-treatment. Despite this improvement, Roger remained in the Pre-contemplative stage of change.

Figure 4.1. Readiness Assessment Scale and Overall Readiness Ratings Pre- and Post-Treatment.
Nursing Staff Survey of Probability of Behaviour

The nursing staff survey (see Appendix G; Appendix H for all pre- and post-treatment raw data, Appendix I for individually graphed data, and Appendix J for graphed averages) was rated on a 5-point Likert scale from 1 (not at all likely) to 5 (very likely). Between September 24 and October 5 pre-treatment, and December 3 and December 21 post-treatment, Nurses were asked to rate each behaviour on the likelihood that the behaviour would occur without encouragement or instruction. Each behaviour was related to Roger’s interactions with staff. Seven nurses were asked to complete the survey pre-treatment, and five were completed. The two nurses who did not fill out the survey felt that they did not have enough knowledge about the client in order to answer the survey accurately. It was predicted pre-treatment that ratings would increase by an average of one Likert rating per behaviour on the 5-point rating scale based on the prediction that the evidence-based treatment would increase Roger’s willingness to engage in therapy. Descriptive Statistics are located in Appendix I.

Question number 1 (allowing staff to approach him to talk; with pre-treatment mean ratings in brackets) showed a mean post-treatment rating of 4.0 (likely; 4.0). Question number 2 (responding to staff engagement with him) showed a mean post-treatment rating of 3.2 (may be likely; 3.2). Question number 3 (allowing staff to approach him to talk about problems/symptoms) showed a mean post-treatment rating of 2.4 (small likelihood; 1.8). Question number 4 (responding to staff engagement with symptom/problem related answers and questions) showed a mean post-treatment rating of 2.0 (1.8). Question number 5 (initiating a conversation with staff) showed a mean post-treatment rating of 2.8 (2.4). Question number 6 (initiating and maintaining a conversation with staff) showed a mean post-treatment rating of 3.0 (2.4). Question number 7 (Initiating a conversation about symptoms/problems with staff) showed a mean post-treatment rating of 1.8 (1.4). Question number 8 (Initiating and maintaining a conversation about symptoms/problems with staff) showed a mean post-treatment rating of 2.0 (1.4).

Questions 1, 2, 5, and 6 were related to Roger’s reactions to staff-initiated conversation (mean of 3.0 pre-treatment and 3.3 post-treatment). The other questions (3, 4, 7, and 8; mean of 1.6 pre-treatment and 2.1 post-treatment) were related to Roger’s initiation of conversation with staff. Both pre- and post-treatment ratings were higher for the questions related to staff-initiated conversations, as opposed to conversations initiated by Roger. A paired t-Test was completed to compare the differences in ratings pre- and post-treatment for staff-initiated conversation (as represented by questions 1, 2, 5, and 6) compared to Roger-initiated conversation (as represented by questions 3, 4, 7, and 8). An alpha level of 0.05 was used for all statistical tests. The paired t-Test showed that there was not a statistically reliable difference in the ratings on questions 1, 2, 5, and 6 pre-treatment (M = 3.0, SD = 1.2, d = 0.25) and post-treatment (M = 3.3, SD = 1.2, d = 0.67); t(19) = 3.5, p > 0.05. Another t-Test showed that there was not a statistically reliable difference in the ratings on questions 3, 4, 7, and 8 pre-treatment (M = 1.6, SD = 0.7) to post-treatment (M = 2.1, SD = 0.8); t(19) = 9.0, p > 0.05. Despite the consistently higher ratings for staff-initiated questions, none of the results showed statistically reliable improvements.

A paired t-Test was completed for each question’s mean response pre- and post-treatment. An alpha level of 0.05 was used for all statistical tests. For Question 1, the difference in the mean scores from pre- to post-treatment were not statistically reliable, t(4) = 0.0, p > 0.05.
For Question 2, the means were identical. For Question 3, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = -1.5, *p* > 0.05. For Question 4, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = -0.5, *p* > 0.05. For Question 5, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = -1.0, *p* > 0.05. For Question 6, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = 0.8, *p* > 0.05. For Question 7, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = -1.0, *p* > 0.05. For Question 8, the difference in the mean scores from pre- to post-treatment were not statistically significant, *t*(4) = -1.5, *p* > 0.05. The mean pre-treatment rating was 2.3 (SD = 1.2) and 2.7 (SD = 1.1) post-treatment.

**Readiness-for-Change Ruler**

It was predicted pre-treatment that Roger would increase his self-rating of readiness for change from 5 to 7 post-treatment in accordance with his engagement to treatment as an outcome of the current intervention. On the post-treatment (November 19, 2012) Readiness Ruler (see Appendix K), the client rated himself as a 10 with regard to his overall readiness to change (0 being ‘not prepared to change’ and 10 being ‘already changing’). However, Roger noted that considering the level of symptoms that he is experiencing, he can only rate himself as a 2 regarding his readiness to change. At pre-treatment (October 9, 2012), Roger rated himself a 5 without conditions.

**Vineland Adaptive Behaviour Scales**

The Vineland Adaptive Behaviour Scales (Sparrow, Balla, & Cicchetti, 1984) was completed pre-treatment and was interpreted by the supervising Psychologist. The result of the Vineland Adaptive Behaviour Scales was inconclusive due to the fact that the interviewee had such limited knowledge of the client, that the results appeared to vastly underestimate Roger’s abilities. The Vineland Adaptive Behaviour Scales was not completed post-treatment because the researcher was the most appropriate interviewee at that point in time, and therefore the post-treatment data were not comparable to the pre-treatment data. Additionally, the Vineland was determined to be not sufficiently sensitive to the type and degree of change observed with Roger.

**Clinical Observations**

Although the above reported measures show some signs of increased engagement in therapy, there were qualitative clinical observations made that reflect the progress made. In the beginning, Roger resisted any attempts made to engage him in therapeutic activities. Roger had a negative view of clinicians, and he was hesitant to share personal information with them. Over time, Roger became increasingly comfortable discussing symptoms with the researcher. Roger had also avoided conversations regarding his reading abilities. Throughout the course of therapy, Roger began discussing his reading abilities and even agreed to work with the researcher on improving his skills. Previously, Roger had denied a skill deficit in this area and had become aggravated at the suggestion that he need to improve this skill.

