DEVELOPMENT AND APPLICATION OF THE NARRATION-EMOTION PROCESS CODING SYSTEM (NEPCS-CBT): EXPLORATORY ANALYSES OF THERAPIST AND CLIENT NARRATIVE-EMOTION MARKERS IN COGNITIVE BEHAVIOURAL THERAPY FOR GENERALIZED ANXIETY DISORDER PSYCHOTHERAPY SESSIONS

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Abstract

The narrative-informed, dialectical-constructivist model (Angus & Greenberg, 2011) suggests that narrative contextualization of emotional experiences in which affect, actions, and thoughts are organized as a told story, enables new self-reflection, emotional awareness, and meaning-making for sustained change in psychotherapy sessions. The Narrative-Emotion Process Coding System Version 2.0 (NEPCS; Angus et al., 2017) is a standardized tool that consists of 10 client markers that capture clients' mode of storytelling, emotional processing, and reflective meaning making, in therapy sessions in addition to a 'No Client marker' dominated by therapist-talk. These 10 client markers are classified into three subgroups: Problem (Same Old, Empty, Unstoried Emotion, and Superficial Storytelling), Transition (Reflective, Inchoate, Experiential, and Competing Plotlines Storytelling), and Change Markers (Unexpected Outcome, and Discovery Storytelling). The NEPCS 2.0 (Angus et al., 2017) was applied to a small Cognitive Behavioural Therapy (CBT) for Generalized Anxiety Disorder (GAD) sample (N = 6; 36 therapy sessions; drawn from Westra et al., 2016) in a pilot study (Khattra et al., 2018). Pilot study (Khattra et al., 2018) findings indicated that therapists contributed up to 45% ('No Client marker') of all coded minutes in CBT sessions. The exploration of therapist interventions in 'No Client markers' was highlighted as a future direction given therapists' extensive role in guiding session process in CBT treatment for GAD. Additionally, it was noted that nuances of client narrative-emotion processes during CBT session tasks may have been missed and coded homogenously as the 'Superficial Storytelling' marker (22.4% of coded session time; second most frequently occurring marker). The present study aimed to address these limitations and future directions, and had two primary goals: 1) The development of the NEPCS-CBT manual, based on NEPCS 2.0 (Angus et al., 2017), including the differentiation of 'No Client marker'

category into discrete therapist marker interventions, and refinement of client markers with CBT-task criteria; and 2) Application of the NEPCS-CBT manual to a larger CBT for GAD sample (*N* = 10; 60 therapy sessions; drawn from Westra et al., 2016).

Multilevel mixed-effects models demonstrated significantly higher proportions of Client (C)-Problem markers subgroup (specifically, C-Same Old Storytelling marker), and lower proportions of the C-Transition markers subgroup (specifically, C-Reflective Storytelling marker) for unchanged clients (vs. recovered clients) overall, and at the early, middle, and late stages of therapy. Recovered clients narrated significantly higher proportions of the C-Competing Plotlines Storytelling marker overall, and at the late therapy stages, and the C-Unexpected Outcome Storytelling marker at the middle and late therapy stages. Therapists of unchanged clients engaged in significantly higher proportions of the Therapist (T)-Transition marker subgroup at the late therapy stage, and specifically, higher proportions of the T-Competing Plotlines marker ('Therapist challenges client's maladaptive patterns') overall, and at the middle and late therapy stages. Findings are discussed in the context of previous NEPCS research findings, and current CBT and GAD research literature focusing on client ambivalence for change and interpersonal resistance. Clinical implications and the value of the development of the NEPCS-CBT manual are also discussed.

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Introduction

Drawing on a narrative-informed, dialectical-constructivist model, Angus & Greenberg (2011) suggest that the narrative contextualization of emotional experiences in which affect, actions, and thoughts are organized as a told story, supports enhanced client emotional regulation and self-coherence for new meaning making, actions, and self-narrative change in therapy sessions. Based on core assumptions of their original model, the Narrative Emotion Process Coding System Version 2.0 (NEPCS; Angus Narrative-emotion Marker Lab, 2015; Angus et al., 2017) was developed as a standardized, observer-rated measure to code client minute-by-minute linguistic and paralinguistic behaviours in videotaped psychotherapy sessions. The NEPCS 2.0 (Angus et al., 2017) was originally developed to identify 10 client markers that capture indicators of clients' mode of storytelling, emotional processing, and reflective meaning making, in therapy sessions.

To date, the NEPCS 2.0 has not been systematically applied to therapist responses, even though previous studies (Khattra et al., 2018) have established that CBT therapists may contribute up to 45% of all coded minutes in CBT videotaped therapy sessions. Accordingly, the primary goal of the present study was the adaptation and expansion of the NEPCS 2.0 manual (Angus et al., 2017), titled Narrative-Emotion Process Coding System - Cognitive Behavioral Therapy (NEPCS-CBT) manual, for application to both CBT therapist and client responses, in videotaped CBT for GAD sessions. In particular, for the adapted manual and coding system (NEPCS-CBT), 'No client marker' (identified when therapist-talk predominates within one-minute coded segments) was differentiated to characterize CBT therapist responses as they cohere with behavioral indicators of existing client NEPCS markers. Additionally, client NEPCS 2.0 client markers were further refined to identify when CBT clients were engaged in completing

CBT-tasks in therapy sessions. A secondary goal of the present study was the application of the NEPCS-CBT manual and video-based coding system to an expanded sample of 10 CBT for GAD clients, to investigate CBT therapist and client NEPCS markers, by therapy stage and treatment outcome at therapy termination (posttreatment) and 12-month follow-up.

In the following sections, the development of the NEPCS 2.0 (Angus Narrative-emotion Marker Lab, 2015; Angus et al., 2017) including a brief overview of NEPCS 2.0 empirical research with a focus on NEPCS 2.0 (Angus et al., 2017) application to a CBT for GAD sample (Khattra et al., 2018) will be reviewed. This will be followed by a subsection reviewing the three major limitations in the NEPCS 2.0 (Angus et al., 2017) application to a CBT for GAD sample (Khattra et al., 2018), which informed the aims and rationale for the current study including the systematic development of a revised NEPCS manual for application to CBT videotaped therapy sessions (NEPCS-CBT manual). Finally, the primary aims of the current study and exploratory research questions will be outlined in the present study section.

The Development of the Narrative-Emotion Process Coding System 2.0 (Angus Narrative-emotion Marker Lab, 2015; Angus et al., 2017)

Each NEPCS client marker is differentiated by the degree of emotion and narrative integration evidenced in clients' narrative content (i.e., what is being discussed in the one-minute time measurement unit), narrative structure (i.e., plot, specificity, coherence, organization), emotional expression (i.e., emotional experiencing and/or expression, emotional arousal), and depth of reflective engagement (i.e., superficial vs. reflective meaning making). Based on empirical research findings (Angus et al., 2017), the 10 client narrative-emotion process markers have been empirically clustered into three subgroups - Problem, Transition, and Change - that reflect increasing levels of integration and are associated with beneficial treatment outcomes.

More specifically, NEPCS Problem markers capture verbal and behavioral indicators of under-or over-regulated emotional expression, maladaptive memory reprocessing, and low self-reflectivity that evidences poor or absent integration between narrative-emotion processes. This subgroup includes Same Old Storytelling, Empty Storytelling, Unstoried Emotion Storytelling, and Superficial Storytelling.

NEPCS Transition markers capture increasing narrative-emotion integration evidenced by verbal and behavioral indicators of client self-reflective engagement and present-centered exploration of emerging emotions and thoughts, in the context of personal story sharing during therapy sessions. In particular, new perspectives on self and others begin to challenge the status quo of clients' core maladaptive beliefs evidenced as same old storytelling and support the articulation of a more coherent, emotionally differentiated, and flexible self-narrative. The Transition marker subgroup includes Competing Plotlines Storytelling, Reflective Storytelling, Inchoate Storytelling, and Experiential Storytelling.

NEPCS Change markers capture client storytelling that evidences improved narrative-emotion integration, with reports of new, adaptive emotional responses, interpersonal interactions and/or novel understanding of the self, others, and key life events. This subgroup includes Unexpected Storytelling and Discovery Storytelling. Finally, the NEPCS code of 'No Client marker' includes one-minute segments in which the therapist talks for 30 seconds or more (see Table A1 in Appendix A for NEPCS short-version and marker definitions and long-form NEPCS 2.0 manual in Appendix A; Angus et al., 2017).

NEPCS 2.0 Empirical Research

To date, the NEPCS (Angus et al., 2017) has been applied to investigate the proportions and patterns of narrative-emotion markers in Emotion-Focused Therapy (EFT), Client-Centered

Therapy (CCT), and Cognitive Therapy (CT) for Major Depression (Boritz et al., 2014; Boritz et al., 2017), EFT for Complex Trauma (EFTT; Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017), Motivational Interviewing (MI) integrated with Cognitive Behavioral Therapy (CBT; MI-CBT) for Generalized Anxiety Disorder (GAD; Angus & Macaulay, 2023), CBT for GAD (Khattra et al., 2018) and Time-limited Dynamic psychotherapy (Friedlander et al., 2019) treatment samples. NEPCS empirical research findings (Angus et al., 2017), have consistently found significantly higher proportions of NEPCS Problem marker subgroup (consisting of Same Old Storytelling, Empty Storytelling, Unstoried Emotion, and Superficial Storytelling) for unchanged clients, irrespective of client diagnostic sample - Major Depressive Disorder, GAD, Complex Trauma - or treatment approach - CCT, CT, EFT, EFTT, MI +CBT. Specifically, unchanged depressed, anxious, and complex trauma clients evinced significantly higher proportions of Superficial and Empty Storytelling, when compared to recovered clients by treatment termination. Conversely, across therapy samples, recovered clients evidenced significantly higher proportions of NEPCS Transition markers, particularly Reflective Storytelling, Inchoate Storytelling, and Competing Plotline Storytelling in early and mid-phase therapy sessions, when compared to unchanged clients. Similarly, recovered clients consistently evidenced significantly higher proportions of Change marker subgroup (consisting of Unexpected Outcome Storytelling and Discovery Storytelling) when compared to unchanged clients, especially at the middle and late stages of therapy.

Unique patterns of narrative-emotion markers that theoretically cohere with their respective treatment modalities have also been evidenced in previous studies. For example, recovered EFT clients of depression (Boritz et al., 2014) and complex trauma (Bryntwick, 2016; Carpenter et al., 2016) spent a significantly greater amount of session time in Transition marker

subgroup - Inchoate Storytelling, compared to unchanged clients. In contrast, recovered MI-CBT clients for GAD (Angus & Macaulay, 2023) spent a significantly greater amount of session time in Transition markers - Competing Plotlines and Reflective Storytelling, in comparison to their unchanged counterparts. Coherent with their respective theoretical modalities, Inchoate Storytelling captures clients accessing new emotional experiences, which is also a key marker of client change in EFT, while exploring ambivalence captured by Competing Plotlines Storytelling and identifying patterns between thoughts, feelings, and behaviours captured by Reflective Storytelling, are key components of an MI-CBT approach for GAD.

Finally, Boritz et al. (2016) and Bryntwick (2016) both reported that recovered clients evidenced significantly greater narrative-emotion flexibility - defined as a shift from one NEPCS marker to another when compared to unchanged clients. Recovered clients at therapy termination engaged in significantly higher proportions of Transition and Change marker shifts compared to unchanged clients who instead, showed a significantly greater tendency to shift to Problem markers (Superficial, Empty, and Same Old Storytelling) compared to recovered clients.

NEPCS application to a CBT for GAD sample

For the author's master's thesis study (Khattra et al., 2018), six CBT client-therapist dyads (N = 6; 3 recovered and 3 unchanged outcome status at posttreatment and 12-month follow-up; 36 therapy sessions) were selected from a randomized controlled trial comparing the effectiveness of MI-CBT and CBT treatments for GAD (Westra et al., 2016). Client outcome status was determined using reliable change index (RCI; Jacobson & Truax, 1991) analyses of pre–post change evidenced on the Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990). The primary goal of the study was to identify and compare in-session emotion and narrative integration processes of GAD clients who achieved recovery in CBT versus GAD clients who

remained unchanged at CBT therapy termination by applying the NEPCS Version 2.0 (Angus et al., 2017) in a sample of 36 CBT for GAD therapy sessions.

According to the key assumptions of the etiological models of GAD (Avoidance Model of Worry and GAD - Borkovec, 1994; Borkovec et al., 2004; Emotion Dysregulation Model of Worry – Mennin et al., 2002; Acceptance Based Model of GAD – Roemer & Orsillo, 2002, 2005), worry serves as a cognitive tool to avoid getting in touch with emotional experiences which precludes deeper emotional processing of worry-related topics, and therefore maintains worry and anxiety in the long run. For those with GAD, worry functions as a maladaptive strategy to regulate their anxiety through avoidance of mental imagery and related somatic and emotional arousal (Behar et al., 2005; Borkovec & Inz, 1990). Since worry reflects a failure to engage in productive emotional processing, successful habituation and extinction of the worry response and anxiety, and eventual recovery from GAD involves increased exposure to and processing of emotionally-laden topics (Foa et al., 2006; Foa & Kozak, 1986).

From a narrative-emotion perspective, worry may represent a lack of integration between the client's narrative content and emotion processes (e.g., emotional experiencing and/or expression, emotional arousal). Successful treatment of worry and GAD may involve the clients verbalizing their worry in a coherent manner, while integrating reflections on their internal experiences well as their expression of associated emotional experience with the narrative content. It was hypothesized in Khattra et al. (2018) that a few NEPCS markers in particular, may operationalize client in-session behaviours and processes that maintain GAD, and track movement toward recovery in effective CBT treatments, as highlighted in the Table 1 below.

Table 1

Client narrative-emotion processes in CBT for GAD therapy sessions, as operationalized by the NEPCS markers (NEPCS 2.0 version; Angus et al., 2017)

	Client narrative-emotion processes in CBT for GAD sessions	***NEPCS markers that may cohere with client processes that maintain GAD and/or are associated with recovery***
Problem markers	1. GAD clients expressing worry in an over-generalized and/or incoherent manner, with limited examination and/or reference to their internal experience in an attempt to avoid distressful internal experiences (Borkovec et al., 2004; Mennin et al., 2002)	Superficial Storytelling marker
	2. GAD clients focusing exclusively on details about external events related to worry and anxiety patterns, narrated from a detached perspective, with minimal experiential engagement (Borkovec et al., 2004; Mennin et al., 2002)	Empty Storytelling marker
	3. GAD clients expressing positive beliefs about the benefits of worry, which are linked to their interpersonal and intrapersonal identity and patterns (Behar et al., 2009; Borkovec & Roemer, 1995), and/or GAD clients expressing feeling stuck in their worry and anxiety patterns without a sense of agency and control	Same Old Storytelling marker
Transition markers	4. GAD clients engaging in present-centered exploration of their internal experience including emotions, intentions, needs, and beliefs as well as accessing specific autobiographical memories related to worry/anxiety (Borkovec, 1994; Borkovec et al., 2004; Mennin et al., 2002; Roemer & Orsillo, 2002; 2005)	Reflective Storytelling marker
	5. GAD clients expressing, exploring, and/or resolving ambivalence about relinquishing worry and anxiety patterns (Westra, 2012), or GAD clients challenging and/or protesting their worry/anxiety patterns with/without contradictory evidence	Competing Plotlines Storytelling marker
Change markers	6. GAD clients reporting concrete experiences of change in their anxiety-related thoughts, feelings, and behaviours	Unexpected Outcomes Storytelling

Findings in Khattra et al. (2018) indicated that NEPCS Transition markers as a subgroup and specifically Reflective Storytelling, occurred at significantly higher proportions for recovered vs. unchanged GAD clients over the course of therapy. This finding suggested that recovered GAD clients, in the CBT sample may possibly have heightened their opportunities for deeper processing of anxiety-related patterns by engaging in Reflective Storytelling. This finding coheres with findings in the NEPCS application of a MI-integrated CBT for GAD sample (Angus & Macaulay, 2023) and key theoretical conceptualizations identified in etiological models of GAD (Avoidance Model of Worry and GAD - Borkovec, 1994; Borkovec et al., 2004; Emotion Dysregulation Model of Worry – Mennin et al., 2002; Acceptance Based Model of GAD – Roemer & Orsillo, 2002; 2005) that deeper processing and reflection of intra- and interpersonal patterns related to worry and anxiety is necessary for the successful extinction of these patterns, and central to achieving effective treatment outcomes in GAD.

Recovered GAD clients also spent significantly more session time in Change markers and specifically, Unexpected Outcome Storytelling, indicating that compared to their unchanged counterparts, recovered clients spent a significantly higher percentage of session time, narrating reports of new and more adaptive behaviours, emotional responses, and/or thoughts. This suggested that recovered clients experienced and expressed higher reports of concrete change in their anxiety patterns in sessions. These findings also aligned with expectations in a successful CBT treatment course for GAD and its explicit focus on helping clients change their maladaptive cognitive and behavioural patterns. Similar findings of recovered GAD clients reporting significantly higher percentage of Unexpected Outcome Storytelling were demonstrated in previous NEPCS (Angus et al., 2017) application to sessions of MI integrated with CBT for GAD (Angus & Macaulay, 2023).

Interestingly, NEPCS Transition markers, particularly Reflective and Competing Plotlines Storytelling markers, were demonstrated to peak at the late stage of therapy which is contrary to previous NEPCS research findings (Angus et al., 2017; Angus & Macaulay, 2023; Boritz et al., 2014, Bryntwick, 2016; Carpenter et al., 2016). Khattra et al. (2018) proposed that a possible future direction would be to explore whether similar research findings of higher Competing Plotlines and Reflective Storytelling markers at the late therapy stage, would be replicated with a larger sample size and more statistical power. In addition, therapist contributions to this possible change pathway in CBT for GAD sessions, was also proposed as a future direction for further understanding.

Finally, and perhaps most importantly, 'No Client marker', which is identified when therapists contribute to the majority of talk in any one-minute time segment (i.e., 30 seconds or more of the one-minute clip), was coded the most frequently in the CBT-only for GAD sample (45.4% of coded session time; Khattra et al., 2018) when compared to previous NEPCS studies completed to date (38.5% in Cognitive Therapy for depression sample - Boritz et al., 2014; 25.9% in MI-CBT for GAD sample - Angus & Macaulay, 2023*;* 24.3% in a combined CCT, CT, and EFT for depression sample - Boritz et al. 2014; 13.0% - 16.2% in three studies on EFT for complex trauma sample - Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017).

Limitations in the master's thesis NEPCS 2.0 application to a CBT for GAD sample (Khattra et al., 2018) and rationale for the current study

The following section summarizes the limitations in the author's master's thesis NEPCS 2.0 application to a CBT for GAD sample (Khattra et al., 2018), as well as directions and rationale for the present study outlined in the aims below.

1. Differentiating NEPCS behavioral, linguistic, and emotion indicators evidenced in CBT Therapist 'No Client marker' segments. As mentioned in the previous section, the NEPCS 2.0 version 'No Client marker', coded when the therapist speaks for 50% or more of the one-minute time segment (i.e., 30 seconds or more), was the most frequently coded marker (45.4% of total session time) in the master's thesis NEPCS 2.0 application to the CBT for GAD sample (Khattra et al., 2018). CBT 'No Client marker' segments typically included CBT therapist reflections and interventions (e.g., working on thought records collaboratively, helping clients practice in-session muscle relaxation and imaginal exposure, planning behavioural experiments, collaboratively reflecting on client homework and in-session tasks etc.), and psychoeducation. Compared to previous NEPCS studies based on the NEPCS 2.0 application to other diagnostic samples and treatment modalities (Angus et al., 2017), Khattra et al. 2018 found that the CBT sample evidenced the highest percentage of 'No Client markers' (38.5% in Cognitive Therapy for depression sample - Boritz et al., 2014; 25.9% in MI-CBT for GAD sample - Angus & Macaulay, 2023*;* 24.3% in a combined CCT, CT, and EFT for depression sample - Boritz et al. 2014; 13.0% - 16.2% in three studies on EFT for complex trauma sample - Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017). This finding demonstrated that CBT for GAD therapists spent a markedly higher proportion of time talking in their therapy sessions, when compared to EFT and CCT treatment samples, and presumably had a more directive influence on the occurrence of NEPCS client process markers overall and their occurrence in relation to client outcome status and therapy stage.

While Khattra et al. (2018) demonstrated important findings on unique client narrative-emotion processes in a CBT for GAD sample, approximately 50% of one-minute time segments in videotaped sessions were coded as 'No Client marker'. Given the extensive role that CBT

therapists play in guiding and directing on-going session process in CBT treatment for GAD, for the current dissertation study, the 'No Client marker' category from NEPCS version 2.0 (Angus et al., 2017) presented an important opportunity to characterize and understand more fully the impact of CBT therapist interventions and responses through the lens of a narrative and emotion process marker perspective, and represented as NEPCS therapist markers in the new NEPCS-CBT manual. While no previous NEPCS studies have empirically investigated therapist interventions in the context of 'No Client markers' in CBT therapy sessions, or in other diagnostic samples/treatment modalities, hypothetical therapist interventions in response to 10 client NEPCS markers have been proposed in the Narrative-Emotion (N-EP) model (Angus, 2012; Angus et al., 2017; Macaulay & Angus, 2019; Angus & Macaulay, in press; reviewed below).

The Narrative-Emotion (N-EP) model. The N-EP model is rooted in the dialectical-constructivist theory (Greenberg & Pascual-Leone, 2001) and EFT process and outcome research (Angus 2012; Angus & Greenberg, 2011), and developed through the application of the NEPCS 2.0 (Angus Narrative-emotion Lab, 2015). It is a transtheoretical, attunement-based, process-guiding framework for therapists to facilitate "elaborative storytelling, emotion differentiation and regulation, understanding of internal states in self and other, adaptive meaning-making, and greater self-coherence" (p. 50; Macaulay & Angus, 2019) in psychotherapy sessions. In Macaulay and Angus (2019), the N-EP model was extended to propose therapist process-guiding interventions in the treatment of complex posttraumatic stress in adults. The proposed therapist interventions for the treatment of complex posttraumatic stress in adults (Macaulay & Angus, 2019), are clustered into three categories, which include therapists engaging in the following interventions: shifting clients from NEPCS Problem markers to Transition markers; moving

clients between NEPCS Transition and Change markers; and elaborating and strengthening NEPCS Change markers. For the first category (shifts clients from Problem to Transition markers), therapists were recommended to respond to the Same Old Storytelling marker by - heightening incongruent aspects and stuckness in clients' same old narratives to possibly elicit an emergent new voice (Competing Plotlines Storytelling marker). Alternatively, therapists were recommended to ask for specific details of a significant autobiographical memory that illustrates the Same Old Story, to help clients access primary emotions and action tendencies that were not available when the trauma occurred (Experiential Storytelling marker). For the other Problem markers - Superficial and Empty Storytelling markers, therapists were recommended to help clients get curious about their emergent bodily felt experiences as they tell their stories (Inchoate Storytelling marker) and ask clients to vividly recount what happened to enhance present-moment experiencing of important memories (Experiential Storytelling marker). To help clients move from the Problem marker - Unstoried Emotion, therapists were recommended to help clients reflect on their emotions' meaning (Reflective Storytelling marker) and guide them to contact and narrate their immediate bodily felt experience (Inchoate Storytelling marker).

