ABSTRACT

The Impact of a Neuro Linguistic Programming Therapy Strategy on the Personality Functioning of "At Risk" Adolescents.

Tracey-Ann Elizabeth Coley

This study examined the effectiveness of a Neuro Linguistic Programming (NLP) therapeutic strategy, Mental and Emotional Release (MER) Therapy, at changing maladaptive personality functioning and improving behavioural and emotional dysfunction in 107 "at risk" adolescents attending high school in Kingston, Jamaica. This mixed methods study utilized an embedded experimental design to measure the efficacy of the intervention. To examine the personality structure/functioning of the students, the Rorschach was administered pre and post intervention. The Child Behaviour Checklist (CBCL), Youth, Teacher and Parent forms, was also administered at baseline and after exposure to MER in order to measure the students' behavioural and emotional functioning. Behavioural observations and interviews with the students were also used to evaluate the effectiveness of the intervention. Overall, the data supported the effectiveness of MER at reducing the behavioural and emotional problems of the adolescents although there was some variance among reporters. In terms of their personality functioning, within group analysis revealed improvements in students' ability to manage their emotions after exposure to MER. No other personality constructs examined showed significant improvements. Qualitative data supported the findings that students in the experimental group displayed less behavioural and emotional dysfunction after MER as well as demonstrated improvements in all aspects of personality functioning measured. The study's findings are discussed in relation to previous research as well as their practical and clinical implications for treating at risk adolescents in Jamaica.

Keywords: Tracey-Ann Elizabeth Coley; Neuro Linguistic Programming; Mental and Emotional Release; Psychotherapy intervention.

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DEDICATION

To my mother and daughter, shining examples of excellence and grace and the most powerful and positive motivational forces in my life.

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INTRODUCTION

This study assessed the effectiveness of Mental and Emotional Release (MER) Therapy, a technique partially based on the principles of Neuro Linguistic Programming, at changing maladaptive personality functioning and reducing negative emotions in "at risk" adolescents at an inner city high school in Kingston, Jamaica. The term "at risk" suggests the existence of a set of cause and effect dynamics which threaten the adolescent's future well-being and increases the likelihood of negative outcomes such as juvenile delinquency, substance abuse and psychiatric disorders (Thomas & Kelly-Vance, 2001; Newsome, 2005).

Over the past decade, considerable attention has been given to factors associated with "at risk" adolescents such as such as violence in schools, deteriorating family structure, alarming media images and gang related activities (Porter & Lindberg, 2000; Dryfoos, 1998). In Jamaica, the current social environment in inner city areas, characterized by high levels of poverty, violence, and illiteracy place these inner city youth at high risk for negative social and personal outcomes. Furthermore, chronic exposure to these stressors is likely to derail positive personality development (van der Kolk & McFarlane, 2007) and cause persistent emotional and behavioural disturbances (Grant, Compas, Thurm, McMahon, & Gipson, 2004; Philips, Hammen, Brennan, Najman, & Bor, 2005). Specifically, adolescents exposed to chronic environmental and personal stressors are likely to have difficulty interacting appropriately with others in their environment. They are also likely to have difficulty perceiving themselves and others accurately, coping with various environmental stressors effectively and

managing their emotions appropriately (van der Kolk, McFarlane & Weisaeth, 2007). It is therefore imperative, given the consistent reports indicating poor outcomes for "at risk" adolescents that creative and effective interventions be implemented to mitigate the impact of exposure to these factors.

One of the many interventions established to address maladaptive personality functioning and the behavioural problems of adolescents is psychotherapy (Kazdin, 2004). Psychotherapy, a professional relationship that facilitates the relief of problematic psychological symptoms (Strupp,1996), has been successfully used for decades to help adolescents modify personality characteristics and behaviour patterns that prevent them from achieving their personal and professional goals (Carr, 2009; Dweek, 2008).

Given its success, it is not surprising that the number of psychotherapy interventions for some of the most prevalent and debilitating psychological conditions has increased (La Greca, Silverman & Lochman, 2009. The effectiveness of psychotherapy has been demonstrated in diverse areas such as: conduct disorder and substance use (Schaeffer & Borduin, 2005), attention deficit hyperactivity disorder (Braswell & Bloomquist, 1991; Hinshaw & Erhardt, 1991), anxiety disorder (Ginsburg, 2009;Kendall et al, 1992), mental stress (Melamed, Kligman & Siegel, 1984), depression (Weisz, Gordis, Chu, McLeod, Updegraff, 2009; Stark, Rouse & Livingston, 1991) and impulsivity (Kendall & Braswell, 1985).

While the efficacy of psychotherapy is currently accepted among researchers and practitioners (Luborsky, Singer, & Luborsky, 1975; Smith, Glass

& Miller, 1980; Lambert, Shapiro & Bergin, 1986; Roth & Fonagy, 1995; Seligman, 1995, 1996; Strupp, 1996), the early history of the field was marked by significant controversy (Lambert, 2004). For example, as early as the 1950's, critics (Eysenck, 1952, 1983, 1992; Levitt, 1955; Rachman & Wilson, 1980) engaged in an active debate regarding the utility of psychotherapy (Lambert, 2004). The work of one critic in particular, Hans Eysenck (1952), was pivotal as he highlighted the lack of empirical support for the efficacy of psychotherapy. His 1952 assertions that psychotherapy was in fact ineffective led to an upsurge in research in this area and more deliberate use of methodologically rigorous analytic techniques like meta-analysis to establish psychotherapy's efficacy (Nathan & Gorman, 2007; Lambert & Bergin, 1994; Carr, 2009; Lambert & Ogle, 2004; Weisz, 2004).

Early applications of meta-analysis to psychotherapy outcomes (Smith & Glass, 1977; Smith, Glass & Miller, 1980) showed that children, adolescents and adults with a range of psychological problems treated with psychotherapy fared better than untreated controls (Cooper, 2008; Smith & Glass, 1980; Wampold, 2001; Grissom, 1996; Barker, Funk & Houston, 1988) or those receiving a placebo treatment (Lambert & Ogles, 2004; Weiner, 1998; Lambert, 2001). Further, individuals treated with psychotherapy maintained improvements for extended periods (Lambert & Bergin, 1994; Lipsey & Wilson, 1993; Seligman, 1995). These findings, however, do not extend to techniques like boot camp interventions, conversion therapy and rebirthing processes (Bottcher & Ezell, 2005; Mercer, Samer & Rosa, 2003), which though intended to be therapeutic, are

not considered examples of traditional psychotherapy and generally have not gone through the rigorous process of empirical validation (Lambert & Miller, 2001; Dimidjian & Hollon, 2010; Lilienfeld, 2007; Lilienfeld, Lynn, Namy & Woolf, 2009; Rhule, 2005; Strupp, Hadley, & Gomez-Schwartz, 1978).

The emergence of several different types of therapy, including those considered to be harmful along with increased pressure from managed care institutions, led to greater emphasis being placed on empirical validation of psychotherapeutic techniques (Chambless & Ollendick, 2001; Sanderson, 2002). In response to these influences, the American Psychological Association (APA), the body in charge of regulating the practice of psychology in the United States, proposed criteria to identify empirically validated psychotherapy techniques as a means of educating psychologists, insurance companies and consumers about effective psychotherapies (Task Force on Promotion and Dissemination of Psychological Procedures, 1995).

According to their criteria, for an intervention to be designated as well established or empirically validated, there must be at least two well conducted between group design experiments demonstrating efficacy in one of the following ways: it must either be superior to a pill or psychological placebo or to another treatment; or be equivalent to an already established treatment in experiments with adequate sample sizes. Additionally, the experiments must be conducted in accordance with a treatment manual, sample characteristics must be clearly outlined and at least two different investigators must demonstrate intervention effects (Chambless, Baker, Baucom, Beutler, Calhoun & Crits-Christoph, 1998).

These outlined requirements highlight the APA's emphasis on the internal validity of studies as opposed to focusing on whether the treatments examined in these studies are actually beneficial in a clinical setting or externally valid. As a result of this gap, publication of the lists of empirically supported therapies for specific disorders has produced significant controversy in the psychology community.

While it can be argued that identifying empirically supported therapies (ESTs) places the psychotherapy field on more scientific footing (Chambless & Ollendick, 2001; Crtis-Christoph, Wilson, & Hollon, 2005), research support for empirically supported therapies is lacking (Westen, Novotny & Thompson-Brenner, 2004; Levant, 2004). Additionally, having a list intended to tell therapists which therapies to use when faced with particular syndromes limits the clinician's freedom to use promising treatments which have not been fully researched (Bohart, 2000). Moreover, identifying one type of therapy as more effective than another seems to contradict well established conclusions from efficacy studies that the relationship between the therapist and the client is more important in contributing to positive outcome than the type of therapy used (Norcross, 2002; Crits-Christoph, Gibbons, Narduci, Schamberger, Gallop, 2006; Lambert & Barley, 2002; Martin, Garske, & Davis, 2000; Shirk & Karver, 2003).

Currently, most of the psychotherapy interventions identified as empirically established therapies (ESTs) for adolescents fall under the cognitive behavioural tradition (Chambless & Ollendick, 2001). Other therapies such as psychodynamic, humanistic and systemic are under-represented on the list because fewer randomized controlled studies have been conducted to validate

their efficacy (Carr, 2009; Castonguay & Beutler, 2006; Rosen & Davison, 2003). Additionally, while cognitive behavioural therapies show small advantages over traditional dynamic and humanistic therapies (Robinson, 1990; Dobson, 1989; Shapiro & Shapiro, 1982), these results are considered to be biased because CBT studies have inherent methodological advantages. For example, the samples used in CBT studies are usually mono-symptomatic (Norcross, 2002) and the outcome measures used are more reactive to experimental conditions. In contrast, the typical client comes into therapy with several overlapping or co-morbid issues (Lambert & Barley, 2002; Lambert & Bergin, 1994) and therefore symptom relief is tied to the resolution of several issues rather than a single identified problem.

Another challenge with adhering to the APA's guidelines regarding the use of empirically established therapies in practice is that many psychotherapists do not exclusively use a single system of treatment but are eclectic in their therapeutic approach (Weisz & Gray, 2008). As such, eclectic therapists prefer to use a variety of techniques from the major theoretical traditions in order to treat their client. However, because eclecticism does not represent a strict systematic approach, research in this area has also been minimal (Lambert, 1992; Lambert, Bergin & Garfield, 2004). Consequently, many practitioners argue that psychotherapy outcome research has little to do with the actual practice of therapy and so conduct therapy without taking into consideration findings from outcome research studies (Mandler, 1985; Weisz & Gray, 2008; Lambert & Bergin, 1995).

Thus, in order to breach the widening gap between psychotherapy research and clinical practice, researchers need to find ways to empirically test the

techniques that practitioners use frequently with clients. One set of strategies being used in private practice that could bridge this gap is Neuro Linguistic Programming (NLP).

Neuro Linguistic Programming (NLP) is an approach to psychotherapy and organizational change which focuses on communication patterns as a way to understand how interpersonal communications create and affect behaviour (Bandler & Grinder, 1979). As a theoretical paradigm, NLP is a synthesis of psychodynamic, cognitive and behavioural philosophies that emphasizes the importance of understanding how individuals interpret and categorize information from their environment and adjust their behaviour accordingly (O'Çonnor & Seymour, 1993). Similar to cognitive-behavioral theory, the NLP model proposes that changing the way an individual thinks, or their mental programmes, will lead to positive, enduring change (Bandler, 2008). Since its development in 1976, NLP has been used as an effective strategy in various professional spheres including advertising, business, education, health and coaching (O'Connor & Seymour, 1993).

As a psychotherapeutic intervention strategy, NLP has been gaining in popularity with clinicians in private practice but has been virtually ignored by psychotherapy researchers (Krugman, Kirsch, Wickless, Milling, Golicz & Toth,1985). This is despite explicit claims by the creators of NLP that by "using NLP, problems such as phobias and learning disabilities may be disposed of in less than an hour's session" (Bandler & Grinder, 1979, pii). Further, given recent trends promoting brief, symptom focused therapies, NLP with its claim of fast,

effective symptom relief should be receiving more research attention. While this situation is slowly changing, especially since the creation of the National Association of Neuro Linguistic Programming (NANLP), the efficacy of NLP techniques has still not been firmly established. For example, only a few studies have been conducted examining the efficacy of NLP techniques with managing emotional, behavioural and health issues, such as depression (Carbonell & Figley, 1999), forgiveness (James, 2008), phobias (Einspruch & Forman, 1988, 1985) and allergies (Swack, 1992). Further, because these were largely masters and doctoral theses they have not been widely disseminated in scholarly journals.

Nonetheless, NLP holds particular promise as a potentially effective treatment for adolescents at risk for psychological problems because it addresses many of the concerns that plague some of the treatments currently utilized with this population. Specifically, NLP offers strategies like matching the client's language pattern that strengthen the rapport and therapeutic alliance between the client and therapist within the first session (Wood, 2006; Turan & Townsley Stemberger, 2000). This is a significant claim as it is very difficult to establish trust and rapport with adolescents as they are often referred for therapy and are therefore wary of the process. Additionally, because changes are achieved rapidly, the high drop-out rate typically experienced in traditional therapies with adolescents (Carr, 2009) is likely to be less problematic with NLP.

NLP psychotherapeutic techniques also offer strategies to reduce the intensity of negative emotions like anger, sadness and fear. This is particularly significant because adolescents, particularly inner city adolescents are vulnerable

to experiencing overwhelming levels of these emotions as a result of their exposure to chronic environmental stressors. Given that adolescents typically have fewer resources with which to cope (Grehan & Freeman, 2009; Overstreet, 2000; Newsome, 2005), an intervention that can help to reduce the debilitating effects of these negative emotions is critical for positive personality functioning and the reduction of problematic behaviour. One NLP psychotherapeutic technique that specifically changes maladaptive personality functioning and reduces the impact of negative emotions is Mental and Emotional Release Therapy (MER) (James, 2010). MER Therapy is in part based on the earlier work of Time Line Therapy (James, 1988) and is utilized independently and in conjunction with other NLP strategies.

Despite the promise and claims of success of NLP and Mental and Emotional Release (MER) Therapy in private practice, it has not received much empirical verification in the western world (Krugman, Kirsch, Wickless, Mulling, Golicz & Toth, 1985; James, 2003) and none at all in the Caribbean. Additionally, to date, there is very little published evidence that MER Therapy has been studied as a therapeutic technique with the adolescent population. Consequently, the present study sought to assess the impact of this NLP psychotherapeutic strategy in adjusting the maladaptive personality functioning and reducing the negative emotions as well as problematic behaviours of at risk adolescents attending an inner city high school in Kingston, Jamaica.

LITERATURE REVIEW

The practice of psychotherapy has a long history dating back to the days of Socrates and other Greek philosophers. However, as it is currently practiced, modern psychotherapy is generally associated with the founder of the psychoanalytic tradition, Sigmund Freud (Carr, 2009). In its initial development under the analytic tradition, psychotherapy was primarily associated with in depth analyses of the past with self understanding and personality restructuring as its primary goals (Weiner, 2004; Lilienfeld, 2009). Defined as a unique interpersonal process in which one individual communicates a sense of understanding and respect for another in an effort to alleviate psychological distress (Weiner, 2004; Weiner & Bornstein, 2009), psychotherapy, under Freud's tutelage was increasingly recognized as a viable treatment option to medication, invasive surgical procedures and incarceration in mental institutions. As the field increased in popularity, scientific curiosity regarding the nature of the processes involved correspondingly increased.

This scientific curiosity led to the development of research in the field of psychology and psychotherapy. Given that psychology is concerned with questions about the nature and organization of personality, how this organization influences human interaction and the range of factors that cause maladjustment and psychopathology, the initial goal of psychotherapy research was therefore to explore the impact of existing and emerging forms of treatment on personality change. However, research goals have shifted significantly over the years from

this psychoanalytical influence to the more behavioural goal of symptom relief. This shift has largely been influenced by pressure from patients, managed care organizations and psychotherapy researchers who have endorsed shorter and more cost effective treatments (Lambert, Bergin & Garfield, 2004). To meet these new demands, the field evolved and new emphasis was placed on identifying empirically supported, effective treatments for specific behavioural symptoms.

Efficacy of Psychotherapy

Psychotherapy has undergone intense scrutiny over the years. Initial claims that this mode of intervention was ineffective at relieving human distress (Eysenck, 1952, 1985) have generally been put to rest through the use of meta-analytic reviews of psychotherapy outcome studies (Smith & Glass, 1977; Lipsey & Wilson, 1993; Westen & Morrison, 2001). Unlike earlier studies that ineffectively attempted to analyse groups of studies (Wampold, 2001), meta-analytic reviews used sophisticated methods to synthesise the results of different studies (Lambert et al, 2004). The results of these reviews overwhelmingly support the efficacy of psychotherapy (Carr, 2009).

The first seminal controversy concerning the benefits of psychotherapy was sparked by Hans Eysenck in the 1950's. He reviewed the results of 19 published adult psychotherapy studies on over 7,000 cases treated with both psychoanalytic and eclectic treatments. He also evaluated the efficacy of the psychotherapy treatments based on the average percentage of cases reported as improved. According to Eysenck, only 44% of the clients who received psychoanalysis improved, compared to 64% who received eclectic treatments. In

stark contrast, he further reported a 72% improvement rate in those patients who were only treated by their general practitioners. He concluded that patients were likely to improve on their own without receiving therapy and therefore psychotherapy did not facilitate recovery in neurotic patients. A few years later, Levitt (1957) reported similar findings when he investigated the effectiveness of psychotherapy with children and adolescents. Similar to Eysenck's study, Levitt used subjective evaluations of patient improvement reported by clinicians. The overall rate of improvement for those children who received psychotherapy in both studies was 72.5%. Those who did not receive therapy improved at approximately the same rate (73%). He concluded from this analysis that exposure to psychotherapy did not facilitate recovery from neurotic disorders in children.

While Eysenck's and Levitt's early reviews were very influential, the studies on which they based their conclusions were not considered rigorous based on current methodological standards. Specifically, the samples used in the studies were taken from several different mental health practitioners with no attempt made to select participants based on similar diagnostic features and exposure to similar treatments. Additionally, there was no attempt to apply rigorous methodological strategies in the design of the studies such as randomization and the use of control groups. Furthermore, both Eysenck and Levitt included data from subjects who terminated therapy under the category of unimproved. This is problematic as individuals terminate therapy prematurely for a variety of reasons unrelated to the success or failure of therapy, such as lack of time or money (Carr,

2009). Therefore, classifying drop-outs as failures can result in a misleading representation of the therapy's effectiveness (Wierzbiekl, 1993).

Later studies that employed more stringent methodological measures contradicted these early studies and provided more compelling support for the benefits of psychotherapy for adults (Lambert, Shapiro & Bergin, 1986; Lambert, 2001; Lambert & Ogle, 2004; Weisz, 2004) and adolescents (Weisz, et al, 1995).

One important study to emerge post 1950 was done by Smith and Glass in 1977. They conducted the first major meta-analysis of psychotherapy research by empirically reviewing 375 outcome studies evaluating counseling and psychotherapy. On the basis of their review, they concluded that the typical therapy client is better off than 75% of untreated individuals. Grissom (1996) also obtained similar results in another meta-analytic study of psychotherapy that included children and adolescents with a wide range of different psychological problems, including anxiety and conduct disorder. Based on the results of that study, Grissom reported that the average person receiving treatment did better than 77% of those who did not receive treatment. These studies, and many later ones, offered strong support for the benefits of psychotherapy with both adults and adolescents (Carr, 2009). Having identified that psychotherapy worked, researchers then began to focus on dissecting the process of psychotherapy in an effort to understand the elements actually responsible for client improvement.

One of the elements examined was the relationship between improvement and the amount of therapy that individuals receive. In one study conducted by Howard, Kopta, Krause and Orlinsky (1986) data were collected and analysed

from research conducted over a 30 year period on 2,431 patients. Their analysis offered one of the first clear indications of a relationship between client improvement and the amount of therapy received. The data showed that approximately 50% of patients showed improvement by session eight and 75% showed measurable improvement after approximately 26 sessions of psychotherapy conducted once per week. These findings suggest that earlier assertions by Eysenck (1952) that positive change may occur in patients due to "spontaneous remission" without exposure to psychotherapy (Lambert & Bergin, 1994) were misleading.