Overall, Roger demonstrated an increase in his willingness to engage in therapy with clinicians. In fact, Roger had begun requesting sessions during the last few weeks of the intervention. This initial information suggests that the results of this intervention were socially
valid, despite the lack of statistical power displayed by the statistical tests used and a lack of sensitivity of the measures to detect small changes.
Chapter V: Discussion

Summary

The above research used Motivational Interviewing (MI) combined with Cognitive Behaviour Therapy (CBT) and Applied Behaviour Analysis (ABA) to facilitate engagement in therapy with a 29-year-old male diagnosed with schizophrenia. Initially, the participant showed very little willingness or desire to engage in any form of treatment with clinicians. Although Roger’s willingness to engage in therapy showed a slight increase, the results (except for the Overall Readiness score) did not meet the hypothesized targets. However, the post-treatment Overall Readiness score exceeded the predicted level of improvement.

Roger’s readiness for change as measured by the URICA also increased by 13.1% from pre- to post-treatment, although he still remains in the pre-contemplative stage of change category. The Overall Readiness Scale indicated that Roger is likely ready to set an overall rehabilitative goal, showing an improvement from a rating of 1 pre-treatment to a rating of 3 post-treatment on the Overall Readiness scale. The nursing staff survey showed an overall increase from a mean score of 2.3 (SD = 1.2) pre-treatment to a mean score of 2.7 (SD = 3) post-treatment. Moreover, the qualitative data provided social validity to support the increase in Roger’s willingness to engage in therapy, though there was not a corresponding statistically reliable increase using quantitative measures, possibly due to the limited sensitivity of some measures to small changes, and to a lack of statistical power.

Context of the Current Literature

As discussed in the review of the relevant literature, engagement in therapy is a common deficit for individuals who have been diagnosed with schizophrenia. Additionally, individuals who engage in therapy regularly show improvement in key areas of daily living, including adaptive functioning as well as quality of life. More specifically, for clients living in a Forensic setting, engaging in therapy promotes independence and success in the community. The current study bridges the gap between individuals resisting therapy, and those who are successful once treatment is initiated. The literature strongly supports the notion that by engaging in therapy, clients can experience a greater quality of life. The literature also supports the use of MI, CBT, and ABA in order to increase engagement in therapy. The current study provides qualitative evidence that using MI, CBT, and ABA as a comprehensive hybrid approach can increase engagement in therapy, resulting in an increased quality of life for an adult male living with schizophrenia on a forensic psychiatry unit.

Strengths and Limitations

There were several strengths, as well as limitations, to the current research. The major strength of this intervention was the adaptability to Roger’s needs. Due to his limited literacy skills and his reluctance to engage in formal therapy, the intervention had to be adapted to suit Roger’s strengths. Many of the written tools that are used for Motivational Interviewing were completed verbally. Additional visual aids were created for Roger in order to supplement the verbal exercises. Furthermore, therapy was completed during trips to the coffee shop, or to the
hospital grounds, in order to accommodate Roger’s increased responsiveness during informal meetings.

A limitation to this intervention for Roger was the focus that it put on a specific need to change. Because Roger had difficulty identifying an area of his life that he felt needed amendment, it is difficult to complete many of the activities. The intervention also focused on goal-setting, which had to be discussed using alternative terminology due to the discomfort that the current terminology caused for Roger.

Time was a major limitation for this intervention. Roger was in a pre-contemplative stage of change at the beginning of the intervention, and developing therapeutic rapport was time-consuming considering the fact that Roger had not engaged in therapy before, and because of the nature of his diagnosis. Therefore, the predicted 8-week intervention was not enough time to complete all of the desired exercises. However, given that Roger was in the forensic ward for 2.4 years prior to the current intervention, a more realistic interpretation of the impact of the current intervention, is that it has begun a process which is designed to enhance his engagement in therapy. This suggests that longer-term treatment therapy is needed for clients who have experienced extended residential placement.

A more general limitation to this research was that it was a case study that displayed low statistical power. Additional research will need to be conducted in order to determine if the current study could be generalized to other individuals or populations.

Despite the above noted limitations, Roger showed improvement and has begun to change in a positive direction with regards to his engagement in therapy. The design of the current study did not allow for sufficient statistical power to detect a statistically reliable result, due to the small sample size and the lack of sensitivity of the selected measures to detect the slight changes.

**Multilevel Challenges to Service Implementation**

**Client level.** Providing services to individuals who have been diagnosed with schizophrenia presents many challenges. More specifically, positive symptoms of schizophrenia such as hallucinations or delusions make it difficult to engage clients in services, and force the counselor to reconsider the language used during sessions. For example, many clients believe that they do not have a mental illness. When discussing the diagnosis with clients, it is important not to push them to accept the diagnosis to be true, and to instead gain their perspective and opinion. Referring to symptoms may frustrate clients because they do not believe that the hallucinations and delusions are symptoms. To the contrary, these hallucinations and delusions are a client's reality. Additionally, clients who have schizophrenia often struggle with keeping appointments and frequently experience ambivalence about whether or not to participate in treatment. Their willingness to engage in therapy is highly unpredictable, causing irregular appointments.

**Program level.** The forensic program has several service implementation challenges surrounding legality. For example, clients are only allowed certain privileges based on their progress in therapy. Those privileges may include access to locations where the client is allowed
to meet with a student counselor. Due to a shortage of space, this constricts the possibility of meeting in external locations. Furthermore, a major issue with service implementation on a forensic ward is security. Security must be aware of a client's whereabouts at all times. If a client is granted one hour to leave the ward for a meeting with a staff member, the one hour time limit is very strict. In certain circumstances, this may prematurely terminate a session when the client wishes for it to continue.

Organizational level. At the organizational level, challenges are seen within the context of the entire hospital. Forensic services are governed by both the Mental Health Act, and by the Criminal Code of Canada. Sometimes there are conflicting expectations from those regulations. For example, if a client is mentally ill and makes poor health choices, the Mental Health Act would support the decision to begin to regulate that client's diet and provide education about nutrition until the client is able to make appropriate choices. However, based on the Criminal Code of Canada, the least restrictive and least onerous limits must be placed on the client. By this standard, restricting the client's diet is a restriction of liberties. This allows a client to ingest as much food as he or she wishes, potentially leading to fatal illnesses related to obesity.