For the second category (moving clients between Transition and Change markers), therapists were recommended to invite clients to reflect on the meaning of emotionally-charged material (Reflective Storytelling marker), when it is shared in the form of Inchoate or Experiential Storytelling markers. In addition, therapists were suggested to help clients explore and strengthen their emergent voice (Competing Plotlines Storytelling marker) by shifting attention to associated bodily felt experiences (Inchoate Storytelling marker) as well as helping clients reflect on significance of the new voice (Reflective Storytelling marker).

For the third category (elaborating and strengthening Change markers), therapists were recommended to invite clients to reflect on their agentic role in new responses/actions (Discovery Storytelling marker) when they report concrete shifts (Unexpected Outcome Storytelling marker). Additionally, therapists were recommended to help clients strengthen their new understanding of self and events (Discovery Storytelling marker) by concretizing novel understanding (Unexpected Outcome Storytelling marker).

As detailed above, the N-EP model recommends specific therapist interventions in response to the 10 NEPCS client markers to facilitate narrative-emotion integration in the treatment of complex posttraumatic stress in adults. No previous NEPCS studies have empirically explored which therapist behaviours occur in the 'No Client markers' in any diagnostic sample or treatment modality. Accordingly, as no previous NEPCS studies have empirically investigated the nature of therapist responses occurring in the context of 'No Client markers,' especially in CBT therapy samples wherein therapist responses comprise up to 50% of coded minutes in therapy sessions (Khattra et al 2018), a key aim of the present study was to address this important gap in the NEPCS research literature through the differentiation of the 'No Client marker' category into discrete NEPCS therapist markers.

The conceptualization of the NEPCS therapist markers within the context of CBT treatment for GAD, in the present study, differs from the therapist interventions recommended in the N-EP model in the following ways. Firstly, the present study aims to empirically investigate the types of therapist behaviours that actually occur in the 1-minute 'No Client markers' in CBT for GAD sessions. The language used in the criteria of the NEPCS therapist markers describes observable therapist linguistic, emotional, and behavioural interventions from a narrative-emotion lens, instead of assuming the therapist's intent as in the N-EP model. Unlike the N-EP

model which is a therapist process-guiding framework to help clients move from Problem to Transition/Change markers and move between Transition and Change markers, the NEPCS therapist markers in the current study simply attempt to qualitatively describe ongoing CBT therapist interventions from a narrative-emotion lens.

Secondly, within the N-EP model, therapist process-guiding interventions which are rooted in EFT process and outcome research, are based on the EFT therapist attuning to and being process responsive to specific client markers such as client readiness to engage in EFT tasks (e.g., EFT therapists introducing two-chair technique after noticing the emergence of an internal conflict between two parts of self within a client). The clients then take the lead on expressing counter narratives and emotional responses (Client-Competing Plotlines Storytelling marker) that challenge the premises and maladaptive core beliefs of their Same Old Stories, as an outcome of completing such a task. In the present study, CBT therapists implement key CBT tasks such as thought records and cognitive restructuring strategies, primarily according to a prescribed schedule instead of being fully process responsive to client markers and attunement to client readiness for engagement in these tasks. According to this rationale, it is the CBT therapists that often take the lead in facilitating tasks that challenge client Same Old Storytelling through therapists pointing to alternative evidence and/or suggesting alternative tools against maladaptive anxiety patterns (T-Competing Plotlines Storytelling marker).

Lastly, the N-EP model assumes a dynamic interplay between the client markers and therapist interventions (i.e., each client marker presents a unique opportunity for therapists to intervene in specific ways, to facilitate clients moving between Problem, Transition, and Change markers for optimal narrative-emotion integration). The NEPCS-CBT therapist markers in the current study were conceptualized and defined without assuming the intention of the therapist to

cause clients to respond in specific ways, as in the N-EP model. However, it is likely that there would be some bi-directional impact of the client and therapist responses on each other in coding for both NEPCS client and therapist markers in the current study (expanded in sections below).

The following section reviews previous studies that have investigated therapist contributions in NEPCS coded sessions and an adaptation of NEPCS for application to supervisor and supervisee responses in supervision sessions, and their limitations.

Empirical research on therapist/supervisor contributions to respective client/supervisee NEPCS markers/narrative-emotion processing, and adaptation of the NEPCS 2.0 manual (Angus et al., 2017). In an unpublished dissertation study (Feldman, 2021), Feldman, Levenson, Angus & Macaulay (2021) developed a modified version of the NEPCS version 2.0 (Angus et al., 2017) suitable for the psychotherapy supervision context, titled the NEPCS-Supervision (NEPCS-S), to examine the occurrence and mechanism of action for corrective emotional experiences (CEEs) in supervision sessions. In the NEPCS-Supervision (NEPCS-S), unique supervisor (NEPCS-SR) indicators and supervisee (NEPCS-SE) indicators, for the 10 NEPCS markers typically observed in the supervision context, were identified and applied to one-minute segments in eleven videotaped supervision sessions with expert supervisors using various supervision models (APA Clinical Supervision Essentials Series DVDs, 2016).

Feldman (2021) was the first study to develop and implement an adapted supervisor and supervisees version (NEPCS-S; Feldman et al., 2021) of the NEPCS 2.0 (Angus et al., 2017) to code minute-by-minute narrative-emotion process markers in psychotherapy supervision sessions. Feldman (2021) indicated that the NEPCS's (Angus et al., 2017) sensitivity to "disclosures of autobiographical memories; symbolization of bodily felt experience; expression of emotion; reflections on thoughts and behaviors; integrations of actions, emotions and personal

meaning; and articulations of changes in one's sense of self" made it a natural fit for the supervisory context. Feldman (2021) highlighted that NEPCS-Supervisor (SR) and NEPCS-Supervisee (SE) narrative-process markers, and indicators identified in supervision sessions, would capture trainees' disclosures of their clients' experiences to their supervisors as well as supervisors' reflections on trainees and their clients' interpersonal process, supervisor invitations for supervisees to reflect on and/or articulate new understanding of session process, supervisors providing direct feedback, and/or supervisors pulling for important patterns and details. Consensual agreement was conducted to ensure internal validity of NEPCS-SR and NEPCS-SE ratings, wherein coders watched the supervision sessions one-minute segment at a time and then coded the predominant NEPCS-S marker observed according to linguistic and paralinguistic indicators, assigning a code for each minute for both supervisor and supervisee. A co-developer of the NEPCS served as an auditor for consensually coded sessions. Subjective accounts of supervisee Corrective Emotional Experiences (CEE) were also collected from the 11 supervisees.

Analyses indicated that (involving shifts in supervisees' understanding of themselves as therapists, their relationship to clients, and enhanced clinical awareness of patterns and dynamics), two thirds of supervisee identified CEE's co-occurred in the context of NEPCS change markers in coded supervision sessions. Additionally, supervisor NEPCS-SR transition and change markers were found to often precede supervisee articulation of NEPCS-SE change markers in supervision sessions.

Additionally, two qualitative studies have explored how therapist responses and interventions contribute to productive client narrative-emotion processes marker shifts – specifically to NEPCS Transition and Change markers, in videotaped psychodynamic therapy sessions. Friedlander et al. (2019) investigated therapist behaviours that may facilitate clients'

movement from Transition/Change to Problem markers (i.e., unproductive shift) and movement from Problem to Transition/Change markers as well as Transition to Change markers (i.e., productive shift), in a six session, single case study of "Ann" with Hanna Levenson in Brief Dynamic Therapy for the APA master DVD series (APA's Theories of Psychotherapy Video Series; American Psychological Association, 2010). Coding was not limited to No Client Marker segments but included all client-therapy talk turns identified in the videotaped sessions. Qualitative themes in therapist's facilitating behaviours were identified using open coding and constant comparison qualitative methods. Compared to unproductive shifts, productive shifts were preceded by more therapist behaviors reflecting on the following: Attaching new meaning to nonadaptive responses (e.g., linking client's self-deprecation to their avoidant behaviour), exploring/expanding emotions (e.g., encouraging client to "give voice to her tears"), cognitions (e.g., pointing client's negative self-talk), and motivation (e.g., highlighting and challenging client's dissatisfaction with her maladaptive patterns/defenses).

Although not explicitly identified in Friedlander et al. (2019), from an NEPCS therapist perspective, these therapist behavioural interventions preceding productive client shifting appear to correspond to several narrative-process indicators of NEPCS client markers in the NEPCS 2.0 (Angus et al., 2017). For example, the therapist "attaching new meaning to nonadaptive responses" coheres with Reflective Storytelling, therapist "exploring/expanding emotions" with Reflective/Inchoate Storytelling, therapist pointing client's unhelpful cognitions with Same Old/Reflective Storytelling and highlighting and challenging client's dissatisfaction with her maladaptive patterns/defenses with Competing Plotlines Storytelling.

In an unpublished master's thesis study, Duarte (2019) examined therapist interventions in relation to productive narrative shifting from an NEPCS lens, in 20 videotaped pre-recorded

APA sessions from 12 different therapeutic modalities. One-minute time bins dominated by client talk (i.e., 30 seconds or more) were coded using the NEPCS version 2.0 (Angus et al., 2017), and therapist behaviours preceding client productive shifts were coded using the Multitheoretical List of Therapeutic Interventions items (MULTI-60; McCarthy & Barber, 2009). Similar to Friedlander et al. (2019) findings, therapist interventions that preceded client productive shifts included: Encouraging clients to discuss in-the-moment emotions (complimentary to client narrative-emotion indicators of Reflective/Inchoate Storytelling), identifying maladaptive relational patterns (Same Old Storytelling), and helping clients reflect on their interpersonal relationships (Reflective Storytelling).

In summary, Feldman (2021) highlighted the adapted NEPCS-S's (Feldman et al., 2021) flexible utility in coding for both supervisee and supervisor markers in psychotherapy supervision sessions. Duarte (2019) and Friedlander et al. (2019) examined therapist responses in combination with client NEPCS marker shifts in sessions using qualitative methods to intensively investigate relatively small clinical samples. In terms of psychotherapy sessions, no study has yet characterized therapist responses and interventions in terms of how they cohere with specific indicators that represent NEPCS client Problem, Transition and Change markers. Additionally, no study to date has examined which therapist markers are statistically present in higher proportions for recovered versus unchanged clients - and at specific stages of therapy - in a larger treatment sample.

To this end, the primary goal of the present study was the systematic development of a revised NEPCS manual for application to CBT videotaped therapy sessions (NEPCS-CBT manual). The NEPCS-CBT manual development included an elaboration and differentiation of the 'No Client marker' category from NEPCS 2.0 version (Angus et el., 2017) into discrete

therapist-intervention categories and new NEPCS therapist markers, as they cohere with behavioral, linguistic, and emotional indicators of specific client NEPCS markers. This means that therapist responses lasting 30 seconds or more in the one-minute time bins which were previously coded as 'No Client markers' in NEPCS version 2.0 application to the CBT for GAD sample (Khattra et al., 2018) could now be characterized as new NEPCS CBT therapist markers in the revised NEPCS-CBT manual.

2. Further refinement of the client NEPCS markers from NEPCS version 2.0 (Angus et al., 2017) in NEPCS-CBT manual. As the primary coder for the author's master's thesis pilot study that focused on a CBT for GAD sample (Khattra et al., 2018), it was observed that 'Superficial Storytelling' marker was coded not only for client narrative-emotion processes that fit criteria for 'Superficial Storytelling' defined in NEPCS version 2.0 (Angus et al., 2017), but also for those client processes that did not fully and exactly meet the criteria for other client markers (particularly for Reflective, Competing, Same Old, and Unexpected Outcomes Storytelling markers) as defined in NEPCS version 2.0. In the coding process for Khattra et al. (2018), there were several one-minute time bins that had hints of markers other than Superficial Storytelling and that did not fully meet criteria for other client markers mentioned here.

For example, Competing Plotlines Storytelling marker for clients, as defined in the NEPCS version 2.0 (Angus et al., 2017), includes indicators of moderate client emotional arousal. However, when CBT clients in the GAD sample displayed narrative-emotion processes similar to the Competing Plotlines Storytelling marker (e.g., client expressing opposing lines of thinking), their emotional expression and arousal was typically lower (e.g., minimal low expression of tension and incongruence at the core of these opposing lines of thinking/ideas as is

suggested by NEPCS 2.0), and expressed in the context of a structured CBT task, such as clients identifying alternative evidence for maladaptive anxiety thoughts/patterns in thought records.

In many coded time-bins, since the clients had already completed their thought records for homework, clients recollecting and/or reading their thought records while challenging their maladaptive thoughts to their therapists, tended to evidence low levels of inward self-focus, self-reflective inquiry, and low emotional arousal. In these cases, the one-minute time bin may possibly have been coded as 'Superficial Storytelling' marker, instead of the 'Competing Plotlines Storytelling' marker in Khattra et al. (2018).

Since the NEPCS manual version 2.0 (Angus Narrative-emotion Marker Lab, 2015) Angus et al., 2017) was initially developed in the context of a humanistic and narrative-informed, Emotion-Focused Therapy approach (Angus & Greenberg, 2011), the second aim of the current study was to revise the criteria of existing client NEPCS markers in the NEPCS-CBT manual, to better reflect client processes evidenced in the context of engaging in CBT for GAD session tasks. The revised NEPCS-CBT manual was developed to open up the possibility of differentiating more fully the nuances of client narrative and emotion processes during CBT session tasks that may have been missed in the pilot study (Khattra et al., 2018), and coded homogenously as the 'Superficial Storytelling' marker.

Furthermore, the differentiated representation of previously coded CBT Therapist 'No Client marker' segments, from a narrative-emotion process lens, holds the promise of also enabling a more nuanced, context-enriched coding of client NEPCS markers in CBT sessions. Accordingly, the identification of CBT therapist NEPCS markers may magnify the richness of client processes in CBT for GAD sessions that may have been missed, in the author's master's thesis pilot study (Khattra et al., 2018).

3. Development of a NEPCS-CBT manual to code an expanded sample of CBT for GAD sessions and investigate how proportions of client and therapist NEPCS markers contribute to treatment outcome. In the author's master's thesis pilot study (Khattra et al., 2018), only six CBT client-therapist dyads (N = 6; 3 recovered and 3 unchanged client outcome status at posttreatment and 12-months follow-up; total of 36 therapy sessions) were selected from a randomized controlled trial comparing the effectiveness of MI-CBT and CBT treatments for GAD (Westra et al., 2016). The primary goal of the master's thesis pilot study (Khattra et al., 2018) was to identify and compare in-session narrative and emotion integration processes of GAD clients who achieved recovery in CBT treatments versus GAD clients who remained unchanged at CBT therapy termination by applying the NEPCS Version 2.0 (Angus et al., 2017).

In terms of statistical limitations, alpha levels were not corrected for multiple comparisons due to the small sample size used in the pilot study which may have increased the possibility of Type I error (false-positive) and the detection of false statistically significant relationships (Goodman et al., 2016). At the same time, it is also possible that a small sample size may have led to an underpowered study, lacking in a sufficiently large sample size to accurately identify client narrative-emotion processes. For example, contrary to the hypotheses in the previous study, there were no findings for significant differences in proportions of Same Old and Competing Plotlines Storytelling marker between recovered and unchanged CBT for GAD clients. Based on past NEPCS empirical research (Angus et al., 2017), unchanged CBT for GAD clients were hypothesized to have significantly higher proportions of Same Old and lower proportions of Competing Plotlines Storytelling marker across all stages of treatment.

To this end, the third goal of the current study was to expand the sample size from six (36 therapy sessions) to 10 CBT client therapist dyads (N = 10; 5 recovered and 5 unchanged

outcome status at posttreatment and 12-month follow-up; a total of 60 therapy sessions) for NEPCS-CBT manual application, selected from a randomized controlled trial comparing the effectiveness of MI-CBT and CBT treatments for GAD (Westra et al., 2016). This goal included expanding the sample size to 10 CBT client therapist dyads, in addition to replicating the previous study design to elucidate the relation between both client and therapist NEPCS markers, outcome, and stage by creating and applying therapist NEPCS markers and revised client NEPCS markers, from the revised NEPCS-CBT manual to CBT for GAD sessions.

The Present Study

The primary goals of the present study were as follows:

Aim 1. Systematic development of an expanded and revised NEPCS manual (NEPCS-CBT manual) for application to both CBT therapist and client responses in CBT treatment for GAD therapy sessions. The purpose of the revised NEPCS-CBT manual was to differentiate CBT therapist responses coded as 'No Client marker', in terms of NEPCS linguistic and behavioral indicators of Problem, Transition and Change markers, and further refine client NEPCS markers, especially the Superficial Storytelling marker category, in CBT for GAD sessions.

Aim 2. Apply the revised NEPCS-CBT manual to an expanded sample of 10 CBT for GAD dyads drawn from Westra et al. (2016; $N = 10$; 5 recovered and 5 unchanged outcome status at posttreatment and 12-month follow-up; total of 60 therapy sessions) for the current study that replicates the master's thesis pilot study (Khattra et al., 2018) design, and investigates the relation between NEPCS-CBT client and therapist markers, outcome status, and therapy stage.

The aims were identified by the limitations in the master's thesis study (Khattra et al., 2018), in which approximately 50% of the session time was coded as an undifferentiated category of 'No Client marker' followed by 'Superficial Storytelling' (22.4% of coded session

time), in a small sample size of six CBT for GAD clients. A high proportion of 'No Client marker' suggested that therapists played an extensive role in these sessions, which presented an excellent opportunity in the current study to characterize therapist responses from an NEPCS perspective, and as they would cohere with client NEPCE markers. The high proportion of 'Superficial Storytelling' marker in Khattra et al. (2018; 22.4% of coded session time) also highlighted the possibility of refining the client NEPCS markers that better capture client responses within CBT-specific task in CBT for GAD sessions, within the current study. Specifically, the present study aimed to systematically develop and apply the revised NEPCS-CBT manual to an expanded sample of 10 CBT for GAD clients (60 therapy sessions), to explore the relationship between client and therapist NEPCS markers, client outcome status and therapy stage.

The NEPCS-CBT manual (Appendix B) was developed in steps as identified in the 'Methods' section. For the present study, 10 CBT client therapist dyads (N = 10; 5 recovered and 5 unchanged outcome status at posttreatment and 12-month follow-up; total of 60 therapy sessions) were selected for NEPCS-CBT manual application, from a randomized controlled trial comparing the effectiveness of MI-CBT and CBT treatments for GAD (Westra et al., 2016). Client outcome status was determined using reliable change index (RCI; Jacobson & Truax, 1991) analyses of pre–post change evidenced on the PSWQ (Meyer et al., 1990) at treatment termination and 12-month follow-up.

The primary coder applied the NEPCS-CBT manual to two early (sessions 1 and 4), two middle (sessions 6 and 8), and two late-stage (sessions 11 and 13) videotaped CBT therapy sessions for GAD using the Observer XT Software (specialized software from Noldus for time-based behavioural coding). The proportions of NEPCS client and therapist subgroup markers and

individual markers for each client session (6 sessions per client), were collated and exported to Microsoft Excel, and statistically analyzed utilizing a linear, mutilevel mixed-effects model approach in R statistical software (R Core Team, 2022).

The study design was a repeated measures design, in which four different unconditional multilevel mixed-effects models were fitted for client NEPCS marker subgroups, client NEPCS individual markers, therapist NEPCS marker subgroups, and therapist NEPCS individual markers, respectively. Each of the four models included four covariates which were the outcome status (recovered vs. unchanged), therapy stage (early vs. middle vs. late), NEPCS marker/marker subgroup (depending on the model), and a three-way interaction term between the aforementioned covariates. Within each of the four models, post-hoc analyses/contrast findings were utilized to explore the relationship between proportions of NEPCS markers and outcome status overall (research questions 1 and 4 below); proportions of NEPCS markers and outcome status at each of the therapy stages (research questions 2 and 5 below); and proportions of NEPCS markers and each therapy stage irrespective of outcome status (research questions 3 and 6 below).

The steps involved in the development and revision of NEPCS-CBT manual (Aim 1) including the inter-rater reliability process are outlined in the 'Methods' section, and full version of the NEPCS-CBT is presented in Appendix B. Exploratory research questions guiding Aim 2 of the present study (i.e., application of the NEPCS-CBT manual to an expanded N = 10 CBT for GAD treatment sample) are presented below.

Exploratory Research Questions

NEPCS-CBT Client markers

Research Question 1. Is there a significant difference in the proportions of NEPCS-CBT client subgroup markers (Problem, Transition, and Change markers) and individual markers for recovered vs. unchanged clients overall (across all stages)?

Research Question 2. Is there a significant difference in the proportions of NEPCS-CBT client subgroup markers (Problem, Transition, and Change markers) and individual markers for recovered vs. unchanged clients at each of the therapy stages – early, middle, and late?

Research Question 3. In the absence of a significant findings for research question 2, is there a significant difference in the proportions of NEPCS-CBT client subgroup markers (Problem, Transition, and Change markers) and individual markers at different therapy stages (early vs. middle vs. late) for all clients (irrespective of outcome status)?

NEPCS-CBT Therapist markers

Research Question 4. Is there a significant difference in the proportions of NEPCS-CBT therapist subgroup markers (Problem, Transition, and Change markers) and individual markers for therapists of recovered vs. unchanged clients overall (across all stages)?