While these studies offered support for the overall efficacy of psychotherapy, they also directed research focus to the second landmark debate in psychotherapy's history; that is, what elements in the therapeutic process most contributed to change. Some researchers contended that elements unrelated to the specific psychotherapeutic tradition espoused by the therapist were responsible for change (Castonguay & Holtforth, 2005; DeRubeis, Brotman, & Gibbons, 2005; Baldwin, Wampold & Imel, 2007) while others insisted that some modes of therapy were more effective than others (Chambless & Ollendeck, 2001).

The Debate over Differential Efficacy of Psychotherapeutic Traditions

The debate regarding whether specific factors or particular psychotherapeutic modalities were responsible for positive client change created significant controversy in psychotherapy's early history and to some extent continue to be a source of some contention among psychotherapy researchers today. Some early researchers contended that behavior therapy was the most

successful treatment modality (Eysenck, 1985) while later studies asserted that treatments falling under the umbrella of cognitive behavioural therapy were generally more effective than psychodynamic and humanistic therapies (Smith & Glass, 1977; Emmelkamp, 2004). These conclusions were fiercely challenged because they were in stark contrast to a growing body of research which suggested that similar outcomes were achieved in therapy regardless psychotherapy approach used (Lambert et al, 1994).

The hypothesis that different psychotherapies yield comparable improvement rates was first referred to as the "Dodo Bird Verdict." Derived from Lewis Carroll's (1865) fantasy, Alice's Adventures in Wonderland, the Dodo bird verdict, delivered by one of the characters, the Dodo bird, read "Everybody has won and all must have prizes" (Rosenzweig, 1936 p.412). Rosenzweig further asserted that if all psychotherapies have equal curative value then it was likely that factors other than the individual techniques used would provide a better explanation for the apparent uniformity of success among diverse therapies. He also suggested that the main common factors could include the existence of non verbal actions like catharsis as well as the personality of the therapist. Rosenzweig also proposed that consistent use of any theory to interpret and reorganize the client's challenges, in addition to the client's level of motivation would enhance the success of therapy (Wampold, 2001).

Subsequent to Rosenzweig's assertions, several researchers launched investigations to determine the veracity of the Dodo bird conjecture. For example, in a narrative review of over 100 psychotherapy studies, Michael

Lambert (1992) concluded that common factors are two times more important than specific factors in contributing to the outcome of psychotherapy. Lambert estimated that specific factors only accounted for approximately 15% of psychotherapy outcome variance while common factors were responsible for approximately 30%. He further estimated that placebo effects accounted for 15% and the remaining 40% of variance in outcome could be attributed to extra-therapeutic factors such as social support from family and friends and religious affiliations.

Wampold, Mondin, Moody, Stitch, Benson & Ahn (1997) also tested the Dodo bird conjecture and concluded that Rosenzweig's hypothesis had merit. Unlike Lambert's (1992) study which was a non-quantitative narrative review, Wampold et al (1997) conducted a quantitative review using meta-analytic techniques. Wampold and his team specifically designed the study to test the differential effects between studies that they referred to as "bona fide." According to Wampold et al's definition, to be classified as bona fide studies must meet three distinct criteria. First, the therapies had to be theoretically based. Second, they had to be linked to treatment manuals or books which specify the components of the therapy. Finally, the treatment must have been conducted by a therapist with at least a Master's degree. Wampold et al (1997) theorised that only bona fide studies could reliably allow for specific testing for differential efficacy among different psychotherapies. The team further hypothesized that if these bona fide studies did not differ in efficacy, then the data would show homogeneity in effects. In their comparison of 277 effect sizes, Wampold et al

(1997) found no significant difference among the distribution of effect sizes among the various psychotherapies. As a result, they concluded that common factors indeed have a positive influence on therapeutic gain.

Wampold et al's (1997) research conclusions were heavily criticized by other researchers who argued that significant differences do exist among various psychotherapies (Weisz et al, 2006; Shadish et al, 200; Crits-Christoph, 1997). For example, Crits-Christoph (1997) cited methodological limitations in his criticism of Wampold et al's (1997) study. He noted that Wampold et al's method of averaging outcome measures across studies was problematic because possible superior effects of a treatment would likely be averaged with less successful outcome measures. Crits-Christoph also noted that Wampold et al's (1997) deliberate omission of studies using control groups weakened the validity of his findings. He asserted that studies which use comparisons to control groups actually provide stronger evidence about the specific effects of therapy. As such, research studies which attempt to test the significance of non specific factors as opposed to specific factors should be designed using control groups.

Despite the conflicting results of researchers like Lambert (1992) and Wampold et al (1997) on the one hand and Weisz et al (2006), Shadish et al (2000) and Crtis-Chrisoph (1997) on the other, some researchers assert that the differences between the groups have largely been reconciled by a comprehensive study conducted by Wampold in 2001 (Carr, 2009). Wampold's (2001) analysis of more than a dozen meta-analytic studies comparing psychotherapy outcome research estimated that common factors are nine times more influential than

specific factors, such as different therapies, in determining the outcome of psychotherapy. He included in his review broad meta-analyses which synthesized data from studies that examined the effects of therapy with different populations and problems (Wampold, 2001). Wampold (2001) also included meta-analyses that focused on the effectiveness of different forms of psychotherapy for specific problems such as depression. He concluded that only 13% of the differences seen in outcome for psychotherapy clients were due to psychotherapy, including common and specific factors with common factors accounting for 9% and specific factors accounting for 1% (Wampold, 2001). He attributed the remaining 87% of variance to extra therapeutic factors like family support. Wampold's study highlighted the importance of extra-therapeutic factors which had not received much consideration in the research literature at the time and underscored the trend in the literature suggesting the importance of common therapeutic factors.

Common Therapeutic Factors in Psychotherapy

Common factors refer to the elements of therapy which are not unique to a theoretical orientation, yet are essential features of therapy. Common factors have generally been classified under four broad areas in the research literature: client factors, therapist factors, the therapeutic relationship/alliance and expectancy effects.

Individuals enter psychotherapy for a variety of reasons. In some cases, it is voluntary while in others involuntary. Regardless of the reasons, practitioners used to believe that the techniques they used in therapy were more relevant than any personal characteristics that the client brought to therapy (Lambert &

Asay,1999). However, considerable research has been conducted examining client variables thought to influence therapeutic outcome including motivation, ability to connect with the therapist, ego strength, openness to the therapy process and ability to identify a particular problem (Lambert & Anderson, 1996; Lewis, Simons, Silva, Rohde et al, 2009).

In a series of case studies, Strupp (1980a, 1980b, 1980c, 1980d) highlighted the importance of individual client characteristics as a determinant of positive outcome in therapy. In each study, two patients diagnosed with anxiety, depression and social withdrawal were assigned to the same therapist for treatment. Strupp identified one patient in each case as achieving a successful outcome and the other as unsuccessful. The therapists in the study were selected based on reports of former patients that they had good interpersonal skills. Therefore, treatment and the therapist factors were assessed to be constant. The researcher noted that the clients who achieved success in all four cases were able to connect with the therapist during the intervention and were generally more mature and motivated. On the other hand, the clients who experienced "therapeutic failure" had difficulty relating to the therapist and therefore their interaction was largely superficial.

Strupp's conclusions highlight the fact that clients begin psychotherapy in different conditions. Each client is unique with respect to their perception of their problem and its severity, their personal history and interpersonal skills. Large scale studies have also shown that client characteristics are better predictors of psychotherapy outcome than the effects of particular schools of therapy (Ablon &

Jones, 1999; Zoroff et al, 2000). For example, in a narrative review, Clarkin and Levy (2004) examined over 100 empirical studies and review papers on client characteristics found to be correlated to positive change. In addition to the variables identified by Strupp (1980), Clarkin et al identified personal distress, symptom severity, early response to therapy, availability of social support and socio-economic status as factors that influence therapeutic outcome.

Therapist characteristics have also been heavily researched in an attempt to determine the impact of this factor on therapeutic outcome. The value of therapist qualities seems to be supported by three pivotal research findings. First, that the identity of the therapist is a more reliable predictor of outcome than the type of psychotherapy that the therapist practices (Crits-Christoph & Mintz, 1991; Bowman, Scogin, Floyd & Mckendree-Smith, 2001). Secondly, some therapists consistently produce more positive results regardless of the therapeutic modality chosen than others (Lambert, 1989; Hupert, Bufka et al, 2001). Additional support for the importance of therapist characteristics came from Wampold (2001) who after reviewing major meta-analyses and reanalyzing data from large controlled psychotherapy outcome studies noted that therapist effects actually account for 6-9% of the variance in psychotherapy outcome studies.

In an effort to understand the impact of therapist variables, Lambert (2007) in a series of studies examined 71 therapists, each of whom treated between 30 and 350 clients on an individual outpatient basis. Lambert made a distinction between high and low functioning therapists based on reported client improvement rates. Clients were asked to complete the Outcome Questionnaire

(Lambert et al, 2004) before each session commenced. Data from this questionnaire was then used to determine overall improvement rates as well as categorise therapists in the top 10% or bottom 10% in terms of effectiveness. Lambert's study was important because it highlighted the relationship between the therapist's effectiveness and client improvement. Other studies sought to identify the specific therapist traits that were correlated to improvement. In one study, Beutler et al (2004), after conducting a narrative review of over a hundred empirical studies examining therapist variables, noted that the therapist's personal adjustment, credibility, problem solving creativity and ability to match therapeutic styles to the client's individual needs were associated with successful outcome. Therapist training has also been found to predict positive outcome with more training leading to fewer client drop out and increased client reports of satisfaction in therapy (Stein & Lambert, 1995; Bien et al, 2000).

While the individual characteristics of the client and the therapist are important, the relationship between the two is the most researched common factor in the psychotherapy research literature (Grencavage & Norcross, 1990). The therapeutic relationship or alliance has been described as the "quintessential integrative variable" of psychotherapy (Wolfe & Goldfried, 1988, p.449). The idea of the therapeutic relationship as an essential component of therapy was first proposed by Sigmund Freud (1912, 1913). Freud theorised that a positive relationship between the patient and the therapist would facilitate the transference experience, which had tremendous therapeutic value. Despite this early interest in the potential of the therapist/client relationship, the alliance did not receive much

empirical investigation until the advent of the client centered tradition (Asay & Lambert, 1999). Under this therapy model, the alliance was conceptualised as one of the core conditions necessary for client personality change to occur.

The first meta- analysis conducted to investigate the relationship between the strength of the alliance and client outcome in psychotherapy, was conducted by Horvath & Symonds (1991). They reviewed studies looking at the alliance done between 1978 and 1990. Their search yielded a total of 20 studies all of which used client, therapist and or observer ratings to assess the client/therapist relationship. Horvath et al's (1991) review offered significant support for the hypothesized relationship between a strong alliance and positive outcome in psychotherapy. Their analysis suggested a 26% difference in the rate of therapeutic success that was directly attributable to the quality of the therapeutic alliance.

Interestingly, while much of the initial research conducted on the therapeutic alliance was attributed to psychodynamic researchers (Horvath & Greenberg, 1994; Horvath & Luborsky, 1993; Luborsky, 1994), the value of this factor to client outcome has led to increased research investigation within the behavioural (DeRubeis & Feeley, 1991), cognitive (Castonguay, Goldfried, Wiser, Rowe & Hay, 1996) and gestalt (Horvath & Greenberg, 1989) traditions. For instance, Castonguay and his team (1996) examined the importance of the alliance in cognitive therapy by comparing the impact of the therapist's focus on distorted cognition in depressive symptoms, the therapeutic alliance and the client's emotional investment in the process. The first construct was described as

a central component of cognitive therapy while the other two constructs were described as central to other modes of therapy. In the study, the subjects were randomly assigned to two groups; one received cognitive therapy and the other received a combination of cognitive therapy and medication. Four experienced therapists administered the treatments based on the standardised guidelines for cognitive therapy. The results of the study were the reverse of what was expected; that is, the therapeutic alliance and the subject's emotional experiencing were related to client improvement. In contrast, the variable unique to cognitive therapy was associated with depressive symptoms post treatment. Castonguay's (1996) results highlighted the relevance of the therapeutic alliance to all psychotherapy traditions.

Investigations on common factors have also examined the importance of expectancy effects in the client change process. Researchers propose that this factor accounts for at least 15% of variance in client change (Lambert, 1992; Lambert & Barley, 2002). Jerome Frank is considered a pioneer on the subject of expectancy effects. He initially hypothesized that an individual's expectation of a positive outcome in psychotherapy becomes in essence a self fulfilling prophecy. This concept has been examined in the medical field through the use of placebo treatments and religion as the concept of hope. Across disciplines, it has been shown that a clients' belief or hope has curative value. Frank, Gliedman, Imber, Stone and Nash (1959), in one of the early studies conducted on this factor, produced evidence suggesting that the client's expectation of the therapy process

influences the outcome of therapy. They also noted a positive relationship between the clients' level of distress and therapeutic outcome.

Despite the general acceptance of the existence and importance of common factors, researchers continue to debate about which treatments have greater efficacy for specific disorders. As such, the literature on psychotherapy is replete with attempts to answer the question posed by Gordon Paul in the 1960's; that is, "what specific treatment is effective with a specific type of client under what circumstances?" (p. 112). The research in this area suggested that there were distinct differences in efficacy among the various treatments if the disorder being treated was examined. For example, a considerable body of research arose showing a small advantage for cognitive and behavioural methods over humanistic and dynamic therapies (Robinson, Berman, Neimeyer, 1990; Addis, Hatgis, Cardemil, Jacob, Krasnow & Mansfield, 2006). For example, cognitive-behavioural therapies are considered to be superior in the treatment of depression (Weersing & Brent, 2003; Weisz, McCarty & Valeri, 2006) anxiety disorders (Norton & Price, 2007; Ginsburg & Drake, 2002; Barrett, 1998) and drug abuse in adolescents (Kaminer, 2005; Kaminer & Waldron, 2006).

These findings have been strongly contested on the basis that the marginally higher positive results favoring cognitive behavioural therapies is due in large measure to differences in how outcome is measured across therapies (Lambert & Bergin, 1994). Specifically, cognitive behavioural techniques are generally symptom specific and address one problem at a time, such as a fear of heights. As a result, changes are more easily observed and measured under

research conditions. In comparison, humanistic therapies take a more wholistic view of the client and therefore the client's well being is the goal of therapy (Elliot, Greenberg, Lietaer, 2004). This perspective recognizes the client as a complex being with multiple issues that are interconnected. As such, while one problem may be alleviated during the course of therapy, other issues are likely to surface that may affect the client's perception of the success of the treatment. Critics have also attributed the larger effect sizes for cognitive behavioural therapies in outcome studies to unrepresentative sampling (Anderson & Lambert, 1995; Lambert & Ogles, 2004). That is, cognitive behavioural studies are usually conducted with volunteers from university campuses or community centres rather than being referred for treatment. As such, the samples for these studies were considered to be unrepresentative of clinical practice.

In spite of the concerns raised regarding the external validity of cognitive behavioural techniques, research interest on this mode of therapy has surpassed other types of therapy. A significant part of the popularity of this treatment relates to the trend toward the practice of relatively brief forms of psychotherapy (Garfield, 1989; Hansen, Lambert & Forman, 2002). Initially, it was thought that for psychotherapy to be effective it had to be a long term process. On the other hand, brief therapy was thought to be superficial because it did not require the same investment of time as psychoanalysis (Garfield & Bergin, 1994). In 1973, Voth & Orth in a study of psychoanalysis and its procedures reported the average number of sessions required as 835. The cost of such therapy is therefore likely to be beyond the financial means of many who might benefit.

In contrast, cognitive - behavioural therapies require far less time as they were specifically interested in altering observable behaviour rather than uncovering unconscious motivations (Hollon & Beck, 2004). Thus, clients invariably spend less time in therapy. Even before the client's preference for briefer forms of therapy, community mental health services in the 1960s (Joint Commission on Mental Illness and Health, 1961) had already started to encourage the development of brief therapies. This led to innovative attempts to develop brief psychotherapy programmes suitable for intervention at the community level (Garfield, 1983). These interventions typically lasted from between six to ten sessions and generally reported positive results (Garfield & Bergin, 1994). Currently, brief therapies tend to be in the 15-30 session range (Garfield, et al, 1994).

Recently, the growth of the managed health care system in the United States has also increased the popularity of brief therapy and consequently cognitive-behavioural therapies (Lambert, Bergin & Garfield, 2004). Most healthcare providers place a limit on the number of therapy sessions they will cover and have also insisted that clinicians provide research evidence to support the use of particular treatments (Chambless & Ollendick, 2001; Task Force on Promotion and Dissemination of Psychological Procedures, 1995). Against this background, the division of Clinical Psychology within the American Psychological Association responded to the demands of various stakeholders and produced a list of empirically supported treatments (ESTs). This EST list was intended to educate the public on what works, guide insurance companies and

provide a resource to psychotherapy clinicians about which therapies were the most effective for specific symptoms or psychological problems.

Chambless et al (1998) proposed one of the first lists of such treatments which have become known as the Chambless criteria. These criteria were used to evaluate psychological treatments based on the methodological rigour of empirical studies testing their efficacy. Chambless (1998) described three distinct classifications for treatments based on the results of therapy outcome studies: established, probably efficacious and experimental. Well established treatments or empirically supported treatments (ESTs) are described as those whose benefits were supported by independent controlled studies using homogeneous client groups and treatment manuals. ESTs also had to demonstrate benefits or improvements exceeding those of another treatment or placebo control group. In contrast, treatments classified as probably efficacious were demonstrated to be beneficial in controlled studies comparing them with wait list control groups. Treatments that fall short of both criteria are described as experimental.

While the creation of lists of empirically established treatments was embraced by proponents of the cognitive behavioural tradition, psychotherapists from other traditions viewed the movement with more caution because of their perception of the inflexibility encouraged by a list (Goodheart, Kazdin & Sternberg, 2006; Norcross, Beutler, Levant, 2006). Critics also noted that the EST list primarily supported brief, standardised interventions with clients who did not have the range of co-morbid problems characteristic of routine clients (Sue, 2003; Westen, Novotny & Thompson-Brenner, 2004). Not surprisingly, cognitive

behavioural therapies are more represented on the list as the treatment of choice for a variety of psychological problems affecting adults and adolescents (Carr, 2009), including depression (Weisz, Gordis, Chu, McLeod, Updegraff, Southam-Gerow, Connor-Smith, Langer, Jensen-Doss, & Weiss, 2009), anxiety (Silverman, Kurtines, Jaccard, & Pina, 2009) and stress reduction (Yahav & Cohen, 2008).

Other therapies represented on the list include, psychodynamic therapies for problems in adults, specifically anxiety, mood and personality disorders (Crits-Christoph, 1992; Anderson & Lambert, 1995; Leichsenring, Rabung, & Leibing, 2004). Humanistic therapies, such as gestalt and client-centered, are also listed as effective for a range of common problems in adulthood such as relationship distress, grief and eating disorders (Elliot, Greenberg, & Lietaer, 2004). However, many alternative therapies such as hypnosis are not represented on the list because of the challenges with conducting controlled research trials to measure their efficacy.

The EST movement deepened the chasm between psychotherapy researchers and clinicians because practitioners contend that randomized efficacy trials do not accurately represent real conditions in clinical practice (Weisz, Donneberg, Han, & Weiss, 1995). There has also been a distinct movement away from strong allegiances to any one theory or mode of practice in therapy (Lambert, Bergin & Garfield, 2004). This change represents a preference for integration of diverse techniques and concepts in order to improve the quality of treatment that clients receive. As a result, the previous tendency for the proponents of specific orientations to dismiss the value of other orientations is

changing rapidly (Castonguay, Reid, Halperin, Goldfried, 2003) and a new relationship marked by cooperation is evident (Gold, 1996; Norcross & Goldfried, 1992; Stricker & Gold, 1993). In a survey of the clinical and counseling divisions of the American Psychological Association (APA), Smith (1982) reported that 98 percent of the members who responded to the survey indicated an inclination toward eclectic practice. As noted by Castonguay et al (2003):

> The integration and eclectic movement in psychotherapy can be seen as a response (and by no means the only one) to the theoretical, clinical, and epistemological limitations of modern approaches to psychotherapy. It is a nondefeatist and noncomplacent response to the unsatisfactory status of our field – a response that is based on the assumption that the richness of plurality may be our best strategy to approach human complexity (p. 328-329).