Societal level. A major limit to service implementation at the societal level involves housing for individuals who are deemed to be ready to move into the community. For example, the community of Kingston only has one 24-hour supervised group home that is appropriate for forensic outpatients. Additionally, the Ontario Review Board frequently requires that clients leaving the hospital must live in accommodations which are supervised for 24 hours, 7 days per week. The reality is that if someone requires this living situation, they may be held in the hospital simply due to a lack of resources. This conflicts with the obligation to provide the least onerous and least restrictive living arrangements for the clients. Proposed housing developments designed specifically to suit the needs of individuals who could not qualify, or who have been on a waiting list for housing, elicit resistance from the community due to the fear of the stigmatized mental illnesses which these clients have been diagnosed with. This becomes especially clear due to the violent offences which some of the clients had committed. Finally, the entire basis for detaining the individuals in the forensic ward relates to their potential risk to society. In fact, a member of the Crown and a person representing the community both sit on the Ontario Review Board at hearings in order to testify as to whether or not the client poses a significant risk to the safety of the public.

Contributions to the Field

The current research provides a starting point for clinicians in the future when attempting to engage clients who have been previously reluctant to engage in therapy. The current research, combined with previously established literature on the topic of engagement, increases the likelihood of improved quality of life for those clients who are diagnosed with schizophrenia and who do not engage in therapy. The current study borrowed and adapted currently established treatments which adhere to best practices and combined them in a unique and comprehensive hybrid approach in an attempt to efficiently increase engagement. This research will also assist future researchers in selecting more appropriately sensitive measures for this type of intervention. Despite the challenges that it posed, the current study also provided the opportunity to adapt tools which are typically used with average readers, to meet the needs of basic readers.
Recommendations for Future Research

While the current study involved an individual with below average literacy skills, further research should be conducted regarding the efficacy of the current intervention with individuals with average literacy skills. Additionally, as mentioned above, the research should be replicated with other individuals in different age groups, genders, or populations. Further research should be conducted in order to determine which parts of the intervention were most effective. Because all of the parts of the intervention were implemented simultaneously, it is difficult to determine which parts of the intervention worked best, and which may have hindered Roger’s progress. Moreover, while an 8-week intervention appeared to provide a good starting point for Roger, a longer term interventions (e.g. 16 weeks) should be utilized for clients who are institutionalized in order to determine their overall efficacy. Since time restrictions were a major limitation of the current study, an extended therapy approach could not be used.

Another recommendation for future research is related to the use of the various measures. The URICA scale was a useful measure, and provided a valid prediction of the client’s stage of change. The measure was also useful for a client with schizophrenia, as it could be completed informally in order to reduce discomfort. The Readiness Assessment Scale and Overall Readiness scale provided an algorithm in order for the researcher to rate the client’s readiness for change in an objective manner. This scale was also the most sensitive to the client’s level of readiness for change. The nursing staff survey provided a view of the client’s level of engagement in therapy as it is viewed by those who work with him most closely, and was found to provide useful information. The Readiness-for-Change Ruler was somewhat difficult to use for a client with basic reading skills and took a large amount of explanation. It was also intended as a weekly measure, but the client became frustrated with the measure and felt that it was repetitive.

In this particular setting, the Vineland Adaptive Behaviour Scales is not recommended for use in future research. It was difficult to assess the client’s level of adaptive functioning, since many of the questions asked about behaviours which the client does not have the opportunity to exhibit. The Vineland also is intended for use with individuals under the age of 18, and is presented in an interview format with individuals who are very familiar with the client. In this case, no individual person was qualified to complete the interview, so several people were interviewed. The problem was that even with several interviewees, the knowledge of the client was limited, resulting in underestimated abilities of the client. It is for this reason that the interview was not completed post-treatment.

Informal assessment administration should continue to be utilized with clients who have been diagnosed with paranoid schizophrenia, as a means to conduct a valid assessment. Finally, as standardized pencil-and-paper measures may not be sensitive to client change, it is recommended that qualitative clinical data be collected more systematically in future studies, as it was the main source of information that supported the validity of the current intervention.
REFERENCES


Readiness score for URICA: Calculating and understanding the readiness score. (n.d.). *University of Maryland, Baltimore County*. Retrieved from http://www.umbc.edu/psyc/habits/content/ttm_mesaures/urica/readiness.html


**Overall Word Count:** 10,546
Appendix A: Session Summaries

Date: September 12, 2012  Time: 13:00-13:15

Location: Hospital Grounds  Counselor(s): Dr. Dixon and Emma Donovan

Materials: None

Area of Focus:  Obtaining client consent to treatment.

Session Summary:  Discussed the implications of meetings with the counselor(s), confidentiality, and obtained verbal informed consent.

Client Progress:  Delivered consent to engage in one-to-one counseling sessions.

Mental Status:  Client presented as calm and cooperative. Speech was slow and monotonous, affect was flat. Insight into the possible benefits of treatment seemed fair.
Date: September 17, 2012  Time: 13:45-14:30

Location: Hospital Grounds/Hospital Canteen  Counselor(s): Emma Donovan

Materials: None

Area of Focus:
  Relationship Development: to develop a therapeutic relationship and establish trust.

Session Summary:
  Interests, likes, and dislikes, were discussed with a significant amount of prompting. Roger also shared some general background information as well as some hopes for the future. Roger demonstrated some desire to work toward the goal of moving into the community, but also addressed many reasons for wanting to stay on the ward. He also mentioned a change that he had made in the past and was still working on presently.

Client Progress:
  Roger was beginning to share some personal information with the student therapist, thus demonstrating some development of trust.

Mental Status:
  Roger was calm and cooperative, and there were no unusual movements or psychomotor changes noted. His dress was casual and hygiene was poor. His sandals were worn through completely on both heels. Speech was of normal rate, tone, and volume. Affect was somewhat flat. Thought processes were mostly organized, and there were no obvious symptoms such as hallucinations or delusions during the meeting.
Date: September 20, 2012  Time: 16:00-17:00

Location: Hospital Grounds  Counselor(s): Emma Donovan

Materials: None

Area of Focus:
Relationship development and discussion of current active symptoms of schizophrenia including: (1) visual and auditory hallucinations, (2) delusions, (3) experiences of thought control override, and (4) psychotic interpretations of somatic symptoms.

Session Summary:
Roger was very agitated and was stating that “They” were trying to make him look crazy. It was unclear if Roger was referring to staff or to the individuals who are always over his shoulder. Roger went into great detail about the apparent hallucinations and delusions that he experiences. Roger revealed that he used to enjoy reading very much but that now if he tries to read, “They” cause him to all of a sudden forget how to read. He finds this very frustrating and angering. Roger also revealed that sometimes he is frightened because of the scenarios and this causes him to become angry as well. He expressed that sometimes he forgets what happened in a certain situation until later, when he realizes what occurred in his mind to lead to his actions.

Client Progress:
The client requested this session after feeling agitated. This demonstrates the desire to engage with staff and discuss symptoms when in distress.