Research Question 5. Is there a significant difference in the proportions of NEPCS-CBT therapist subgroup markers (Problem, Transition, and Change markers) and individual markers for therapists of recovered vs. unchanged clients at each of the therapy stages – early, middle, and late?

Research Question 6. In the absence of a significant findings for research question 5, is there a significant difference in the proportions of NEPCS-CBT therapist subgroup markers (Problem, Transition, and Change markers) and individual markers at different therapy stages (early vs. middle vs. late) for therapists of all clients (irrespective of outcome status)?

Method

Sample

A total of 60 videotaped therapy sessions (6 sessions per client; N = 10 clients) were drawn from a randomized trial comparing the effectiveness of MI integrated with CBT versus CBT for GAD (Westra et al., 2016). In Westra et al. (2016), 85 participants with a severe GAD diagnosis were randomly assigned to engage in either 15 weekly sessions of CBT or 4 weekly sessions of MI followed by 11 weekly sessions of CBT integrated with MI treatment. For the current study, 10 client-therapist dyads were drawn from 43 participants in the CBT treatment condition, based on Reliable Change Index (RCI; Jacobson & Truax, 1999) analyses of the primary outcome measure in the larger trial, the Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990) administered at posttreatment and at 12-months follow-up.

Clients

Clients for the randomized controlled trial were recruited through community advertisements in the Greater Toronto Area. Client eligibility requirements for the trial included meeting criteria for both DSM versions IV (DSM–IV; American Psychiatric Association, 1994) and 5 (DSM–5; American Psychiatric Association, 2013) for a principle diagnosis of GAD, as determined through an in-person Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders (DSM–IV) Axis I Disorders (SCID-IV; First et al., 1996) as well as scoring for severe GAD (above the cut-off of at least 68 out of a maximum score of 80 on the PSWQ; Meyer et al., 1990). Co-morbid diagnoses of depression and/or other anxiety disorders, and concurrent use of antidepressant medication, were permitted for inclusion in the trial. The 10 clients included in the current study were all self-identified females, with a mean age of 33.90 (SD = 11.54). Client demographic information is summarized in Table C1 (Appendix C; p.151).

Therapists

There were 13 therapists (12 doctoral candidates in clinical psychology and one postdoctoral psychologist; all female therapists) in the CBT treatment group (Westra et al., 2016), which they self-selected in order to control for allegiance effects. Therapists delivering CBT treatment saw between 1 and 7 clients each (median of 5 clients). Training for the CBT therapists included readings, 4 day-long workshops consisting of discussions and role-plays, and at least one practice case with intensive feedback and video review of therapy sessions, after which therapists were assessed for competency based on supervisor assessment and completion of treatment competence measures during the therapist's practice case. Demographic information for the therapists is provided in Table C2 (Appendix C).

Treatment

Clients included in the current study engaged in 15 weekly sessions of CBT treatment, which was adapted from several evidence-based protocols (Craske & Barlow, 2006; Coté & Barlow, 1992; Zinbarg et al., 2006). The CBT treatment included the following components: psychoeducation about worry and anxiety, self-monitoring, progressive muscle relaxation training, cognitive restructuring, behavioral intervention strategies, sleep strategies as needed, relapse-prevention planning starting session 14, and strategies for homework noncompliance.

Measures

Penn State Worry Questionnaire (PSWQ; Meyer et al., 1990)

The PSWQ (Meyer et al.,1990) which is widely used measure to assess trait worry, was employed as the main outcome measure in the clinical trial (Westra et al., 2016). The 16 items on the PSWQ are rated on a 5-point Likert scale, ranging from 1 ("not at all typical of me") to 5 ("very typical of me"), with higher scores indicating higher levels of worry (scores ranging from

16 to 80). The PSWQ (Meyer et al., 1990) has been found to have high internal consistency, temporal stability (Dear et al., 2011; Meyer et al., 1990) as well as good convergent and discriminant validity (Brown et al., 1992).

Narrative Emotion Process Coding System-Cognitive Behavioural Therapy (NEPCS-CBT manual)

As reviewed in the 'Introduction' section, the revised NEPCS-CBT manual was adapted from the NEPCS 2.0 manual (Angus et al., 2017; Appendix A), to better capture client narrative-emotion processes and therapist linguistic and behavioural indicators in CBT for GAD therapy sessions. The NEPCS-CBT manual contains 10 mutually exclusive client (C) markers which describe verbal and non-verbal behaviours that indicate underlying narrative-emotion processes specifically within CBT for GAD sessions. The 10 NEPCS-CBT client markers include individual client markers in Problem marker subgroup (i.e., Same Old, Superficial, Empty, and Unstoried Emotion Storytelling markers), Transition marker subgroup (i.e., Reflective, Competing Plotlines, Inchoate, and Experiential Storytelling markers), and Change marker subgroup (i.e., Unexpected Outcome and Discovery Storytelling markers). The NEPCS-CBT manual also contains six mutually exclusive therapist (T) marker categories representing linguistic and behavioural interventions demonstrated by therapists in the context of in-session CBT tasks. The six NEPCS-CBT therapist markers include individual therapist markers in the Problem marker subgroup (i.e., 'T invites focus on C's maladaptive anxiety patterns'), Transition marker subgroup (i.e., 'T invites C to reflect on (describe, explore, and/or explain) a pattern or an event', and 'T challenges C's maladaptive patterns'), Change marker subgroup ('T highlights new and adaptive C shifts' and 'T facilitates C's novel understanding of the self/identity, others, events, and behavior patterns'), and Therapist-Information (Info) Sharing marker. The full

NEPCS-CBT manual with definitions and process indicators for the 10 client and six therapist markers is outlined in Appendix B.

Development of the NEPCS-CBT manual in the current study. The revised NEPCS-CBT manual was adapted from the NEPCS 2.0 (Angus et al., 2017) in the following steps. The manual adaptation began with a discussion between the primary coder/author of the current study and her graduate supervisor, about characterizing the 'No Client marker' one-minute time-segments through process indicators for the client NEPCS markers as they are defined in the NEPCS 2.0 version (Angus et al., 2017) in terms of observable therapist linguistic, emotional, and behavioural interventions. This exploratory technique was first applied to session 11 for client A, which had been previously coded using the NEPCS 2.0 (Angus et al., 2017) in Khattra et al. (2018). This step was undertaken to compare coding for the one-minute clips in session 11 for client A which were coded in the master's study (Khattra et al., 2018) using the NEPCS 2.0 manual to the coding for the same one-minute clips from the same session/client using the revised client and therapist codes in the NEPCS-CBT manual.

Within this initial step of coding session 11 (client A), one-minute time segments were assigned either a client or therapist NEPCS code. One-minute time bins in which the client talked for 30 seconds, or more were coded as client markers and one-minute time bins in which the therapist talked for 30 seconds, or more were coded as therapist markers. If both the client and therapist talked for an equal amount of time, the most salient marker (client or therapist marker) was coded. Both the primary coder and her graduate research supervisor first individually coded this session and then, discussed the codes to reach a consensus. In this trial session, for the therapist markers, therapist behavioural, emotional, and linguistic indicators dominating the one-minute time bins, cohered with client NEPCS process indicators of Competing Plotlines and

Unexpected Outcome in addition to the therapist providing general psychoeducation, as observed by both the coders.

After coding for session 11 (client A) was finalized with therapist and client codes, the primary coder and her graduate supervisor discussed revising process indicators for client NEPCS (Angus et al., 2017) markers to capture the nuances of client processes (linguistic and paralinguistic indicators) specific to therapist-led CBT tasks in this session, that had now become clearer with the context-enriched coding of therapist one-minute segments. Session 11 (client A) was coded again with revised client process indicators in one-minute client segments, independently by the primary coder and her graduate supervisor, and then discussed to reach a consensus again. Memos from each meeting were recorded to keep emerging definitions and specific criteria for the newly created therapist NEPCS markers and revised client NEPCS markers, specific to CBT for GAD sessions.

The next step involved applying the preliminary version of the revised client and new therapist codes in the pilot version of NEPCS-CBT manual to the remaining sessions (sessions 1, 4, 6, 8, and 13) of client A, with open consensual coding and discussions between the primary coder and her graduate supervisor. As mentioned previously, memos of newer, emerging criteria and definitions for therapist NEPCS marker codes that occurred in these sessions and revisions to client NEPCS codes, were recorded after each meeting, and added to various iterations of the NEPCS-CBT manual in this process.

After coding a subsample of six sessions for client A, the revised NEPCS-CBT manual was applied to a subsample of another six sessions (sessions 1, 4, 6, 8, 11, and 13) for another client (B) that was also initially coded in the master's study with the NEPCS 2.0 version (Angus et al., 2017). This step was undertaken to further validate the revised NEPCS-CBT manual and

qualitatively compare coding using NEPCS 2.0 (Angus et al., 2017) in Khattra et al. (2018) to the coding completed using the revised NEPCS-CBT manual in the current study. Through a discussion between the primary coder and her graduate supervisor after this step, it was concluded that the revised NEPCS-CBT manual was more aptly suited for application to CBT for GAD sessions since it captured therapist directivity and its dynamic impact on client narrative-emotion process in a more nuanced way. That is, qualitatively, there was more variation in the proportions of client markers within sessions when coding was completed with NEPCS-CBT manual in contrast to the high proportions of client Superficial Storytelling markers and 'No Client marker' as observed in Khattra et al., 2018. As coding for the remaining sessions progressed, memos for any new criteria, clarifications to the definitions and process indicators, and exemplars of client and therapist codes, were recorded in the current version of the NEPCS-CBT manual developed in the current study (Appendix B).

Procedure

Sample selection

Statistically reliable and clinically significant change in clients was determined using Jacobson and Truax's (1991) criteria and analyses of the primary outcome measure in the larger trial (Westra et al., 2016), the PSWQ (Meyer et al., 1990). The RCI analyses involved the following three steps:

1. A cut-off PSWQ score was first established to determine whether a client's posttreatment and 12-month follow-up PSWQ score was closer to that of the pre-treatment GAD clinical population or that of the functional general population. The cut-off PSWQ score established in the larger trial was a score of 58, out of the possible 80.

2. A RCI criterion was established to determine if the difference between a client's pre and posttreatment/12-month follow-up PSWQ scores was significant. In the trial (Westra et al., 2016), the difference in the pre and posttreatment/12-month follow-up PSWQ scores had to be at least 9 points for the change to be considered reliable.

3. Clients who passed both the cut-off (step 1) and RCI change criteria (step 2), as well as having met criteria for recovery on the blind diagnostic interview, were classified as “recovered”. Those who passed the RCI change criteria but still had a posttreatment PSWQ score above the cut-off of 58, were considered "improved". Those clients who did not pass the RCI change criterion, the cut-off, or the criteria for recovery on the blind diagnostic interview were considered “unchanged” at posttreatment and at 12-month follow-up.

For the current study, 10 clients (five recovered and five unchanged clients at posttreatment and retaining the same outcome status at 12-month follow-up) were selected from the CBT treatment condition. Out of the 10 clients, six clients (three recovered and three unchanged clients at posttreatment and 12-month follow-up) from the author’s master’s study sample were selected for inclusion in the current study and for coding with the revised NEPCS-CBT manual. The other four clients (two recovered and two unchanged outcome status at posttreatment and 12-month follow-up) were randomly selected from the CBT treatment condition in the trial who had outcome data timepoints at posttreatment and 12-month follow-up and those who retained the same outcome status (recovered or unchanged) at posttreatment and 12-month follow-up. In addition, other factors were considered by the author to ensure that the clients in the recovered and unchanged clients outcome groups were the truest representations of their outcome status. For example, clients whose posttreatment and 12-month follow-up PSWQ scores were the lowest and closest to the minimum value of 0 on the PSWQ were chosen over

clients whose scores were closer to the PSWQ cut-off of 58 for inclusion in the 'recovered' clients' group. Similarly, clients whose posttreatment and 12-month follow-up PSWQ scores were the highest and closest to the maximum value of 80 on the PSWQ were chosen over clients whose scores were closer to the PSWQ cut-off of 58 in the 'unchanged' clients group. Due to the author's familiarity with the six cases from her master's thesis sample and the application of the above provided criteria to pick the remaining four clients for the study sample, the author was not blind to the outcome status of these clients.

For each of the 10 clients included in the current study, six videotaped therapy sessions (2 early - sessions 1 and 4; 2 middle - sessions 6 and 8; and 2 late - sessions 11 and 13) were selected for coding. A total of 60 therapy sessions (six sessions per client; $N = 10$ clients) were selected and coded using the NEPCS-CBT manual. For client I, session 3 was picked to represent session 4 (one early-stage session), since the video for session 4 was not available.

NEPCS Coders

The author of the study was the primary coder for the current study. The author's graduate supervisor coded two complete sessions in the beginning stages of NEPCS-CBT manual development as noted above, and then later took on the role of a consultant/auditor in biweekly meetings with the primary coder, to provide guidance on one-minute time segments that were unclear and/or possibly contained linguistic and emotional indicators of multiple NEPCS codes. The primary coder had about 200+ hours of experience applying the NEPCS 2.0 (Angus et al., 2017). The author's graduate research supervisor is an experienced psychotherapy process researcher with extensive coding experience.

Coding Procedure

The videotaped therapy sessions were segmented into one-minute time bins using the Noldus Observer XT software, designed for behavioural research. The coding was started as soon as the client-therapist dyad started discussing therapy-related tasks (e.g., therapist setting agenda, inquiring about homework etc.). The Observed software played the videotaped session one-minute time bin at a time. After watching each one-minute time segment, the Observer software automatically stopped playing the session, at which point the coder assigned a NEPCS code (either a therapist or client code) to that one-minute clip. One-minute clips in which the client talked for 30 seconds, or more were coded as client NEPCS-CBT markers and those clips in which the therapist talked for 30 seconds, or more were coded as therapist NEPCS-CBT markers. When there were instances in which the coder picked up on multiple NEPCS markers occurring within a single one-minute time bin, then the marker lasting for the greatest length of time (in seconds) was coded. In cases where multiple NEPCS markers occurred for approximately the same length of time, the most salient narrative-emotion process was captured through its respective NEPCS marker.

In cases when the primary coder was unclear on which code to assign a particular one-minute segment, then that one-minute time bin was marked as “consult” and left uncoded until biweekly meetings with her graduate supervisor. In these meetings, the “consult” clips were shown to the author’s graduate supervisor, who would first independently code the one-minute clips in question and then discuss it with the primary coder to reach a consensus on a particular NEPCS code. In these meetings, the graduate supervisor would also pick random segments of the sessions and discuss the NEPCS codes assigned to each of the one-minute time bins by the primary coder, to assess coding accuracy. Most times, discussions regarding the “consult”

markers led to revisions and clarifications to the criteria of client NEPCS-CBT markers and therapist NEPCS-CBT markers in the NEPCS-CBT manual. Memos for revisions to the criteria of NEPCS markers were recorded for each meeting and incorporated in the final version of the NEPCS-CBT manual.

Inter-rater Reliability

As mentioned above, the author of the current study was the primary coder and coded 3/4th of the sample (i.e., 45 sessions), with open consensual coding and in consultation with her graduate research supervisor. The remaining 1/4th of the sample (i.e., 15 sessions) was coded by the primary coder and another coder (recent clinical psychology graduate) with extensive NEPCS coding experience (200+ hours of NEPCS coding experience), to establish inter-rater reliability.

For the 15 sessions, roughly an equal number of sessions were picked from each of the two outcome groups (n = 7 sessions for recovered, and n = 8 sessions for unchanged clients). The following sessions were randomly selected from the pool of sessions that had been coded, to establish inter-rater reliability: sessions 8 and 13 (recovered client A), session 4 (recovered client B), sessions 11 and 13 (recovered client D), sessions 8 and 13 (recovered client E), sessions 6 and 4 (unchanged client F), sessions 4 and 8 (unchanged client G), sessions 4 and 13 (unchanged client H), and sessions 4 and 6 (unchanged client C). Roughly half of the sessions (n = 8 sessions) were coded and discussed for inter-rater reliability at the beginning phases of the primary coder coding the sample (Winter and Spring, 2021) and half of the sessions (n=7 sessions) were coded for inter-rater reliability at the later phases of primary coder coding the sample (June and July, 2021). Coding half of the reliability sessions at the beginning ensured that the criteria for client and therapist markers refined in the process of inter-rater reliability

discussions between the two coders at the beginning, was applied to the remaining (non-reliability) sessions for precise coding of the rest of the sample.

In the inter-rater reliability process, the two coders independently coded the sessions and compared their codes in biweekly meetings. One-minute clips that were coded as the same client or therapist NEPCS-CBT markers were classified as a 'match' whereas clips that were coded differently were classified as a 'mismatch'. One-minute clips that were classified as 'mismatch' were rewatched and discussed between the primary coder and senior coder to reach a mutual agreement on a final NEPCS-CBT marker for the one-minute clip in question. In the initial phases of inter-rater reliability coding and discussions, there were instances when either coder pointed to clarifications, questions, and/or ideas on further refining the criteria for client and therapist markers in the NEPCS-CBT manual, which was recorded in memos by the primary coder and eventually included in the criteria for respective markers in the final version NEPCS-CBT manual, in consultation with the author's graduate supervisor.

Cohen's Kappa. Cohen's kappa (κ; Cohen, 1960; Cohen et al., 2013), which a robust statistic to measure interrater reliability was used in the current study. Similar to correlation coefficients, Cohen's kappa ranges from -1 to +1, with 0 representing the amount of agreement between coders based on random chance, and 1 representing perfect agreement between raters. The Cohen's kappa statistic takes into account the actual number of times that the raters actually match on the same NEPCS marker (client or therapist) as well as the number of random matches/agreements on NEPCS markers. Therefore, Cohen's kappa represents the degree of agreement between the two raters, while also controlling for the random agreement factor.

While the following simple percentage agreement statistic between the two raters does not take into account random agreement, it was demonstrated at 0.79 in the current study. The

Cohen's kappa for the NEPCS-CBT manual applied in the current study was demonstrated at 0.75, which can be interpreted as substantial agreement based on Jacob Cohen's original descriptive categories for the kappa statistic (Cohen, 1960) or moderate agreement based on McHugh's (McHugh, 2012) stricter thresholds intended for healthcare or clinical research.

Statistical Analyses

The data was longitudinal with a multilevel structure and with nested levels of random effects – observations (minute-by-minute NEPCS coded markers), nested within therapy sessions, nested within stage of therapy, and nested within individual client-therapist dyads. To account for this multilevel nesting structure, a three-level mixed effects model was fit using the R software (R Core Team, 2022). The study design was a repeated measures design analogous to the above-mentioned nesting structure.

Prior to modelling, the general trajectories of observations (NEPCS marker proportions averaged over the three therapy stages) for each client were closely examined. This allowed for the examination of any linear trends within/between subjects. A linear trendline was observed, which could be suitably modelled by a linear mixed-effects model. In addition, sufficient variability was observed between the intercepts (mean at) and the slopes (change in scores within a subject across the three timepoints/early, middle, and late therapy stages) to fit a random-slope model.

In the study, four different unconditional multilevel mixed-effects models were fitted for client NEPCS marker subgroups, client NEPCS individual markers, therapist NEPCS marker subgroups, and therapist NEPCS individual markers, respectively. Each model consisted of two fixed parameters - the intercept and the linear slope. In addition to these fixed parameters, within each model, four covariates (therapy stage, outcome status, NEPCS marker depending on the

model, and a three-way interaction term between the aforementioned covariates) were modelled. All models were fit using restricted maximum likelihood (REML) and all p-values were derived by approximating the degrees of freedom using the Kenward-Roger approximation method. Within each of the four models, post-hoc/contrast analyses were utilized to explore the relationship between proportions of NEPCS markers and outcome status overall; proportions of NEPCS markers and outcome status at each of the therapy stages; and proportions of NEPCS markers and each therapy stage irrespective of outcome status.

Results

The present study explored the relationship of proportions of NEPCS-CBT client and therapist markers (subgroup and individual) with client outcome status (recovered vs. unchanged) and therapy stage (early vs. middle vs. late), in two early, two middle, and two late-stage therapy sessions for an expanded sample of 10 CBT for GAD clients drawn from a randomized controlled trial (Westra, et al., 2016; 5 recovered and 5 unchanged client outcome status at posttreatment and 12-month follow-up).

For initial descriptive findings, the proportions (i.e., the number of times a particular occurred in a session divided by the total session time) of NEPCS subgroup markers and individual markers within each session were first calculated in Observer XT and exported to Microsoft Excel. For example, client-Same Old Storytelling marker occurring 6 times in a session lasting 60 minutes, was calculated as 0.10 in proportion and 10% in percentage for the occurrence of client-Same Same Old Storytelling marker in that session. In Microsoft Excel, marker proportions for each marker were averaged across clients in one outcome group at a specific stage of therapy. For example, the mean proportion for client-Same Old Storytelling marker for recovered clients at the early stage was calculated by averaging the proportions of this

marker for recovered clients (clients A, B, D, E, I; Table D1; Appendix D) in early stages sessions (sessions 1 and 4). For each marker, proportions were also averaged across therapy stages to calculate a mean overall proportion per outcome group. Similarly, for each marker, proportions were average across the two outcome groups to calculate a mean overall proportion per stage of therapy for all clients, regardless of outcome status (Tables D1-D6 in Appendix D).

The following relationships were explored statistically in the current study - the relationship between proportions of markers and outcome status (recovered vs. unchanged) overall (i.e., proportions averaged across all stages of therapy); proportions of markers and outcome status (recovered vs. unchanged) at each of the three therapy stages; and proportions of markers for all clients, irrespective of outcome status at all the therapy stages. For statistical analyses, four different multilevel mixed-effects models were fitted for client marker subgroups, client individual markers, therapist marker subgroups, and therapist individual markers respectively, in which four covariates (therapy stage, outcome status, NEPCS marker depending on the model, and a three-way interaction term between the covariates) were modelled. Within each of the models, post-hoc analyses were utilized to explore the statistical relationships mentioned above. All proportions were converted to percentages (Tables D1-D6 in Appendix D), and the terms “proportion” and “percentage” were used interchangeably in the following sections.

In the following sections, findings will be presented for the NEPCS-CBT client markers followed by the therapist markers. Within the client and therapist markers sub-sections, descriptive research findings will be reviewed first after which statistically significant findings will be reviewed in detail according to proposed research questions. Only statistically significant findings ($p \leq 0.5$) and their respective figures are presented below, to address each research

question. Next, a qualitative comparison of descriptive statistics between client and therapist marker proportions will be provided, followed by a brief narrative summary of both client and therapist statistically significant findings.