This trend is however not represented in the determination of empirically established treatments as eclectic treatments are more difficult to measure under controlled trial conditions (Lambert, 1992). Given the dissatisfaction with how empirically validated treatments are determined, it may be an opportune time to expand the current parameters of efficacy studies to give more weight to factors that are more relevant to the practicing clinician such as client satisfaction with treatment. Additionally, given that adolescents often feel that their voice is not heard outside of therapy (Grehan & Freeman, 2009), treatments that are sensitive to their particular developmental concerns are timely.

Psychotherapy with Adolescents

Generally, psychotherapy has been demonstrated to be as effective with adolescents as adults (Weisz & Hawley, 2002; Kazdin, et al, 1990). However, the practice of psychotherapy with adolescents has not received as much research

focus as with adults or children because adolescents are often grouped with children (Carr, 2009; Rubenstein & Zager, 1995; Kazdin, 1993) or described as "little adults" (Grehan & Freeman, 2006, p. 270). This type of blanket grouping continues to occur even though we are cautioned against viewing the adolescent stage as merely a transition between childhood and adulthood (Berk, 2006). In fact, adolescence is a distinct developmental stage marked by a number of challenges including identify formation, peer acceptance and demands for social and behavioural conformity (Wenar & Kerig, 2006; Kazdin, 1993; Fitzpatrick, 1993). These issues are sometimes compounded by conflicts in the family that arise as the adolescent tries to gain more independence. For instance, in the United States as well as Jamaica, many adolescents attend school and work (Steinberg, 2005; Bailey, 1980). While this increases their self reliance, it may also make them more resistant to complying with instructions from parents and teachers and more vulnerable to delinquency and academic failure (Holmbeck, O'Mahar, Colder, & Updegrove, 2006).

In Jamaica, several social factors increase children's vulnerability to social and academic failure. These include high levels of poverty (Andrews, 1987; Chevannes, 2001; Brodie-Walker & Morgan, 2008), exposure to violence at home and in the community (Levy, 2001; Crawford-Brown, 1999; Brodie-Walker & Morgan, 2007; Harriot, 2003; Samms-Vaughn, 2006; Samms-Vaughn, Jackson & Ashley, 2004) and the absence of fathers in the home (Leo-Rhynie, 1993; Craig, 1993; Fearon & Brodie-Walker, 2008; Meeks-Gardner, 2001; Anderson, 2009). The emotional and psychological consequences of continuous exposure to these

potentially traumatic experiences include aggressive acting out, sadness, academic underachievement and truancy (Rutter, 1980; Chevannes, 2001; Windle & Mason, 2004; Walsh, 1995) as well as social withdrawal (van der Kolk & McFarlane, 2007; Pynoos, Steinberg & Goenjian, 1996).

Furthermore, these negative experiences can have a detrimental effect on their personality functioning; that is, their ability to interact appropriately with others in their environment, perceive themselves and others accurately, cope with various environmental stressors effectively, and modulate their emotions (Weiner, 1998). This, in turn, can lead to a range of maladaptive responses to even moderate levels of stress such as excessive anger, anxiety and sadness (Aseltine, Gore, & Gordon, 2000; Lindhal, Theorell, & Lindblad, 2005; Yahav & Cohen, 2008).

Locally, private and government agencies have attempted to address the challenges faced by "at risk" adolescents by implementing various programmes within schools and inner city communities (Gleaner, 2008). These include violence prevention programmes, such as "Peace and Love in Schools" (PALS) (2007), the Programme for Alternative Student Support (PASS) (2008) and the creation of posts for Deans of Discipline in schools (2009). While these initiatives suggest an interest in addressing the concerns affecting at risk youth, many of the programmes suffer from lack of funding and are unceremoniously abandoned to make way for new initiatives. Additionally, there is little documented evidence that these initiatives are making a significant, positive impact in lives of at risk adolescents as they continue to exhibit disturbingly high

levels of emotional and behavioural problems at school and within their communities (Survey of Living Conditions, 2005; Gleaner, 2010).

Local researchers, in recognition of the chronic challenges being faced by at risk children have called for the identification and implementation of intervention strategies that are empirically supported and culturally appropriate (Hickling & Gibson, 2005; Crawford-Brown, 1990). In an effort to bridge this gap, there has been a notable increase in research attempting to establish the effectiveness of traditional therapies with the local population and in some cases re-design traditional therapies in order to reflect the cultural experiences of Jamaicans (Hickling, 1989). For example, Crawford-Brown (1990) conducted a longitudinal study on the effects of role play, game therapy and art therapy at increasing emotional connectivity in young children exposed to chronic violence. While the results of this study suggested that these techniques are effective with Jamaicans, the participants in the study were not randomly assigned to experimental and control groups and therefore any reported improvements can not be comfortably attributed to the treatment. Additionally, the reported improvements in the functioning of the children were after an extended period of therapy.

Brodie-Walker and Morgan (2008) also evaluated the effectiveness of group therapy and behavior modification with adolescent girls in a short term residential facility in Jamaica. As in Crawford-Brown's (1990) study, while the results were encouraging in that the researchers noted reductions in problematic behaviours of the girls involved in the treatment group, high drop-out rates

continuously changed the composition of the groups thereby creating challenges with the initial randomization procedures used to assign participants to groups.

Methodological rigour was also the primary weakness found in the study of another local researcher who attempted to modify a treatment that has shown promise overseas. In a longitudinal study from 1978 to 1981, Professor Frederick Hickling (1989) examined sociodrama, described as a synthesis of group psychotherapy and theatrical representation, as a means to promote the rehabilitation of chronic mentally ill patients at an inpatient psychiatric hospital in Jamaica. At the end of the study, Hickling (1989) reported that the 38 patients who participated in the psychodramas had greater decreases in medication dosage and psychosocial disability scores in comparison to a matched group of patients who did not participate in the treatment programme. While Hickling (1989) used a comparison group and included rating scales, the findings of the study are limited because the participants were not randomly assigned and the improvement raters were not blind to the identity of the experimental group members, thereby introducing the potential for bias.

In the United States, the practice of adolescent therapy has generally followed the major trends associated with the development of the field. For example, in the early 20th century both child and adolescent therapy were dominated by psychodynamic trends and by the middle of the century the influence of the person centered approach to play therapy was evident (Grehan & Freeman, 2009). Currently, cognitive-behavioral and behavioural therapies, especially behavior modification programmes have emerged as the most widely

used interventions for treating a myriad of psychological symptoms adolescents experience (Vickers, 2002; Butler, Chapman, Forman & Beck, 2006). Within this population, cognitive-behavioural therapies have been applied to a wide variety of problems including anger (Lochman, et al, 1991), attention deficit hyperactivity disorder (Braswell & Bloomquist, 1991; Hinshaw & Erhardt, 1991), anxiety disorders (Kendall et al, 1992), mental stress (Melamed, Kligman & Siegel, 1984), depression (Stark, Rouse & Livingston, 1991) and impulsivity (Kendall & Braswell, 1985). Behaviour modification programmes are also used to address a range of concerns including obesity (Bjovell & Rossner, 1985), sleep disturbances (Monsen, 2005) and aggression (Scotti, McMorrow & Trawitzki, 1993).

In most of these studies, a direct relationship was suggested between improvement and the length of the intervention, with longer programmes showing higher and more stable rates of change over time. These findings present quite a conundrum as research with at risk adolescents consistently indicate a high drop-out rate from therapy (US Department of Health and Human Services, 1999). Additionally, while there is increasing empirical support for several psychotherapies, not enough empirical evidence has been published demonstrating their effectiveness with ethnic minorities in the United States, in particular Black adolescents (Hall, 2001; Ginsburg, Becker, Kingery, & Nichols, 2008; Bryant, & Harder, 2008).

Moreover, adolescents are usually referred by their parents or teachers and therefore are not necessarily motivated to engage in therapy (Politano, 1993). Furthermore, they are more likely than children or adults to view the environment

as the problem rather than themselves (Grehan & Freeman, 2009). Given these particular characteristics, many therapists contend that the mode of therapy used with adolescents must be dynamic (Holmbeck, et al, 2006). Specifically, the adolescent must be engaged in the therapeutic process early and rather than reflecting rigid adherence to any one modality, the therapy techniques should be integrative and creative (Rubenstein & Zager, 1995). While several forms of therapy have been proposed to address the particular concerns of the adolescent client such as family systems therapy, one group of techniques which holds promise has not received much attention, Neuro Linguistic Programming (NLP). NLP offers a group of diverse techniques that if effective, offers solutions to particular challenges with working with the adolescent group such as building rapport and trust quickly (Wood, 2006; Helm, 1991) and delivering symptom relief in a short period of time (Scott, 2010).

The Neuro Linguistic Programming

Neuro Linguistic Programming is a model of interpersonal communication that reflects a deep understanding of the relationship between successful patterns of behavior and the patterns of thought underlying these behaviours (Bandler & Grinder, 1979). The originators of the model, Richard Bandler and linguist, John Grinder, studied the communication patterns of highly successful therapists such as gestalt therapist Fritz Perls, hypnotherapist and medical doctor, Milton Erickson and Virginia Satir, a family therapist, in order to understand how their use of language facilitated the client's acceptance of their suggestions. Bandler and Grinder's (1979) analysis of the tapes of these therapists led to the discovery

of a model for gathering information and challenging a client's language and thinking (Clancy & Yorkshire, 1989). Based on an understanding of this process, Bandler and Grinder offered NLP as an effective approach to psychotherapy that could reprogram a client's maladaptive thinking and behavior at the level of the mind (Grinder, Deloizer and Associates, 1984.)

As an approach to psychotherapy that focuses on changing maladaptive thought processes as well as understanding the importance of unconscious motivations driving behaviour, NLP shares core foundations with traditional psychotherapeutic traditions, such as cognitive, cognitive-behavioural, and psychodynamic therapies. Additionally, NLP's focus on facilitating rapid relief to psychological problems reflects the primary objectives of solution focused brief therapy. It therefore seems to represent a synthesis of traditions that have proven to be effective. Furthermore, as seen with many contemporary therapies, such as cognitive-behavioural therapy, NLP offers therapeutic strategies that are standardised to increase standardization of delivery.

NLP received a lot of attention from mental health professionals after its initial inception in the early 1970's. Psychologists and psychotherapists were particularly interested in claims by Bandler and Grinder that NLP could effectively address the range of problems that therapists were likely to encounter in therapy including phobias, depression, psychosomatic illnesses and learning disorders in one session as compared to traditional therapies which could take months or years (Grinder & Bandler, 1981). Interest in NLP also extended to fields outside of psychology such as business (Yemm, 2006), sports (Ingalls,

1988; Brobst & Ward, 2002), motivational coaching (Druckman & Swets, 1988), human resources (Tosey & Mathison, 2007), health (Hanne & Lund, 1995; Ulbrich, 1998), substance abuse (Ellis, 2004) and education (Malloy, 1989) as NLP was promoted as a science of excellence that could help to make people across different professional fields successful (James, 2012; Von Bergen, 1997).

While NLP offers strategies across a range of disciplines, its early focus was psychotherapy and the development of effective psychotherapeutic techniques. One technique in particular, Mental and Emotional Release (MER) Therapy, though developed fairly late in the history of NLP, has been receiving increasing focus among therapists in private practice. This technique, if effective would prove to be invaluable to the mental health community.

Mental and Emotional Release (MER) Therapy

Mental and Emotional Release (MER), a technique based on NLP, Health Psychology and the earlier work of Time Line Therapy is an application of Neuro Linguistic Programming (NLP) described as an effective and rapid psychotherapeutic treatment for a wide range of problems, from the emotional to the physical (James, 2010). James (1988), the originator of Time Line Therapy applied a therapeutic process to the already developed NLP concept of an internal memory storage system. According to James, an individual's time line describes how memories are stored. Inherent in this idea is an understanding that individuals automatically differentiate between the present, the past and the future. How an individual stores time can then be determined by asking simple questions about past events and the future. Additionally, it is proposed that the

arrangement of an individual's memories and future will have a predictable effect on their personality (James, 1988). Therefore, rearranging or changing an individual's time line should also presumably lead to changes in their personality.

Mental and Emotional Release (MER) Therapy built on the initial premises of Time Line Therapy and incorporated ideas related to the impact of emotions on the body from fields such as Psychobiology and Psycho-immunology. The foundational premise of MER is an understanding of how unconscious thoughts and feelings can exert powerful influences on behavior and health. However, according to its inventor, MER Therapy goes beyond the mere understanding of behaviour and allows the client to engage their unconscious mind in order to gain control over their emotions (James, 2010). Through the use of guided imagery, the individual is able to bring past emotional experiences into their conscious awareness and resolve the conflicts that may be generating their emotional distress within the space of one session (James, 2010). These negative emotional experiences can have detrimental effects on internal aspects of personality structure as well as overt manifestations of personality; that is behavior (James, 2010).

Guided Imagery and Mental and Emotional Release Therapy

While it is often described as an alternative therapeutic technique, guided imagery has been a part of the psychotherapy tradition for centuries (Utay & Miller, 2006; Zeig & Greary,1990) and is frequently used to bring a sense of calm in individuals who are emotionally and physically distressed (Lang and Patt, 1994). The technique started receiving research interest in the mental health and

medical science field in the 1960's (Goldberg, 1997). Since this time, it has become a popular approach for treating a wide variety of psychosocial and medical concerns (Menzies & Taylor, 2004) including phobias (de Jong & Peters, 2002; Habeck & Sheikh, 1984), grief (Melges & Demaso, 1980) mood instability (Gruzelier, Levy, Williams, & Henderson, 2001), deficiencies in the immune system (Gruzelier, 2002) and pain (Roffe, Schmidt & Ernst, 2005).

Guided imagery, as a technique, is a significant part of the MER Therapy process. It is used to harness the power of the mind and allows the individual to form mental representations of objects, places or situations, which are perceived through the senses (Post-White, 2002). The therapist is the able to guide the individual through conscious and unconscious memories in order to access emotional and spiritual dimensions that can facilitate changes in the body and the mind (Achterberg, 1985).

The therapeutic power of guided imagery has also been extensively investigated in the counseling field as a primary and complementary method to resolve issues such as grief (Melges & DeMaso, 1980), forgiveness (James, 2008) and eating disorders (Hill, 2001). In his study examining the benefits of a traditional Hawaiian forgiveness process, James (2008) noted that guided imagery was an essential component in helping participants to change negative mood states and forgive people who had transgressed against them. Toth et al (2007) also examined guided imagery as a primary technique to reduce the anxiety experienced by hospitalized medical patients. In this controlled trial, patients were randomly assigned to two groups: guided imagery and quite time. The

patients assigned to the guided imagery group experienced a greater reduction in their symptoms of anxiety as compared to quiet time group.

The visualisation process, central to guided imagery as a therapeutic process, allows the individual to also achieve psychological distance from their emotional and physical pain. This vantage point then facilitates the individual's ability to process distressing experiences and widen their perspective both on the nature of their challenges and possible solutions (James, 2010).

The Efficacy of Neuro Linguistic Programming

As NLP gained in popularity with private psychotherapists and hypnotherapists worldwide it almost simultaneously lost favour with psychotherapy researchers, particularly in North America., because research on its effectiveness failed to produce reliable results (Sharpley, 1987; Witkowski, 2010; Devilly, 2005). Consequently, there was a notable reduction in the number of research studies produced on NLP in the 90s (Devilly, 2005). In fact, psychotherapy researchers appeared to be so disillusioned with the lack of consistent empirical support for NLP that they branded it as pseudo-science and cautioned against its continued use in private practice (Lilienfeld, 2007).

Sharpley (1984) conducted one of the first and most notable reviews of studies examining various NLP strategies, especially the eye movement model and primary representational systems used to enhance the effectiveness of communication between the client and therapist. Of the 29 studies that he reviewed, the majority were either non supportive (17) or uncertain (3) while nine seemed to offer support for the efficacy of the NLP strategies examined. Sharpley

(1984), however, failed to note in his analysis of the results that the studies that were non supportive of NLP were conducted by researchers with little or no documented mastery of the use of the techniques. Additionally, most of the studies reviewed did not use randomized, control group conditions which reduced their internal validity. Despite these weaknesses in the studies reviewed, Sharpley (1984) cautioned against the use of NLP by practitioners, noting that mental health providers had a responsibility to provide efficacious treatments to the public (Sharpley, 1984).

Similar reviews conducted subsequently produced results that were very close to Sharpley's. Generally, the ratio of studies supporting NLP was insignificant in comparison to the studies that contradicted the claims made by NLP (Heap, 1988; Sandhu, 1991). For example, subsequent to his review, Heap concluded that objective investigations had shown no support for NLP claims that individuals use specific maps (visual, auditory or kinesthetic) to organize their experiences. Additionally, a research committee compiled by the United States National Research Council concluded that little evidence existed to support NLP's assumptions in general or its claim as an effective strategy for social influence (Druckman & Swets, 1988). This renunciation was particularly damaging to the NLP movement in the United States, although it continued to increase in popularity in Europe where it is currently recognized by the United Kingdom Council for Psychotherapy (2011).

Einspruch and Forman (1985) responded to Sharpley's review of NLP studies and questioned many of his assertions. Einspruch et al (1985), noted that

the articles reviewed in Sharpley's (1984) studies did not reflect adequate knowledge of NLP and its systems. As a result, they suggested that it was unlikely that the research conducted on these systems were valid. In their own review of 39 empirical studies on NLP they noted significant methodological and design errors that they contend significantly compromised the validity of these studies. These errors included a lack of understanding of the strategy under review, unfamiliarity with NLP as an approach to therapy, inadequate interviewer training and definitions of rapport.

Other proponents of NLP insist that the model should not be discarded given its popularity with private practitioners and their clients and the apparent success that it had achieved in fields outside of psychology (Conway & Siegelman, 1983), such as business. In offering support for NLP and challenging critics' insistence on scientific rigour, Dilts (1983) stated:

> Research that attempt to evaluate truthfulness of a model's claims generally does so on the basis of statistical computations. Because NLP is concerned with the identification and utilization of behavioural patterns in an ongoing interaction, statistical quantities are of no value to us. Surely, a statistical figure tells nothing of the unique individual before you. In NLP we believe that people have to rely on statistics when they don't understand the underlying pattern (p. 83).

While Dilts' remarks are a reasonable reminder of the value of looking at each client as more than a statistical variable, NLP strategies claim to effect observable changes in behavior and personality and therefore the efficacy of these strategies can be measured scientifically.

Practitioners of NLP have also argued that the experimental approach to research does not do justice to NLP as it is overly restrictive (Roderique-Davies,

2009). They propose the use of qualitative methodologies which give voice to the client's experience as an alternative to controlled trials. However, qualitative approaches alone would be largely descriptive and would therefore not resolve controversies regarding the efficacy of NLP. As such, studies using both methodologies may meet the requirements of both the critics and supporters of the NLP movement.

Summary

The psychology field has come a long way in its effort to assert the usefulness of psychotherapy. Psychotherapy outcome studies over the years have yielded an impressive body of evidence supporting the utility of various techniques with a variety of clients experiencing diverse clinical symptoms. Not only do clients treated with psychotherapy improve faster than those who do not receive treatment, but the positive gains made in therapy last beyond what would be expected if psychotherapy were merely a tool that generates hope.

As a consequence of the established efficacy of psychotherapy, the field has grown tremendously over the years. The number of therapies being offered to the public has also increased monumentally. The proliferation of treatments as well as increased pressure from managed care institutions led the American Psychological Association to develop lists of empirically supported therapies to educate the public as well as practitioners about the treatments proven to be effective. However, these lists created significant controversy because of the suggestion that the therapies represented on the list were better than other treatments which had not received as much research attention. Additionally,

given previous research findings that common factors operating within psychotherapy are the primary facilitators of change, rather than specific therapeutic modalities, the generation of a list which seemingly elevated one set of therapies over others seemed contradictory.

Moreover, some potentially effective therapies that have not received empirical validation have been virtually ignored and in some cases branded as pseudo-science. One such therapeutic modality is Neuro Linguistic Programming. While the evidence regarding its efficacy has been a source of considerable debate since its inception in the 1970s, it has not received research examination at the standard required to establish a therapy as empirically valid. This is particularly concerning as private psychotherapists world-wide continue to use NLP strategies with clients while psychotherapy researchers, particularly in the United States caution against its use. Furthermore, there is little published evidence of the effectiveness of one NLP therapeutic technique, Mental and Emotional Release Therapy, which purports to facilitate rapid changes at the level of personality structure. While, early proponents of NLP insisted that qualitative methods were more suited to examining the effectiveness of NLP strategies, critics demand scientific validation of the strategies. The current mixed method study seeks to address this current gap in the field and extend the body of research offering effective therapies for the underserved, adolescent population.