Mental Status:
Roger was dressed casually, but hygiene was poor. It was also noted that his sandals have worn completely through in the heel. He was well-oriented and despite his agitation, he displayed cooperative behavior. There were no unusual movements or psychomotor changes. Speech was rapid, but tone and volume were normal. Speech was also fairly repetitive. His mood was agitated and angry but his attitude toward the examiner was friendly and cooperative. Visual and auditory hallucinations were discussed but none appeared during the meeting. Thought process was unorganized, delusions were bizarre and systematized. Some somatic delusions were also discussed. Roger believes that these delusions are what control much of his behavior.
Date: September 21, 2012  Time: 13:00-14:00
Location: Coffee Shop  Counselor(s): Emma Donovan
Materials: None

Area of Focus:
  Relationship development and discussion of long-term goals.

Session Summary:
  Discussed what he would want to do after leaving the hospital to move into the community. He also talked about some of his experiences on the ward that are bothering him. We discussed methods of coping with those issues. He suggested that perhaps many of the rules of the ward were made at much ‘higher levels’ that we must not be aware of.

Client Progress:
  Roger has been eager to set up times to meet and seems to want to meet more than the suggested two times per week.

Mental Status:
  Roger was calm and in much higher spirits than the last time we met. He was still cooperative, although he was less talkative regarding his symptoms. He was casually dressed and groomed. Hygiene was improved from the last meeting. No obvious hallucinations took place during the meeting. Affect was fairly flat, speech was slow, but tone and volume were regular. No agitation or irritability was noted, although he did express disappointment that if he chose to go off ward with the student, he had to use up some of his indirectly supervised time in the community.
Date: October 9, 2012  Time: 12:20-13:00
Location: Hospital Grounds  Counselor(s): Emma Donovan

Materials:

- Readiness to Change Ruler
- URICA
- Semi-structured interview questions

Area of Focus:

Pre-treatment assessment, case conceptualization, a preliminary discussion of change and overall readiness for rehabilitation, and discussion of long-term goals.

Session Summary:

When asked, Roger stated that five years from now he sees himself living in the community. He also said that to achieve this goal, he would need to continue to engage in his current activities. He sees no reason to change his current lifestyle and feels that he is doing well. He demonstrated limited insight into his diagnosis. He believes that his risk to reoffend is very low because when he offended he was going through a temporary psychotic episode. He does not believe his diagnosis to be accurate and sees it only as a label that is causing restrictions for him. Roger also feels that he no longer belongs in the hospital.

Client Progress:

Roger was asked to rate his readiness to change on a scale from 0 (not at all ready) to 10 (already changing). He placed himself at a 5 on the scale. When asked why he did not place himself as a 0, he stated that it was due to the opinions of others who tell him that he requires change.

Mental Status:

Roger was dressed casually and was well groomed. Some visual hallucinations were apparent and Roger noted auditory hallucinations as well, although neither appeared to cause distress. Roger would look beyond the Behavioural Psychology Student (i.e. over the shoulder) or up near the ceiling of the gazebo and smile and nod as if he was engaging in gestural communication with an individual seated at the picnic table or in the gazebo. He also stated that he could not complete his ideas some of the time because he was distracted by someone telling him something different. Affect was flat; tone, volume, and speed of speech were all normal. No abnormal motor tics or behaviours were noted.
Date: October 16, 2012  Time: 15:00-16:00

Location: Hospital Grounds  Counselor(s): Emma Donovan

Materials: None

Area of Focus:
Increasing readiness for change through Motivational Interviewing.

Session Summary:
Roger explained that the reason he does not attend treatment groups offered on the ward is due to difficulty concentrating, which he attributed to having his brain wiped by someone. When asked if he preferred a one-to-one setting he said that he experiences the same problem. Occasionally, Roger will appear as though he is listening to what is said, but when expected to answer a question he states that he did not get the question because his mind went blank. When asked if he had thought about anything he would really like to change, Roger said that he already knew how to solve his problems and therefore did not require treatment. He did, however, say that he could not read very well and knew that in order to improve this skill, he would need to practice. He said that as long as they are comic books that interested him, he would be willing to practice reading with Emma Donovan during sessions. Roger was asked how he felt about taking his medication. He stated that he had no problem taking medication and trusted his psychiatrist’s opinion of what he should be taking. He said that he often agrees to a change in medication (such as an increase in dosage) but then forgets what he agreed to, causing him to be slightly surprised when he has to take his medication. He said that he sometimes worries that nursing staff increase the doses after consulting the psychiatrist but without telling him. It was explained to him that his medication would not be altered without discussing the change with him first. He said he felt slightly less worried about that after finding out that the doses are not increased without his knowledge. Roger was asked if he was living out in the community, would he continue to take his medication regularly. He answered that he would take them for a bit but then he would stop taking them so that he could see how he does without them. He was then asked if he felt that the medications were helping him and he explained that it depended on how the medications were ‘hitting him’ that day. Roger also discussed some previous run-ins with police prior to coming to the hospital. He explained those circumstances as if he had no idea what he did wrong, but the police all of a sudden came to get him.

Client Progress:
Roger displays little to no insight into the importance of medication compliance to reduce his symptoms of schizophrenia.
Mental Status:

Roger appeared casually dressed and appropriately groomed. His eye contact was good and no apparent hallucinations took place during the session. He did say that his brain had been wiped two times, however, and therefore could not hear the question. When it was repeated, he heard and was able to answer. Roger still demonstrated some delusional thinking that was somewhat disorganized. He discussed thought control override symptoms during his index offence but seems to experience very few of these symptoms now – if any.
Date: October 29, 2012  Time: 13:00-14:15

Location: Hospital Grounds and Canteen Lounge  Counselor(s): Emma Donovan and Dr. Dixon

Materials: Consent form

Area of Focus:
Increase readiness for change through Motivational Interviewing.

Session Summary:
Roger discussed two comic books that he got last week and said that he was experiencing some ‘conflicts’ when trying to read them but knew that they would still be available when he felt that he could read them. It was suggested that he could bring them with him to a session one day and we could read them together if he wished. He said that he might do that. Roger also gave signed informed consent regarding treatment with Emma Donovan (under the supervision of Dr. Dixon). The consent form was read to him and was signed by Roger, Emma Donovan, and Dr. Dixon. A copy of this form will be kept on his chart. Roger did not have any questions and seemed to understand what the consent form meant. At 13:30 we went to the Canteen to buy some snacks. Likes and dislikes were discussed, as well as previous employment that Roger had. He indicated that he had worked doing some construction, dry-walling, work in a meat processing plant, and a recycling plant. He indicated that until he was off of his warrant, he did not want to make change or go to work.