NEPCS-CBT Client markers

Descriptive Research Findings

Client(C)-Problem markers. There were a total of 773 C-Problem markers coded (22.34% of all coded markers). Unchanged clients spent higher proportions of their session time in C-Problem marker subgroup over the course of therapy (averaged across all three stages; recovered: *n* = 263, 15.45%; unchanged: *n* = 510, 29.01%), and at early (recovered: *n* = 138, 23.19%; unchanged: *n* = 186, 32.75%), middle (recovered: *n* = 59, 10.46%; unchanged: *n* = 177, 30.57%), and late (recovered: *n* = 66, 12.15%; unchanged: *n* = 147, 24.06%) stages of therapy.

Client(C)-Same Old Storytelling. C-Same Old Storytelling marker was the most frequently coded marker out of all the individual NEPCS-CBT client markers and coded a total of 624 times (18.03% of all markers coded; see Figure 1 comparing the proportions of NEPCS-CBT client individual markers, in descending order of session time, across all clients and therapy stages). Unchanged clients articulated the C-Same Old Storytelling marker in higher proportions compared to unchanged clients overall (averaged across all three stages; recovered: *n* = 187, 10.99%; unchanged: *n* = 437, 24.86%), and at early (recovered: *n* = 115, 19.33%; unchanged: *n* = 157, 27.64%), middle (recovered: *n* = 37, 6.56%; unchanged: *n* = 154, 26.60%), and late stages of therapy (recovered: *n* = 35, 6.45%; unchanged: *n* = 126, 20.62%).

Client(C)-Superficial Storytelling. C-Superficial Storytelling marker was the fourth most frequently occurring client marker out of all the other individual NEPCS-CBT client markers and coded a total of 119 times (3.44 of all markers coded). Recovered and unchanged clients spent

roughly an equal amount of time narrating the C-Superficial Storytelling marker overall (averaged across all three stages; recovered: *n* = 58, 3.41%; unchanged: *n* = 61, 3.47%), and at early (recovered: *n* = 17, 2.86%; unchanged: *n* =23, 4.05%), middle (recovered: *n* = 19, 3.37%; unchanged: *n* = 18, 3.11%), and late (recovered: *n* = 22, 4.05%; unchanged: *n* = 20, 3.27%) stages of therapy.

Client(C)-Empty Storytelling. Frequencies of C-Empty Storytelling marker were low overall (*n* =29, 0.84% of all markers coded), with little variation in its occurrence in sessions between recovered and unchanged clients overall (averaged across all three stages; recovered: *n* = 18, 1.06%; unchanged: *n* = 11, 0.63%), and at early (recovered: *n* = 6, 1.01%; unchanged: *n* = 6, 1.06%), middle (recovered: *n* = 3, 0.53%; unchanged: *n* = 4, 0.69%), and late (recovered: *n* = 9, 1.66%; unchanged: *n* = 1, 0.16%) stages of therapy.

Client(C)-Unstoried Storytelling. C-Unstoried Storytelling marker was only coded once across all therapy sessions (*n* =1, 0.03% of all markers coded) for the unchanged clients' group (middle therapy stage; *n* = 1, 0.17%).

Client(C)-Transition markers. There were a total of 704 C-Transition markers coded (20.35% of all coded markers) across all therapy sessions. Recovered clients spent roughly double the amount of session time in C-Transition markers overall (averaged across all therapy stages; recovered: *n* = 504, 29.61%; unchanged: *n* = 200, 11.38%). Recovered clients also evinced higher proportions of C-Transition markers at the early (recovered: *n* =122, 20.50%; unchanged: *n* = 29, 5.11%), middle (recovered: *n* = 172, 30.50%; unchanged: *n* = 68, 11.74%), and late (recovered: *n* = 210, 38.67%; unchanged: *n* = 103, 16.8 6%) therapy stages.

Client(C)-Reflective Storytelling marker. Client(C)-Reflective Storytelling marker was the second-most frequently occurring client marker out of all the other individual NEPCS-CBT

client markers, with a total of 438 C-Reflective Storytelling markers recorded overall (12.66% of all markers coded). Overall (averaged across all therapy stages), the Reflective Storytelling marker occurred roughly three times more frequently among recovered clients (*n* =327, 19.21% of all markers coded) compared to unchanged clients (*n* = 111, 6.31% of all markers coded). This pattern was consistently observed at the early (recovered: *n* = 76, 12.77%; unchanged: *n* = 16, 2.82%), middle (recovered: *n* = 116, 20.57%; unchanged: *n* = 36, 6.22%), and late (recovered: *n* = 135, 24.86%; unchanged: *n* = 59, 9.66%) stages of therapy.

Client(C)-Competing Plotlines Storytelling marker. C-Competing Plotlines marker was the third-most frequently occurring client marker out of all the other individual NEPCS-CBT client markers (*n* = 241, 6.97% of all markers coded). Recovered clients articulated higher proportions of C-Competing Plotlines marker overall (averaged across all therapy stages; recovered: *n* =163, 9.58%; unchanged: *n* =78, 4.44%), and at early (recovered: *n* = 43, 7.23%; unchanged: *n* = 13, 2.29%), middle (recovered: *n* = 55, 9.75; unchanged: *n* = 32, 5.53%), and late (recovered: *n* = 65, 11.97%; unchanged: *n* = 33, 5.40%) stages of therapy.

Client(C)-Experiential Storytelling marker. Frequencies of C-Experiential Storytelling marker were quite low overall (*n* =25, 0.72% of all markers coded), with recovered and unchanged clients engaging in approximately equal frequencies of C-Experiential Storytelling marker overall (recovered: *n* = 14, 0.82%; unchanged: *n* = 11, 0.63%), and at early(recovered: *n* = 3, 0.50%; unchanged: *n* = 0, 0.00%), middle (recovered: *n* = 1, 0.18%; unchanged: *n* = 0, 0.00%) , and late (recovered: *n* = 10, 1.84%; unchanged: *n* = 11, 1.80%) therapy stages.

Client(C)-Inchoate Storytelling marker. There were no instances of C-Inchoate Storytelling marker occurring in any of the coded therapy sessions.

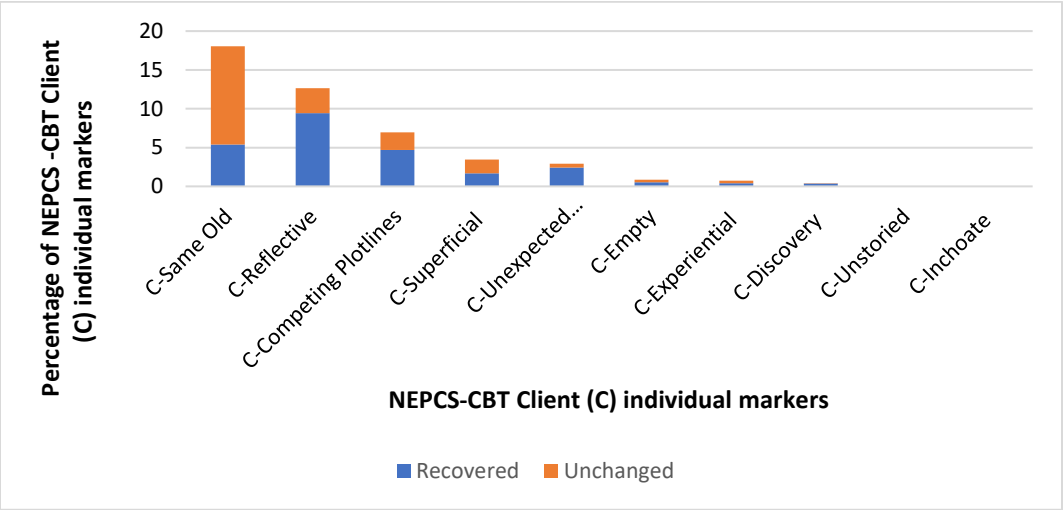
Client(C)-Change markers. There were a total of 114 C-Change markers coded (3.29% of all coded markers) across all therapy sessions. Recovered clients spent roughly five times the amount of session time in C-Change markers overall (averaged across all therapy stages; recovered: *n* = 96, 5.64%; unchanged: *n* = 18, 1.02%). Recovered clients evinced higher proportions of C-Change markers consistently at the early (recovered: *n* =7, 1.18%; unchanged: *n* = 2, 0.35%), middle (recovered: *n* =40, 7.09%; unchanged: *n* = 4, 0.69%), and late (recovered: *n* =49, 9.02%; unchanged: *n* = 12, 1.96%) stages of therapy.

Client(C)-Unexpected Outcome Storytelling marker. C-Unexpected Outcome Storytelling marker was the fifth-most frequently occurring client marker (*n* = 101, 2.92 of all markers coded), out of all the other individual NEPCS-CBT client markers. C-Unexpected Outcome Storytelling marker occurred roughly five times as frequently among recovered clients (*n* = 84, 4.94%) compared to unchanged clients (*n* = 17, 0.97%) over the course of therapy (averaged across all three stages). The pattern of C-Unexpected Outcome Storytelling marker occurring more frequently in recovered clients' group compared to unchanged clients' group, consistently occurred at the early (recovered: *n* = 5, 0.84%; unchanged: *n* = 1, 0.18%), middle (recovered: *n* = 37, 6.56%; unchanged: *n* = 4, 0.69%), and late (recovered: *n* = 42, 7.73%; unchanged: *n* = 12, 1.96%) stages of therapy.

Client(C)-Discovery Storytelling marker. Frequencies of C-Discovery Storytelling marker were quite low overall (*n* =13, 0.38% of all markers coded), with recovered clients articulating slightly higher frequencies of Discovery Storytelling marker overall (recovered: *n* = 12, 0.71%; unchanged: *n* = 1, 0.06%), and at early (recovered: *n* = 2, 0.34%; unchanged: *n* = 0, 0.18%), middle (recovered: *n* = 3, 0.53%; unchanged: *n* = 0, 0.00%), and late (recovered: *n* = 7, 1.29%; unchanged: *n* = 1, 0.06%) stages of therapy.

Figure 1

Percentage of NEPCS-CBT client (C) individual markers in descending order of session time overall



Statistical Analyses - NEPCS-CBT Client markers

Only statistically significant findings ($p \leq 0.5$) and their respective figures are presented below, to address each research question.

Research Question 1. Relationship between outcome status and proportions of NEPCS-CBT client markers, overall (across all therapy stages).

Client(C)-Problem Markers. For C-Problem marker subgroup as a whole (i.e., combining averaged proportions of C-Same Old, C-Empty, C-Unstoried, and C-Superficial Storytelling markers), there was evidence for unchanged clients evincing significantly higher proportions of C-Problem markers compared to recovered clients overall (across all stages of therapy), $t(26.7) = -5.43$, $p < .0001$ (mean difference = 13.56%).

Within the C-Problem marker subgroup, there was evidence for unchanged clients narrating significantly higher proportions of C-Same Old Storytelling marker overall (across all stages of therapy), $t(158) = -10.25$, $p < .0001$ (mean difference = 13.87%). There was no

evidence for a significant difference in the proportions of other individual C-Problem markers - C-Empty, C-Unstoried, and C-Superficial Storytelling markers, between recovered vs. unchanged clients overall.

Client(C)-Transition Markers. There was evidence for recovered clients articulating significantly higher proportions of C-Transition markers subgroup as whole (i.e., combining averaged proportions of C-Reflective, C-Competing Plotlines, C-Experiential, and C-Inchoate Storytelling markers) compared to unchanged clients overall (across all stages of therapy), $t(26.7) = 7.36$, $p < .0001$ (mean difference = 18.23%).

Within the C-Transition marker subgroup, there was evidence for recovered clients spending significantly higher proportions of session time in C-Reflective Storytelling marker compared to unchanged clients overall (across all stages of therapy), $t(158) = 9.51$, $p < .0001$ (mean difference = 12.90%). Similarly, there was evidence recovered clients evincing significantly higher proportions of C-Competing Plotlines Storytelling marker compared to unchanged clients overall (across all stages of therapy), $t(158) = 3.78$, $p = .0002$ (mean difference = 5.14%). There were no significant findings evidenced for differences in proportions of the other C-Transition markers - C-Experiential and C-Inchoate Storytelling markers, between recovered vs. unchanged clients overall (across all therapy stages).

Client(C)-Change Markers. There was no significant difference evidenced for proportions of C-Change marker subgroup as a whole, between recovered vs. unchanged clients overall (across all therapy stages). Within the C-Change markers subgroup, there was however, evidence for recovered clients evincing significantly higher proportions of C-Unexpected Outcome Storytelling marker compared to unchanged clients overall (across all stages of therapy, $t(158) =$

2.86, p = .005 (mean difference = 3.97%). There was no significant main outcome effect evidenced for C-Discovery Storytelling marker.

Research Question 2. Relationship between proportions of NEPCS-CBT client markers for recovered vs unchanged clients at each of the three therapy stages.

Client(C)-Problem Markers. There was evidence for unchanged clients narrating significantly higher proportions of C-Problem markers compared to recovered clients at the early, $t(97.8) = -2.50$, p = .014 (mean difference = 9.56%), middle, $t(97.8) = -5.18$, $p < 0.0001$ (mean difference = 20.11%), and late, $t(97.8) = -2.86$, p = .005 (mean difference = 11.91%) stages of therapy (See Figure 2 below*).*

Within the C-Problem marker subgroup, there evidence for unchanged clients spending significantly higher percentage of session time in of C-Same Old Storytelling marker compared to recovered clients at the early, $t(409) = -3.69$, p = .0003 (mean difference = 8.31%), middle, $t(409) = -8.74$, $p < 0.0001$ (mean difference = 20.04%), and late, $t(409) = -5.95$, $p < 0.0001$ (mean difference = 14.17%) stage stages of therapy (see Figure 3 below*)*. There was no evidence for significant differences in the proportions of other C-Problem markers (i.e., C-Empty, C-Unstoried, and C-Superficial Storytelling markers) between recovered vs. unchanged clients at any of the three therapy stages.

Figure 2

Proportions of Client (C)-Problem marker subgroup over stage of therapy

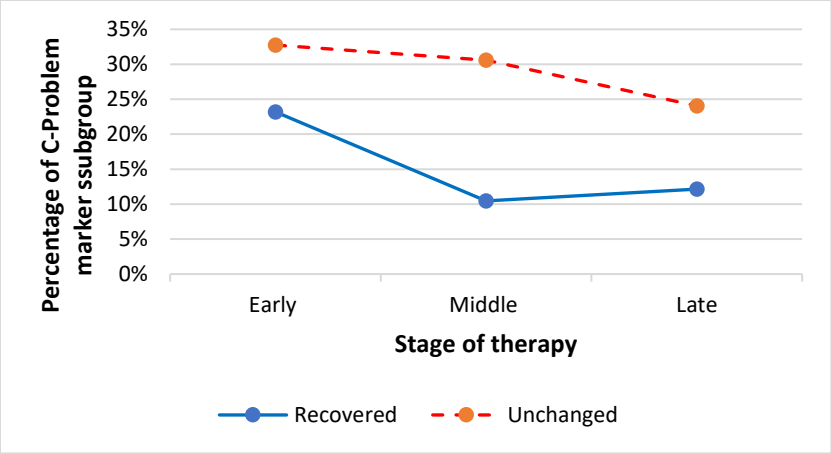
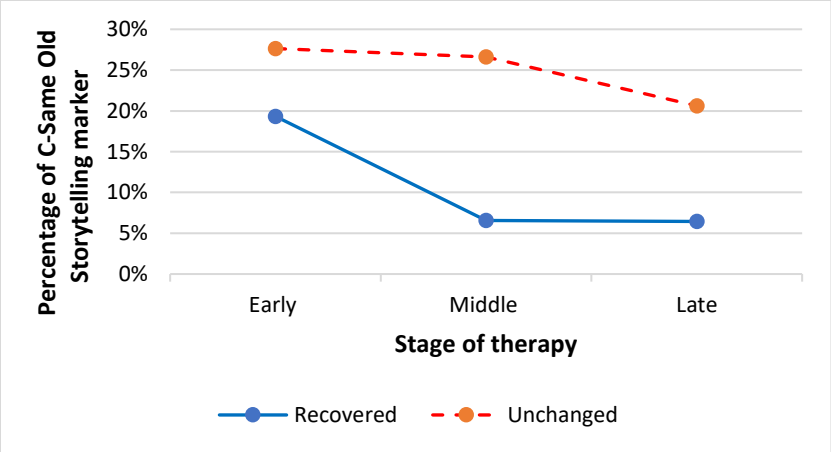


Figure 3

Proportions of Client (C)-Same Old Storytelling marker over stage of therapy



Client(C)-Transition Markers. There was evidence for recovered clients evincing significantly higher proportions of C-Transition marker subgroup as a whole, compared to unchanged clients at the early, $t(97.8) = 3.91$, $p = .0002$ (mean difference = 15.39%), middle, $t(97.8) = 4.88$, $p < 0.0001$ (mean difference = 18.76%), and late, $t(97.8) = 5.50$, $p < 0.0001$ (mean difference = 21.81%) stages of therapy (See Figure 4 below).

Within the C-Transition marker subgroup, there was evidence for recovered clients articulating significantly higher proportions of C-Reflective Storytelling marker compared to unchanged marker at the early, $t(409) = 4.48$, $p < 0.0001$ (mean difference = 9.95%), middle,

t(409) = 6.38, *p* < 0.0001 (mean difference = 14.35%), and late, *t*(409) = 6.20, *p* < 0.0001 (mean difference = 15.20%) stages of therapy (See Figure 5 below*)*.

There was also evidence for recovered clients narrating significantly higher proportions of C-Competing Plotlines Storytelling marker compared to unchanged clients, only at the late stage of therapy, *t*(409) = 3.03, *p* = .003 (mean difference = 6.57%; see Figure 6 below). There was no evidence for significant differences in the proportions of C-Competing Plotlines Storytelling marker between recovered and unchanged clients at the early and middle stages of therapy.

Figure 4

Proportions of Client (C)-Transition marker subgroup over stage of therapy

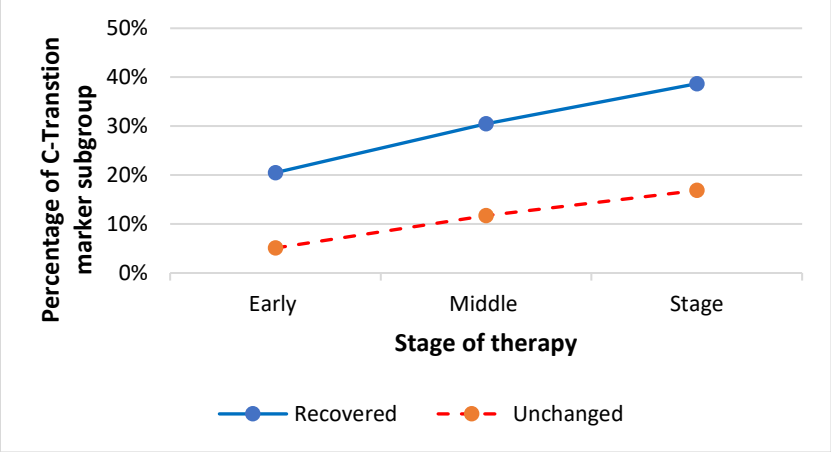


Figure 5

Proportions of Client (C)-Reflective Storytelling marker over stage of therapy

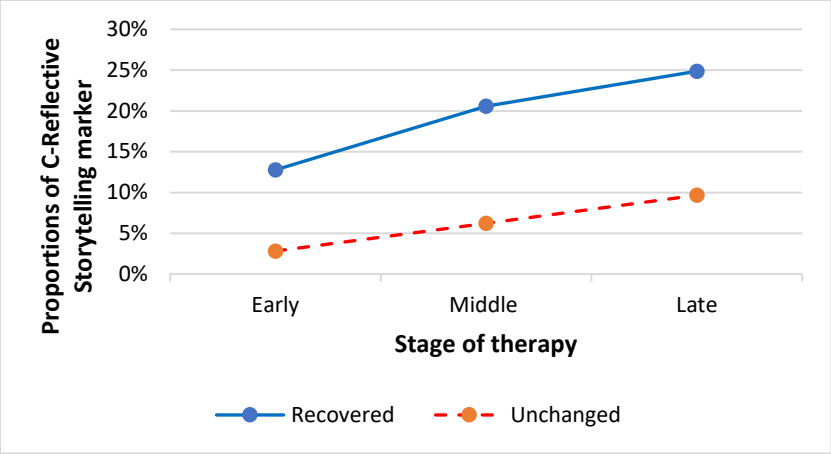
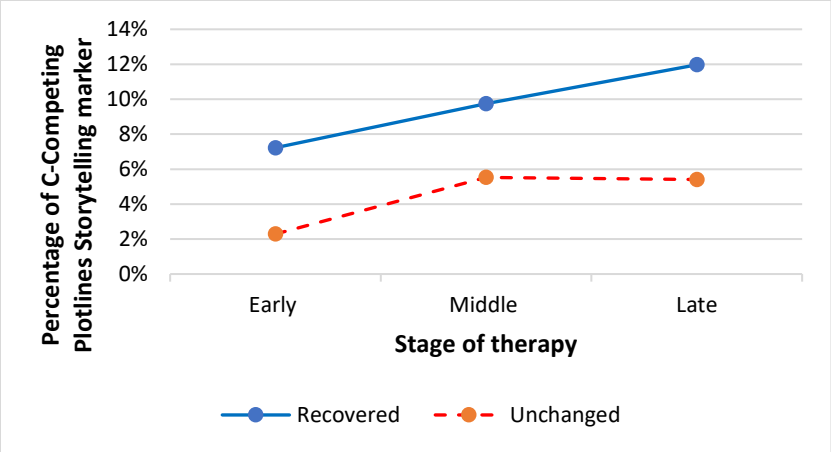


Figure 6

Proportions of Client (C)-Competing Plotlines Storytelling marker over stage of therapy

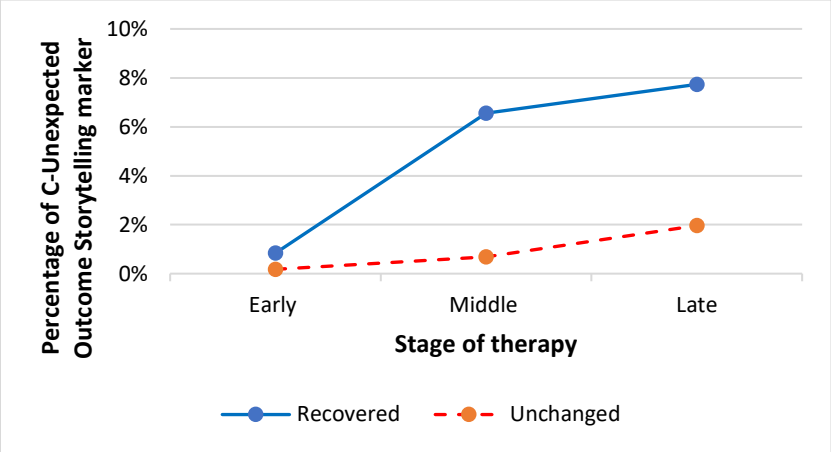


Client(C)-Change Markers. There was no evidence for a significant difference in the proportions of C-Change markers subgroup as a whole, between recovered and unchanged clients at the early, middle, and late stages of therapy.