It is against this background that the following research questions and hypotheses were derived:

Research Questions:

1. What were the behavioural, social and emotional problems exhibited by students at baseline?
2. Were there any relative changes in the perceptions of students' behavioural, social and emotional problems from baseline to after MER Therapy?

Hypotheses:

1. Students who received Mental and Emotional Release (MER) Therapy would have a reduction in aggressive and rule breaking behaviour as compared to students waiting to receive therapy.
2. Students who received Mental and Emotional Release (MER) Therapy would have a reduction in social and thought problems as compared to those students waiting to receive therapy.
3. Students who received Mental and Emotional Release (MER) Therapy would have a reduction in the level of anxious/depressed and withdrawn/depressed symptoms as compared to those waiting to receive therapy.
4. There would be relative improvements in certain aspects of personality functioning (thinking, self perception, reality testing, interpersonal comfort, modulation of emotions) of students from baseline to after Mental and Emotional Release (MER) Therapy.
5. There would be relative improvements in certain aspects of personality

functioning (thinking, self perception, reality testing, interpersonal comfort, modulation of emotions) of students who received Mental and Emotional Release (MER) Therapy as compared to those who were waiting to receive therapy.

METHOD

Sample

Students from an inner city high school in Kingston who were enrolled in the Ministry of Education's Student Empowerment Programme (2005) participated in the study. The Ministry of Education introduced this programme to ensure that all students have access to formal secondary education beyond Grade 9 even though they scored poorly (30% and below) on the Grade Nine Achievement Test. In addition to academic challenges, the students in the programme had significant behavioural and emotional problems including impulsivity, truancy and physical and verbal aggressiveness (Ministry of Education, 2005). The 107 students participating in the programme were included in the sample.

The inner city comprehensive high school at which the sample was enrolled operates on a shift system. Students from Grades 7 to 9 attend the morning shift which begins at 7:15 a.m. and ends at 12:15 p.m., while the students in Grades 10 and 11 begin school at 12:30 p.m. and end at 5:30 p.m.

The sample was randomly assigned to two groups with 52 students in the experimental group and 55 students in the wait list control group. Two group power analysis revealed that a minimum of fifty participants in each group would yield a medium intervention effect (.05). Experts suggest that a 50% effect size is realistic in studies for which the strength the variables is unknown (Griffiths & Murrells, 2010). The experimental and control groups were comparable generally

with respect to age, family configuration (i.e., single parent households), economic status (lower class) and emotional, behavioural and social challenges.

The majority of the sample was boys (76%) with a few (24%) girls. At the beginning of the three year research project, the students were in Grade 9 and by the end they were all in Grade 11. Their mean age at the beginning of the project was 14 years eight months (Table 1).

Table 1 – Demographic comparison of study groups

	Experimental Group		Wait-List Control Group	
	%	n	%	n
Gender		37		48
Boys	83.8%		68.8%	
Girls	16.2%		31.3%	
Age		33		44
14yrs	33.3%		27.3%	
15yrs	54.5%		56.8%	
16yrs	12.1%		15.9%	
Family Constellation		37		48
Single Parent	78%		70%	
Both Parents	12%		10%	
Grandparent	8%		92%	
Other	2%		8%	
Extracurricular Involvement	36%		42%	

Note. Age of students at beginning of the study represented

Instruments

The data collection strategy involved four sources: the Child Behaviour Checklist (CBCL), Exner's Comprehensive Rorschach System, behavioural observations and semi-structured interviews.

The Child Behaviour Checklist (CBCL). The CBCL is an instrument developed by Achenbach to assess behavioural problems and competencies in children between ages six through to 18 (Achenbach, 1992, 2001). The CBCL can be self administered or administered through an interview and takes approximately 15 minutes to complete. The first section of the questionnaire assesses the child's competence; that is, their ability level (in comparison to their same age peers) in regard to sports, involvement in clubs or organizations and household responsibilities or chores. It also assesses children's ability to get along with family members and friends as well as their academic performance across different subject areas.

The second section of the CBCL assesses behavioural or emotional problems during the past six months. For a comprehensive understanding of the child, the CBCL also allows independent ratings from the child (Youth Self Report Form), the parent (Child Behaviour Checklist), and the teacher (Teacher Report Form).

The Youth Self Report form consists of 142 items while the Teacher Report form has 145 items and the Parent Report form has 148 items. Generally, the forms completed by the child and the parent are the same except for the numbering of the statements and the inclusion on the parent form of questions

regarding any academic challenges or special education needs of the child. The Teacher Report form, on the other hand, requires specific information regarding the child's academic performance and contains statements specifically related to classroom behavior as opposed to behaviours at home.

All forms of the checklists measure children's behaviours in the following areas: Social (social, emotional), School (academic), and Activities (physical activity). The statements corresponding to these five areas of functioning are grouped to form scores for eight core syndromes: withdrawn, somatic complaints, anxious/depressed, delinquent, aggressive, social problems, thought problems, and attention problems. The syndrome scores are also re-categorised in terms of Internalising and Externalising symptoms. The Anxious/depressed, withdrawn/depressed and somatic complaints syndrome scales make up the Internalising syndrome grouping while the rule-breaking behavior and aggressive behavior make up the Externalising.

The CBCL is one of the most extensively validated tests of child behavior functioning (Schoenwald, Sheidow & Chapman, 2009) and has been normed across different ages, ethnic and cultural groups (Achenbach, 1991; Drotar, Stein, & Perrin, 1995; Lambert, Lyubansky, & Achenbach, 1998; Verhulst, Achenbach, van der Ende, Erol, Lambert, Leung, Silva, Zilber & Zubrick, 2003). For example, the test has been used in studies comparing ratings for self reported behavioural and emotional problems in adolescents from seven different countries including Jamaica and China (Verhulst, et al, 2003). The test yields high test retest reliability with correlations between the .80 and .90 range. The content,

criterion and construct validity of the test have also been strongly supported (Achenbach & Rescorla, 2001). The items on the CBCL, YSR and TRF forms were selected based on extensive research which included consultations with mental health professionals, special educators and pilot testing with parents, youth and teachers (Achenbach et al, 2001). Additionally, the correlation between CBCL scales and the Diagnostic Statistical Manual (DSM) Checklist scores for Attention Deficit Hyperactivity Disorder, Conduct disorder and Oppositional Defiant Disorder resulted in coefficients of .61 to .63 (Achenbach & Rescorla, 2001).

Comprehensive Rorschach System (CRS). The Comprehensive Rorschach System was developed in an effort to create a Rorschach System that would be scientific and empirically sound (Exner, 1974). To achieve this, Exner standardized the administration, scoring and interpretation of the Rorschach and only included those variables from previous Rorschach Systems that had strong empirical support and clinical utility (Beck, 1945; Hertz, 1952; Klopfer, 1942; Piotrowski, 1951; Rapport-Schafer, 1952).

The Rorschach assesses personality functioning, with particular emphasis on how individuals construct reality and the meanings they assign to their perceptual experiences (Weiner & Exner, 1991). As a result, it has been used in several studies to assess change in personality variables, such as the ability to modulate emotions, manage stress, and interact with others, after treatment (Exner & Andronikof-Sanglade, 1992; Weiner & Exner, 1991; Abraham, Lepisto, Lewis, Shultz & Finkleberg, 1994). This testing model has become more popular since

researchers found that significant enduring change occurred in the Rorschach after both long term and short term therapy (Gronnerod, 2004; Exner & Andronikof-Sanglade, 1992).

The test consists of a set of 10 bilaterally symmetrical inkblots; five are black with shades of grey (achromatic) and the remaining five contain colour (chromatic). The administration and scoring of the Rorschach follow the procedures explicated by Exner (1995).

The subjects' responses are coded for location, developmental quality, determinants, form quality, content, popular and organizational activity (Exner, 2005). There are 7 location responses including whole responses (W), common detail responses (D), unusual detail responses (Dd) and space responses (S). A code reflecting the developmental quality or level of organization evident in the location response is also assigned. The four developmental quality codes are synthesized responses (DQ+), ordinary responses (DQo), vague synthesized responses (DQv/+) and vague responses (DQv). Determinant codes are also assigned to identify the features of the blot that the subject used in formulating their response. Twenty four determinant codes exist and these fall in seven main categories. These are: form (F), movement (M, FM), chromatic colour (C), achromatic colour (C'), shading (Y, V and T), dimensional form (FD) and symmetry (rF, Fr and pairs). The form quality of the response is categorized in one of four ways: ordinary elaborated (FQ+), ordinary (FQo), unusual (FQu) or minus (FQ-) and reflects the appropriateness of the subjects response in relation to the contours of the blots.

There are also six special indices, the Perceptual-Thinking Index (PTI), Depression Index (DEPI), Coping Deficit Index (CDI), Suicide Constellation (S-CON), Hypervigilance Index (HVI), and Obsessive Style Index (OBS).

For this study five Rorschach personality variables were examined: Affect; Interpersonal Comfort; Ideation; Cognitive Mediation; and Self Perception (See Appendix E).

Studies on the Comprehensive Rorschach System (CRS) have generally supported the reliability and validity of the components that are theoretically based (Exner, 2003; Atkinson, 1986; Parker, 1983, Weiner, 1996, Parker, Hanson & Hunsley, 1988). For example, X+%, a measure of reality testing, has been found to be generally low in psychiatric patients (Exner, 2003). Additionally, reliability coefficients for the CRS trait variables are generally high with most having correlations greater than .80 (Exner, 2003). For instance, Exner's (1986) reference sample, lambda, a characterological tendency to narrow or simplify stimuli, had a test-retest coefficient of .93 for adult non-patients. However, The Rorschach measures both transient and stable aspects of personality functioning (Exner, 1986) and therefore test- retest reliabilities of the CRS variables range from .26 to .92 (Exner, 2003; Meyer and Archer, 2001). For those aspects of personality functioning that are impacted by situational factors and are expected to be unstable, the coefficients have the expected lower magnitude (r=.26). The converse is also true, so the more stable aspects of personality functioning yield higher coefficients (r=.92).

Studies have also indicated excellent inter-scorer reliabilities ranging from .82 to .97 (Meyer, Hilsenroth, Baxter, Exner, Fowler, Piers & Resnick, 2002; Exner, 2003). Very few local studies have been conducted on the Comprehensive Rorschach System (CRS). However, one unpublished study supported the test's construct validity (Hart, 2006) and another assessed the applicability of the Card Analysis Approach to interpreting the test (Johnson, 2004).

Interviews. All students in the study were interviewed using a semi-structured interview format. They were asked to give information about their interests as well as any difficulties they were having at school and at home. The interview had two main goals. The first was to provide an opportunity to explain to the students individually what the researchers would be doing at the school for the period of the study. Secondly, it was used to ascertain the degree of social, emotional and academic challenges that the students' were experiencing.

Behavioural Observation. Structured and open-ended observations were done for all students. For the structured observations, a behaviour rating record form was developed to monitor the behaviours of students in the classroom. The record forms focused on the following classroom behaviours: punctuality, raising ones hand and waiting to be acknowledged by the teacher, listening, following directions, being prepared with books and pens, participation and remaining seated for the duration of class.

Continuous open-ended observations were also conducted during morning devotions and lunch breaks. These were guided by theoretical expectations of the cognitive, social and emotional development of adolescents. The hours of

observation were four hours each day for three weeks during the baseline phase of the study and continuous during and after the intervention.

Procedures

The study was conducted in six phases as follows: Phase 1 – Identification of School, Collection of Consent & Assent forms; Phase 2 – Interview of Study Participants; Phase 3 - Baseline Data Collection/ Concurrent Behavioural Observation; Phase 4 – Intervention; Phase 5 – Post Intervention Data Collection/ Concurrent Behavioural Observation; Phase 6 - Interviews conducted one year post graduation.

Phase 1. The school and sample were identified and the necessary permissions were obtained. The school was chosen because of its proximity to the University of the West Indies, Mona. Additionally, it was also participating for the first time in the Ministry of Education's "Student Empowerment" Programme.

The study's assessment and intervention procedures were approved by the Faculty of Medical Science Ethics Committee. In addition, the necessary permissions, consents, assents and commitment from the Ministry of Education, the principal of the school and the parents for the students to be part of the study were solicited before the study began.

At the beginning of Grade 9, parents were invited to a Parent Teacher's Association meeting where the principal and primary investigator briefed them about the programme and solicited their commitment and cooperation. Consent forms were later sent to parents for their signature.

While all teachers agreed to facilitate the process, especially during the classroom management phase, only six vocational teachers and two guidance counselors completed the Child Behaviour Checklist (CBCL) Teacher report forms for the students. The teachers all had post secondary certification from the Human Employment and Resource Training (HEART) Academy in their respective fields. They also had on average six years experience working and teaching in their respective fields. They taught Food and Nutrition, Building and Construction, Electrical, Carpentry, Mechanics and Art. Vocational teachers were solicited because the students spend more hours during the week in vocational classes as compared to other subject areas. The guidance counselors also had post secondary certification in school counseling and were selected because of their personal knowledge of the students, especially those with emotional and behavioural problems. Neither the teachers nor the guidance counselors were given information about which students were randomized to the experimental or wait list control group.

Students were given assent forms during guidance counseling classes. The assent form was read to them as a group and questions regarding confidentiality were answered. The completed forms were collected at the end of the session. This process was completed within two months.

After the consent and assent forms were collected the SPSS programme (version 17) was used to randomly assign the students into two groups: students who received therapy (experimental) and those waiting to receive therapy (wait

list control). The computer programme assigned 50 students to the experimental group and 57 to the wait list control group.

Phase 2. In Phase Two the students were interviewed. In semester two of Grade 9, students were individually interviewed by research assistants. The students were interviewed during the school day in the library when it was not in use or the guidance counselor's office. The interviews lasted between 15 to 30 minutes.

Phase 3. This phase consisted of baseline data collection. The researcher, along with two graduate level research assistants observed the students three days per week for three weeks between the hours of 7 a.m. and 12 noon (morning shift) across several different settings including during class, lunch time and morning assembly. After the students entered Grade 10, the observation period changed to 12noon to 5p.m. (evening shift). Information regarding how the students interacted with peers, teachers and the observer was recorded manually in a journal. Observers also recorded the frequency of the students' behaviour in the classroom including completion of assigned work, participation and attentiveness.

The CBCL (Youth Form) and Rorschach were administered to all the students. For the Youth Self Report Form (YSR), if the student had literacy problems, research assistants read the questionnaire items and recorded the participant's responses. For the Rorschach, if students did not give the required minimum of 15 responses upon first administration, they were asked to go through the cards again and give additional responses in accordance with the administration instructions (Exner, 1993). Of the students tested, 6% were asked

to give additional responses to the cards. Inter-scorer reliability for the Rorschach yielded high agreement rates on scoring categories. For example: location = 96%; developmental quality = 94%; determinants = 97%; form quality = 94%; pairs = 99%; content = 99%; popular = 100%; special scores = 96%.

Parents were contacted via telephone and given the opportunity to complete the Child Behavior Checklist (CBCL) over the phone or have it sent home with their child for them to complete on their own. Of the parents contacted, 98% choose to complete the form via telephone. The remaining parents completed the forms and they were returned within two weeks in sealed envelopes to the researcher directly or the guidance counselor.

The selected teachers and guidance counselors were given two weeks to complete and return the forms. Only one teacher requested an additional week in which to submit forms.

Phase 4. Phase Four was the intervention phase and began when students started Grade 10, one year after the collection of the baseline data. The intervention involved Mental and Emotional Release (MER) Therapy (James, 2010; James & Woodsmall, 1988).

Each student in the experimental group completed three, 90 minute sessions of MER Therapy that allowed them to address the negative emotions of anger, sadness and fear. Sessions were conducted during the school year in a private office on the campus of the University of the West Indies. The office was well lit and situated at the end of a block of offices which allowed for increased privacy. The students were seated in comfortable arm chairs to the side of the

desk while the therapist sat behind the desk. At the beginning of the first session, the process of MER Therapy was explained to each student along with the impact that anger, sadness and fear may have on overall well-being. The benefits of addressing negative emotional baggage from the past were also discussed and any questions that the student had were addressed before the process started.

During the process, meditative, instrumental music was played to increase relaxation and enhance the student's ability to visualize. A scripted, standard set of instructions was then used to guide the student through the four steps in the process. Step One identified how the student stores his/her memories (i.e., their time line). Step Two involved a "trial run" on the Time Line. During this step, the student visualized moving above his/her time line over the past, the present and the future. It is at this stage that any difficulties with the visualization process were addressed. Step Three guided the student to identify the first instance of the negative emotion (i.e., anger, sadness and fear) and in Step Four, the student was guided through the process of releasing their anger, sadness and fear. A test of whether the negative emotion was resolved was then conducted and the process ended with future pacing to ensure that the negative emotion would not be a problem in the future. Spontaneous verbalizations regarding what they thought of the process and how they felt were recorded either manually or with a voice recorder. The intervention phase of the project lasted for approximately one academic year.

Phase 5. Phase Five of the research project commenced one term after the intervention was completed. During this phase, data from the CBCL and the

Rorschach were collected. The students were administered the Youth Report form of the CBCL and the Rorschach individually in the library at the school. Parents and teachers also completed the CBCL a second time. Most parents/guardians completed their forms via telephone. For those who did not, they were reminded via telephone if the forms were not returned within two weeks. Teachers from the mechanic, carpentry, foods, electrical, building and cosmetology vocations again completed the Teacher Report forms. The teachers completed and returned the forms within three weeks. Observations were also ongoing during this phase as well and were conducted four days per week for three months on the evening shift (between the hours of 12 noon and 5:30 p.m.) across several different settings including during class and lunch. This phase of the study lasted eight months.

Phase 6. Phase Six of the study involved follow-up interviews with the participants after completion of high school. The purpose of the follow up was to explore the students' life experiences over the last year. Twelve students from the experimental group and twelve students from the wait control list group were selected for interviews (Appendix F). These students were selected because the guidance counselors initially identified them as having the most significant behavioural and emotional problems.

All interviews were semi-structured and although there were general issues to be covered, the direction of the interview was largely determined by the student. Topics guiding the interview included the students' experiences since leaving school and their observations about their life and behavior since they

received the intervention. The interviews were tape recorded and transcribed verbatim.

After the study was complete, students from the wait-list control group were contacted and offered an opportunity to receive the intervention.

Research Assistants. Research assistants were utilized in three primary areas: data collection, as second raters and in the delivery of the intervention. All assistants were blind to the experimental and control groups. Two Masters level clinical psychology student assisted with the administration of the Child Behaviour Checklist. The researcher reviewed the form with each assistant to ensure that they understood how it should be completed. Parents who choose to complete the forms on their own were reminded via telephone if the forms were not returned within two weeks. Three final year psychology undergraduate students also assisted with observations of the students. A doctoral level clinical psychologist with 3 years experience assisted the researcher with the administration of the Rorschach. Only the researcher and her faculty advisor conducted the intervention. The faculty advisor is a Trainer and Master Practitioner in Neuro Linguistic Programming. The researcher received over 30 hours of training and practice in the use of NLP techniques including Mental and Emotional Release (MER) Therapy.

Design

This study utilized a mixed methods embedded experimental design (Creswell, Plano Clark, Gutmann, & Hanson, 2003). Thus, the qualitative data collected provided a supportive, secondary role in this study which was

primarily based on quantitative data. The mixed methods approach is being used more frequently in efficacy and effectiveness studies as it increases the internal validity of the study (SenGupta, 1993).

The mixed method design was particularly useful for this study because it allowed for triangulation of the data. Thus, information from several different informants (youth, teachers, parents and observers) using various data collection methods (quantitative and qualitative) were analysed in order to strengthen the overall findings. Additionally, the data from the qualitative findings was used to enhance and clarify results from the quantitative findings.

Data Analysis

Quantitative Analysis. Data from the CBCL and the Rorschach were analysed using SPSS for Windows 17.0 software (SPSS Inc., Illinois, United States). Chi-Square was used to gain descriptive analysis of the social, emotional and behavioural functioning of the total sample. Chi-Square was also used to examine any relative changes in the perception of students' social, emotional and behavioural functioning after the intervention. T-tests were used to compare differences between the experimental and wait list control groups post intervention in terms of the behavioural, social and emotional syndromes measured by the CBCL. ANOVA were used to compare within group changes in several aspects of personality functioning: thinking, reality testing, interpersonal comfort, self perception and modulation of emotions. A Repeated Measures ANOVA was also used to compare changes in personality functioning between

experimental and control groups post intervention. All hypotheses were tested at the 0.05 level of significance.