Roger asked if the over-time meeting was out of politeness or if it truly was not a problem that the meeting continues. He was informed that our meeting times do not have limits and we can speak as long as he would like to. He also discussed why he does not like going to groups or to school. His reasoning is that during groups he gets a train of thought and then with everything going on, he feels like he loses that train of thought. Then, when someone asks him a question, he feels that he is being put on the spot and does not know the answer. This appears to cause him a lot of discomfort. When asked if he often loses his train of thought, he stated that it happens all the time. He did express some interest in hands-on activities such as wood-working in terms of group activities.

Client Progress:
Roger appeared more hesitant to engage in treatment during this session. This could be attributable to Dr. Dixon’s presence. He is following through with his reading practice, which demonstrates progress in that area.

Mental Status:
Roger was casually dressed and hygiene was poor. His speech was of normal tone and speed and was quiet. Affect was flat. There were no obvious hallucinations or delusions during
the meeting. Roger displayed quite a bit of concern for others when asking if it was alright to continue the meeting.
Date: October 31, 2012  Time: 14:30-15:00
Location: Hospital Grounds  Counselor(s): Emma Donovan
Materials: None

Area of Focus:
Increase readiness for change through Motivational Interviewing

Session Summary:
At 14:30 Roger and Emma Donovan went to Hospital Grounds for half an hour. Discussions revolved around Roger’s disposition, which he brought with him, and about his experiences in jail. Roger indicated that when he had the choice between going to jail and coming to the ward, he should have chosen jail because then he could just have done his time and left. He was asked how he felt about the Forensic system and he did not speak highly of it. Roger said that he wanted to get out of here and move into the community. When asked if he had a plan, he said that a plan was not required. It was suggested to him that engaging in treatment, attending groups, and using available privileges well in order to show your trustworthiness and ability to succeed, he was silent but nodded as if he was processing the information.

Roger was asked if he would use his indirect community privileges in order to go to the gym, as he had indicated he would like to do. He said that he might consider that, but that he only had four hours. It was suggested to him that he was not using any of those hours right now, and that using 2 of them to go to the gym would help him to meet his goals. He seemed interested in this idea, but not quite keen on getting started.

Client Progress:
Roger appears to be realizing that in order to see changes occur in his life; he will need to actively make those changes.

Mental Status:
Roger was dressed casually and was well groomed. His thoughts were organized and no apparent hallucinations or delusions took place during the meeting. Roger’s insight appears to be improving due to his acknowledgement that he is here and if he wants to achieve his goals, he will need to prove his ability to succeed to the team. Roger’s eye contact was appropriate and he laughs and makes jokes at appropriate times. Roger was calm with no signs of agitation and affect was flat. His tone, volume, and speed of speech were all normal.
Area of Focus:
Introducing goals and goal-setting, and increasing readiness for change through motivational interviewing.

Session Summary:
Discussion revolved around goal-setting and the importance of having a goal. Roger was asked about his current goals. He stated that he was not a “goal-oriented” person and that he did not consider himself to have any goals at the present time. He did express his desire to live in the community within the next year, and his desire to go to the gym and increase his level of physical fitness. However, Roger described these as things that he needed to do, rather than as a “goal.” Roger described the importance of setting goals as dependent on the person. He seems to feel that someone who has “problems” needs to set a goal, while those who do not have “problems” simply have things that they need to do. Roger does not consider himself someone who has such problems, thus he does not require a goal.

Discussion also took place regarding Roger’s newest disposition order and his ability to reside in the community in supervised housing. Roger expressed concerns about the timeline due to the prediction that it would take between 2 to 6 months to facilitate the move. Roger is concerned that due to his lack of participation in groups, it is more likely to be 6 months before he moves to the community. He was asked if he had considered attending the groups in order to speed up the process, but he declined. Roger was asked if he would be willing to participate in something other than those groups which may prove to the team that he was committed to succeeding in the community, but he feels that the only thing they are judging his ability to be discharged from the hospital on is his attendance at the groups. Roger expressed frustration with the Forensic system because he feels that the expectations are very inconsistent.

Roger was asked if he had put any more consideration into using his indirect community privileges to attend the gym. Roger expressed no desire to do so until he was out of the hospital and could exercise at home. Finally, Roger discussed a desire to do something which would have him placed in prison, rather than staying on the Forensic Unit. Roger feels that he could then serve his time, and be released with no further stipulations. However, at the end of the session, Roger explained that this was a huge risk because he may be extending his stay at the hospital by acting out, rather than being in prison. Roger also decided that this was perhaps not the best idea, since he did not want to incur any further charges.
Client Progress:

The client displays insight into the importance of participation in treatment programs in order to be discharged from the hospital. However, he is unwilling to make those changes at the present time.

Mental Status:

Roger was casually dressed, wearing the same clothing that he has been seen in for the past few sessions. Roger’s personal hygiene was poor. There were no apparent auditory or visual hallucinations during the session, and none were discussed. Roger does appear to have some delusions regarding his mind being “wiped” by someone, causing him to forget things. Speech was of normal tone, rate, and volume. Affect was somewhat flat. Roger has begun wearing appropriate footwear for the weather, which has been a concern in the past.
Date: November 8, 2012  
Time: 11:15-12:15

Location: Local coffee shop  
Counselor(s): Emma Donovan

Materials: None

Area of Focus:
Increasing readiness for change through Motivational Interviewing and increasing insight into the importance of setting goals.

Session Summary:
The meeting took place immediately during a trip to the Local coffee shop in the Portsmouth Village. Roger did not have anything new to share, nor was there anything specific that he wished to talk about. Roger was asked if he had put any more thought into using his indirect community passes in order to increase his chances of living in the community. Roger listed several reasons for not wanting to use his community indirect privileges: (1) limited time, (2) limited money, (3) he would have to fill out a detailed itinerary and has concerns surrounding not filling it out correctly and being in trouble during a spot check as a result (i.e. he did not add enough detail about where he would be within the mall and says “at the mall”). Roger was then asked if he would feel more comfortable going out into the community if he had assistance filling out his itinerary, but he declined.

Roger was also asked about his goal of becoming more physically fit. Roger does not appear to respond well when the term “goal” is used, and prefers to just speak of it as something that he wants to do for himself, or something that he wants in the future. Nutrition and dietary information were discussed, and a Local coffee shop Nutrition Guide was reviewed. Roger was interested in how many calories he had consumed, but does not appear to make the connection between his diet and his level of physical fitness.