Within the C-Change markers subgroup, there was evidence for recovered clients demonstrating significantly higher proportions of C-Unexpected Outcome Storytelling marker at the middle, $t(409) = 2.48$, $p = .014$ (mean difference = 5.87%), and late, $t(409) = 2.36$, $p = .019$ (mean difference = 5.77%; see Figure 7 below) stages of therapy.

Figure 7

Proportions of Client (C)-Unexpected Outcome Storytelling marker over stage of therapy



Research Question 3. Relationship between proportions of NEPCS-CBT client markers at each of the therapy stages for all clients, irrespective of outcome status.

Client(C)-Problem, Transition, and Change Markers. There were no significant findings for any of the marker subgroups and their individual markers for this research question.

NEPCS-CBT Therapist markers

Descriptive research findings

A total of 3460 minutes were coded with NECPS-CBT client and therapist markers in 60 therapy sessions (n = 6 therapy sessions per client) in the current study. Out of the 3460 NEPCS-CBT markers, there were 1163 markers (33.61%) in the early, 1143 markers (33.03%) in the middle, and 1154 (33.35%) markers in the late stages of therapy. These included 1702 markers (49.19%) coded for the recovered group's sessions and 1758 (50.81%) markers coded for the unchanged group's sessions. Descriptive statistics included raw frequencies, mean proportions, and mean percentages of NEPCS-CBT client and therapist markers (subgroup and individual), by outcome group and therapy stage, are presented in Tables D1-D6 (Appendix D). It should be noted that descriptive comparisons and patterns for markers presented in the descriptive research findings section below do not indicate statistically significant findings.

There were a total of 1849 therapist NEPCS (T-NEPCS) markers coded across all therapy sessions (53.44% of all coded NEPCS markers), out of the total 3460 NEPCS-CBT markers in the current study. For the purpose of clarity and ease of reading in the results/discussion section, the titles of the therapist markers were used interchangeably with their corresponding client markers (as shown in Table 2 below). For example, 'T invites focus on C's maladaptive anxiety patterns' was used interchangeably with 'T-Same Old Storytelling marker'. Please note that using the two titles interchangeably does not suggest that in the coded one-minute time segment, the therapist was intervening for the purpose of evoking a Same Old Storytelling marker from the client. The interchangeable use of these two titles simply suggests that the therapist's observable linguistic, emotional, and behavioural intervention in the 'T invites focus on C's maladaptive anxiety patterns' therapist marker closely matched the criteria and process indicators of client-Same Old Storytelling marker (see NEPCS-CBT manual in Appendix B for marker criteria and process indicators).

Table 2

Short-form NEPCS-CBT manual outlining client markers and corresponding therapist markers

Marker subgroup	**Client (C) markers**	**Therapist (T) markers/interventions corresponding to their respective client NEPCS marker**
Problem markers	1. Same Old Storytelling	2. T invites focus on C's maladaptive anxiety patterns (T- Same Old Storytelling)
	3. Empty Storytelling	*No corresponding CBT therapist marker*
	4. Superficial Storytelling	*No corresponding CBT therapist marker*
	5. Unstoried Emotion	*No corresponding CBT therapist marker*
Transition markers	6. Reflective Storytelling	7. T invites C to reflect on (describe, explore, and/or explain) a pattern or an event (T-Reflective)
	8. Competing Plotlines Storytelling	9. T challenges C's maladaptive patterns (T-Competing Plotlines Storytelling)
	10. Experiential Emotion	*No corresponding CBT therapist marker*
	11. Inchoate Storytelling	*No corresponding CBT therapist marker*

Change markers	12. Unexpected Outcome Storytelling	13. T highlights new and adaptive C shifts (T-Unexpected Outcome Storytelling)
	14. Discovery Storytelling	15. T facilitates C's novel understanding of the self/identity, others, events, and behavior patterns (T-Discovery Storytelling)
		16. T-Information (Info) sharing Marker

Therapist (T)-Problem markers. The T-Problem markers subgroup only included the Therapist (T)-Same Old Storytelling marker. There were a total of 167 T-Same Old Storytelling markers coded (4.83% of all coded markers) for all clients. Therapists of unchanged clients articulated slightly higher proportions of T-Same Old Storytelling marker overall compared to therapists of recovered clients' (averaged across all three stages, recovered: *n* =69, 4.05%; unchanged: *n* = 98, 5.57%). A similar pattern of unchanged clients' therapists evincing slightly higher proportions of T-Same Old Storytelling marker compared to recovered clients' therapists appeared at the early (recovered: *n* =41, 6.89%; unchanged: *n* =53, 9.33%) and late (recovered: *n* =4, 0.74%; unchanged: *n* =23, 3.76%) stages of therapy, while the proportions of T-Same Old Storytelling marker evinced by therapists of recovered and unchanged clients were roughly equal at the middle stage of therapy (recovered: *n* =24, 4.26%; unchanged: *n* =22, 3.80%).

Therapist (T)-Transition markers. There were a total of 852 T-Transition markers coded (24.62% of all coded markers) across all therapy sessions. Therapists of unchanged clients spent a higher percentage of time articulating T-Transition markers overall (averaged across all three therapy stages, recovered: *n* = 377, 22.15%; unchanged: *n* = 475, 27.02%). Therapists of recovered and unchanged clients evinced T-Transition markers roughly in the same proportions at the early stage of therapy (recovered: *n* = 117, 19.66%; unchanged: *n* = 98, 17.25%), after which the amount of time spent in T-Transition marker subgroup by therapists of unchanged clients vs. recovered clients increased at the middle (recovered: *n* = 130, 23.05%; unchanged: *n* =

170, 29.36%) and late (recovered: *n* = 130, 23.94%; unchanged: *n* = 207, 33.88%) stages of therapy

Therapist (T)-Competing Plotlines Storytelling marker. T-Competing Plotlines Storytelling marker was the second-most frequently occurring therapist marker (*n* = 550, 15.90% of all markers coded), out of all the other individual NEPCS-CBT therapist markers (see Figure 8 comparing the proportions of NEPCS-CBT therapist individual markers, in descending order of session time, across all clients and the three therapy stages). Therapists of unchanged clients evinced the T-Competing Plotlines marker in higher proportions compared to therapists of recovered clients overall (averaged across all three therapy stages, recovered: *n* = 192, 11.28%; unchanged: *n* = 358, 20.36%). Therapists of both recovered and unchanged clients started off spending roughly an equivalent percentage of time in the T-Competing Plotlines at the early stage (recovered: *n* = 80, 13.45%; unchanged: *n* = 71, 12.50%) after which therapists of unchanged clients evinced higher proportions of T-Competing Plotlines marker at the middle (recovered: *n* = 51, 9.04%; unchanged: *n* = 131, 22.63%) and late (recovered: *n* = 61, 11.23%; unchanged: *n* = 156, 25.53%) stages of therapy.

Therapist (T)-Reflective Storytelling marker. T-Reflective Storytelling marker was the third-most frequently occurring therapist marker (*n* = 302, 8.73% of all markers coded; see Figure 2). Therapists of recovered clients consistently evinced higher proportions of T-Reflective Storytelling marker overall (averaged across all three therapy stages, recovered: *n* =185, 10.87%; unchanged: *n* =117, 6.66%), and at early (recovered: *n* =37, 6.22 %; unchanged: *n* =27, 4.75%), middle (recovered: *n* =79, 14.01%; unchanged: *n* =39, 6.74%), and late stages of therapy compared to therapists of unchanged clients (recovered: *n* =69, 12.17%; unchanged: *n* =51, 8.35%).

Therapist (T)-Change markers. Frequencies of T-Change markers were low overall (*n* = 20, 0.58%), with therapists of recovered clients evincing higher proportions of T-Change markers overall (averaged across all three therapy stages, recovered: *n* =14, 0.82%; unchanged: *n* =6, 0.34%), and at the early (recovered: *n* =1, 0.17%; unchanged: *n* =0, 0.00%), middle (recovered: *n* =7, 1.24%; unchanged: *n* =0, 0.00%), and late (recovered: *n* =6, 1.10%; unchanged: *n* =6, 0.98% therapy stages.

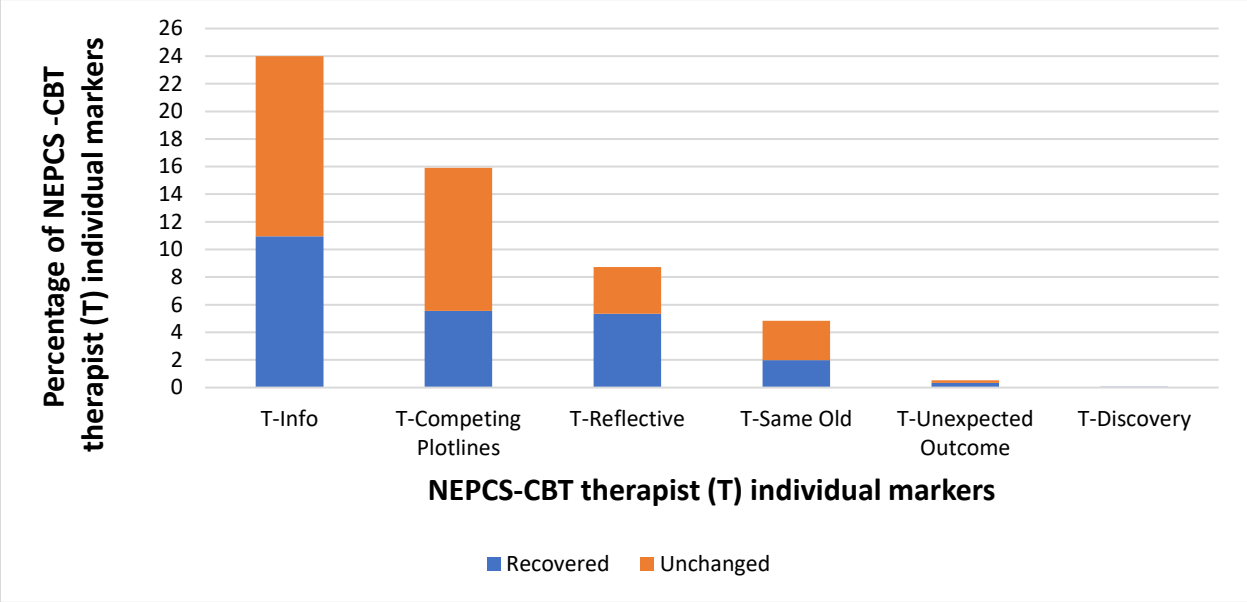
Therapist (T)-Unexpected Outcome marker. Frequencies of T-Unexpected Outcome marker were low overall (*n* = 18, 0.52%). Therapists of recovered clients articulated higher proportions of T-Unexpected Outcome marker overall (averaged across all three stages, (recovered: *n* =12, 0.71%; unchanged: *n* =6, 0.98%), with some variation in the pattern at the early (recovered: *n* =1, 0.17%; unchanged: *n* =0, 0.00%), middle (recovered: *n* =7, 1.24%; unchanged: *n* =0, 0.00%), and late (recovered: *n* =4, 0.74%; unchanged: *n* =6, 0.98%) stages of therapy.

Therapist (T)-Discovery Storytelling marker. The T-Discovery Storytelling marker occurred only twice across all therapy sessions (*n* =2, 0.06% of all markers coded) for therapists of recovered clients' group (late therapy stage, *n* = 2, 0.37%).

Therapist(T)-Information (Info) Sharing marker. The T-Info marker was the most frequently coded therapist marker overall (*n* =830, 23.99% of all markers coded and within the therapist NEPCS-CBT markers group; see Figure 8 below). Therapists of unchanged clients evinced slightly higher proportions of T-Info marker overall (recovered: *n* =379, 22.27%; unchanged: *n* =451, 25.65%), and at the early (recovered: *n* =169, 28.40%; unchanged: *n* =200, 35.21%), middle (recovered: *n* = 132, 23.40%; unchanged: *n* =138, 23.83%), and late (recovered: *n* =78, 14.36%; unchanged: *n* =113, 18.49%) stages of therapy.

Figure 8

Percentage of NEPCS-CBT therapist individual markers in descending order of session time overall



Statistical Analyses – NEPCS-CBT Therapist markers

Research Question 4. Relationship between outcome status and proportions of NEPCS-CBT therapist markers, overall (across all therapy stages).

Therapist(T)-Problem Markers. There was no evidence for a significant difference in the proportions of T-Problem marker subgroup/T-Same Old Storytelling marker between therapists of recovered and unchanged clients overall (across all therapy stages).

Therapist(T)-Transition Markers. There was no evidence for a significant difference in the proportions of T-Transition marker subgroup as whole, between recovered and unchanged clients overall (across all therapy stages). Within the T-Transition marker subgroup, there was evidence for therapists of unchanged clients spending significantly higher proportions of session time in T-Competing Plotlines Storytelling marker compared to therapists of recovered clients overall (across all therapy stages), $t(176) = -3.80$, $p = .0002$ (mean difference = 9.08%).

Research Question 5. Relationship between proportions of NEPCS-CBT therapist markers for therapists of recovered vs unchanged clients at each of the three therapy stages.

Therapist(T)-Problem Markers. There was no evidence for a significant difference in proportions of T-Problem marker subgroup/T-Same Old Storytelling marker between therapists of recovered vs. unchanged clients at any of the three therapy stages.

Therapist(T)-Transition Markers. There was evidence for therapists of unchanged clients articulating significantly higher proportions of T-Transition marker subgroup at the late stage of therapy, $t(71.3) = -2.34$, $p = .022$ (mean difference = 9.94%; See Figure 9 below), compared to therapists of recovered clients. There was no significant difference in the proportions of T-Transition markers between therapists of recovered and unchanged clients at the early or middle stages of therapy.

Within the T-Transition markers subgroup, there was evidence for therapists of unchanged clients engaging in significantly higher proportions of T-Competing Plotlines marker at the middle, $t(312) = -3.50$, $p = 0.001$ (mean difference = 13.59%), and late, $t(312) = -3.51$, $p = 0.001$ (mean difference = 14.30%), stages of therapy compared to therapists of recovered clients (see Figure 10 below). There was no difference in proportions of C-Competing Plotlines Storytelling marker between therapists of recovered and unchanged clients at the early stage of therapy. There was also no evidence for a significant difference in proportions of T-Reflective Storytelling marker between therapists of recovered vs. unchanged clients, at any stage of therapy.

Figure 9

Proportions of Therapist (T)-Transition marker subgroup over stage of therapy

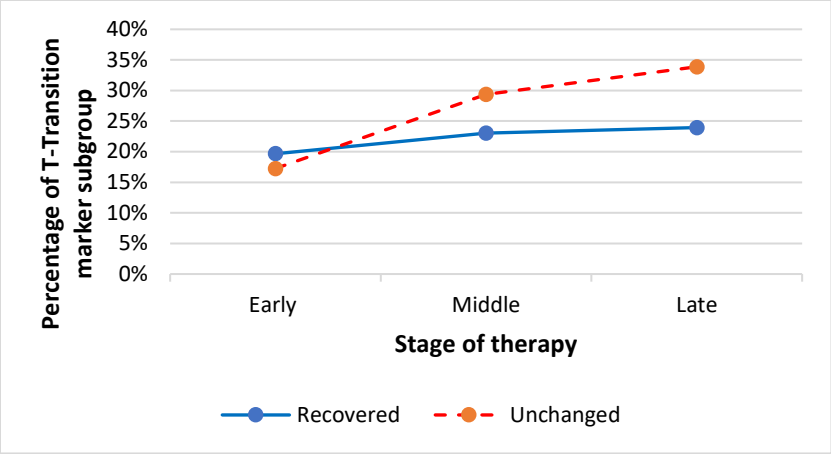
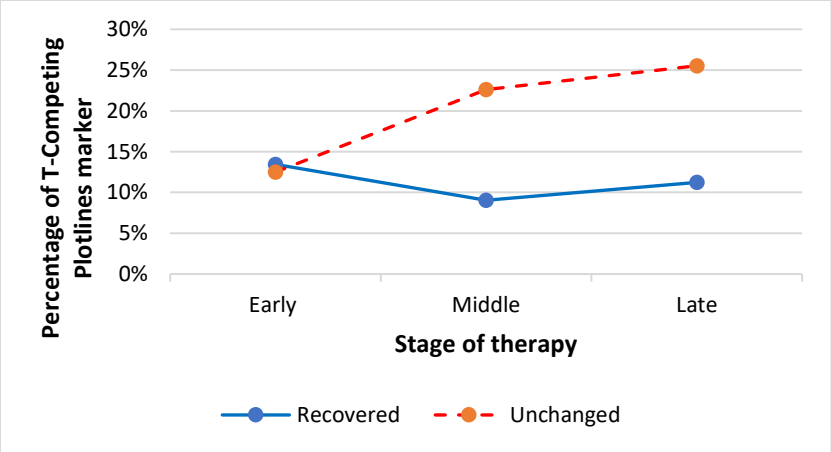


Figure 10

Proportions of Therapist (T)-Competing Plotlines Storytelling marker over stage of therapy



Therapist(T)-Change Markers. There was no evidence for a significant difference in the proportions of T-Change marker subgroup as a whole, and its individual markers between therapists of recovered vs. unchanged clients at any stage of therapy.

Therapist(T)-Information (Info) Sharing Marker. There was no evidence for a significant difference in the proportions of T-Info Sharing marker between therapists of recovered vs. unchanged clients at any stage of therapy.

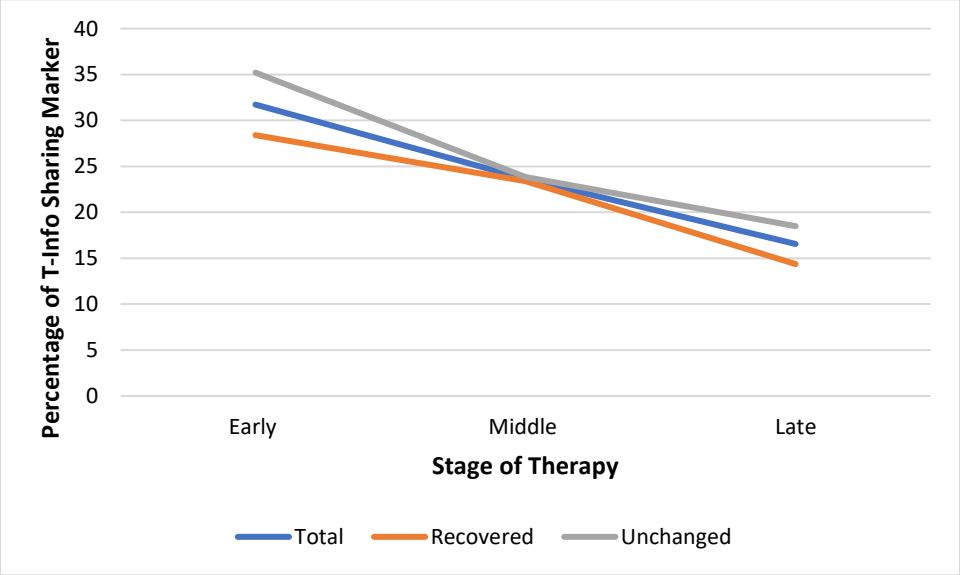
Research Question 6. Relationship between proportions of NEPCS-CBT therapist markers at each of the therapy stages, irrespective of outcome status.

Therapist(T)-Problem, Transition, and Change Markers. There was no evidence for significant findings for the listed therapist marker subgroups as a whole and their individual markers.

Therapist(T)-Information (Info) Sharing Marker. There was evidence for therapists of all clients (regardless of clients' outcome status) evincing higher proportions of T-Info marker at the early vs. middle $t(316) = 3.25$, $p = 0.004$ (mean difference = 8.11%), early vs. late, $t(316) = 5.93$, $p < 0.0001$ (mean difference = 15.18%), and middle vs. late stages of therapy, $t(316) = 2.67$, $p = 0.022$ (mean difference = 7.07%; See Figure 11 below).

Figure 11

Proportions of Therapist (T)-Information (Info) marker for all clients over stage of therapy



Comparative summary of descriptive research findings: NEPCS-CBT client and therapist markers

Out of the total 3460 NEPCS-CBT markers coded in the current study, 1591 of these markers were client markers (45.98% of all NEPCS-CBT coded markers), and 1849 were therapist markers (53.44% of all NEPCS-CBT coded markers). Out of the client and therapist subgroup markers, Therapist (T)-Information (Info) Sharing marker accounted for the highest

percentage of session time (*n* = 830, 23.99% overall), followed by T-Transition (*n* = 852, 24.62% overall), C-Problem (*n* = 773, 22.34% overall), C-Transition (*n* = 704, 20.35% overall), T-Problem (*n* = 167, 4.83% overall), C-Change (*n* = 114, 3.29% overall), T-Change subgroup markers (*n* = 20, 0.58% overall). Figure 12 below highlights the percentage of session time spent in NECPS-CBT client and therapist subgroup markers across all clients and therapy stages. Figure 13 below highlights the percentage of session time in NECPS-CBT individual and therapist markers in descending order of session time, across all clients and therapy stages.