Qualitative Analysis. Data from interviews and spontaneous verbalizations during or immediately after the intervention sessions were analysed using content analytic strategies. The information was first transcribed, read several times and coded for emergent themes related to the main variables under focus; that is, aggression, sadness, rule breaking and interpersonal comfort. Themes from the experimental and control group interviewees were compared to ascertain similarities and differences. Naturalistic observations of the entire sample across varying situations including during classes, break periods and assembly were also documented. Excerpts from these observations were used to provide descriptive information regarding the behavior of the students within the school environment before and after the intervention.

RESULTS

Research Question 1: ***What were the behavioural, social and emotional problems exhibited by students at baseline?***

Information about the behavioural, social and emotional problems exhibited by the students at baseline was gathered from multiple sources including interviews with the principal, parents, teachers and students. Independent ratings of students' behaviour by parents, teachers and the students, as well as direct observations by the researchers of students' behaviour during school hours, also provided information about their functioning at baseline.

The principal and guidance counsellors reported that students had severe challenges with inattention, impulsivity, anger management, disregard of school rules, and lack of motivation despite attempts to meet their needs by placing them in special, small classes. In addition to the aforementioned challenges, the principal also reported that the students identified all scored 30% or below in the Grade Nine Achievement Test (GNAT). Given the challenges, the guidance counsellors also expressed feelings of overwhelm and helplessness at the magnitude of emotional and behavioural problems displayed by the students. They also noted that many of these students were not expected to graduate because of their blatant disregard for school rules.

Parents, in a Parent Teachers' Association (PTA) meeting held at the beginning of the project also expressed alarm at their children's behaviour. They openly expressed feelings of frustration, anger, and in some cases indifference as a result of the high level of behavioural problems that their children were

exhibiting. The behaviours they described included truancy from school, open defiance, lack of interest in school work, lying, stealing and involvement in gang related activities.

Observation of the students over a three month period by the researchers at baseline across all their activities (during class, assembly and lunch periods) was consistent with the behavioural dysfunction noted by the principal, guidance counsellors and parents. For example, students consistently came late for class, doodled in their books, left their seats without permission, walked out of class, slept during class and engaged in verbal and physical fights in the presence of teachers. Notably, these behaviours were more evident in mainstream classes such as Math, English and Social Studies as compared to vocational classes such as, Electrical & Building, Carpentry, Mechanics and Cosmetology. Further, although the students were less likely to skip the vocational classes and generally seemed more interested, there was no difference in the number of verbal and physical altercations that they got into during class. Their level of tardiness was also still high. As such, classes had to be interrupted frequently to respond to issues regarding discipline and conduct in the classroom and very little teaching occurred. A student, O.B. provided some insight into some of the students' behavioural challenges. He stated during an informal conversation with one of the researchers:

> (Verbatim Response)
> Miss, nobadi waah anybadi else fi tek dem fi ediot. If dem yah pickney yah tink seh yuh sauf, pure prablems. Did yuh hear wat happen to J? Him gwaan sauf, like im cyah mash ants an some bwoy tie im up one day afta school an lef im. Ah di caretecka

> come tru inna di night an fine im an let im go. Dat cyah happen to me! Me haffi mek dem know seh dem cyah ramp wid mi.
>
> (Translation)
> Miss, nobody wants anyone to think that they are an idiot. If these children at this school think that you are soft, it will cause lots of problems. Did you hear about what happened to J? He behaved soft and some boys tied him up one day after school and left him. It was the caretaker who passed by during the night and found him and let him go. That cannot happen to me! I have to let them know that they can't joke around with me.

Independent ratings of behaviours using the Child Behaviour Checklist (CBCL) from three different informants (parents, teachers and students) were also taken to measure the extent of students' emotional and behavioural dysfunction at baseline. Surprisingly, these reports were generally inconsistent with the verbal reports. For example, while the verbal reports indicated that students' behaviour was out of control, when all three informants responded to specific aspects of students' behaviours, there was a tendency to perceive the problems as less severe. In fact, parents, teachers and the students generally rated students' behaviours in the normal range of functioning (Table 2). Notwithstanding this general trend, there were some exceptions. For example, the majority of students rated themselves in the clinical range as anxious/depressed (62%) and withdrawn/depressed (67%). Approximately half perceived themselves as having social (52%) and thought problems (55%). On the other hand, teacher's ratings of the same behaviours in the students indicated fewer of the students as having anxious/depressed (31%) and withdrawn/depressed symptoms (34%). Additionally, teachers perceived only a few of the students as having social (31%) and thought (27%) problems. Parents rating of their children's behaviours

Table 2 - Parents, Self and Teacher Reports of the Severity of Psychological Problems Exhibited by Students.

VARIABLES	SEVERITY	Parent n = 70	Self n = 85	Teacher n = 76
Anxious Depressive	Normal	88.6%	37.6%	68.4%
	Clinical	11.4%	62.4%	31.6%
Withdrawn Depressive	Normal	72.9%	32.9%	65.8%
	Clinical	27.1%	67.1%	34.2%
Social Problems	Normal	90.0%	47.1%	68.4%
	Clinical	10.0%	52.9%	31.6%
Thought Problems	Normal	98.6%	44.7%	72.4%
	Clinical	1.4%	55.3%	27.6%
Rule-Breaking	Normal	91.4%	76.5%	81.6%
	Clinical	8.6%	23.5%	18.4%
Aggressive	Normal	88.6%	74.1%	90.8%
	Clinical	11.4%	25.9%	9.2%

reflected even less perceived dysfunction with respect to their anxious/depressed (11%) and withdrawn/depressed symptoms (27%). Additionally, they perceived minimal social (10%) and thought (1%) problems.

Research Question 2: ***Were there any relative changes in the perceptions of students' behavioural, social and emotional problems from baseline to after Mental and Emotional Release Therapy (MER)?***

Behavioural observations, interviews and independent ratings from the Child Behaviour Check List (CBCL) were used to determine whether there were any relative changes in the perception of students' behavioural, social and emotional problems from baseline to intervention. This approach allowed for a statistical as well as clinical determination of whether there were shifts in the aforementioned areas of functioning. Additionally, it was important to assess relative change in students as well as changes between students who received MER Therapy and those waiting to receive MER Therapy.

Generally, only parents and teachers perceived any relative changes in the behaviour of students who received therapy. Students did not perceive any changes in their behaviours in any of the specific areas of behavioural functioning examined and this was true for students who received MER Therapy and those waiting to receive MER.

Parents whose children received MER Therapy perceived a greater proportion of their children as behaving normally with respect to anxious/depressed, χ^2 (1, $N = 32$) = 4.32, $p < .05$, withdrawn/depressed, χ^2 (1, $N = 32$) = 8.37, $p < .05$, and aggressive behaviour,χ^2 (1, $N = 32$) = 4.32, $p < .05$, from

baseline to intervention. On the other hand, parents of children who had not yet received MER Therapy did not perceive any relative changes in any of the areas of behavioural dysfunction: anxious/depresses, χ^2 (1, N = 32) = 0.21, p > .05; withdrawn/depressed, χ^2 (1, N = 32) = .08, p > .05; social problems, χ^2 (1, N = 32) = 3.12, p> .05; thought problems, χ^2 (1, N = 32) = .00, p> .05; rule-breaking behaviours, χ^2 (1, N = 32) = 0.56, p> .05; aggressive behaviours, χ^2 (1, N = 32) = 0.34, p >.05 (Tables 3 & 4).

Direct observations and interviews provide an integral context within which statistical data must be interpreted. As such, observations of the behaviour of both groups of students were done and were generally consistent with parent ratings. For example, follow up interviews with parents whose children received therapy supported some aspects of independent ratings of their behaviour. The observations of C.S., an unemployed single mother of five, illustrate this perception:

> (Verbatim Response)
> Miss, mi nuh hav a lot a money....di fada fi di children dem nuh really pay mi or dem nuh mine. But mi woulda really like yuh fi work pon mi odda son lik yuh did fah dis one. Miss is a change bwoy...im was one wutless bwoy before yuh tek im.....now, im all start talk to mi bout school an dem tings....di odda one dem need help to.
>
> (Translation)
> Miss, I don't have a lot of money.....the father of the children does not pay attention to me or the children. But I would really like you to work on my other son in the same way that you worked on this one. Miss, he is a different boy....he was worthless before you took him....now he has started to talk to me about school....the other ones need help too.

Table 3 - Parent Perceptions of Relative Changes in Behavioural, Social and Emotional Functioning from Baseline to After Mental and Emotional Release (MER) Therapy.

Variables	Severity	Baseline (n = 33)	MER Therapy (n = 33)	χ^2
Anxious Depressed	Normal	81.8%	97.1%	**4.32***
	Clinical	18.2%	2.9%	
Withdrawn Depressed	Normal	66.7%	94.3%	**8.38****
	Clinical	33.3%	5.7%	
Social Problems	Normal	87.9%	97.1%	2.14
	Clinical	12.1%	2.9%	
Thought Problems	Normal	100%	100%	-
	Clinical	-	-	
Rule-Breaking Behaviours	Normal	90.9%	100%	3.33
	Clinical	9.1%	-	
Aggressive Behaviours	Normal	81.8%	97.1%	**4.32***
	Clinical	18.2%	2.9%	

* = $p < .05$, ** = $p < .001$

Table 4 - Parent Perceptions of Relative Changes in the Behavioural, Social and Emotional Functioning of Students Waiting to Receive Mental and Emotional Release (MER) Therapy Baseline 1 to Baseline 2.

Variables	Severity	Baseline 1 (n = 33)	Baseline 2 (n = 33)	χ^2
Anxious Depressed	Normal	94.6%	91.9%	0.21
	Clinical	5.4%	8.1%	
Withdrawn Depressed	Normal	78.4%	81.1%	0.08
	Clinical	21.6%	18.9%	
Social Problems	Normal	91.9%	100%	3.12
	Clinical	8.1%	0%	
Thought Problems	Normal	97.3%	97.3%	0.00
	Clinical	2.7%	2.7%	
Rule-Breaking Behaviours	Normal	91.9%	86.5%	0.56
	Clinical	8.1%	13.5%	
Aggressive Behaviours	Normal	94.6%	97.3%	0.34
	Clinical	5.4%	2.7%	

Note: Baseline 2 reflects the second evaluation of students waiting to receive MER Therapy.

In contrast, parents whose children had not yet received MER Therapy reported that their children's behaviour had worsened, particularly as it related to rule breaking. Additionally, their children also received more suspensions from school for uniform violations and fighting. They also described incidents of running away from home and involvement in stealing and gambling. For example, a parent, A.S., during one of the follow-up interviews noted that her son, T.F. who had not yet received therapy was "constantly on the street corner gambling." She also reported that her son and his group of friends had been accused of robbing several shops in the community. Consequently, members of the community were threatening to beat him and burn down their home.

This perceived worsening in their rule breaking behaviour was also observed first hand by researchers. For example, students who were waiting to receive MER therapy were sent out of class for disrespectful behaviour at least once in each class session observed. Further, after being sent from the class and told to report to the Dean of Discipline, many of these students typically gathered at remote corners of the campus and gambled until the end of the class period. Additionally, as the disruptive behaviours increased, teachers would frequently ask the researchers when these students would be "worked on." Many of the students who had not yet received MER Therapy would also spontaneously ask when they would have an opportunity to "talk." At those times, they were reassured that everybody would eventually have the opportunity to work with the researchers.

As was mentioned previously, teachers also perceived relative changes in the behaviours of students. Specifically, they perceived that a greater proportion of students who received MER Therapy were behaving normally with respect to anxious depressed symptoms, χ^2 (1, N = 35) = 13.13, p < .05, social problems, χ^2 (1, N = 35) = 17.48, p <.05, thought problems, χ^2 (1, N = 35) = 5.71, p < .05, and rule breaking behaviour, χ^2 (1, N = 35) = 4.20, p < .05. These perceptions occurred despite the teachers not knowing who received or did not yet receive therapy. Further, teachers also did not perceive any relative changes in any of the areas of behavioural dysfunction for students waiting to receive MER (Tables 5 & 6).

As such, behavioural observations and comments by teachers were consistent with the aforementioned statistical findings. For example, one teacher who spontaneously reflected on his perception of E.M., a student whom he did not know received therapy, highlighted the positive changes seen after therapy:

> (Verbatim)
> I know that you probly cyant tell me exactly which of the students you and Dr. Johnson worked on but a haffi tell yuh…remember that student that I said was a real wase ah time? I don't know what has come over im but over the last few weeks he start ansa question in class – deh dem ansa wrong but at leas now I know how he is thinkin. An he was one of those that I used to have to stop di class every few minutes to discipline im – cyah get along wid nobody. Now, mi all see him lending a class mate a pencil! Can you believe dat!?
>
> (Translation)
> I know that you probably can't tell me exactly which of the students you and Dr. Johnson worked with but I have to tell you….remember that student I said was a real waste of time? I don't know what has come over him, but over the last few weeks he has started to answer questions in class – the answers are wrong

Table 5 - Teacher Perceptions of Relative Changes in the Behavioural, Social and Emotional Functioning of Students at Baseline and After Mental and Emotional Release (MER) Therapy.

Variables	Severity	Baseline (n = 35)	MER Therapy (n = 35)	χ^2
Anxious Depressed	Normal	57.1%	94.3%	**13.13****
	Clinical	42.9%	5.7%	
Withdrawn Depressed	Normal	68.6%	71.4%	0.06
	Clinical	31.4%	28.6%	
Social Problems	Normal	54.3%	97.1%	**17.48****
	Clinical	45.7%	2.9%	
Thought Problems	Normal	68.6%	91.4%	**5.71***
	Clinical	31.4%	8.6%	
Rule-Breaking Behaviours	Normal	77.1%	94.3%	**4.20***
	Clinical	22.9%	5.7%	
Aggressive Behaviours	Normal	88.6%	81.8%	2.61
	Clinical	11.4%	18.2%	

* = $p < .05$; ** = $p < .001$

Table 6 - Teacher Perceptions of Relative Changes in the Behavioural, Social and Emotional Functioning of Students Waiting to Receive MER Therapy from Baseline 1 to Baseline 2.

VARIABLES	SEVERITY	Baseline 1 (n = 41)	Baseline 2 (n = 41)	χ^2
Anxious Depressed	Normal	78%	92.7%	0.26
	Clinical	22%	7.3%	
Withdrawn Depressed	Normal	63.4%	65.9%	0.05
	Clinical	36.6%	34.1%	
Social Problems	Normal	80.5%	90.2%	1.56
	Clinical	19.5%	9.8%	
Thought Problems	Normal	75.8%	92.7%	1.15
	Clinical	24.2%	7.3%	
Rule-Breaking Behaviours	Normal	85.4%	87.8%	0.10
	Clinical	14.6%	12.2%	
Aggressive Behaviours	Normal	92.7%	85.4%	1.12
	Clinical	7.3%	14.6%	

* = $p < .05$; ** $p = < .001$

> but at least now I know how he is thinking. And he was one of those that I used to have to stop the class every few minutes to discipline him – he could not get along with anyone. Now, I have seen him lending a classmate a pencil! Can you believe that!?

Independent observations of the students' by the researchers were also consistent with the teacher's comments as recorded above. Specifically, those students exposed to MER Therapy participated more often during class discussions, attended class more frequently and displayed no aggression in their interaction with their peers, whether in class or during break times. Further, many of these students also seemed to notice the change in their own behaviour. For example, several weeks after completing the release of sadness, E.J. stated:

> (Verbatim Response)
> Miss, yuh know seh mi nuh undastan wat happen to mi. I use to fight every day at skool – not even becaw nobodi choble mi….jus becaw mi feel haunted an everyting people do jus annoy mi. But Miss, yuh know seh a tree week now mi nuh ketch up inna nuh fight. Mi know yuh probably nuh believ mi but chus mi dat neva happen to mi yet. Mi hope seh a nuh obeah yuh a wuk pon mi (laughs).
>
> (Translation)
> Miss, do you know that I don't understand what happened to me? I used to fight every day at school – it wasn't because anyone was troubling me – I just felt haunted and everything other people did annoyed me. But Miss, do you know that it's been three weeks since I was in a fight? I know you probably don't believe me but trust me, this has never happened to me before. I hope you are not doing obeah on me (laughs).

On the other hand, students who were waiting to receive therapy continued to engage in frequent verbal arguments with their peers and the teachers during class time. As a result, they received more reprimands. Additionally, no changes were observed in the level of their aggression toward peers and teachers. For example, during the post intervention period, 10 students who had not yet

received therapy were suspended for fighting on the school grounds with weapons. By contrast, none of the students who received MER Therapy received suspensions during the same period. Furthermore, post intervention follow-up of the students waiting to receive therapy revealed that two were in prison approximately one year after leaving school. Another student's report of his experiences since leaving school reflected challenges with impulse control, anger, fighting, robbery, and lying. In fact, at the time of the interview, he was on "police restrictions" while he awaited a court date on charges of attempted rape.

While parents and teachers perceived changes in some aspects of the behavioural functioning of students who received MER, students generally did not acknowledge any relative changes in their own behaviour whether they received MER or were waiting to receive therapy (Tables 7 & 8). Nonetheless, discussions with the students, as well as observations of their behaviours suggested that they perceived changes in their behaviour. For example, when students who received MER were teased by their peers about observable changes in their behaviour, they tended to be noncommittal about the effects of therapy and avoided further confrontation. However, many of these same students who in the presence of their peers refused to talk about the impact of therapy, often volunteered their own observations of behavioural change in one-on-one situations with the researchers. For example, T.F., a 17 year old student who had two suspensions for fighting on his record before he received MER Therapy noted:

Table 7 - Self Report of Perceived Changes in Behavioural, Social and Emotional Problems from Baseline to After Mental and Emotional Release (MER) Therapy.

Variables	Severity	Baseline (n = 37)	MER Therapy (n = 34)	χ^2
Anxious Depressed	Normal	43.2%	64.7%	3.28
	Clinical	56.8%	35.3%	
Withdrawn Depressed	Normal	37.8%	41.2%	0.08
	Clinical	62.2%	58.8%	
Social Problems	Normal	54.1%	67.6%	1.37
	Clinical	45.9%	32.4%	
Thought Problems	Normal	56.8%	73.5%	2.19
	Clinical	43.2%	26.5%	
Rule-Breaking Behaviours	Normal	75.7%	85.3%	1.03
	Clinical	24.3%	14.7%	
Aggressive Behaviours	Normal	78.4%	94.1%	3.63
	Clinical	21.6%	5.9%	

Table 8 - Self Report of Perceived Changes in Behavioural, Social and Emotional Functioning of Students Waiting to Receive Mental and Emotional Release (MER) Therapy from Baseline 1 to Baseline 2.

Variables	Severity	Baseline 1 (n = 48)	Baseline 2 (n = 34)	χ^2
Anxious Depressed	Normal	33.3%	41.2%	0.52
	Clinical	66.7%	58.8%	
Withdrawn Depressed	Normal	29.2%	35.3%	0.34
	Clinical	70.8%	64.7%	
Social Problems	Normal	41.7%	58.8%	2.34
	Clinical	58.3%	41.2%	
Thought Problems	Normal	35.4%	44.1%	0.63
	Clinical	64.6%	55.9%	
Rule-Breaking Behaviours	Normal	77.1%	64.7%	1.51
	Clinical	22.9%	35.3%	
Aggressive Behaviours	Normal	70.8%	73.5%	0.07
	Clinical	29.2%	26.5%	

Note: Baseline 2 reflects the second evaluation of students waiting to receive MER Therapy.

> (Verbatim Response)
> Miss, cum ova heresuh – dem pickney too faas. Miss, yuh know seh mi nuh fight nobadi since wi duh di tings. All mi fren dem ah ask mi bout it. Miss, mi cyah afford fi look saaf enuh – but mi jus nuh inna di almshouse–mi nuh feel fi beat up nobadi.
>
> (Translation)
> Miss, come over here – those children are too inquisitive. Miss, do you know that I haven't been in a fight with anyone since we did the things. All my friends are asking me about it. I can't afford to look soft, you know – but I am just not interested in the foolishness – I don't feel like beating up anyone.