Client Progress:
The client has provided multiple arguments for why he does not want to change his behaviour, and has begun to identify some of the benefits of making change.

Mental Status:
Roger was casually dressed in the same clothing as the last time he was seen. Roger was asked about his wardrobe and says that he only has two pairs of pants, both of which have holes in them, and that his winter coat is too small for him. Roger’s personal hygiene was poor and affect was flat. His tone, volume, and speed of speech were all within normal limits. Roger did laugh to himself on one occasion and appeared to lose his balance while walking, but auditory and visual hallucinations were not obvious during the session. Roger does appear to maintain some delusional thinking surrounding mental illness (i.e. an external “person” decides on your mental state).
Date: November 19, 2012  
Time: 14:15-15:15

Location: Local Coffee Shop  
Counselor(s): Emma Donovan

Materials: Readiness to Change Ruler

Area of Focus:  
Increasing readiness for change through Motivational Interviewing.

Session Summary:  
Roger discussed several of his symptoms, including delusions surrounding the ward and the police. At the coffee shop, Roger requested that the writer buy the coffee while he waited outside. When the writer came outside to meet him, he was talking to himself. When asked, he said that he was thinking to himself.

Roger was asked if he had ever ridden the bus before, and he said that he had not yet ridden the bus but appears to be open to the idea. The steps to be taken in order to obtain new privileges were discussed, and Roger provided reasons why he did not wish to engage in each of the suggested methods. When asked on a scale from 0 (not at all ready) to 10 (very ready), Roger was asked how ready he was to make some of the changes in order to increase his privileges. Roger rated himself as 10 but that due to the “conflicts” he was experiencing, he was only 2. When asked to elaborate further, Roger described being completely ready to make changes and to engage in those activities, but that all the “conflicts” were preventing him from being able to do so. Based on the context, “conflicts” appear to be difficulties that Roger experiences when trying to complete a task, such as auditory and/or visual hallucinations. Roger was asked if talking about these things made him feel any better, and he stated that it was the “good vibes” from the team that made him feel good, and not just talking about it.

Roger asked if the side of a truck in front of Local coffee shop read “Heating.” The truck was a McCann Heating and Cooling truck. Roger indicated that he asked because he was not sure that that is what it said. When asked further about his reading, Roger stated that he understood the basics and he knew most of the sounds that the letters made. Roger also demonstrated the ability to add, subtract, and make change while at the convenience store and picking out the correct amount of lottery tickets for his co-patient.

Client Progress:  
At the end of the meeting, Roger was asked if he would like to set up a meeting for Wednesday afternoon. He stated that he did not wish to set up a meeting and that he had discussed everything that he wanted to discuss. Roger was told that he could always let the writer know if he changed his mind.
Mental Status:

Initially, Roger was quiet and was short with his responses to questions. However, during the last 30 minutes of the meeting, Roger’s speech became rapid and somewhat loud. His thoughts were extremely disorganized and he appeared to be somewhat frustrated, although he did not admit to feeling frustration at the moment. Roger was casually dressed in the same clothing that he is usually wearing. His hygiene was poor and he was seen talking to himself on one occasion. He also discussed several delusional thoughts.
**Date:** November 21  
**Time:** 15:00-15:30

**Location:** Hospital Grounds  
**Counselor(s):** Emma Donovan

**Materials:** None

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**Area of Focus:**
Increasing readiness for change through Motivational Interviewing.

**Session Summary:**
Discussion revolved around what it is like to be in the community and what some of the benefits are to being out of the hospital. A discussion also took place regarding the different types of intelligence. Roger acknowledged that although he did not excel in the formal setting, he learned a lot of his skills when he lived on the streets. Roger was reminded that intelligence is not only measured by grades, and that gaining living experience is invaluable. Roger discussed a time when he lived with a Native family after being kicked out of his home when he was 16 or 17. He discussed some of his experiences while living there and expressed a lot of interest in the culture and the culinary styles. Roger also indicated that his mother was a counsellor in a Native Friendship Centre.

**Client Progress:**
Roger initiated this meeting and has in fact begun to initiate the majority of meetings with the counselor. During these meetings, Roger discusses symptoms and life experiences which he has been hesitant to share in the past.

**Mental Status:**
Roger was wearing the same outfit, and his hygiene was poor. He appeared to be actively hallucinating because he would stare at something and then laugh randomly. He did not discuss any delusions. Affect was flat, although he did seem somewhat happier than usual. Roger was very calm and cooperative and initiated the session. His speech was within normal limits with regards to speed, tone, and volume. No frustration or aggression was exhibited during the session.
Date: November 26

Time: 14:00-15:30

Location: Telephone Room and Local Coffee Shop

Counselor(s): Emma Donovan

Materials: Forensic Privilege Analogy tool

Area of Focus:

Session Summary:

Roger met with Emma Donovan (St. Lawrence College Behavioural Psychology student under the supervision of Dr. Dixon) at 14:00 in the telephone room and at Local coffee shop. When told that the writer had something to show him, Roger's first reaction was to ask if there was a lot of writing involved. When told that there was no writing, Roger showed a slight sense of relief. First, in the telephone room, Roger and the writer explored an analogy using visual representations regarding earning increased privileges on the ward. Roger was relatively unresponsive to the analogy initially, calling it "dumb," but then began asking questions after further explanation and began to show increased understanding. Roger even began to adapt his thinking to fit the analogy, and although he understood the concepts and agreed with the logic, maintained his view that he was doing enough already without making any personal changes.

Roger volunteered information regarding an incident yesterday with nursing staff when coming in from the yard. He explained that he was having a stressful day, and said that he would like to discuss this more than he had yesterday with nursing staff. Roger explained that he was already being "bombarded" yesterday in an "ignorant manner" and he had a coffee in his pocket which he thought was stable. When the coffee fell out of his pocket and spilled everywhere, he was already angry, which was exacerbated by the reactions of the people around him. He said that he did not blame those around him for their reaction, since it was simply the "way that it hit them" and they could not control their responses. When he came in from the yard, he was already feeling stressed and his pants were falling down. Roger frequently discusses that his pants fall down due to others "playing ignorant jokes" on him, causing him great frustration. He was in the process of pulling his pants up, when the nurse who was wandling him back onto the ward asked him to pull up his pants. He then became even more frustrated and "tried to do the right thing" by telling the nurse that he would like to stop talking about it now and would talk about it later on. He then discussed how it made him feel embarrassed that she asked him to pull his pants up because it already makes him feel embarrassed that they fall down. Roger uses the term "ignorant" to describe something that is done in a rude fashion. He indicated that he did not intend to be rude to the nurse, and that he did apologize once he was feeling more calm.
Client Progress:
Roger will continue to meet with Emma Donovan (St. Lawrence College student under the supervision of Dr. Dixon) to discuss long-term goals. Two TCMs will continue to meet with Roger at the outset of the writer's placement. Roger will meet with Emma Donovan and a TCM on Tuesday, December 4th at 14:30 to discuss treatment maintenance plans.