Figure 12

Percentage of NEPCS-CBT client (C) and therapist (T) marker subgroups overall, across all clients and therapy stages

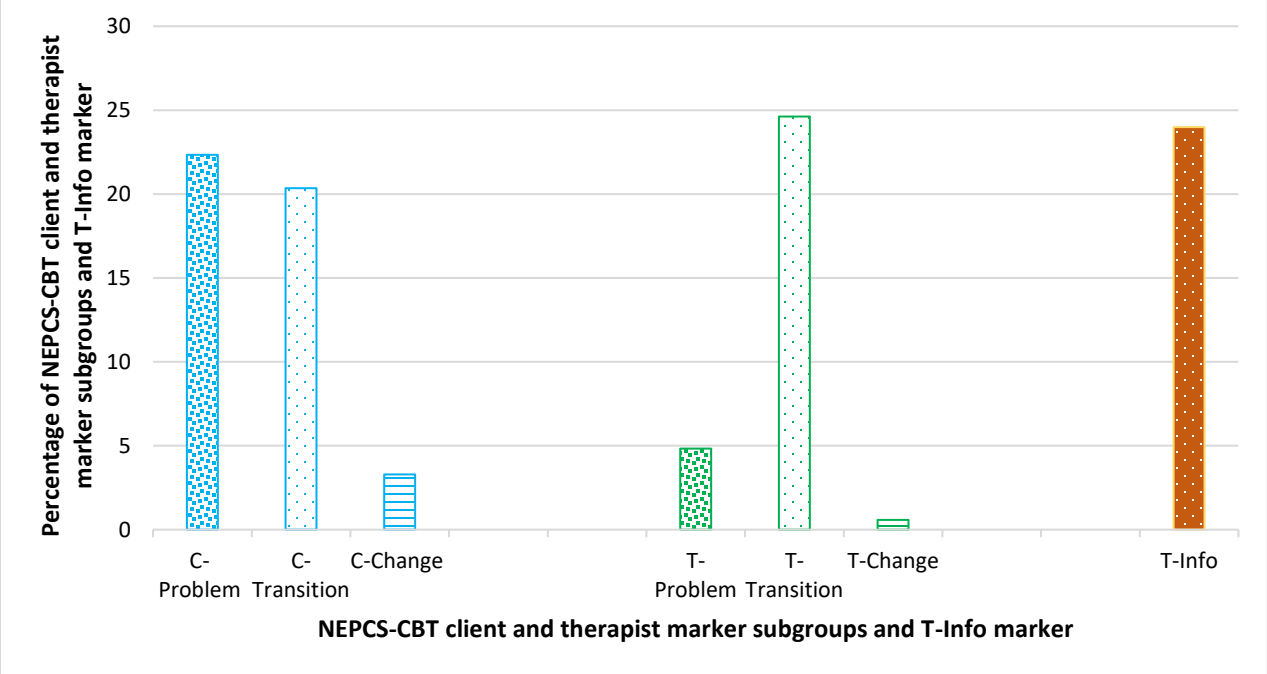
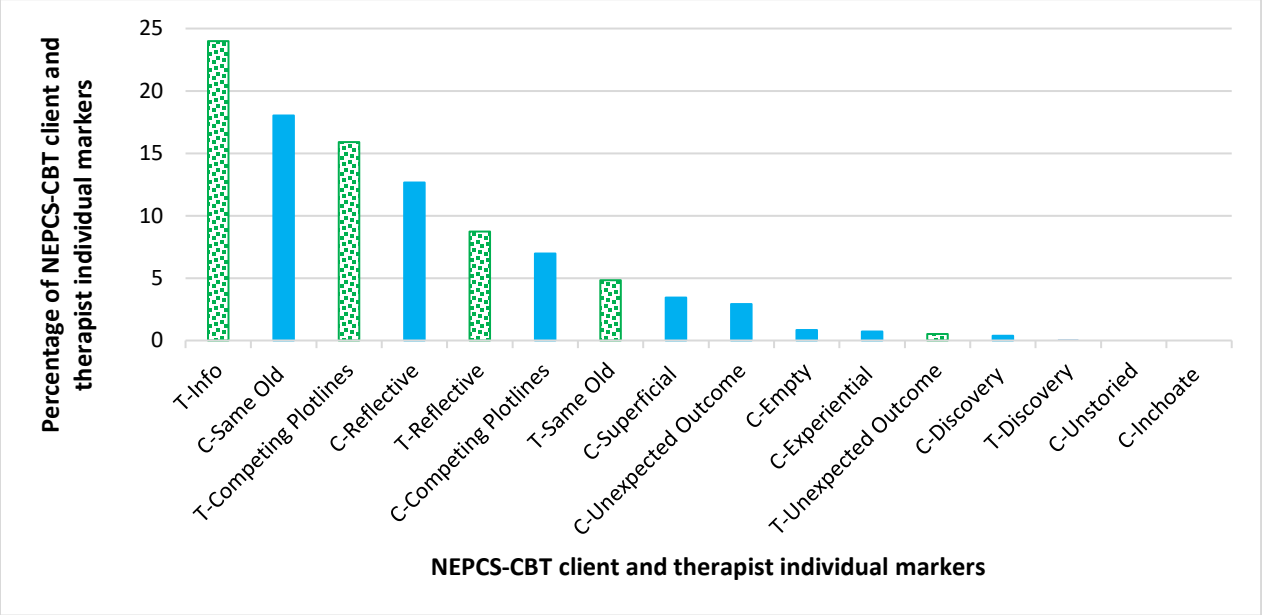


Figure 13

Percentage of NEPCS-CBT client and therapist individual markers in descending order of session time, across all clients and therapy stages



Comparative summary of statistically significant research findings: NEPCS-CBT client and therapist markers.

NEPCS-CBT Client markers

Statistically significant findings indicated that compared to recovered CBT clients, unchanged CBT clients demonstrated significantly higher proportions of C-Problem marker subgroup as a whole, in particular, the C-Same Old Storytelling marker, overall (across all therapy stages). Recovered CBT clients narrated significantly higher proportions of C-Transition marker subgroup as a whole, in particular the C-Competing Plotlines and C-Reflective Storytelling markers overall (across all therapy stages), in contrast to unchanged CBT clients. Recovered CBT clients also evinced significantly higher proportions of C-Unexpected Outcome Storytelling marker overall (across all therapy stages) compared to unchanged CBT clients.

When proportions of recovered vs unchanged CBT client markers were compared, at each therapy stage, unchanged CBT clients were found to spend a significantly higher proportion

of session time in C-Problem marker subgroup as a whole, and C-Same Old Storytelling marker in particular, when compared to CBT recovered clients. Unchanged CBT clients continued to retain this pattern of evidencing significantly higher proportions of session time in the C-Problem marker subgroup and C-Same Old Storytelling marker, at the middle and late stages of therapy as well.

On the other hand, recovered CBT clients started off in the early therapy stage by narrating significantly higher proportions of C-Transition marker subgroup, and C-Reflective Storytelling marker in particular, compared to unchanged CBT clients. Recovered CBT clients continued to narrate significantly higher proportions of C-Transition Storytelling and C-Reflective Storytelling markers, at the middle and late therapy stages as well, in contrast to unchanged CBT clients. While no significant differences were demonstrated in the proportions of C-Competing Plotlines marker at the early and middle therapy stages for recovered vs. unchanged CBT clients, recovered CBT clients did spend a significantly higher percentage of session time in C-Competing Plotlines marker at the late therapy stage, compared to unchanged CBT clients. Lastly, both recovered and unchanged CBT clients started therapy in the early stages with similar proportions of C-Unexpected Outcome Storytelling marker. However, recovered CBT clients evidenced significantly higher proportions of session time in the C-Unexpected Outcome Storytelling marker, at the middle and late therapy stages, as therapy progressed.

NEPCS-CBT Therapist markers

CBT therapists of unchanged clients narrated significantly higher proportions of T-Competing Plotlines Storytelling marker overall (across all therapy stages) when compared to CBT therapists of recovered clients. CBT therapists of unchanged clients also spent significantly

higher proportions of time engaged in T-Transition marker at the late therapy stage, when compared to CBT therapists of recovered clients. More specifically, while both CBT therapists of unchanged clients and recovered clients spent roughly amount of session time at the early stage of therapy in T-Competing Plotlines Storytelling marker, CBT therapists of unchanged clients spent significantly higher proportions of session time in T-Competing Plotlines Storytelling marker at the middle and late therapy stages, when compared to CBT therapists of recovered clients. Lastly, CBT therapists, irrespective of the outcome group they worked with, engaged in significantly higher proportions of the T-Information Sharing marker at early vs. middle, early vs. late, and middle vs. late stages of therapy.

Discussion

The present study had two primary goals. The first goal was the systematic development of an expanded and revised NEPCS manual (NEPCS-CBT manual) for application to CBT therapy sessions. This goal included the differentiation of CBT therapist responses previously coded as the 'No Client marker' into distinct NEPCS-CBT therapist markers, as they cohered with linguistic, emotional, and behavioural indicators of NEPCS client markers. It also included further refinement of client NEPCS markers to capture nuances of client processes during CBT task interventions, that may have been missed in the pilot study (Khattra et al., 2018). The second goal was the application of the revised NEPCS-CBT manual to an expanded sample of 10 clients (N = 60 therapy sessions) who engaged in 15 weekly sessions of CBT for GAD treatment selected from a randomized controlled trial (Westra et al., 2016). For statistical analyses, the relationships of proportions of NEPCS-CBT client and therapist markers (subgroup and individual) with client outcome status (recovered vs. unchanged) and therapy stage (early vs. middle vs. late), were explored in in two early, two middle, and two late-stage therapy sessions.

The relationships between proportions of CBT client and therapist markers, and outcome status as well as therapy stage were statistically analyzed utilizing a linear, multilevel mixed-effects model approach in R statistical software (R Core Team, 2022).

In the following sections, findings for NEPCS-CBT client and therapist markers will be addressed in the context of previous NEPCS research findings and current GAD and CBT research literature. Next, clinical implications of NEPCS-CBT client marker findings and how therapists contribute to client change pathways associated with recovery from GAD, will be explored. Finally, limitations and future research directions will be discussed.

NEPCS-CBT Client markers

Client(C)-Problem markers

Findings indicated that unchanged clients (vs. recovered clients) spent a significantly greater proportion of session time in the Problem marker subgroup as a whole (i.e., combining averaged proportions of C-Same Old, C-Empty, C-Unstoried, and C-Superficial Storytelling markers) overall, and at the early, middle, and late therapy stages. These findings are consistent with results demonstrated in previous NEPCS research studies, irrespective of client diagnostic sample – Major Depressive Disorder, GAD, Complex Trauma, or treatment modality – CCT, CT, EFT, EFTT, and MI-CBT (Angus et al., 2017; Angus & Macaulay, 2023; Boritz et al., 2014; Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017).

The emergence of the C-Same Old Storytelling marker as the primary representation of unproductive therapeutic process within the C-Problem marker subgroup, for unchanged clients, is unique to the CBT for GAD sample, when compared to previous NEPCS research findings. In previous NEPCS studies (Angus et al., 2017), findings demonstrated that unchanged depressed, anxious (MI-CBT for GAD; Angus & Macaulay, 2023), and complex trauma clients evidenced

significantly higher proportions of other C-Problem markers – specifically, the Superficial and Empty Storytelling markers, when compared to recovered clients (Angus & Macaulay, 2023; Boritz et al., 2014; Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017). This may highlight that sustained, higher levels of engagement in the C-Same Old Storytelling marker overall and at the different therapy stages, is a hallmark of unproductive therapeutic process in CBT for GAD sessions. The following sub-sections present possible reasons why unchanged CBT clients may have narrated significantly higher proportions of the C-Same Old Storytelling marker, overall and from the early to middle and late therapy stages, in reference to research on client readiness, ambivalence towards change, and interpersonal resistance.

Understanding unchanged clients' higher engagement in the C-Same Old Storytelling marker at the early therapy stage - Readiness and ambivalence towards change. From an NEPCS perspective, the C-Same Old Storytelling marker indicates client stuckness in negative, maladaptive, and repetitive intra- or interpersonal patterns accompanied by low levels of agency, control, and hope. The significantly higher proportions of the C-Same Old Storytelling marker for unchanged clients at the early therapy stage highlights that compared to recovered clients, unchanged clients may have started in therapy with a greater degree of hopelessness, helplessness, and stuckness in maladaptive anxiety patterns in addition to lower levels of personal agency. The relationship between the occurrence C-Same Old Storytelling marker and symptom severity was highlighted by Pascual-Leone et al.'s (2021) analyses of expressive writing samples. Pascual-Leone et al. (2021) demonstrated that when a study participant's expressive writing samples contained indicators of the C-Same Old Storytelling marker, it also predicted that were experiencing more symptoms of anxiety, depression, and trauma, at or above clinically relevant cutoffs.

According to the transtheoretical Model of Behavioural Change (Prochaska and DiClemente, 1983), this pattern of engagement in Same Old Storytelling may also reflect that unchanged clients entered treatment with lower level of readiness for change (i.e., in the pre-contemplation stage) when compared to their recovered clients. As such, when compared to recovered clients, unchanged clients may have started off in therapy at a slight disadvantage, wherein a stronger grip of their same old storytelling, that expressed negative beliefs, and expectations of self and others, may have left them less able and/or ready to consider alternative perspectives through CBT therapy task interventions. It is likely that lower levels of readiness for change may also represent higher levels of ambivalence towards change (Miller & Rollnick, 2002; Westra, 2012) for unchanged clients at the early stage, compared to recovered clients.

Research evidence has widely documented that ambivalence which is defined as the "simultaneous movements toward and away from change" (Dollard & Miller, 1950), is a common process found in recovered and unchanged clients' sessions. Ambivalence is thought to represent a natural and expected "*byproduct of the process of changing complex behaviors" (*Moyers and Rollnick, 2002, p. 187). According to this view of ambivalence, it is composed of two distinct and opposite processes. The first process includes clients moving towards and wanting change, and the second process includes clients turning away from change and choosing to stick with their same old, repetitive patterns.

Goncalves et al. (2009) acknowledged the central role of ambivalence in the process of psychotherapeutic change and developed an empirical process marker titled the 'ambivalence marker' (AM) or 'return to problem marker'. The AM/'return to problem marker' captures one of the two processes within ambivalence reviewed above - the process of clients returning and sticking to their problem narratives in psychotherapy sessions. Similar to the processes

conceptualized in AMs/'return to problem markers' (Goncalves et al.; 2009), Westra (2012) highlights that clients in therapy often demonstrate their ambivalence towards change by briefly expressing a need to change and then immediately expressing reluctance to change and/or reasons not to do so. Such statements are referred to as counter change talk (CCT) or sustain talk (Westra, 2012). These client narrations occur in close proximity to each other and include conflict and struggle between the two sides of ambivalence described above - clients wanting change but quickly negating or disqualifying it. Westra (2012) provides several examples of the ways in which such ambivalence and CCT/sustain talk may present itself in sessions – "I know I should but…"; "Logically I know it, but emotionally…"; "I want to believe it, but I can't…" (p. 45). CCT typically reflects low desire, low ability, reasons for not needing/wanting to change, low commitment to change, and/or an absence of taking steps towards change (Motivational Interviewing Skill Code; MISC 1.1; Glynn & Moyers, 2009). AMs/'return to problem markers' (Goncalves et al.; 2009) and CCT (Westra, 2012) are similar to the processes and linguistic/emotional indicators captured by the C-Same Old Storytelling marker, when clients repeatedly narrate various facets of their problematic anxiety-related patterns in addition to difficulties changing them.

Understanding unchanged clients' higher engagement in the C- Same Old Storytelling marker at the middle and late therapy stages – Sustained, unresolved ambivalence towards change and interpersonal resistance.

Sustained, unresolved ambivalence. Research suggests that it is not the occurrence of ambivalence but the persistence of it and the failure to properly solve it in psychotherapy sessions, that negatively impacts treatment outcomes across various clinical samples and therapeutic models (e.g., Braga et al., 2016, 2018; Gonçalves et al., 2009, 2017; Miller and

Rollnick, 2002). Braga et al. (2019) indicate that ambivalence markers have been found to not only impact overall posttreatment outcomes negatively but also, represent a strong predictor of "posterior symptomatology" (i.e., symptomatology in the next session). That is, higher ambivalence markers in one session predict higher levels of symptomatology in the following session and vice versa as well, suggesting a bidirectional relationship between ambivalence markers and symptomatology. In addition to a negative impact on outcome, early ambivalence has also been found to predict early and middle phase alliance issues in both CBT and MI-CBT treatments for GAD clients (Norozian et al., 2021). In the same study (Norozian et al., 2021), early ambivalence was also found to be strongly associated with poorer alliance during the late stage of CBT treatment, and not for MI-CBT that explicitly focuses on ambivalence exploration and resolution. This finding highlights the negative impact of unresolved ambivalence on alliance, and the need for clinical responsivity to early markers of ambivalence.

Braga et al. (2019) proposed that ambivalence may relate to poor treatment outcomes through the anticipation and enhancement of conflicting and distressful emotions in psychotherapy, especially when clients are faced with expectations to change and engage in change-oriented therapy interventions (van Harreveld et al., 2009 - model of ambivalence-induced discomfort; MAID). For example, clients may experience heightened distressful emotions such as the fear related to changing deeply entrenched patterns of functioning and taking a "threatening leap of faith into the unknown" (Braga et al., 2019; p. 5); regret associated with taking a wrong step; and sadness, guilt, and fear related to trading off of personally important values and self-identity beliefs that maintain repetitive patterns. These distressful emotions were captured by indicators of the C-Same Old Storytelling marker (e.g., apathy, low

agency and hope for change, overwhelm etc.) in the current study - in CBT sessions which place expectations on clients to engage in change-and action-oriented tasks.

In the current study, unresolved ambivalence and associated distressful emotions for unchanged clients, may have particularly been amplified in the context of CBT tasks that explicitly focus on change and require active client engagement in and outside of sessions. That is, unchanged clients may have struggled to make sense of the difficult and conflicting emotions that may have come along with changing their anxiety patterns and letting go of their worries' perceived functions (e.g., worry as a problem-solving strategy to cope with uncertainty; worry motivating performance; worry being tied to important self-identities such as being a good parent; Behar et al., 2009; Borkovec & Roemer, 1995).

As Braga et al. (2019) above suggest, the failure to resolve higher levels of sustained engagement in ambivalence or the C-Same Old Storytelling marker in unchanged clients' narratives at the early therapy stage, may have enhanced clients' stuckness in their same old patterns through the enhancement of distressful emotions outlined above. This process was evidenced through current study's research findings demonstrating that unchanged clients did in fact, narrate significantly higher proportions of C-Same Old Storytelling marker at the middle and late therapy stages.

The reviewed research literature on ambivalence above highlights the clinical significance of therapists being able to accurately identify, assess, and respond appropriately to indications of early signs and sustained engagement in ambivalence captured by 'ambivalence markers'/'return to problem markers' (Goncalves et al., 2009), sustain talk, CCT, (Westra, 2012), or the C-Same Old Storytelling markers, especially in earlier sessions, to attenuate its negative effect on treatment outcome and client process in subsequent sessions. While

ambivalence has been understood as an intrapersonal process, dealing with ambivalence requires its understanding, exploration, and resolution in the intersubjective context of client-therapist interaction (Braga et al., 2019; Miller & Rollnick, 2002; Westra 2012), which is reviewed below.

Interpersonal resistance in CBT. The higher proportions of engagement in the C-Same Old Storytelling marker for unchanged clients, especially at the middle, and late therapy stages, may also possibly be representative of higher levels of ambivalence as well as interpersonal resistance in the client-therapist interactions.

Miller & Rollnick (2002) defined interpersonal resistance in the client-therapist dyad as a product of both client ambivalence towards change and therapist management of such ambivalence, instead of it reflecting a negative and oppositional client trait. In interpersonal process terms, resistance is a type of a stop signal (Miller & Rollnick, 2002) that indicates that the therapist is not hearing important information that the client is trying to communicate. Resistance may be communicating that the therapist and client are not on the same page, and that "what we (*therapists*) are offering is too far ahead of where the client is – how they see themselves and what they need currently" (Westra, 2012; p. 175).

In their cognitive perspective on interpersonal resistance, Newman (2002) suggested that clients may manifest interpersonal resistance in CBT sessions in the following ways: By refusing/failing to complete homework assignments; repeatedly expressing frustration when therapy tools do not work in quick and effortless ways; showing overt hostility towards the therapist; frequently using "I don't know" or lengthy silences in response to therapist questions/queries; debating with the therapist (e.g., "yes-but" communication style to therapist suggestions/pointing to alternative perspectives); disavowing therapist's accurate reflections;

sidetracking (i.e., abruptly shifting away from ongoing tasks); and overtly disagreeing with therapist comments and suggestions to practice tools or engage in-session tasks.

In the Client Resistance Code (CRC; Chamberlain et al., 1985; Chamberlain et al., 1984), which is widely used to observe resistance across multiple therapeutic modalities, there are various categories of similar verbal and non-verbal client resistance behaviours. These include – confronting, challenging, and/or disagreeing with the therapist (e.g., non-compliance with session task or therapist suggestion); hopelessness, blame, and complaints (e.g., repetitive statements of defeatist and negative remarks towards conditions/self/others); defending self (e.g., making excuses and justifying not completing homework tasks); disqualifying (e.g., client contradicting their own earlier statements); sidetracking to one's own agenda; not responding, not answering, and/or withdrawing. Client verbal and non-verbal resistance behaviours highlighted by the CRC (CRC; Chamberlain et al., 1985; Chamberlain et al., 1984) represent several of the linguistic, behavioural, interpersonal, cognitive, and emotional indicators of the C-Same Old Storytelling marker.

Several research studies have emphasized therapists paying close attention to client language related to motivational about change as a prognostic tool that predicts treatment outcomes and assesses levels of resistance (Miller & Rose, 2009). Persistent and higher frequencies of counter change talk (CCT) or statements articulating both arguments against change (e.g., I am afraid of the consequences that may come with letting go of my worries) and in favour of maintaining the status quo (sustain talk; e.g., worrying helps me feel prepared) have been theorized to be an important indicator of client ambivalence as well as resistance to change (Westra, 2012; p. 45). Specifically, in the context of CBT for GAD, client early in-session statements against change or in favour of staying the same (counter change talk) have been found

to robustly predict post-treatment worry scores and differentiate treatment responders from non-responders, beyond initial symptom severity and self-report measures of motivation (Lombardi et al., 2014).