The change in aggression level noted by the above student was observed in approximately 90% of the students who received MER Therapy. They did not engage in physical or verbal arguments in class and they raised their hands to respond to questions. On the other hand, students who had not yet received MER Therapy continued to engage in verbal arguments that often escalated into physical fighting and were often restricted from entering the school compound because of uniform violations.

Hypothesis 1: ***Students who received Mental and Emotional Release (MER) Therapy would have a reduction in aggressive and rule breaking behaviour as compared to students waiting to receive therapy.***

Overall, only parents and students noted any significant reductions in the aggressive and rule breaking behaviour of students who received MER Therapy as compared to students and parents of students waiting to receive therapy (Table 9). Teachers, on the other hand, did not report any difference in the aggressive, $t(36) = -1.30$, $p > .05$, or rule breaking, $t(36) = -1.53$, $p > .05$, behaviours of

Table 9 - Comparison of Parent, Student and Teacher Assessments of the Degree of Aggressive and Rule Breaking Behaviours for Students Who Received MER Therapy and Those Waiting to Receive MER Therapy.

	Received MER Therapy (N = 37)		Waiting for MER Therapy (N = 37)		
VARIABLES	Mean	S.D.	Mean	S.D.	T
Parent					
Rule-breaking behaviour	1.63	1.97	4.00	3.02	**-3.92***
Aggressive behaviour	2.26	3.06	6.18	3.56	**-5.01***
Self -Report					
Rule-breaking behaviour	5.12	3.84	6.65	4.40	-1.53
Aggressive behaviour	6.56	4.39	9.88	**5**.66	**-2.70***
Teacher					
Rule-breaking behaviour	3.06	3.08	3.07	4.39	-1.53
Aggressive behaviour	4.17	5.45	6.09	7.18	-1.30

* = $p < .05$

students who received therapy when compared to those waiting to receive therapy.

As mentioned previously, parents of students who received therapy reported a significant reduction in the level of their children's aggression, $t(37) = 5.00$, $p < .05$, and rule breaking behaviour, $t(37) = 3.92$, $p < .05$, as compared to parents whose children had not yet received therapy (Table 9) . Additionally, in follow up interviews, these parents reported that their children had not been in any violent altercations since leaving school and they were either working or back in school trying to "get more subjects." In contrast, parents of students who were waiting to receive MER expressed concern about the drastic deteriorations in their children's behaviour resulting in encounters with the law in some cases. For example, S.B. a single mother of three children employed as a secretary, described her son's challenges:

> (Verbatim Response)
> Miss, O.B. has been in and out a jail from before he leave school. At firs, him use to just teef likkle tings, like I would see him come home wid watch an tings like dat wat me know him doh have the money to buy. When mi use to ask im where im get dem tings from – no ansa. Den afta im leave school it jus get worse – im start rob people house in di community wid boy weh have gun. Im in jail as we speak fah aggravated robbery.
>
> (Translation)
> Miss, O.B. has been in and out of jail since before he left school. At first, he used to take little things, for example, he would come home with a watch and other things like that that I knew he did not have the money to buy. When I asked him where he got the things from – he would not answer. Then after he left school it just got worst – he started to rob the houses of people in the community with boys that have guns. He is in jail right now for aggravated robbery.

When students assessed the level of their aggression and rule breaking behaviours, they reported a reduction in their aggression, $t(36) = -2.70$, $p < .05$ but not their rule breaking behaviours, $t(36) = -1.53$, $p > .05$ (Table 9). This finding was also consistent with follow up interviews with the students. For example, B.F., a student who was waiting to receive therapy who had previously been suspended twice from school for stealing and fighting, described his challenges managing his behaviour below.

> (Verbatim Response)
> INT: How have you been since leaving school?
> B.F.: Miss, mi still giving chuble…worsa chuble (laughs)
>
> INT: What do you mean?
> B.F.: Bare chuble like stealin, breakin into people shop, people house…..an mi get inna chuble few monts ago cauh mi hold down a terteen year ole girl.
>
> (Translation)
> INT: How have you been since leaving school?
> B.F.: Miss, I am still giving trouble…worse trouble (laughs)
>
> INT: What do you mean?
> B.F.: Lots of trouble like stealing, breaking into people's shops, people's house….and I got in trouble a few months ago because I held down a 13 year old girl.

In contrast, R.B., a student the Dean of Discipline initially described as "very violent" who received MER Therapy, commented on the changes in his behaviour during the follow up interviews:

> (Verbatim Response)
> When I was in school it was much different. Ah would do dem tings like beat dem real bad, box dem, wateva. Now ah much smarter than the average towards certain tings. Like ah sit down and observe more. Ah understan wat ah want an wat it takes to get dere. People use to seh ah have a bad temper – ah guess it was true. But not no more……

> (Translation)
> When I was in school it was much different. I would do things to them (students) like beat them, box them, whatever. Now I am much smarter than the average (person) towards certain things. Like I will sit down and observe more. I understand what I want and what it takes to get there. People used to say I have a bad temper – I guess it was true. But not anymore……..

Teachers, on the hand, perceived comparable levels of rule breaking, $t(36) = -1.53$, $p > .05$, and aggressive behaviour, $t(36) = -1.30$, $p > .05$, in students who received MER Therapy and students waiting to receive therapy (Table 9). However, interviews and observations of teachers were inconsistent with the statistical finding above. For example, teachers regularly commented, in the presence of observers, on positive changes in the aggressive behaviour of students who received therapy. In one instance the carpentry teacher was overheard telling the guidance counsellor that two of the students who had received suspension warnings were no longer a problem in his class. Of note, the carpentry teacher was not aware that these students had received MER Therapy. Furthermore, students who received therapy were observed being praised and encouraged by teachers across different class sessions.

Hypothesis 2: ***Students who received Mental and Emotional Release Therapy would have a reduction in social and thought problems as compared to those students waiting to receive therapy.***

Generally, parents and teacher did not report any differences in the degree of the social and thought problems of students who received MER Therapy as compared to the students waiting to receive therapy, parents, $t(34) = -0.52$, $p > .05$, teachers, $t(34) = -0.65$, $p > .05$; parents, $t(34) = -0.70$, $p > .05$, and teachers,

Table 10 - Comparison of Parent, Student and Teacher Assessments of the Degree of Social and Thought Problems for Students Who Received MER Therapy and Those Waiting to Receive MER Therapy.

	Received MER Therapy (N = 35)		Waiting for MER Therapy (N = 37)		
VARIABLES	Mean	S. D.	Mean	S. D.	T
Parent					
Social problems	1.14	1.88	1.35	1.46	-0.52
Thought problems	0.31	0.63	0.45	1.04	-0.71
Self					
Social problems	4.59	3.38	5.85	3.63	-1.49
Thought problems	3.21	2.65	5.74	3.85	**-3.16***
Teacher					
Social problems	1.77	1.89	2.17	3.18	-0.65
Thought problems	1.06	1.64	1.02	1.56	0.08

* = $p < .05$

$t(34) = 0.08$, p.05 (Table 10). On the other hand, while students did not report differences in the level of thought problems between those who received MER and those waiting to receive MER, $t(34) = -1.49$, $p > .05$, they reported a lesser degree of social problems for students who received MER as compared to students waiting to receive MER, $t(34) = -3.157$, $p < .05$.

Similarly, clinical observations of students' behaviours revealed noticeable changes in the social interactions of the students who received MER Therapy as compared to those students waiting to receive therapy. The changes in students who received therapy were more apparent when they were observed in the company of students waiting to receive therapy. Students exposed to the therapy maintained eye contact when having conversations, spontaneously engaged unfamiliar research assistants in conversation, answered personal questions, and volunteered to locate other students in the study. On the other hand, students who had not yet received therapy hid from unfamiliar research assistants and would only cooperate with original members of the team with whom they were familiar.

Hypothesis 3: ***Students who received Mental and Emotional Release (MER) Therapy would have a reduction in the level of anxious/depressed and withdrawn/depressed symptoms as compared to those waiting to receive therapy*****.**

Only parents and students perceived any difference in the degree of depression between students who received MER Therapy and those waiting for therapy (Table 11). Specifically, parents of students who received MER Therapy reported a lesser degree of anxious/depressed symptoms, $t(36) = -2.75$, $p < .05$,

Table 11- Comparison of Parent, Student and Teacher Assessments of the Degree of Anxious/Depressed and Withdrawn Depressed Symptoms for Students Who Received MER Therapy and Those Waiting to Receive MER Therapy.

	Received MER Therapy (N = 35)		Waiting for MER Therapy (N = 37)		
VARIABLES	Mean	S.D.	Mean	S. D.	T
Parent					
Anxious/Depressed	1.86	2.49	3.19	2.76	**-2.15***
Withdrawn/Depressed	2.20	2.11	3.51	2.74	**-2.27***
Self					
Anxious/Depressed	5.38	3.26	7.68	4.28	**-2.49***
Withdrawn/Depressed	5.53	2.11	6.62	2.76	-1.83
Teacher					
Anxious/Depressed	2.02	2.06	2.31	2.29	-0.57
Withdrawn/Depressed	3.49	3.77	4.12	4.29	-0.68

* = $p < .05$

and withdrawn/depressed symptoms, $t(36) = -2.26$, $p < .05$, in their children as compared to parents whose children had not yet received therapy.

Follow up interviews with parents of students who received MER Therapy were generally consistent with the statistical findings. For example, L.H, an unemployed mother of eight children, commented on the change in her son's tendency to be withdrawn and sad as follows:

> (Verbatim Response)
> Mi use fi wonda a wah mi do dis pickney mek im always look like smadi a beat im – jus dawg face. All yuh a ask im a wah do im – im nah ansa. But im look better now Miss. Im still go off by imself now an den but at leas im wi laugh and talk wid im brodda an sista now. Yuh woudin ketch im a do dat before yuh carry im an saut im out.
>
> (Translation)
> I used to wonder what I did to this child why he always looked like somebody was beating him – just sad. Even when I asked him what was wrong with him – he would not answer. But he looks better now, Miss. He still goes off by himself now and then but at least he will laugh and talk with his brother and sister now. You would not find him doing that before you took him and sorted him out.

Student self reports also revealed that those who received MER Therapy perceived themselves as having a lesser degree of anxious/depressed symptoms than those waiting for therapy, $t(36) = -2.48$, $p < .05$. However, the degree of withdrawn/depressed symptoms between both groups was comparable, $t(36) = -1.82$, $p > .05$ (Table 11).

Students who experienced the therapy were also observed to be more involved in class and talkative outside class when interacting with their friends and the researchers. Additionally, they were particularly more inclined to discuss their feelings about a range of issues including emotional conflicts that many

believed "real men" should not discuss. For example, F.D., a 16 year old boy from a volatile inner city community who teachers described as "cold and hostile" noted:

> (Verbatim Response)
> F.D: Miss, mi nuh really wah yuh lauf afta mi or tell nobadi dis…..mi eva meet mi fadda yet. Im nu have nutten fi duh wid di four a wi we him ave wid mi madda – nutten. Di worse part is dat im live inna di same community – maybe fifteen min down di lane. It use fi badda mi bad, bad, bad…..but a so it go fi whole a wi so mi neva wah look sauf an admit seh it badda mi. Mi use to penny it all di time – caan concentrate.
>
> INT: How are you doing now?
> F.D.: Miss, mi still tink bout im some time but it nuh badda mi as much. Mi nuh really penny it or feel bad like when mi did deh a skool.
>
> INT: Can you remember when you felt the worst about your Dad?
> F.D: Miss, dat was before you and di adda lady come a skool an start di tings. Me did go wid ar. Mi neva go wid you at all.
>
> (Translation)
> F.D.: Miss, I don't really want you to laugh at me or tell anybody this….I never met my father before. He does not have anything to do with the four of us that he had with my mother - nothing. The worst part is that he lives in the same community – maybe 15 minutes down the lane. It use to bother me badly….but that how it goes for all of us so I did not want to look soft and admit that it was bothering me. I used to think about it all the time – I couldn't concentrate.
>
> INT: How are you doing now?
> F.D.: Miss, I still think about him sometimes but it does not bother mi as much. I really don't focus on it or feel badly like when I was at school.
>
> INT: Can you remember when you felt the worst about your Dad?
> F.D.: Miss, that was before you and the other lady came to school and started the thing. I went with her. I never went with you at all.

Teachers, in contrast, perceived no differences in the degree of anxious/depressed, $t(36) = -0.57$, $p > .05$, and withdrawn/depressed symptoms, $t(36) = -0.68$, $p > .05$, between the two groups of students (Table 11).

Hypothesis 4: ***There would be relative improvements in certain aspects of personality functioning (thinking, self perception, reality testing, interpersonal comfort, modulation of emotions) of students from baseline to after Mental and Emotional Release (MER) Therapy.***

Unresolved negative emotions, such as anger, sadness and fear, not only affect mood and observable behaviour, they also have a detrimental effect on certain aspects of personality functioning. As such, this study examined whether there were relative changes in certain aspects of personality after MER Therapy. The specific aspects of personality functioning examined included ideation, self-perception, reality testing, interpersonal comfort and emotion regulation.

The only area of personality functioning where there was any relative change in functioning was in the area of emotion regulation for students who received MER therapy, $F(1, 33) = 5.58$, $p < .05$. All other areas of personality functioning did not show any relative changes: ideation, $F(1, 33) = 1.69$, $p > .05$, self perception, $F(1, 33) = 1.03$, $p > .05$) , mediation, $F(1, 33) = 1.48$, $p > .05$, and interpersonal comfort, $F(1, 33) = 0.00$, $p > .05$, (Table 12). For students waiting to receive MER therapy, there were no relative changes in any of the areas of personality functioning examined: ideation, $F(1, 37) = 1.28$, $p > .05$, self perception, $F(1, 37) = 0.47$, $p > .05$, mediation, $F(1, 37) = 3.24$, $p > .05$,

Table 12 - Relative Changes in Personality Functioning From Baseline to Intervention of Students Who Received Mental and Emotional Release (MER) Therapy

Variables	Baseline Mean (N=34)	*S.D.*	Post Therapy Mean (N=34)	*S.D.*	*F*
Affect	2.22	1.20	2.78	1.44	**5.58***
Interpersonal	7.43	4.92	7.43	4.79	0.00
Ideation	3.24	4.02	2.50	3.05	1.69
Mediation	6.41	1.39	6.82	1.27	1.48
Perception	2.47	2.11	2.11	1.87	1.03

* $p < .05$

Table 13 - Relative Changes of Personality Functioning of Students Waiting to Receive Mental and Emotional Release (MER) Therapy From Baseline 1 to Baseline 2.

Variables	Baseline 1 Mean (N=38)	*S.D.*	Baseline 2 Mean (N=38)	*S.D.*	*F*
Affect	2.24	1.93	2.67	2.17	2.76
Interpersonal	7.13	5.50	5.91	3.99	3.46
Ideation	2.65	3.13	2.23	3.08	1.28
Mediation	5.66	1.25	6.20	1.65	3.24
Perception	1.90	2.13	1.69	1.62	0.47

interpersonal comfort, $F(1, 37) = 3.46$, $p > .05$, and emotion regulation, $F(1, 37) = 2.76$, $p > .05$, (Table 13).

In terms of their ability to manage their emotions, clinical observations of students who received MER was consistent with the statistical findings and reflected positive changes when compared to their baseline functioning. The comments of one student, R.S, who received MER Therapy, reflected these improvements. R.S. was a student described by the guidance counsellor as having significant problems with sadness at the beginning of the study. She noted the following:

> (Verbatim Response)
> INT: Hi R.S., how are you?
> R.S.: Hi Miss, I was wondrin if I would get to see yuh before a go to foreign. His family did file fah wi long time but wi get tru now. Aldough, at firs ah did seh ah wasn't goin wid him.
>
> INT: Why?
> R.S.: Miss, yuh doan memba all di problems dat ah did tell yuh ah was havin wid im when yuh firs come a skool?
>
> INT: Yes, but tell me again.
> R.S.: Awright…ah used to live wid ma madda in country but she did hav whole heap a wi wid different man an her baby fada decide seh him can have soh much pickney dat is not fi him own unda him roof. So afta mi finish primary school an ready fi high school one day mi jus si mi fada come fi mi. Me did tink seh him jus come fi visit or carry me a town to visit wid im people. But when mi reach town him tell mi seh mi have fi live widd him an go a school in town. Ah cry every day fah tree mont strait. An den mi jus feel sad all di time an couldn't talk to nobadi. Den di worse part was all di gun shot an tings dat mi hear all di time. We live in August Town an di bad bwoy dem eva a war. Mi neva tink mi coulda mek it.
>
> INT: How do you feel now? Has your relationship with your father improved?
> R.S.: Yes Miss. Yuh memba wen yuh did carry mi ova yuh office

an wi do di ting wid di music?

INT: Yes.
R.S.: Is bout tree or four times mid did go wid yuh, but di second time, afta dat time mi did start feel better. Mi nuh know Miss, but mi start talk to mi fada more an tell him how mi feel when im did tek mi a town. Miss, yuh know seh him neva kno al dis time seh a dat was badderin mi? Since den wi talk good an mi nuh feel so sad an cry- cry like before….

(Translation)
INT: Hi R.S., how are you?
R.S.: Hi Miss, I was wondering if I would get to see you before I go overseas. My father's family filed for us a long time ago but we have now gotten through. Although at first I said that I was not going with him.

INT: Why?
R.S.: Miss, don't you remember all the problems that I told you I was having with him when you first came to school?

INT: Yes, but tell me again.
R.S.: Alright…..I used to live with my mother in the country but she had lots of us with different men and her baby's father decided that he cannot have so many children that are not his in his house. So after I completed primary school and was ready to go to high school one day I saw my father coming for me. I thought he came to visit or to take me to town to visit his relatives. But when we got to town he told me that I have to live with him and go o school in town. I cried every day for three months straight. And then I just felt sad all the time and could not speak to anyone. The worst part was the gun fire that I used to hear all the time. We live in August Town and the bad boys are always having a war. I did not think that I could make it.

INT: How do you feel now? Has your relationship with your father improved?
R.S.: Yes, Miss. Do you remember when you took me to your office and we did the thing with the music?

INT: Yes
R.S.: It was about three or four times that I went with you, but after the second time I started to feel better. I don't know Miss, but I started to talk to my father more and tell him how I felt

> when he took me to town. Miss, do you know that he did not know all this time that that was bothering me? Since then we talk much better and I don't feel as sad and I am not as tearful as I used to be…..

Similar to the positive changes observed in their emotional functioning, clinical observations of students who received MER Therapy showed improvements across other aspects of personality functioning. For example, clinical changes were noted in the clarity of their thinking which improved the quality of the interactions with teachers. As such, these students asked more questions in class and received positive comments like "you're finally thinking" from the teachers. Moreover, students exposed to the therapy who used to ask researchers for money started asking for help to find jobs. When asked about the reason for the change in this behaviour, one student, R.B. noted, (Verbatim Response) "Miss, a work will gih mi steady money, me jus a ask people every day fi ah money cyah help mi fi longer." (Translation) "Miss, a job will give me steady money, me asking people for money every day won't help me for long." In contrast, students waiting to receive therapy continued to ask for "a money" and never enquired about the possibility of employment.

Additionally, interactions with students before and after they received MER suggested that they did experience some positive change in their ability to think positively and believe in their capabilities as captured in the follow-up interview below:

> (Verbatim Response)
> Miss, di way I see it is di ongle way fah me to get otta di ghetto is to stop rely on odda people an jus rock back pon my talents dem. Mi neva use fi tink seh ah had none – when people always a call

> yuh witless, it mek yuh dark an yuh tun wutless. But mi know seh mi good wid mi hand dem and when mi did a pay attention in mechanic class mi did duh good. I know mi cyan mek it…
>
> (Translation)
> Miss, the way I see it is the only way for me to get out of the ghetto is to stop relying on others and just rely on my talents. I never used to think that I had any – when people are always calling you worthless, it makes you very angry and then you will become worthless. But I know that I am good with my hands and when I paid attention in mechanic class I did well. I know I can make it…..

Clinical observations also suggested that students who received MER were also better able to manage change than first observed at the beginning of the study. Initially, all the students reacted aggressively to even small changes in their routine such as shifts in their class room seating positions. Subsequent to receiving MER Therapy, students showed greater ability to adapt to change. For example, when the principal added an extra hour to the school day to prepare the students for upcoming examinations, all the students complained but only the students who were waiting to receive MER Therapy refused to stay for the additional hour.