Mental Status:
Roger was casually dressed in the same clothing that he wears on a daily basis. His hygiene was within normal limits and he was calm and cooperative. Roger demonstrated signs of auditory/visual hallucinations during the session when he laughed aloud at one point. When asked what was funny, he explained that "the lady" had said to him that "the cadet's" pants fell down but he had been so focused on what he was doing that he did not pull them up, so the police took the problem and put it onto Roger, causing his pants to fall down. Roger's thoughts were somewhat organized until he began discussing his symptoms. The delusions that Roger holds about the military and the police are very difficult for him to communicate, and his explanations are extremely difficult to interpret. Affect was somewhat flat, and speech was of normal rate, tone, and volume.
Appendix B: Readiness Assessment Scale and Overall Readiness

<table>
<thead>
<tr>
<th>Rating</th>
<th>Need for Change</th>
<th>Commitment to Change</th>
<th>Environmental Awareness</th>
<th>Self-Awareness</th>
<th>Personal Closeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Urgent Need: Client is very dissatisfied with current environment and/or others (team) demand change.</td>
<td>Very Committed:</td>
<td>Very Aware: Talks about past/future environments in detail: people, place, and activities.</td>
<td>Very Aware: Describes interests, values, and experiences without prompts.</td>
<td>Very High Closeness:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Believes change is necessary</td>
<td></td>
<td>▪ Much experience selecting places to live, work, learn, and socialize.</td>
<td>• Not isolated</td>
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<tr>
<td></td>
<td></td>
<td>▪ Believes change is positive</td>
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<td></td>
<td>• Likes closeness</td>
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<td></td>
<td></td>
<td>▪ Believes change is possible</td>
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<td></td>
<td>• Very positive about practitioners</td>
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<td></td>
<td></td>
<td>▪ Believes support for change exists</td>
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<tr>
<td>4</td>
<td>Strong Need: Client is dissatisfied with current environment and/or others seek change.</td>
<td>Committed: Any three factors indicated in level 5.</td>
<td>Aware: Talks about past/future environments in general: people, places, and activities.</td>
<td>Aware: Describes interests, values, and experiences when asked.</td>
<td>High Closeness:</td>
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<td></td>
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<td></td>
<td>▪ Some experience selecting places to live, work, learn, and socialize.</td>
<td>• Not isolated</td>
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<td>• Likes closeness</td>
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<td></td>
<td>• Feels positive about practitioners</td>
</tr>
<tr>
<td>3</td>
<td>Moderate Need: Client and others are ambivalent about the current environment.</td>
<td>Moderately Committed: Any two factors indicated in level 5.</td>
<td>Moderately Aware: Names some alternative present, past, or future environments.</td>
<td>Moderately Aware: Answers direct questions about interest, values, and experiences.</td>
<td>Moderate Closeness:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Describes a few people, places and activities</td>
<td>▪ No experience selecting places to live, work, learn or socialize.</td>
<td>• Somewhat isolated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>▪ Some experience making other important decisions (choices)</td>
<td>• Somewhat likes closeness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Feels neutral about practitioners</td>
</tr>
<tr>
<td>2</td>
<td>Minimal Need: Client is satisfied now with current environment, but wants change later and others seek no change at this time.</td>
<td>Minimally Committed: Any one of the factors indicated in level 5.</td>
<td>Minimally Aware: Names more than one environment</td>
<td>Minimally Aware: Answers only general interest questions</td>
<td>Minimal Closeness:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ May be able to describe something about one past environment: people, place and activities.</td>
<td>▪ Vague about values and experiences</td>
<td>• Is guarded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>▪ No experience selecting places to live, work, learn or socialize.</td>
<td>• Does not like closeness</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Feels ambivalent or tenuous about practitioners.</td>
</tr>
<tr>
<td>1</td>
<td>No Need: Client is satisfied with current environment and others do not seek change.</td>
<td>Not Committed: No factors indicated in level 5.</td>
<td>No Awareness: Names only present environment or none.</td>
<td>No Awareness: Can’t answer questions about interests, values and experiences.</td>
<td>Very Low Closeness:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>▪ Vague about people, place and activities</td>
<td>▪ No decision-making experience.</td>
<td>• Very isolated</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Strongly dislikes closeness.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Dislikes practitioners.</td>
</tr>
</tbody>
</table>

## OVERALL READINESS SCALE

<table>
<thead>
<tr>
<th>RATING #</th>
<th>READINESS LEVEL</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>All factors (need, commitment, environmental awareness, self-awareness, &amp; personal closeness) are rated 4 or above.</td>
<td>Definitely ready to set an overall rehabilitation goal</td>
</tr>
</tbody>
</table>
| 4        | Need = 4 – 5  
Commitment = 3 or more  
Closeness = 3 or more  
Self-Awareness = 3 or more  
Environmental awareness = 2 or less | Probably ready to set an overall rehabilitation goal                         |
| 3        | Need = 4 – 5  
Commitment = 3 or more  
Closeness = 3 or more  
Self-Awareness = 2 or more  
Environmental awareness = 2 or more | May be ready to begin setting an overall rehabilitation goal, may develop readiness |
| 2        | Need = 3 or more  
Commitment = 3 or more  
Closeness = 3  
Self-Awareness = 2  
Environmental awareness = 2 or less | Needs greater awareness to set an overall rehabilitation goal                |
| 1        | Need = 2 – 3  
Commitment = 2 or less  
Closeness = 2 or less  
Self-Awareness = 2 or less  
Environmental Awareness = 1 | Needs activities to develop readiness to set an overall rehabilitation goal. |

Note: These ratings are merely a guide. It is best to focus on the definition instead of the levels.
### Appendix C: Readiness Assessment Scale and Overall Readiness Raw Data

<table>
<thead>
<tr>
<th>Need for Change</th>
<th>Commitment to Change</th>
<th>Environmental Awareness</th>
<th>Self-Awareness</th>
<th>Personal Closeness</th>
<th>Overall Readiness Level</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Post-Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Appendix D: University of Rhode Island Change Assessment

**UNIVERSITY OF RHODE ISLAND CHANGE ASSESSMENT (URICA) SCALE**

**PROBLEM:**

This questionnaire is to help us improve our services. Each statement describes how a person might feel when starting therapy. Please indicate the extent to which you tend to agree or disagree with each statement. In each case, you’re your choice in terms of how you feel *right now*, not what you have felt in the past or would like to feel. For all the statements that refer to your “problem,” answer in terms of the problem you have written at the top. And “here” refers to the place of treatment.