In the current study, instances of verbal and non-verbal resistance behaviours defined by Newman (2002), the CRC (Chamberlain et al., 1985; Chamberlain et al., 1984), and CCT (Glynn & Moyers, 2009) were coded as C-Same Old Storytelling marker. An excerpt from unchanged client C's middle-stage therapy session (session 4) presents several indicators of interpersonal resistance reviewed above, in the context of homework completion, which was coded as the -Same Old Storytelling marker.

> Therapist (T): I want to spend the first 15 mins of the session going over your thought records as well as the relaxation diary. Where do you want to start off with the homework?
>
> Client (C): Well, I kept trying to do the discriminating, relaxation thing, it's not as easy as I'd like it to be because I feel like the tension in my body is always at an intense level. So, I am having a hard time letting go of it, I don't know… (*10 sec pause*) it's just so hard.
>
> T: Ok, have you been trying it in a spot where it's quiet, at home, where can you give yourself time to go through the whole procedure?
>
> C: Yeah (*sighs*), I have been doing it in my room and I find that I get really frustrated with the fact that I can't get through the whole thing, or I am still feeling really tight. So, I just stop in between.
>
> T: So, it sounds like there are thoughts that are getting in the way again...of doing it right?

C: Yeah, maybe, I don't know. I am not doing it well or to the extent that it should be done. It's also really, really hard to do it in a moment when I am not very tense. I have anxiety all the time but when I am already relaxed, I find it hard to initiate the exercise because I am already relaxed. I think there a subconscious part of me that doesn't want to feel tense when I am already relaxed.…so why do it?

T: Can I see your relaxation diary?

C: (*10 sec silence/pause*) It's blank, I haven't filled it.

T: That's ok.

C: But I did do the thought record you wanted me to do.

Westra (2012) highlights that resistance becomes a cause for concern, when it is sustained and unremitting. Sustained resistance is thought to occur when the therapist continues to persuade, advises, directs, makes suggestions, and/or makes demands in the direction of advocating and pushing the client towards change, despite signs that the client is ambivalent and not ready to change. To exemplify this, in a single case study, Ribeiro et al. (2013) demonstrated that the therapist inadvertently amplified client's ambivalence by frequently utilizing challenging interventions to client's indications of ambivalence, resulting high levels of interpersonal resistance. Sustained resistance has been found to be associated with lower client outcome expectations which in turn, predicts higher post-treatment worry scores in CBT for GAD treatment sessions (Mamedova et al., 2020). This highlights that resistance can lower client morale, which can further negatively impact treatment outcomes.

Miller & Rollnick (2002) highlighted that while initial ambivalence may be a natural byproduct of the change process, sustained client ambivalence especially in the later phases of treatment represents a clinician skill error. In the current study, this may highlight that while

unchanged clients may have started off in early stages with the intrapersonal process of ambivalence (e.g., difficulties with understanding and letting go of the status quo of anxiety patterns), sustained engagement in higher proportions of C-Same Old Storytelling marker through the middle and later therapy stages may reflect an interpersonal process between the client and therapist. The sub-section on therapist interventions below (specifically Therapist-Competing Plotlines Storytelling marker, i.e., "T challenges C's maladaptive patterns") will elaborate on the ways in which therapists of unchanged clients in the current study attended to ambivalence and resistance through significantly higher narrations of the T-Competing Plotlines Storytelling marker, especially at the middle and late therapy stages, when compared to therapists of recovered clients.

Client(C)-Transition markers

Recovered clients spent significantly greater proportions of session time in C-Transition marker subgroup as a whole (i.e., combining averaged proportions of C-Reflective, C-Competing Plotlines, C-Experiential, and C-Inchoate Storytelling markers) compared to unchanged clients overall, and at the early, middle, and late therapy stages. These findings are consistent with previous NEPCS empirical findings providing evidence for recovered clients spending a significantly greater proportion of session time in the C-Transition marker subgroup, across diagnostic samples – Major Depressive Disorder, GAD, Complex Trauma, or treatment modalities – CCT, CT, EFT, EFTT, and MI-CBT (Angus et al., 2017; Angus & Macaulay, 2023; Boritz et al., 2014; Bryntwick, 2016; Carpenter et al., 2016; Carpenter, 2017). In the current study, the proportions of C-Experiential (i.e., 0.72% of all markers coded) and C-Inchoate (i.e., 0%) markers were quite low in terms of total session time overall. The C-Reflective (i.e., 12.66% of the total 20.35% proportion of the C-Transition marker subgroup) and C-Competing Plotlines

(i.e., 6.97% of the total 20.35% proportion of the C-Transition marker subgroup) Storytelling markers accounted for majority of the representation in the C-Transition marker subgroup.

C-Reflective Storytelling marker

Within the C-Transition marker subgroup, recovered clients (vs. unchanged clients) spent a significantly higher percentage of session time in the C-Reflective Storytelling marker overall, and at the early, middle, and late therapy stages. These findings are consistent with findings from the pilot study (Khattra et al., 2018) and in the MI-CBT for GAD sample (Angus & Macaulay, 2023) which demonstrated higher proportions of C-Reflective Storytelling marker for recovered clients versus unchanged clients overall. These findings lend evidence to the possibility that C-Reflective Storytelling marker may capture the deeper emotional processing that is required to intercept the experiential avoidance that maintains worry and GAD symptoms in the long run (e.g., Foa & Kozak, 1986; Mennin et al., 2002; Newman et al., 2008; Roemer & Orsillo, 2007). It may be that instead of relying on maladaptive anxiety strategies (e.g., worry, behavioural/cognitive avoidance of anxiety-provoking stimuli such as distraction, procrastination) to avoid their internal experiences (thoughts, emotions, and physical sensations), recovered clients become better able to expose themselves to such information, and utilize it for meaning-making and adaptive problem-solving in therapy (Mennin et al., 2002). This may be due to recovered clients possessing a higher readiness for change, and/or a higher ability for deeper emotional analyses of their anxiety-related patterns. Unchanged clients on the other hand, started therapy with significantly lower levels of engagement in the analyses of their anxiety patterns and continue to stay at a superficial level of experiential processing. This may have prevented them from engaging in sustained and deeper-level exposure to threatening emotions

and their meanings at the middle and late therapy stages, and therefore, maintained their worry and GAD cycle.

No previous NEPCS empirical studies (Angus et al., 2017) with other diagnostic samples (e.g., Major Depressive Disorder and complex trauma) and treatment modalities (e.g., CCT, CT, and EFT), have demonstrated significant differences in the proportions of C-Reflective Storytelling marker between recovered and unchanged clients. This may highlight that the C-Reflective Storytelling marker may be particularly sensitive to picking up on the clinically relevant and essential process of deeper emotional processing of GAD patterns, that differentiates recovered and unchanged clients in CBT for GAD sessions. This may also highlight the need for therapists to pay special attention to facilitating this process for client recovery in CBT for GAD sessions by helping clients conceptualize, provide clarity, interpretations, and/or analyses of their anxiety patterns.

C-Competing Plotlines Storytelling marker

Within the C-Transition markers subgroup, recovered CBT clients (vs. unchanged clients) spent a significantly higher percentage of their session time in the C-Competing Plotlines Storytelling marker overall, and at the late therapy stage. In previous NEPCS studies, significantly higher proportions of C-Competing Plotlines Storytelling marker for recovered clients have been demonstrated at the early and middle stages in CCT and EFT treatments for depression (Boritz et al., 2014); and at the early and middle stages for EFTT clients in complex trauma (Carpenter et al., 2016; Carpenter, 2017). In these studies, “accessing and expressing conflicting emotions” (Angus et al., p. 259) in the early and middle stages, was proposed as a necessary step towards the destabilization of recovered clients’ dominant same old storytelling state and the emergence of adaptive shifts and self-understanding (Angus et al., 2017). In EFTT

for complex trauma (Carpenter et al., 2016), it was the unchanged clients' group that was shown to narrate significantly higher proportions of C-Competing Plotlines Storytelling marker at the late therapy stage. This finding was proposed to represent unchanged trauma clients' failure to resolve their competing internal plotlines, that were maintaining their maladaptive patterns and storytelling.

Current study findings of significantly higher proportions of C-Competing Plotlines Storytelling marker for recovered clients overall are consistent with findings demonstrated in the NEPCS pilot study with a smaller CBT for GAD sample (Khattra et al., 2018). Recovered clients' higher engagement in the C-Competing Plotlines Storytelling marker overall may indicate higher levels of resolution of ambivalence and commitment to change compared to unchanged clients.

The C-Competing Plotlines Storytelling marker represents similar processes described in the construct of change talk (CT) in research literature (Miller & Rollnick, 2002). The C-Competing Plotlines Storytelling marker was coded in CBT for GAD sessions in the current study when GAD clients challenged their worry/anxiety patterns with/without contradictory evidence, elaborated on the costs of their anxiety concerns and/or expressed a desire and ability to change. Change talk refers to client statements that argue for change including desire, ability, reasons, need, and commitment towards change (MISC 1.1; Glynn & Moyers, 2009). It may also be accompanied by a general optimism about the process of change and accomplishing change, articulation of important values and goals, and disadvantages of the status quo (Westra, 2012). Higher amounts of time spent in change talk have been theorized to signal lower levels of resistance and higher readiness for change (Westra, 2012).

In Moyers et al.'s (2007) examination of therapy sessions of three different types of treatments (CBT, MI enhanced treatment, and 12-step facilitation), change talk as well as counter change talk were found to be independent predictors of outcome (predicting between 19% and 34% of the variance in drinking outcomes), and predicted treatment outcomes up to 15 months post-treatment. Client change talk has also been found to exert a small to medium effect on behavioural outcome for substance use disorders (Apodaca & Longabaugh, 2009).

In the current study, the higher proportions of C-Competing Plotlines Storytelling marker for recovered clients overall, may then possibly represent recovered clients' lower ambivalence towards change and resistance (i.e., higher levels of resolved resistance), as well as higher commitment, and optimism towards change. The following excerpt was taken from client B's session 1, which was coded as C-Competing Plotlines marker, and represents several components of change talk (MISC 1.1; Glynn & Moyers, 2009; *highlighted in brackets below*).

> C: …I am 40 now, and that's why I am like, if I am here on earth another 40, I don't want to be like this anymore [*Desire to change*]. I don't want to take anxiety meds every day. I don't want to work my life around this so that I don't travel, I don't have a relationship [*Need for change; Reasons for change*]. I just feel like it's even become a lonely thing for me because I avoid [*Need for change; Reasons for change*]. But now, I am like an AA addict, I am admitting I have anxiety but what am I going to do about it now? [*Ability to change; Commitment towards change*].

In the CBT for GAD sample in the pilot (Khattra et al., 2018) and current study, higher proportions of the C-Competing Plotlines marker at the late therapy stage, could also mean that recovered CBT clients spent higher amounts of session time engaging with more adaptive cognitive and behavioral possibilities that interject their anxiety-related, same old patterns. This

may point to the possibility that the C-Competing Plotlines Storytelling marker represents an important, acquired client skill of considering and negotiating with adaptive possibilities, and integrating them into maladaptive somatic, emotional, and cognitive responses of anxiety. It may be that recovered clients get better at practicing this skill of cognitive and behavioural flexibility, as therapy progresses (elaborated below).

In CBT for GAD sessions, the client and therapist work on the fundamental treatment goals of cognitive and behavioral flexibility to minimize anxiety (Newman et al., 2020). Through various in-session and homework tasks, clients learn the following adaptive skills and processes that are associated with GAD recovery in contrast to the maladaptive processes that maintain their same old GAD patterns in the long run:

1. Successfully negotiating the costs associated with the anxiety patterns **versus** holding on to previously held positive beliefs about worry (Borkovec & Roemer, 1995).
2. Enhancing attention towards less catastrophic and more realistic possibilities for worries through challenging anxious thoughts with logical evidence. Treating catastrophic interpretations as hypotheses rather than reality, and eventually disconfirming these dysfunctional cognitions through corrective experiences (Newman, Zainal, & Hoyer, 2020) **versus** previously held attentional bias towards and full belief in catastrophic possibilities (Hirsch et al., 2009; Hirsch et al., 2011; Mathews & MacLeod, 2005).
3. Increased agency and hopefulness (e.g., learning better management of anxiety symptoms through learned skills) **versus** negative problem orientation which includes a lack of confidence and pessimism about problem-solving attempts (Koerner & Dugas, 2006).

Instances when clients narrated their engagement in the adaptive processes reviewed above, were coded as C-Competing Plotlines Storytelling marker in the current study. The

acquisition, practice, and proficiency in these skills may be important in and of itself and may represent a positive outcome of successful CBT for GAD therapy, and representative of higher proportions of the C-Competing Plotlines markers for recovered clients at the late stage.

Client(C)-Change markers

Client(C)-Unexpected Outcome Storytelling marker

Recovered clients (vs. unchanged clients) spent a significantly greater percentage of session time narrating the C-Unexpected Outcome Storytelling marker overall, and at the middle and late therapy stages. It is to be noted that both recovered and unchanged clients started off in the early therapy stage evincing low proportions of the C-Unexpected Outcome Storytelling markers (early stage: recovered-0.84% and unchanged-0.18%). However, recovered and unchanged clients diverged significantly in their narrations of the C-Unexpected Outcome Storytelling marker, as therapy progressed in the middle and late therapy stages (middle stage: recovered-6.56% and unchanged-0.69%; late stage: recovered-7.73% and unchanged-1.96%). These finding highlights that at the middle and late therapy stages, recovered clients (vs. unchanged clients) spent a significantly greater percentage of session time, sharing their reports of new and more adaptive behaviours, emotional responses, and/or thought patterns in the context of various CBT tasks. It is possible that resolving ambivalence towards change and challenging maladaptive anxiety patterns with/without evidence (i.e., lower narrations of the C-Same Old Storytelling marker, and higher narrations of the C-Competing Plotlines Storytelling marker at the middle and late stages) allowed recovered clients to simultaneously experience adaptive shifts in their worry and anxiety responses. These findings are consistent with NEPCS findings reported in the CBT for GAD pilot study (Khattra et al., 2018) and the MI-CBT for

GAD sample (Angus & Macaulay, 2023), which have demonstrated higher proportions of C-Unexpected Outcome Storytelling markers for recovered clients overall.

Previous NEPCS empirical findings (Angus et al., 2017) have consistently demonstrated higher proportions of C-Change markers for recovered clients and particularly, the C-Discovery Storytelling in later stage sessions, to indicate that the articulation of a new view of self, others, relationships, and key events, may be essential to recovery, by treatment termination. The frequencies of the C-Discovery Storytelling marker in the current study were quite low (0.38% overall in the total sample), similar to results demonstrated in the pilot study (1.27% of all markers coded; Khattra et al., 2018). The low narrations of the C-Discovery Storytelling marker are consistent with CBT's focus on helping clients change their maladaptive cognitive and behavioural patterns and learn coping skills through concrete and structured tasks. The reconceptualization of self-identity represented by C-Discovery Storytelling marker, may not be an essential, last step to recovery in the CBT for GAD sample. This differs from humanistic treatment samples such as EFT in other NEPCS studies (Angus et al., 2017) that focus on less-structured tasks where restructuring of maladaptive emotional schemes is the treatment focus (Greenberg et al., 1993).

NEPCS-CBT Therapist markers

Therapist (T)-Transition markers

Findings indicated that therapists of unchanged clients spent a significantly higher percentage of session time in the T-Transition marker subgroup as a whole (i.e., combining the averaged proportions of T-Reflective and T-Competing Plotlines Storytelling markers) compared to therapists of recovered clients at the late stage of therapy. This indicates that therapists of unchanged clients spent a significantly greater proportion of session time at the late therapy

stage, inviting unchanged clients to explore their patterns and/or events with internal referents (T-Reflective marker) and challenging unchanged client's problem-focused narratives and anxiety-related patterns (T-Competing Plotlines marker).

Specifically in terms of individual markers, therapists of unchanged clients narrated significantly higher proportions of T-Competing Plotlines marker overall, and especially at the middle and late therapy stages, compared to therapists of recovered clients. The T-Competing Plotlines Storytelling marker was coded in the current study when therapists pointed to and/or prompted clients for alternate evidence, perspectives, therapy tasks, and/or tools to intercept and manage anxiety-related patterns. The following section will elaborate on reasons why therapists of unchanged clients may have engaged in significantly higher proportions of T-Competing Plotlines marker overall, and especially at the middle and late therapy stages.

T-Competing Plotlines marker as a therapist response to navigate higher narrations of the C-Same Old Storytelling marker by unchanged clients. It is interesting to note that both groups of therapists (therapists of unchanged and recovered clients) started off in therapy spending approximately similar proportions of time in the T-Competing Plotlines Storytelling marker at the early stage (i.e., 13.45% - therapists of recovered clients; 12.50% - therapists of unchanged clients). However, by the middle and late therapy stages, therapists of unchanged clients used the T-Competing Plotlines Storytelling marker as an intervention in significantly higher proportions than therapists of recovered clients (middle stage: 22.63% - therapists of unchanged clients; 9.04% - therapists of recovered clients; late stage: 22.53% - therapists of unchanged clients; 11.23% - therapists of recovered clients).

The significant increase in the narrations of the T-Competing Plotlines Storytelling marker, at the middle and late stages, by therapists of unchanged clients suggests that this

intervention may partly be in response to and/or represent an interaction with unchanged clients' engagement higher in the C-Same Old Storytelling marker compared to recovered clients at the middle and late-stage sessions. Particularly, as elaborated in sections on client markers above, unchanged clients engaged in significantly higher proportions of C-Same Old Storytelling marker overall, and at the middle and late-stage sessions, compared to recovered clients. The higher proportions of the C-Same Old Storytelling marker for unchanged clients may represent unchanged clients' higher levels of client ambivalence towards change and interpersonal resistance, as elaborated in sections above.

It may be possible that therapists of unchanged clients navigated their clients' significantly higher narrations of C-Same Old Storytelling, by increasing their use of the T-Competing Plotlines Storytelling marker at the middle and late therapy stages. That is, therapists of unchanged clients possibly became more directive through their narrations of the T-Competing Plotlines marker (i.e., challenging their clients' maladaptive patterns) in response to higher client narrations C-Same Old Storytelling marker at the middle and late therapy stages. In her book on motivational interviewing for anxiety disorders, Westra (2012) highlights that when clients argue in favour of the status quo and/or against change (C-Same Old Storytelling in NEPCS terms), therapists often feel the pull to correct and remediate it by persuading clients of the benefits of change and the treatment plan (i.e., T-Competing Plotlines Storytelling in NEPCS terms). Westra (2012) termed this type of a therapist inclination to remediate and shut down client dismissals and reservations about change and treatment as the "righting reflex" (p. 78) which can further stroke lower levels of client engagement rather than making clients more engaged with the treatment process. In the current study, the significant increase in the narrations of the T-Competing Plotlines Storytelling marker, at the middle and late stages, by therapists of

unchanged clients may represent the "righting reflex" (Westra, 2012) in response to unchanged clients' hesitations about change and/or stuckness in same old story narratives (C-Same Old Storytelling marker). The employment of higher proportions of the more directive therapist intervention - T-Competing Plotlines marker, by therapists of unchanged clients may represent the "righting reflex" to correct and/or push unchanged clients to move out of their same old story narratives at the middle and late therapy stages.

Empirical evidence also supports the assertion that client engagement in the same old narratives often pulls for more therapist directivity (Westra, 2012). For example, Ahmed et al., (2012) compared moments in the same CBT session when GAD clients were cooperative to moments when clients showed signs of resistance (e.g., clients making counter-change statements or resistance to the therapist). In moments of resistance, therapists demonstrated substantially lower levels of affirming and understanding, and substantially higher attempts to control or influence the client. This indicated that client resistance pulls for lower levels of therapist support and higher levels of therapist directivity. Ahmed et al. (2012) also demonstrated that CBT therapists' responses to client resistance by becoming increasingly directive (e.g., increasing adherence to treatment rationale and technical skills), as in the current study, resulted in further negative process and reduced client engagement (e.g., greater client hostility, less friendly connection with therapist, less self-expression, lower self-disclosure, and therapists displaying greater hostile control and granting less autonomy). Similar dynamics have been demonstrated in other research studies in which CBT therapists continued to apply standard CBT techniques and increased therapist directivity when faced with resistance and non-compliance (Leahy, 2001), resulting in poorer treatment outcomes (Aspland et al., 2008; Castonguay et al., 1996). Based on such research evidence, it is possible that the over-reliance on the T-Competing

Plotlines Storytelling marker by therapists of unchanged clients may have enhanced client ambivalence and interpersonal resistance in subsequent sessions, contributing to lower treatment gains for unchanged clients compared to their recovered peers.

Impact of higher proportions of T-Competing Plotlines intervention on unchanged clients' treatment engagement and self-efficacy. A continued, higher engagement in the T-Competing Plotlines Storytelling marker by therapists of unchanged clients also suggests that instead of drawing alternative evidence and strategies to intercept clients' anxiety patterns, out of the clients, therapists offered these challenging reflections themselves. In the trial comparing the effectiveness of MI integrated with CBT versus CBT for severe GAD (Westra, et al., 2016), that the current study drew its sample from, findings indicated that there were no significant differences in treatment outcome between the CBT and MI-CBT group at posttreatment from pre- to posttreatment. However, over the follow-up period, MI-CBT clients demonstrated a steeper rate of worry decline and general distress reduction, compared to CBT clients. In addition, the odds of MI-CBT clients no longer meeting the GAD diagnostic criteria were 5 times higher at 12-month follow-up, compared to CBT clients, supporting the integration of MI with CBT for severe GAD. Westra et al. (2016) hypothesized that within the MI-CBT group treatment, clients may have had a greater opportunity to explore and resolve their ambivalence regarding change, which resulted in them becoming more committed to change and protected MI-CBT clients from relapse after posttreatment compared to CBT clients. Westra et al. (2016) also proposed that clients in the MI-CBT group may have continued to show improvements after posttreatment compared to the CBT group, due to MI-CBT clients' higher levels of internalized client agency and self-trust.