The interactional comfort of these students also seemed different based on clinical observations. Students who received therapy spontaneously engaged the researchers and freely shared previously held negative thoughts about the researchers and the study. For example, A.M., an 18 year old student initially avoided scheduling his first therapy session. However, after completing the release of anger in the first session, he subsequently approached the researchers to

schedule the next two sessions. After completing the release of anger in the first session, he spontaneously noted:

> (Verbatim Response)
> Miss, ah really neva inten fi cum wid yuh. Mi nuh like people roun mi – wus unno docta people weh probably feel seh unno betta dan mi. But mi finally seh at lease mi wi get fi skip class – ah dat why yuh si mi ere todeh. But mi – mi feel summin – mi nuh feel di same way bout yuh – mi feel close to yuh (laughs). Mi nuh know how fi explain it – mi jus feel awrite wid yuh now.
>
> (Translation)
> Miss, I really did not intend to come with you. I don't like to be around people – worst of all doctors who probably think that they are better than me. But I finally said at least I would miss class – that's why I am here today. But I – I feel something – I don't feel the same way about you – I feel close to you (laughs). I don't know how to explain it – I just feel alright with you now.

In contrast to the positive changes observed in the personality functioning of students who received MER, students who were waiting to receive therapy reflected no improvements in their functioning from the beginning to the end of the study. Unlike students who received therapy, students who did not continued to display interpersonal discomfort and often attempted to avoid the researchers, especially the ones with whom they were unfamiliar. They also rarely volunteered personal information even though they responded to specific questions. They also displayed no improvements in their perception of themselves and continued to refer to themselves as "worthless" and without prospects outside of criminality throughout the period of the study.

Hypothesis 5: ***There would be relative improvements in certain aspects of personality functioning (thinking, self -esteem, reality testing, interpersonal comfort, modulation of emotions) of students who received Mental and***

Emotional Release (MER) Therapy as compared to those who were waiting to receive therapy.

Contrary to prediction, there were no significant differences between students who received MER Therapy and those waiting to receive therapy on any aspect of personality functioning measured; that is, thinking, $F(1,69) = 0.13$, $p > .05$, self-esteem, $F(1,69) = 1.00$, $p > .05$, reality testing, $F(1,69) = 3.11$, $p > .05$, interpersonal comfort ,$F(1,69) = 2.00$, $p > .05$, and modulation of emotions, $F(1,69) = 0.07$, $p > .05$, (Table 14).

Although comparisons in personality characteristics between students who received MER Therapy and those waiting to receive therapy indicated no statistically significant differences in any aspect of their personality functioning measured, researchers noted clinical changes in students who received therapy across all areas of personality functioning. For example, the quality of their thinking, particularly with the respect to how they thought about their life and their circumstances changed positively after exposure to MER Therapy. For example, D.M., who at the beginning of Grade 10 was adamant that he was going to be a doctor because "doctors are rich" noted at the end of Grade 11 that he had decided to change career goal from medicine to music. When this student was initially interviewed at baseline, he was failing most of his classes and was a prominent member of his school band. Despite, his obvious talent in music, he insisted that he wanted to become a doctor. One year after leaving school, he was able to identify his strengths and enthusiastically embrace a career path that was congruent with these strengths:

Table 14 - Comparison of Post Intervention Changes in Personality Variables Exhibited by Students Who Received Mental and Emotional Release (MER) Therapy and Those Waiting To Receive Therapy.

Variables	MER Therapy		Waiting for MER Therapy		
	Mean	*S.D.*	Mean	*S.D.*	*F*
Affect	2.67	2.17	2.78	1.44	0.07
Interpersonal	7.43	4.80	5.91	4.00	2.00
Ideation	2.50	3.05	2.23	3.08	0.13
Mediation	6.82	1.27	6.20	1.65	3.11
Perception	2.11	1.87	1.69	1.63	1.00

$p > .05$

(Verbatim Response)
INT: How did you do in the CSEC examinations?
D.M.: Ahm, I wasn't really prepare for dat exam Miss, so I didn't do mos of dem. By di time it came roun to exam, mi realize seh is di wrong subjeck dem a was tekkin. I doan know why I was so insistin on di docta business when ah couldn't pass bio (laughs). But the fact seh mi neva do it did not stop my progress anyway. Ahm, I am doing some studies at the Edna Manley College. Yeah, ahm, ah jus a give you a update, I am also a memba of the Jamaica Folk Singers an a teach people to play di guitar.

INT: Wow, very impressive! How did you get to this level of understanding?
D.M.: Mi nuh really know enuh Miss. Ahm, all me know is dat afta we did work true dem ting di together, mi jus start tink bout whole heap of tings…ahm, an di ansa to some a mi problems jus come to mi. But by dat time it was too late to change mi subjeck dem. Yuh shoulda start work wid wi from 7 grade, 10 grade too late Miss.

(Translation)
INT: How did you do in the CSEC examinations?
D.M.: Ahm, I was not really prepared for that examination Miss, so I did not do most of them. By the time the exams came, I realized that I was taking the wrong subjects. I don't know why I was insisting on being a doctor when I could not pass Biology (laughs). But the fact that I did not take the exams has not stopped by progress. Ahm, I am doing some subjects at the Edna Manley College. Yeah, ahm, I am just giving you an update. I am also a member of the University Folk Singers and I teach people to play the guitar.

INT: Wow, very impressive! How did you get to this level of understanding?
D.M.: I don't really know Miss. Ahm, all I know is that after we worked through those things together, I just started to think about a lot of things….ahm, an the answer to some of my problems just came to me. But by that time, it was too late to change my subjects. You should have started to work with us from 7th Grade, 10th Grade is too late Miss.

Clinical changes were also observed in the level of self- perception of students who received therapy as compared to those who were waiting for

therapy. Baseline observations of the students suggested that they had high levels of conscientiousness in terms of their personal hygiene and physical appearance. For example, they cleaned their shoes, washed their faces and combed their hair several times throughout the day. These behaviours were common to both boys and girls. In fact, on six different occasions, boys were observed charging their peers for "touch ups" to their hair with barber shears. This focus and care on their external appearance did not extend to a positive belief in their ability to succeed academically or professionally. Thus, many of the students in the study could not state any career goals or aspirations at baseline outside of a general desire to be rich "by any means." Nevertheless, in the follow-up interviews, students not only expressed more specific dreams, but their dreams were more realistically aligned with their strengths. For example, A.B., a 17 year old student who was responsible for looking after three younger siblings while her mother worked as household helper, noted:

> (Verbatim Response)
> Miss, mi ah do hair an nails a skool now an mi waah learn face. Maybe even have mi own shop one day (laughing). Miss, yuh know seh when mi was in skool mi neva believe seh mi coulda do nutten wid mi life. Mi an mi fren dem use to sidung unda di tree a skool an talk bout who did a go ketch di richest man. You wouldn't undastan – when yuh si all a di girl dem inna di community pregnant an all drop outta skool it haade fin uh believe seh das what goin to happen to you. Afta gradeation, mi tell some of mi fren dem – yuh neva play di music wid dem Miss – mi tell dem seh mi a go a skool an try do something fi mi self. Dem laugh afta mi Miss. But dat neva stop mi an now mi complete one year a H.E.A.R.T. an di lady so impress wid mi dat she recommen mi to whole heap a people fi job experience……
>
> (Translation)
> Miss, I am doing hair and nails at school now and I want to learn face. Maybe even have my own shop one day (laughing). Miss, do

> you know that when I was in school, I did not believe that I could do anything with my life. Me and my friends used to sit under the tree at school and talk about who would get the richest man. You would not understand – when you see all the girls in the community pregnant and even drop out of school, it is hard to not believe that this is going to happen to you. After graduation, I told some of my friends – you did not play the music with them Miss – I told them that I was going to school to try and do something for myself. They laughed at me, Miss. But that did not stop me from completing one year at the Human Employment and Resource Training (H.E.A.R.T.) Academy and the lady was so impressed with me that she recommended me to a lot of people for job experience……

C.C., another student who received MER Therapy also noted:

> (Verbatim Response)
> Miss, ah didn't really want to go into electrical work, yuh nuh. Ah really wanted to be a mechanic but when yuh check it out, ah have a skill an it jus mek more sense fi work di skill weh mi have dan try fine more money fi duh someting else weh me nuh even sure mi woulda really like. So me look at it…..
>
> (Translation)
> Miss, I did not really want to do electrical work, you know. I really wanted to be a mechanic but when you check it out, I have a skill and it just makes more sense to work the skill that I have rather find more money to do something else that I am not even sure I would really like. That's how I look at it…….

Observations of students who received therapy also revealed clinical changes in reality testing as compared to students who were waiting for therapy. Interactions with students who received the therapy revealed that they were making more of an effort to evaluate information from their environment more thoroughly. Most of the students in the study were prone to acting impulsively based on their assumptions about people and situations. For example, C.C., a student that the guidance counsellor described as "difficult and suspicious of every one" offered this opinion about the study:

> (Verbatim Response)
> I was like yeah dem get me out a sckool, get mi some time to breed an me talk, deh listen. But dat was afta we start talk few time. In di beginning, ah taught dat deh school tell unno seh me a gansta in di skool. I was like, wah? Afta mi mine mi own busness an keep to mi self dem people yah a label mi as trouble mekka. But den afta mi reason it out an notice seh a whole heap a diffrent type a pickney unno tek so mi seh to mi self, dem nuh single me one out – a jus help dem a try help.
>
> (Translation)
> I was happy that they got me out of school and gave me some time to breathe and I talked and they listened. But that was after we started to talk a few times. In the beginning, I thought that the school told you that I was a gangster in school. I thought, what? I mind my own business and keep to myself and people are labelling me as a trouble maker. But after I thought about it and reasoned it out, I noticed that all different types of children were going with you, so I said to myself, they did not single me out – they are just trying to help.

C.C.'s comment suggests openness to questioning previously held beliefs and a willingness to change his assumptions both of which are positive adaptive indicators.

Similarly, clinical changes were observed in the interpersonal comfort of students who received therapy as compared to those who were waiting for therapy. Students exposed to the intervention showed more signs of respect and consideration for the observers and this was reflected in behaviours like offering their own seats when chairs were limited, expressing concern for the researchers safety and health and offering assistance in locating other students when they needed to go with the researchers. Similar behaviours were not noted in students who were waiting to receive therapy although they were equally exposed to the researcher and therefore had similar levels of familiarity. They remained

suspicious of the research team and in some instances avoided contact. Many of the follow up interviewees who received therapy spontaneously discussed their initial distrust for members of the research team and how this feeling changed:

> (Verbatim Response)
> Yeah…..some of my friends told me not to trus you people because you were only interested in unno research, not us. So I was very suspicious. Is when I notice that the work you people was doin actually mek sense an was helpin that mi seh maybe unno is fah real.
>
> (Translation)
> Yeah…..some of my friends told me not to trust you people because you were only interested in your research, not us. So I was very suspicious. It was after I noticed that the work you were doing actually made sense and was helping that I said maybe you guys are for real.

This increased level of trust was evident in the students' level of responsiveness to the intervention and their interaction with the members of the research team. They became increasingly cooperative, helpful and interactive. The guidance counsellor also noted many of these behaviours and further commented:

> I am not seeing the usual students in my office. It is such a relief. Many of the students who were regular visitors seem to not get along with anyone M.C., especially – I can't recall ever seeing that child and not having to intervene in some argument he was having with another student. He has not been sent to my office in weeks and I have actually seen him talking to classmates without the usual excitement.

As seen in the other aspects of personality functioning examined, positive clinical changes were also noted in the ability of students who received MER Therapy to manage feelings of anger, sadness and fear. For example, M.J., noted:

> (Verbatim Response)
> INT: How are you M.J.? How have you been since leaving school

and participating in the study?

M.J.: I've been good Miss, I'm a different person. I know how to deal wid tings better now. I doan know if you rememba Miss but afta di incident wid the police, when dem did keep mi in lock up for one week strait an doan let ma family come talk to mi – yuh rememba Miss? Dem hol mi for someting mi neva do…afta dat ah wasn't sleeping well an ah was nervous all di time because mi couldn't believe seh dat happen to me - an me was a good bwoy. Afta dem release mi from lock up, mi jus nervous all di time.

INT: Are you still nervous all the time now?

M.J.: Das wat a tryin to show yuh miss, from we went to your office an did the work on fear, all of dat gone. Ah doan even tink bout the incident much anymore. An now I walk on di street to go to work widdout worrying like I use to.

(Translation)

INT: How are you M.J.? How have you been since leaving school and participating in the study?

M.J.: I've been good, Miss. I am a different person. I know how to deal with things better now. I don't know if you remember Miss, but after the incident with the police, when I was locked up for one week and they did not allow my family to talk to me – do you remember, Miss? They held me for something I did not do – after that incident I was not sleeping well and I was nervous all the time because I could not believe that that happened to me and I am a good boy. After they released me from the lockup, I was nervous all the time.

INT: Are you still nervous all the time now?

M.J.: That's what I am trying to explain to you Miss, after we went to your office and did the work on fear, all of that is now gone. And now I walk on the street to go to work every day without worrying like I used to.

DISCUSSION

This study examined the effectiveness of Mental and Emotional Release Therapy (MER) in changing maladaptive personality functioning as well as improving behavioural, emotional and social dysfunction in a group of at risk adolescents. The participants in this study included 87 adolescents characterized as "at risk" for negative outcomes given their exposure to mitigating factors such as poverty, community violence and illiteracy. Guidance counselors, teachers and parents also described these students as having significant challenges with impulsivity, truancy, fighting, open defiance, lying and inattention.

The investigation was guided by two broad hypotheses about the efficacy of MER therapy in providing symptom relief and improving aspects of personality functioning. Specifically, the study sought to establish whether there were any relative changes in symptoms after students received MER (within group comparisons). Additionally, it examined whether students who received MER had significantly less aggressive, rule breaking, social, thought and depressive symptoms as compared to students waiting to receive MER (between group comparisons). Regarding personality functioning, it was hypothesized that students who received MER would have improvements in their personality functioning in terms of their ability to interact comfortably with others, their perception of themselves, emotion regulation, and their thought processes.

MER and Symptom Relief

As predicted, students who received MER were perceived to have less behavioural, social and emotional dysfunction after receiving therapy as compared to their symptoms at baseline. Despite the general perception of relative reduction in symptoms, parent, teacher and student reports reflected differences across the problem syndromes examined. Specifically, parents reported significant reductions in their children's anxious and withdrawn depressed symptoms and aggressive behaviours from baseline to intervention. Teachers also reported significant reductions in students' anxious depressed symptoms, rule breaking behavior as well as their social and thought problems from baseline to intervention. In contrast, students did not perceive any significant changes in their behavioural, social and emotional functioning. Students who were waiting to receive therapy, on the other hand, were not perceived as having any relative improvements in their behavioural, social and emotional dysfunction from baseline one to baseline two by parents, teachers and even the students themselves.

Interviews with parents, teachers and students as well as observations of students generally supported the statistical findings regarding the students' baseline functioning. Initially, direct observations of all the students in class, during assemblies and break periods revealed serious behavioural, emotional and social problems. Specifically, students consistently came late for class, doodled in their books during class, left their seats without permission, walked out of class, slept during class and engaged in verbal and physical fights in front of the teacher.

They were also observed gambling during class time behind buildings and loitering at bars during and after school hours. Despite comparable degrees of behavioural, emotional and social dysfunction at baseline, only the students who received MER showed observable improvements in their ability to conform to rules, socialize without aggression and participate in class.

The aforementioned findings are consistent with previous studies using MER and other time empowerment techniques to relieve a range of distressing symptoms including anxiety and anger (Bigley, et al, 2010; Konefal et al, 1992), depression (Scott, 2011) and social insecurity (Genser-Medlitsch & Schutz, 1997). However, one novel aspect of the findings of the current study is that the relative improvements noted across the behavioural and emotional syndromes examined occurred with the use of MER only, unlike the studies reviewed which combined different time empowerment and NLP techniques. This finding is significant because it suggests that even greater gains or improvements may have been achieved if other time empowerment strategies had been used.

While there was some discrepancy noted across the informants when reporting on improvements in the behaviour of students who received MER, it is likely that these differences reflect different standards regarding the students' behaviours. Consequently, differences in reporting are to some degree expected (Achenbach, McConaughy, & Howell, 1987). Specifically, children's behaviour differ from one context to another and therefore it is not surprising that parents and teachers may have different perceptions of the same student because they interact with them in different environments. Studies using similar self report

forms have documented comparable variations depending on the reporter; that is, parent, self or teacher (Achenbach et al, 1987; Lambert et al, 1998). As found in the current study, parents and self reports reflected a greater emphasis on emotional and behavioural problems while teachers generally focused on issues related to behavioural acting out and rule breaking (Achenbach et al, 1987; Verhulst, Achenbach, van der Ende et al, 2003).

Furthermore, a possible explanation for the students' generally rating themselves as functioning within the normal range across the behavioural, social and emotional problems scales examined despite contradictory reports from parents and teachers may relate to the highly aggressive/violent social context in which these adolescents live and the functional purpose of their anger/aggression. Given the realities of their environment, it is likely that their emotions and behavioural expressions are in fact solutions to problems and reactions to perceived physical and social threat (Gross, 1998; Keltner & Gross,1999). Moreover, it is also possible that students may have understated the effect of therapy in order to appear tough in an environment that preys on those who appear weak (Shields & Cicchetti, 1998). This hypothesis was supported by the explanations that students gave interviewers for engaging in aggressive and rule breaking behaviours. For example, many of them explained that their behaviour was a way to protect themselves against others who they perceived as potential threats. As such, their behaviour served an adaptive function (Keltner & Gross, 1999).

The overall effectiveness of MER at reducing problematic behaviours was further evidenced when students who received therapy were compared with those waiting for therapy. Specifically, differences were noted in the aggressive and rule breaking behavior, anxious and withdrawn depressed symptoms as well as their thought problems between students who received MER and those who were waiting to receive therapy. Further, differences were noted in the levels of improvement across syndromes depending on whether parents, teachers or students were the informant. Specifically, parents of students who received MER Therapy noted significant reductions in their children's aggressive and rule breaking behavior as well as their anxious/depressed and withdrawn/depressed symptoms as compared to parents whose children were waiting for therapy. Similarly, students also noted improvements in their aggressive and rule breaking behaviour, thought problems as well as their anxious/depressed and withdrawn depressed symptoms as compared to students who had not yet received therapy. On the other hand, according to teachers, there was no improvement in the behavioural, social and emotional functioning of students who received therapy as compared to those who were waiting.

Although no published studies examining the effectiveness of MER at reducing disruptive behaviour in a school setting were found, studies have demonstrated its efficacy with reducing the symptoms of emotional problems such as anxiety and depression (Scott, 2011; James, 2008). Furthermore, the finding that students who received MER Therapy showed reductions in their rule breaking and aggressive behaviour is not surprising as previous research has

consistently shown that adolescents who receive psychotherapy, particularly behaviour therapy, are better off when compared to those who do not (Lambert & Ogles, 2004; Wampold, 2001; Carr, 2009). However, given the complexity of the issues that at risk adolescents face - family dysfunction, peer pressure, poverty and exposure to community violence, intervention approaches like MER which target multiple areas of emotional dysfunction are likely to be more effective than interventions that focus on only one aspect of dysfunction (Roberts et al, 2003). Further, given that anger, whether in the form of overt acts of violence or passive aggression, influences conformity to rules, it seems reasonable that an intervention focused on releasing pent up anger would yield positive effects on behaviours correlated to anger (Weiner & Exner, 2008; Shields & Cicchetti, 1998). Additionally, effective decision making, sound judgement and the ability to feel comfortable in interpersonal interactions are also personality characteristics that are negatively affected by suppressed rage (Johnson & Greene, 1991; Weiner & Exner, 2008). This association was supported by students' verbal reports of improvements in their thought processes subsequent to releasing anger, sadness and fear through the MER process. While they did not report similar improvements in social problems when compared to students who did not receive MER, this finding may reflect socialization to accept aggression as a natural part of interpersonal interactions (Chevannes, 2001).

While teacher reports may seem to contradict the overall positive findings, it is possible that teachers did not report any changes in the behavior of any student because they had to evaluate so many. Additionally, the dynamic created

by disruptive students tend to colour perceptions and so all students are judged accordingly (Lilienfeld, et al, 2009). Further, parents and students are examining the behavior of one person and would have more personal, specific knowledge of changes in those areas of interest (Lambert et al, 1998). Additionally, behavioural observations and interviews with parent, students and even teachers concurred with reports of parents and students. For example, teachers in one-to-one interactions with researchers spontaneously acknowledged improvements in some students' behaviours and also praised some students for engaging in more appropriate behaviors in the classroom. The students who received this praise and acknowledgement were always those who had MER therapy.