There are **FIVE** possible responses to each of the items in the questionnaire: Strongly disagree, disagree, undecided, agree, and strongly agree. Circle the number that best describes how much you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. As far as I’m concerned, I don’t have any problems that need changing.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. I think I might be ready for some self-improvement.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I am doing something about the problems that had been bothering me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. It might be worthwhile to work on my problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I’m not the problem one. It doesn’t make much sense for me to be here.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. It worries me that I might slip back on a problem I have already changed, so I am here to seek help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I am finally doing some work on my problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I’ve been thinking that I might want to change something about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
There are FIVE possible responses:

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. I have been successful in working on my problem, but I’m not sure I can keep up the effort on my own.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. At times my problem is difficult, but I’m working on it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. Being here is pretty much a waste of time for me because the problem doesn’t have to do with me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I’m hoping this place will help me to better understand myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I guess I have my faults, but there’s nothing that I really need to change.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. I am really working hard to change.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I have a problem and I really think I should work on it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I’m not following through with what I had already changed as well as I had hoped, and I’m here to prevent a relapse of the problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Even though I’m not always successful in changing, I am at least working on my problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I thought once I had resolved the problem I would be free of it, but sometimes I still find myself struggling with it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>19. I wish I had more ideas on how to solve my problems.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. I have started working on my problems but I would like help.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Question</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Undecided</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-----------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>21. Maybe this place will be able to help me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. I may need a boost right now to help me maintain the changes I’ve already made.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I may be part of the problem, but I don’t really think I am.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. I hope that someone here will have some good advice for me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. Anyone can talk about changing; I’m actually doing something about it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. All this talk about psychology is boring. Why can’t people just forget about their problems?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. I’m here to prevent myself from having a relapse of my problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. It is frustrating, but I feel I might be having a recurrence of a problem I thought I had resolved.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. I have worries but so does the next guy. Why spend time thinking about them?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. I am actively working on my problem.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. I would rather cope with my faults than try to change them.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32. After all I had done to try and change my problem, every now and again it comes back to haunt me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
## Appendix E: University of Rhode Island Change Assessment Raw Data

<table>
<thead>
<tr>
<th>Precontemplative</th>
<th>Contemplative</th>
<th>Action</th>
<th>Maintenance</th>
<th>Readiness to Change Score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-Treatment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.14</td>
<td>2.71</td>
<td>2.57</td>
<td>1.86</td>
<td>3.00</td>
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<tr>
<td><strong>Post-Treatment</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.00</td>
<td>2.29</td>
<td>3.14</td>
<td>2.00</td>
<td>3.43</td>
</tr>
</tbody>
</table>
Appendix F: University of Rhode Island Change Assessment Graphed Data
Appendix G: Nursing Staff Survey

Likelihood of the Occurrence of Behaviour

Please rate the following behaviours, based on your experiences, on the likelihood to occur without encouragement or instruction. Please do not identify yourself on this survey. All answers will be kept completely confidential. Your survey will only be identified by the student researcher based on a randomly generated number so that pre- and post- treatment data can be collected and assessed.

1  = Not at all likely; 2 = Small likelihood; 3 = may be likely; 4 = likely; 5 = very likely.

1. Allowing staff to approach him to talk

2. Responding to staff engagement with him

3. Allowing staff to approach him to talk about problems/symptoms

4. Responding to staff engagement with symptom/problem related answers and questions

5. Initiating a conversation with staff

6. Initiating and maintaining a conversation with staff

7. Initiating a conversation about symptoms/problems with staff

8. Initiating and maintaining a conversation about problems/symptoms with staff
### Appendix H: Nursing Staff Survey Raw Data

Table 1

*Nursing Staff Ratings of the Probability of Behaviour*

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Nurse 1</th>
<th>Nurse 2</th>
<th>Nurse 3</th>
<th>Nurse 4</th>
<th>Nurse 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Pre-Treatment</strong></td>
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<tr>
<td>1</td>
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<td>3</td>
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<td>2</td>
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<tr>
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<td>2</td>
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<tr>
<td><strong>Post-Treatment</strong></td>
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<td></td>
</tr>
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<td>3</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 2
*Nursing Staff Ratings of the Probability of Behaviour: Descriptive Statistics*

<table>
<thead>
<tr>
<th>Question Number</th>
<th>Mean</th>
<th>Median</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Treatment</td>
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<td></td>
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</tr>
<tr>
<td>1</td>
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<td>4</td>
<td>1.0</td>
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<td>4</td>
<td>1.8</td>
<td>2</td>
<td>0.8</td>
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<td>5</td>
<td>2.4</td>
<td>2</td>
<td>1.1</td>
</tr>
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<td>6</td>
<td>2.4</td>
<td>2</td>
<td>1.1</td>
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<tr>
<td>7</td>
<td>1.4</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>8</td>
<td>1.4</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Overall</td>
<td>2.3</td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td>Post-Treatment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4.0</td>
<td>4</td>
<td>1.2</td>
</tr>
<tr>
<td>2</td>
<td>3.2</td>
<td>3</td>
<td>0.8</td>
</tr>
<tr>
<td>3</td>
<td>2.4</td>
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<td>0.5</td>
</tr>
<tr>
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<td>2.0</td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>5</td>
<td>2.8</td>
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<td>0.8</td>
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<tr>
<td>8</td>
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<td>2</td>
<td>1.0</td>
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<tr>
<td>Overall</td>
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<td>3</td>
<td>1.1</td>
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</tbody>
</table>
Appendix I: Nursing Staff Survey Individually Graphed Data
Pre-Treatment

Rating of Behaviour

Question

Nurse 1
Nurse 2
Nurse 3
Nurse 4
Nurse 5
Post-Treatment

Rating of Behaviour

Question

Nurse 1
Nurse 2
Nurse 3
Nurse 4
Nurse 5
Appendix J: Nursing Staff Survey Graphed Averages
Appendix K: Readiness-for-Change Ruler

READINESS RULER

Below, mark where you are now on this line that measures your change in__________________________________________.

Are you not prepared to change, already changing or somewhere in the middle?

Source: adultmeducation.com