It is also understandable that teachers may find it is difficult to recognize overt signs of depression (withdrawn or anxious) because of defenses that the student may institute (Erskine, 1993). This challenge is further exacerbated if a teacher has many students with whom he or she interacts. In such a circumstance, awareness of subtle shifts in mood of a specific student would be difficult. In discussions with the researchers, teachers often acknowledged that they did not know the students well enough to "say if they are sad." For them, issues related to indiscipline were more pressing and obvious. As such, they are less likely to notice and interpret behaviours suggestive of depression.

MER and Personality Functioning

Overall, the statistical data provided only limited support for MER Therapy's effectiveness in changing certain aspects of personality functioning. Five aspects of personality functioning were examined in the study: ideation;

interpersonal comfort; self perception; cognitive mediation and affect. The only area of personality functioning where there was any relative change in functioning was in the area of emotion regulation and it was only for students who received MER. However, between group comparisons of the personality functioning of students who received MER and those waiting to receive therapy showed no significant differences across all areas assessed.

While these finding may seem to cast doubt on the effectiveness of MER to alter personality functioning, the fact that the student who received the therapy displayed improvement in their ability to manage their emotions is significant. Moreover, emotions are complex and have an effect on most psychological activity including thinking and judgement, behaviour and decision making (Moses & Barlow, 2006). Thus, the ability to process information about emotional experience comfortably, particularly with respect to personal feelings, the feelings of others and emotionally charged situations are central aspects of healthy psychological functioning (Trupin, Stewart, Beach & Boesky, 2002). Additionally, whether an individual has the capacity to experience and express emotions appropriately or whether he/she is prone to experiencing his/her emotions in an overly intense manner can also lead to adjustment difficulties (Exner & Weiner, 2008). Consequently, the noted improvements in the students' ability to manage their emotions after therapy had positive implications for several aspects of their functioning.

Furthermore, the improvements noted in the emotional regulation of students who received therapy are consistent with the stated objectives of MER

Therapy (James, 2010). According to the inventors of the technique, MER Therapy is able to help individuals release negative emotions like anger, sadness and fear (James, 2009). While very few published studies are available that examine MER as a therapeutic technique, the results of this study are in line with Scott (2011) who documented significant longstanding reductions in the depressive symptoms of patients after they received MER Therapy, Other studies examining the efficacy of mental emotional release therapy also reported reductions in anxiety (Karunaratane, 2010; Kudliskis & Burden, 2010; Einspruch, 1988) and posttraumatic stress symptoms (Konefal, 1992).

While personality changes were not supported statistically, observations and interviews suggest that the students who received MER Therapy demonstrated changes in their behavioural patterns suggestive of deeper shifts at the level of personality functioning. Specifically, students who received therapy displayed less emotional lability, interacted more comfortably with their peers and the researchers, demonstrated enhanced ability to think logically and made plans for their future based on the realities of their current circumstances.

The current findings are very promising and bode well for the technique given that this is the first quasi experimental study to examine the effect of MER on personality functioning. Additionally, the psychotherapy research literature evaluating positive changes in personality as measured by the Rorschach suggests that longer term therapy is more effective than short term therapy (Weiner & Exner, 1991; Abraham et al, 1996). As such, the fact that students who received therapy showed statistically significant within group improvements in their ability

to manage their emotions after only three sessions is noteworthy. This has significant implications for the cost of treatment as well as lessening the likelihood of drop-outs, particularly for adolescents.

Further, the reported reductions in aggressive and rule breaking behaviour and increased ability to modulate emotions suggests a positive relationship between resolving emotional conflicts and behavioural acting out (Shields & Cicchetti, 1998; Shipman et al, 2004). The practical implications of the aforementioned relationship is particularly important in Jamaica as it suggests that the current practice of spending financial resources policing students through Deans of Discipline is not likely to be as effective as using the resources to train counselors to work with at risk children in emotional management.

Limitations of Study

As with all quasi-experimental studies, the present study had limitations. Among the more salient limitations was the high attrition rate that often affects studies conducted over an extended period of time. While attempts were made to control this potential threat by oversampling, recruitment was limited to students within a pre-existing government programme. Moderate drop outs rates were experienced due to extended suspensions, expulsion, and transfers. However, the rate of attrition experienced in this study fell within the typical range for school based interventions (Hansen, Tobler & Graham, 1990; Stice, Killen, Hayward & Taylor, 1998). Nonetheless, as a result of the reduced sample, the power to detect small and medium intervention effect sizes was compromised.

Another limitation relates to the fact that the primary investigators were also the therapists who delivered the intervention. This creates the potential for expectancy effects that may bias the delivery of the intervention (Kazdin, 2003). This was controlled for somewhat with the use of the standardised script for MER which ensured a standardized delivery of the intervention. Additionally, the fact that teachers were unaware of which students received MER but were still able to notice and acknowledge changes in those students may mean that expectancy effects were not that significant.

An argument could also be made for the potential for contamination effects. The students who participated in the study were all in the same grade at the same school. Those who received therapy interacted daily with those who were waiting and may have talked about the intervention and any positive effects they experienced. Therefore, it is possible that the students who had not yet received therapy may have felt disadvantaged or jealous of the attention given to the students who received therapy causing them to act out more. Consequently, their behaviour could have worsened because of their feelings of resentment rather than as a natural effect.

Significance of the Study and Practical Clinical Implications

Despite the limitations identified, the design of the study was consistent the American Psychological Association's recommendations guiding research related to intervention efficacy (reference). As a result, this study makes a significant contribution to efforts to establish MER as, at least, "probably efficacious" according to APA Division 12 requirements (Chambless et al, 1998).

According to Chambless, for a technique to be considered as probably efficacious, two studies must show treatment outcomes that are superior to a wait list control group. Additionally, this study is the only study that used an experimental design to evaluate the effectiveness of MER with adolescents.

Of even greater significance are the clinical implications of this study. Underprivileged adolescents are extremely vulnerable for recruitment into criminal gangs in Jamaica (Chevannes, 2001). Further, adolescents who are chronically exposed to stressors such as violence within the community, family adversity and high levels of conflict become easily overwhelmed by negative emotions and have insufficient resources with which to cope (Yahav & Cohen, 2008; De Anda, Baroni, Boskin, Buchwald, Morgan, Ow, et al, 2000). This in turn, creates problems with emotion regulation and makes these adolescents more vulnerable to responding aggressively to interpersonal problems (Cole & Zahn-Waxler, 1992). A technique like MER that focuses on symptom relief as well as improving emotion regulation problem is likely to have significant positive effects on these adolescents.

Because adolescents are the most difficult population to treat psychotherapeutically, given that they are often forced to go to therapy and are often openly resistant or unmotivated (Rubenstein & Zager, 1995), MER is a good option when providing therapy to this population. Specifically, the length of treatment is short and therefore reduces the likelihood of the high drop out rates typically seen with other, longer therapies. Moreover, MER provides immediate symptom relief and this has implications for the adolescents' ability to refocus

mental and emotional energy on learning. Thus, it has the potential to enhance not only their academic performance but other aspects of their functioning.

Inherent in the technique are also strategies designed to build rapport within a short space of time thus increasing the likelihood that the adolescent will feel vested in the process. Additionally, MER is a standardized therapeutic technique that can be taught fairly easily to guidance counselors and community mental health officers. The cost associated with training individuals to use this technique is also minimal in comparison to the length of training required to achieve competence with other therapeutic modalities. As a result, this technique can be transported easily into the school or community setting.

Given these advantages, greater returns may be achieved by focusing on introducing techniques such as MER as a clinical intervention with this population.

Recommendations for Future Research

Replication of this study and extension of it to other populations with a larger sample size is strongly recommended to determine if these findings generalize. Future research should also include Neuro Linguistic Programming Techniques such as changing limiting beliefs and forgiveness strategies in order to see whether this would lead to even greater improvements across a wider range of syndromes or personality characteristics. Mental and Emotional Release Therapy represents a small collection of NLP techniques so it is possible that greater intervention effects may have been achieved with the implementation of a wider array of strategies.

Additionally, future research should consider exposing teachers and parents, in addition to the students, to the intervention as several studies with adolescents suggest that interventions involving parents increase the effectiveness of work with children (Schaeffer & Borduin, 2005; Henggler, Sheidow & Lee, 2007).

Change should also be measured at shorter intervals after exposure to the intervention and follow up should be continued for a longer period.

Conclusion

The results of this study suggest that Mental and Emotional Release Therapy holds promise as a therapeutic technique with the adolescent population. Exposure to the technique resulted in symptom relief based on the reports of all informants. Students who received the intervention also experienced statistically significant improvements in their ability to manage their emotions effectively. This is a particularly important finding as emotional deregulation is associated with acts of behavioural dyscontrol such as fighting and defiance. Furthermore, the brevity of the intervention facilitates its use both in private practice as well as within a community mental health setting. At the level of the community, it has considerable potential to have a positive impact on the rate of violence and delinquency within this high risk population in Jamaica.

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APPENDIX A

March 25, 2008

Mrs. Salomie Evering
Chief Education Officer
Curriculum and Support Services Department
Canewood Media Building
37 Arnold Road, Kingston 5

Dear Mrs. Evering:

As a follow up to our meeting last Tuesday, March 18, 2008, I am sending you the proposal for the psychological intervention that we spoke about. This project will utilise Neuro-Linguistic Programming and Time Empowerment Techniques to decrease the problems of the children in the Student Empowerment Project.

Given the urgency of the situation, new innovative approaches to addressing children's problems must be identified. Conventional counselling approaches do not seem to be the answer as they require an enormous investment in time and resources and often produce inconsistent results. This new intervention strategy has shown promising results in permanently changing behaviours rapidly. Further, as the success of this technique in my clinical practice with adolescents grows, testing it empirically will support its application as a new model for intervention in schools across Jamaica.

I will be in touch with your office to follow up on our collaboration. However, if you have any questions, please call me at 946-3692 or 977-4505.

Sincerely,

Rose Johnson, Ph.D.
Clinical Psychologist

APPENDIX B

February 18, 2008

Dear Ms. ,

As per our discussion, I would like to introduce Ms. Tracey-Ann Coley who is a Ph.D. candidate in the Faculty of Medical Science at the University of the West Indies. Her degree programme is Clinical Psychology and she is interested in studying the efficacy of a therapeutic intervention in changing maladaptive functioning of students who are described as problematic or at risk for developing problem behaviours within schools. I believe that this study could be beneficial to the students and the school because the therapeutic strategy may lead to a reduction in many of the behaviours that the students are currently exhibiting including fighting, stealing, truancy and de-motivation. I am Ms. Coley's research supervisor and therefore will be overseeing the data collection and intervention process.

Given the potential benefit to the school, I am seeking your permission to speak to the Grade 9 parents and solicit their permission to have their children participate in the study. Participation in the study will involve the children completing questionnaires as well as completing approximately three hours of therapy during the school year.

I anticipate your participation and I will provide any additional information you may desire. Feel free to contact me at the Psychology Unit, 946-3692.

Your support is appreciated and I look forward to our collaboration.

Sincerely,

Rose Johnson, Ph.D.
Clinical Psychologist

APPENDIX C

THE UNIVERSITY OF THE WEST INDIES

Department of Sociology, Psychology, and Social Work
Mona, Kingston

CONSENT FORM FOR RESEARCH PROCEDURES

I understand the following procedures are needed for the research study entitled **"The Impact of Mental and Emotional Release Therapy, a Neuro-Linguistic Programming Therapy Strategy on the Behaviour and Personality Functioning of "At Risk" Adolescents."**

This research project will utilize Neurolinguistic Programming (NLP) techniques to decrease problems of "at risk" children in Jamaica. Crime and violence affects all Jamaicans and is so pervasive in the society that all our children, to varying degrees, are impacted and affected. It is therefore not surprising that we see significant problems in their functioning in the following areas: academic, emotional, and behavioural (Survey of Living Conditions, 2005). These problems are further compounded for children from lower socio-economic backgrounds. The specific challenges all Jamaican children face are seen and heard daily: underachievement; violence; delinquency; conduct disorders; oppositional defiant disorders; poverty; abuse in all its forms; learning problems, to name a few. The well being of our Nation depends on our ability to prepare well adjusted, responsible, well educated young people to step forward as the older generation passes. Given the urgency of the situation, new innovative approaches to addressing children's problems must be identified. Conventional counseling approaches do not seem to be the answer as they require an enormous investment in time and resources and often produce inconsistent results. This new intervention strategy has shown promising results in permanently changing behaviours rapidly.

Procedures to be Performed

We will collect information at two points during the course of the study using the Child Behaviour Checklist (CBCL). The CBCL, a short questionnaire, will be completed by the child, the parents and the teacher. The CBCL will be completed

APPENDIX C (cont'd)

during the guidance class at school. Parents will be given the parent forms to complete, and these will be collected by the school and the researcher. We will

also be conducting interviews and observing the students during school hours. A brief personality test called the Rorschach Inkblot Test will be administered at two points during the course of the study.

Your child will be randomly selected to be in one of two groups that will receive intervention. The treatment group will go through three sessions where the focus will be on releasing negative emotions. The waiting list (control) will continue their normal programme until the school year ends. They will receive their three sessions the following year.

Information about your child will be kept confidential at all times because his/her name will be substituted for a number and that number will used for data collection and data analysis purposes. It is unlikely that there will be any harm in having your child participate in this research. However, if you need advise, you may call Mrs. Peart, Principal, or Mrs. Stamp, Guidance Counselor, Papine High School.

You are free to stop your child from taking part in this study at anytime or you or child can inform the researcher at anytime during the process that he/she wants to stop.

By participating, you will be helping us find effective ways to empower the Nation's children to be ready to live productive lives so they can contribute to the development of Jamaica.

In signing this form, you are agreeing to have your child take part in this study. You are also stating that you have read or had the Informed Consent read to you, you understood the procedure, and any questions you had were answered.

_____ _____

Signature of Parent Signature of Principal Researcher

_____

Date

APPENDIX D

THE UNIVERSITY OF THE WEST INDIES

Department of Sociology, Psychology, and Social Work
Mona, Kingston

ASSENT TO PARTICIPATE IN RESEARCH

1. My name is

   _____

2. We are asking you to take part in a research study that will help us better understand the emotional and behavioural challenges experienced by teens.

3. If you agree to be in this study, you will be doing some of the following activities: completing questionnaires and participating in three, one hour, intervention sessions.

4. Because this is an intervention you might experience minimal distress because unaddressed emotions may emerge. Should that occur you will be provided with extra time and attention to work through any uncomfortable feelings.

5. You may change your mind about participating at any time. Remember, being a participant is up to you, and no one will be upset if you do not want to take part or change your mind, even after you start. If you change your mind after you start, just let me know.

6. You may ask any question about the activities at any time. Also, if you have a question later, you may call Dr. Rose Johnson, at the Psychology Unit at the University of the West Indies at 512-3341.

APPENDIX D (cont'd)

7. Signing your name at the bottom means that you agree or have said "yes" to being involved in the activities. You and your parents will be given a copy of this form after you have signed it.

_____
Name of Child (please print)

_____ _____
Signature of Child Date

_____ _____
Signature of Facilitator or Designee Date

APPENDIX E

Definition of Rorschach Variables Related to Indices

Affect

Abbreviation	*Definition*
FC:CF+C	Colour Form Ratio
Pure C	Pure Colour response
SumC':WSumC	Constriction Ratio
Afr	Affective ratio
S	Space responses
Blends:R	Complexity ratio
CP	colour projection

Interpersonal

Abbreviation	*Definition*
COP	Cooperation Special score
AG	Aggressive movement
Food	Food Content
Isolate/R	isolation ratio
H: (H)+Hd+(Hd)	ratio of pure human response to sum of fictional human, human detail and fictional human detail responses.

APPENDIX E (cont'd)

Definition of Rorschach Variables Related to Indices

Interpersonal (cont'd)

Abbreviation	*Definition*
(H)+(Hd): (A)+(Ad)	ratio of fictional whole and fictional human detail responses to fictional animal whole and animal detail fictional responses.
H+A:Hd+Ad	ratio of sum of whole human and whole animal responses to sum of human detail and animal detail responses.

Ideation

Abbreviation	*Definition*
a:p	Active : passive ratio
Ma:Mp	Human movement Active: passive ratio
2AB+(Art+Ay)	Intellectualisation index
M-	Distorted Human Movement
Sum6	Sum of special scores
WSum6	weighted sum of special scores
Mnone	absence of movement responses

Mediation

Abbreviation	*Definition*
P	Popular responses

APPENDIX E (cont'd)

Definition of Rorschach Variables Related to Indices

Mediation (cont'd)

Abbreviation	*Definition*
X+%	Conventional form use
F+%	Ordinary related form quality
X-%	Distorted form
S-% -	Distorted space use
Xu%	Unusual form use

Self Perception

Abbreviation	*Definition*
3r+(2)/R	Egocentricity Index
Fr+rF	Sum of reflection responses
FD	form dimension response
An+Xy	Sum of anatomy content and X-ray content
Mor	Morbid content

APPENDIX F

Demographic Profiles of the Students Interviewed

B.F.

- 17 year old male
- Only child for deceased mother; third of seven children for father
- Lives grandmother
- Grandmother sells in market
- Guidance counselor identified problems with stealing, fighting, aggression
- Two suspensions on record
- Received MER Therapy

T.F.

- 17 year old male
- Youngest of four children for both unmarried cohabitating parents.
- Both parents unemployed
- Goes between his parents and grandmother
- Guidance counselor identified problems with fighting, truancy, gang involvement
- Two suspensions on record for misconduct
- Received MER Therapy

E.J.

- 18 year old male
- Last of six children for mother; last of nine children for father.
- Lives with both married parents and three siblings
- Mother employed as seamstress
- Father unemployed
- Guidance counselor identified problems with lying, skipping class, aggression toward teachers and peers
- Received MER Therapy

O.B.

- 17 year old male
- Eldest of three children for mother; third of seven children for father
- Lives with mother and two half siblings
- Mother employed as a secretary
- Guidance counselor identified problems with fighting, aggression
- Received MER Therapy

APPENDIX F (cont'd)

Demographic Profiles of the Students Interviewed

R.B.

- 18 year old male
- Only child for deceased father; eldest of four children for mother
- Lives with mother, stepfather and half siblings
- Mother employed as a household helper
- Stepfather employed as taxi driver
- Guidance counselor described him as "very violent," moody and reclusive.
- Received MER Therapy

F.D.

- 16 year old male
- Second of five children for mother; one of over ten children for father.
- Has never met his father although they live in the same community.
- Lives with mother
- Mother employed as a office cleaner
- No financial support from father
- Guidance counselor described as cold and hostile.
- Received MER Therapy

A.M.

- 18 year old male
- One of several children for both parents
- Location of parents unknown
- Lives in an abandoned building in the community. Occasional financial support provided by church.
- Guidance counselor described him as withdrawn, suspicious and angry
- Received MER Therapy

R.S.

- 17 year old female
- First of four children for mother; only child for father
- Resides with father
- Father employed as bus driver
- Guidance counselor described her as quiet, sad and withdrawn.
- Received MER Therapy

APPENDIX F (cont'd)

Demographic Profiles of the Students

D.M.

- 19 year old student
- Last of four children for mother and father
- Lives with both parents and one older brother
- Mother employed as post office clerk; father unemployed
- Guidance counselor described him as extremely pessimistic, surly and inattentive in class
- Received MER Therapy

A.B.

- 17 year old female
- Second of five children for mother; father unknown
- Lives with mother and looks after three younger siblings.
- Mother works occasionally as a household helper
- Guidance counselor described her as withdrawn, sad and inattentive in class.
- Received MER Therapy

C.C.

- 17 year old male
- Last of three children for mother and father
- Lives with both parents
- Father is a gunman; mother unemployed
- Guidance counselor described him as suspicious, hostile, disruptive and …of school rules.
- Received MER Therapy

M.J.

- 18 year old male
- Only child for deceased mother and last child for father
- Lives on "captured land" with seven extended family members
- Father employed as grounds keeper
- Guidance counselor noted problems with anxiety and sadness.
- Received MER Therapy

Note: Age of the students provided as at time of follow up interview.