This self-trust may have been derived from MI-therapists operating from and cultivating the MI spirit that focuses on client collaboration, autonomy, compassion, and evoking client's ideas about change from the client (Miller & Rollnick, 2002). More specifically, the MI-spirit includes "freedom from pressure to change, trust in the client's self-righting and problem-solving capacity, and creating an atmosphere of discovery" (Westra, 2012; p. 70). This MI-spirit then may have allowed MI-CBT clients to freely explore their ambivalence in terms of a higher understanding of the conflicts that keep them stuck and a deeper knowledge of their own values. It may be that when given a space to explore their feelings about change without pressure to change, and autonomy to change in their own way and at own pace, clients are much more likely to internalize a greater sense of self-efficacy about change and side with articulating the benefits of experimenting with change (i.e., change talk) themselves, and eventually choose to let go of their worry (Constantino et al., 2019; Westra, 2012).

In the RCT comparing MI-CBT vs. CBT for GAD (Westra et al., 2016; study from which current study sample was drawn from), Constantino et al. (2019) demonstrated that MI-CBT clients (compared to CBT clients) evidenced less resistance and perceived greater therapist empathy, both of which related to lower 12-month worry scores. However, when both these variables were tested simultaneously, only resistance remained a significant mediator of treatment. Specifically, 76% of the effect of treatment condition on 12-month worry was transmitted through the mediator of treatment resistance. These results also demonstrated that reducing/resolving clients' resistance is the theory-specific mechanism through which MI-CBT exerts its additive effect on worry reduction across the 12-month follow-up period. The mediating effect of resistance was not found to be further mediated by greater subsequent client engagement (i.e., later treatment alliance quality and homework completion). The lack of

mediation by common treatment processes of alliance and homework completion suggests that the management of resistance may be important in and of itself, instead of being helpful through the improvement of outcomes by "getting treatment back on track" and enhancing alliance and homework compliance (Constantino et al., 2019; p. 222). Constantino et al. (2019) highlights that resolution of resistance in MI-CBT is not simply a "process means to a process end (greater treatment engagement)" (p. 222) but may represent a novel, corrective experience in and of itself that results in lower levels of worry for MI-CBT for GAD clients in the long-run. Specifically, the corrective component may lie in MI-CBT therapists communicating their support of client autonomy and MI-CBT clients being able to trust their sense of direction, especially when it goes against therapist direction. The benefits of such a corrective experience (higher agency and self-efficacy) may become more evident once therapy ends, and clients need to cope independently without therapist direction. This may indirectly help explain why MI-CBT and CBT treatment did not differ in primary outcome results at post-treatment and why MI-CBT's advantage was demonstrated at the 12-month follow-up mark (Westra et al., 2016).

The results demonstrated by Westra et al. (2016) and Constantino et al. (2019) above highlight that in the current study, therapists continually challenging unchanged clients' narrations (through T-Competing Plotlines Storytelling marker) of the C-Same Old Storytelling at the middle and late therapy stages, might have implicitly communicated that unchanged clients needed therapist guidance instead of trusting their own sense of direction and indicators of ambivalence. This therapeutic approach may have also trained unchanged clients to have lower self-trust in their own indicators of ambivalence, and engage in therapy in a more passive manner, where the reasons for changing and alternative evidence, come primarily from their therapists. Westra (2012) highlights that clients are highly attuned to signs when their therapists

have a change agenda and are motivated to push their clients towards the development of an alternate perspective. In these cases, instead of asserting their autonomy, often clients choose to "acquiesce" (Westra, 2012; p. 167) or go along passively with the therapist's agenda, to avoid the risk of hurting or rejecting the therapist to eventually safeguard the therapeutic alliance (Westra, 2012) which may have also occurred for unchanged clients in the current study. On the surface then, clients may agree with therapist's direction and may stop expressing their doubts, which may appear like successful management of resistance, but in reality, it may represent acquiescence rather than resolution.

Therapists of recovered clients in the current study on the other hand, seemed to let their clients take an active lead in terms of challenging their own anxiety patterns, which was made evident through current study findings highlighting that recovered clients spend a significantly greater amount of session time in C-Competing Plotlines compared to unchanged clients overall, and especially at the late therapy stage (elaborated above). The allowance of space for recovered clients to challenge themselves through the C-Competing Plotlines marker, may have engendered recovered CBT clients with an MI-consistent sense of higher agency and self-efficacy, which may also relate to recovered CBT clients in the current study sample retaining their 12-month follow-up outcome status from posttreatment.

Recommendations to manage key moments of resistance in client narrations of C-Same Old Storytelling markers instead of using the T-Competing Plotlines marker. A large body of psychotherapy research reviewed above (e.g., Aviram et al., 2016; Constantino et al., 2019; Miller & Rollnick, 2002; Westra et al., 2016) supports the integration of MI-like strategies of rolling with resistance, higher levels of empathy, evocation, collaboration, and support of client autonomy, especially during key moments of resistance. Specifically, Aviram et al. (2016)

demonstrated that CBT for GAD clients whose CBT therapists operated from higher MI-consistent responses, particularly during disagreements episodes, had lower levels of posttreatment worry, subsequent resistance, and better treatment outcomes. Aviram et al. (2016) also demonstrated that the use of therapist MI-consistent behaviours in randomly selected therapy segments were not related to posttreatment worry, subsequent resistance, or treatment outcomes. These findings (Aviram et al., 2016) highlighted the importance of therapist context-responsivity and shifting to MI-like behaviours, especially during crucial moments of resistance, and not whenever/randomly selected moments. Aviram et al. (2016) highlighted that MI-consistent interventions by CBT therapists at crucial moments supported clients' autonomy to hold their own beliefs and make decisions even when they were not aligned with therapist goals, which helped clients achieve better treatment outcomes. Kertes et al., (2010) also demonstrated that more effective CBT therapist tend to be more "MI-therapist like" in terms of being more client-centered, collaborative, evocative, prioritizing active client participation whereas less effective CBT therapists were found to be more compliance-oriented.

Research evidence (Aviram et al., 2016; Constantino et al., 2019; Miller & Rollnick, 2002; Westra et al., 2016) and current study findings highlight the need for therapists to pay attention to moments when they seem to be pushing and championing change through increased narrations of T-Competing Plotlines Storytelling marker, more than their clients. In accordance with Aviram et al.'s (2016) findings, in these crucial moments, therapists may also benefit from welcoming and deferring to client autonomy, i.e., clients' difference of opinion and/or ambivalence about change, and direction of therapy (e.g., using certain skills, completing homework etc.). Westra (2012) recommends that therapists be able to identify and use client narrations of ambivalence as a process marker that when it emerges, to shift to specific strategies

that empathetically help clients elaborate on change-related fears and concerns. Westra (2012) highlights that from an MI-perspective, resistance to change can reflect fear, learned survival strategies, ways of expressing core values, and previously adaptive problem-solving strategies. Giving up the status quo can then reflect giving up on existing ways of being, identity, surviving, and ways of expressing core needs. This way of conceptualizing resistance to change can naturally open therapists up to hearing, empathizing with, and validating important messages communicated by their client's ambivalence and resistance. Westra (2012) recommends several prompts to explore resistance to change when it arises such as linking the client's resistance to change (behaviour/belief) with its value; linking client's resistance to change with common humanity; resonating and prizing client's "maladaptive" belief/behaviour for its function; encouraging clients to verbalize their experience with the opposite what anxiety tells them to do; exploring developmental origins of behaviour/pattern; and guessing/reflecting at high-level client's meanings and underlying beliefs.

Miller and Rollnick (2002) have also outlined a number of specific MI responses that encapsulate the spirit of rolling with resistance in such cases such as – acknowledging client's disagreement (simple reflection); reflecting back what the client has said in an exaggerated manner (amplified reflection); finding something positive the client has said to prize the client and offer a new meaning (reframing); offering acknowledgement with a simultaneous change of direction to continue to influence the direction of change (agreeing with a twist); explicitly reassuring the client of their personal choice, autonomy, and control; therapists occupying the status quo position which in turn, encourages client to articulate the change position (coming alongside - not with a paradoxical intention to trick the client into changing but with a genuine intention to side with the client); and shifting focus away from the stumbling block.

From an NEPCS lens, Westra's (2012) and Miller and Rollnick's (2002) suggested therapist interventions would be represented by an increased therapist engagement in the T-Reflective and T-Same Old Storytelling markers. These markers focus on therapists inviting clients to reflect on (describe, explore, and/or explain) their patterns, same old stories, concerns, hesitation/fears about change (T-Reflective Storytelling) as well empathizing with and encouraging clients to elaborate on the benefits of staying the same/maladaptive patterns in connection to their important values (T-Same Old Storytelling marker), rather than becoming more directive, challenging and less responsive, through a greater engagement in challenging client's patterns (T-Competing Plotlines Storytelling marker).

Therapist(T)-Information (Info) marker

All therapists, irrespective of the outcome group they worked with, engaged in significantly higher proportions of the T-Info Sharing marker at early vs. middle, early vs. late, and middle vs. late stages of therapy. The T-Info Sharing marker was coded when therapists provided psychoeducation, set up in-session tasks, provided homework, engaged in administrative tasks (e.g., scheduling session) and/or engaged in non-therapy related conversations. Significantly higher proportions of the T-Info Sharing marker in the early vs. middle and late therapy stages makes sense given that as clients enter therapy, they need more therapist-guided psychoeducation, orientation, and socialization to therapy tasks. As clients get more knowledgeable and familiar with therapy tasks and procedures, therapists engage in significantly lower proportions of the T-Info Sharing marker as therapy progresses from early to middle to late therapy stages.

Clinical Implications for practice

Findings of the present study highlight the need for therapists to intervene responsively (Stiles et al., 1998) to key client and therapist NEPCS markers on a moment-to-moment basis. For example, these findings suggest that therapists could facilitate productive therapeutic process by identifying high, early indicators of ambivalence markers/return to problem markers, counter change talk, or the C-Same Old Storytelling marker. In CBT for GAD treatments, such client ambivalence may be expressed when clients have consistent difficulties with completing therapy tasks (e.g., not completing a homework task/practicing a skill, not being able to come up with alternative evidence/possibilities, complaining about the effort required to complete tasks) and in general, when assuming a passive role in therapy sessions (e.g., Newman, 2002). These moments could signal that therapists need to pay special attention to client's fears, hesitations, and uncertainties about letting go of certain patterns, while embodying the MI spirit of reinforcing client autonomy, freedom from pressure to change, and nurturing a space for discovery and curiosity, and using MI techniques (e.g., rolling with resistance, exploring resistance; Aviram et al., 2016; Constantino et al., 2019; Miller & Rollnick, 2002; Westra et al., 2016). In NEPCS terms, these would translate into the use of therapist interventions of T-Reflective Storytelling ('T invites C to describe, explore, and/or explain a pattern/event') and T-Same Old Storytelling ('T invites focus on C's maladaptive anxiety patterns') markers.

While engagement and negotiation with the C-Same Old Storytelling marker is needed to explore and understand repetitive and maladaptive patterns, therapists may also need to pay attention to moments when clients engage with them on a sustained basis after the early stages of treatment. After the early sessions, sustained and higher narrations of the C-Same Old Storytelling marker may suggest that therapy tasks are exceeding client's level of readiness for change, and client's ability to integrate novel, more adaptive perspectives into their same old

narratives. In these moments, therapists are recommended to watch for excessive frequency and inappropriately timed use of directive therapist interventions such as the T-Competing Plotlines, in response to client ambivalence/interpersonal resistance, which may inadvertently trigger more client ambivalence and interpersonal resistance. Therapists may also need to watch for extended moments in sessions when challenges to clients' same old patterns and therapeutic suggestions, come primarily from the therapists, rather than the clients. Similar to the recommendation above, instead of offering alternatives and challenging evidence to clients in these moments through the T-Competing Plotlines marker, clients may benefit from the use of MI-like strategies of rolling with resistance, higher levels of empathy, evocation, collaboration, and support of client autonomy (e.g., Miller & Rollnick, 2002; Westra et al., 2016; Aviram et al., 2016). From the NEPCS perspective, these may translate into the use of T-Reflective Storytelling ('T invites C to describe, explore, and/or explain a pattern/event') and T-Same Old Storytelling ('T invites focus on C's maladaptive anxiety patterns') markers.

Lastly, therapists are recommended to facilitate deeper, emotional processing related to clients' anxiety patterns (e.g., making connections between client's patterns and their costs/benefits; making links between client's cognitions, emotions, bodily sensations, and behaviours; providing clarity/interpretations for client's patterns etc.) through the T-Reflective Storytelling marker, to improve treatment outcomes in CBT for GAD treatments.

Considering the value of developing the NEPCS-CBT manual

The purpose behind the revision of the NEPCS-CBT manual was to differentiate CBT therapist responses coded as 'No Client marker', in terms of NEPCS linguistic and behavioral indicators, as well as to further refine already-existing client NEPCS markers in the NEPCS 2.0 manual (Angus et al., 2017). A descriptive comparison of the marker proportions between coding

with NEPCS 2.0 in the pilot study (Khattra et al., 2018) and NEPCS-CBT manual in the current study, highlights the diversity of client and therapist responses in the current study using the revised NEPCS-CBT manual.

Table 3

Descriptive comparison of NEPCS marker percentages with coding in Khattra et al., (2018) using NEPCS 2.0 (Angus et al., 2017), versus coding in the current study using NEPCS-CBT manual

NEPCS marker	Marker percentages - coding with NEPCS 2.0 in the pilot study (Khattra et al., 2018)	Marker percentages - coding with NEPCS-CBT manual in the current study
C-Same Old Storytelling	4.58	18.03
C-Empty Storytelling	1.80	0.84
C-Superficial Storytelling	22.4	3.44
C-Unstoried Emotion	0.39	0.03
C-Reflective Storytelling	10.2	12.66
C-Competing Plotlines Storytelling	9.20	6.97
C-Experiential Emotion	0.68	0.72
C-Inchoate Storytelling	0.34	0
C-Unexpected Outcome Storytelling	3.75	2.92
C-Discovery Storytelling	1.27	0.38
No Client marker (Therapist-talk)	45.4	
T-Same Old Storytelling		4.83
T- Competing Plotlines Storytelling		15.90
T-Reflective Storytelling		8.73
T-Unexpected Outcome Storytelling		0.52
T-Discovery Storytelling		0.06
T-Information sharing		23.99

As Table 3 highlights above, the proportions for the C-Superficial Storytelling marker in the current study (i.e., 3.44%) were quite a bit lower compared to its proportions (i.e., 22.4%) in the pilot study (Khattra et al., 2018). This may suggest that in previous coding with the NEPCS 2.0 (Angus et al., 2017), important processes that did not fully meet criteria or threshold for other

client markers, were coded and subsumed under the C-Superficial Storytelling marker. The addition of CBT task-based criteria to newly revised client markers and the addition of therapist markers/interventions allowed for a differentiated, context-based coding in which CBT-specific processes missed earlier, were picked up and represented in the current study. This suggestion is supported by the higher proportions of the C-Same Old Storytelling marker (i.e., 18.03%) in the current study compared to pilot study (4.58%) Khattra et al., 2018). Furthermore, the homogenous category of 'No Client marker' which was the most frequently occurring marker in the pilot study (i.e., 45.4%; Khattra et al., 2018) has been differentiated into discrete, therapist intervention categories in the current study.

Table 4 below exemplifies the diversity of client and therapist processes that were captured in the coding for the current study using NEPCS-CBT manual (Appendix B) versus coding in the author's master's thesis pilot study (Khattra et al., 2018) using NEPCS 2.0 (Angus et al., 2017), using a segment of session transcript from the study sample. The example below compares coding for the previous pilot study (Khattra et al., 2018) and the current study, for the same therapy session segment for client B (session 1, minutes 36-38).

Table 4

Comparison of coding with NEPCS markers in Khattra et al., (2018) using NEPCS 2.0 (Angus et al., 2017), and coding with revised client and therapist NEPCS markers in the current study using NEPCS-CBT manual

Old NEPCS marker in Khattra et al. (2018 - Coded with NEPCS 2.0, Angus et al., 2017)	**New NEPCS marker in the current study (Coded with NEPCS-CBT)**	**Transcript**
		Minute 36 T: Ok so let's draw it out, this model for your situation. You told me you are a visual learner, so this should be good (*T and C smile*). And then we will add to it as we go. But this will be our roadmap. Let's start at the top with physiological components of anxiety. So, what kind of physiological symptoms do you experience? There is poor sleep you said before. How much sleep are you getting typically? C: I am getting 4 hours. T: Is it broken? Or is it straight through? Are you tired when you wake up? C: I am tired usually. If I got 4 hours straight, I would be happy. So yeah, it is broken. Since the meds, things are better but not there fully. T: So yeah, if you are not getting good sleep, you will be more irritable, it impacts relationships, your work, it would be harder to do things efficiently in the day, yeah, it's really hard, makes everything harder. C: Oh yeah, the girls at work say, you are unbearable, small things set you off. My boss gave me a card joking about my temperament. T: Yeah, that's a sign. So poor sleep also probably affects your thinking and your behaviours right?
No Client marker	**T-Same Old Storytelling marker** **(*T asking client for specific examples of client anxiety patterns-physiological symptoms, and empathizing with client concerns*)**	
	C-Same Old Storytelling marker **(*C elaborating on entrenched anxiety patters - automatic negative thoughts***	**Minute 37** T: Can you think of a thought you have? C: Yeah, I am more irritable. Hmm, a thought – I want to kill my boss probably (*T and C laugh*). I can't handle him, I want to wring his neck, I want to walk out of the door at work. (*T writing it down*). T: What about other physiological stuff? C: The stomach for sure, so stomach cramping. Feeling that I have to go when I don't. And urinating a lot, I do that, I
C-Superficial Storytelling marker		

	***and uncontrollable physical symptoms of anxiety*)**	barely drink any water but the frequency of peeing is so high. Oh, and sweating. I sweat so much when I am anxious. The girls make fun of me that the AC is as high as possible and I am still sweating, always hot, all the time.
C-Superficial Storytelling marker	**C-Same Old Storytelling marker (*C elaborating on automatic negative thoughts, catastrophic interpretations, and uncontrollable physical symptoms*)**	**Minute 38** T: So, you do anything differently when you sweat a lot? C: I put on more deodorant (*C and T laugh*). Oh, and I also feel a lot of chest tightness. That is huge for me. It is constant. Meds have helped a bit but it's there. T: So, when you have to use the washroom a lot, or you are scared you will go in your pants, what kinds of thoughts are you having? C: I can't control this. I am crazy, why is this happening? This is so stupid, embarrassing. The embarrassment is huge especially, imagine if it were to happen. The thought is if I crap myself, oh my god! What am I going to do? Where am I going to go? What if someone sees me? It's just this fear of someone seeing me like that. (*T writing down*) T: Mhm, lots of thoughts. Any other big anxiety thoughts we haven't gone over? C: I want this to stop. Why am I like this? I am so weird. People always compliment me that I am so funny, so smart. Other people have this image of me that I don't. Like I don't think I am all that because look at me, I can't control these small things like going to the washroom.

As evident in Table 4 above, coding with the revised client markers criteria and newly created therapist markers captured a more nuanced, CBT-task focused, and dynamic client-therapist process, instead of homogenously coding important therapist interventions as 'No Client marker' and client processes as 'Superficial Storytelling marker' as in the pilot study (Khattra et al., 2018). The addition of therapist-directed task criteria (i.e., therapist collaborating with the client on understanding/conceptualizing client anxiety patterns using the CBT model in session 1) in the NEPCS-CBT manual, allowed client processes that meet criteria for C-Same Old Storytelling marker, to be captured instead of being missed. These processes were missed in the pilot study (Khattra et al., 2018) because in coding with the NEPCS 2.0 manual (Angus et al., 2017),

developed in the context of humanistic treatment modalities, clients typically narrated the C-Same Old Storytelling marker in an open-ended way, without much therapist directiveness and guidance. In CBT for GAD sessions, clients delve into narrations of their same old story with therapist prompts and guidance (e.g., therapist asking specific questions about physiological anxiety symptoms), within the structure of CBT tasks. This typically results in client narratives that are slightly more fragmented due to therapist inquiries and represent individual pieces of the larger same old story pattern (e.g., cognitions, emotions, and somatic components of the same old anxiety story), but still carry the essence of the C-Same Old Storytelling marker (e.g., over-general descriptions of interpersonal, behavioural, thought patterns or emotional states, accompanied by a sense of stuckness). The higher diversity of client responses and the differentiation of the 'No Client marker' into discrete therapist interventions that were being missed before, demonstrates the usefulness of the revised NEPCS-CBT manual for application to a CBT for GAD sample.

Limitations and Future Directions

The current study had several limitations. Specifically, while the currently sample size (*N* = 10 clients; 60 therapy sessions) was larger compared to pilot study (*N* = 6; 36 therapy sessions; Khattra et al., 2018), it still only accounted for approximately one-fourth of the total number of CBT-alone participants (*N* = 43) included in the larger trial (Westra et al., 2016) from which the current study sample was drawn. This may have precluded the detection of significant findings due to low power. This also limits the generalizability of the findings to a whole CBT for GAD treatment sample. Conversely, due to the smaller sample size, a few clients or outliers who narrated higher proportions of certain markers may have affected findings, instead of the findings being reflective of the whole sample.

It must also be noted that the current study did not assess the nature of therapist interventions within 1-minute client-dominated clips (i.e., 1-minute clips where clients talked for 30 seconds or more). The current study only explored the nature of therapist interventions in 1-minute therapist-dominated markers (i.e., 1-minute clips where therapists talked for 30 seconds or more). The exploration of therapist behaviours in client-dominated markers, may also be important to understand how therapists facilitate client shifts with micro-interventions (e.g., encouragers, validation, normalization of client concerns etc.) in future studies. Xu et al. (2023) has preliminarily explored such therapist behaviors that precede client change shifts in client-dominated clips, as identified by the NEPCS (Angus Narrative-Emotion Marker Lab, 2015) in 12 sessions from four successful EFTT cases.

Another limitation of the current study was that it did not take into consideration and control for client pretreatment variables such as client readiness for psychotherapy and change, therapist differences, and therapist adherence to CBT protocol, which may have influenced findings. In future research studies, it would also be interesting to understand how NEPCS client and therapist markers cohere with other psychotherapy process markers. Specifically, a possible direction from the current study findings may be to explore the association between client individual differences and factors such as readiness for change to patterns of NEPCS client Problem (e.g., Same Old Storytelling marker) and Transition (e.g., Reflective and Competing Plotlines Storytelling markers) markers. Another direction would be to explore which patterns of NEPCS client and therapist markers emerge predominantly in the context of client-therapist disagreement episodes in CBT for GAD sessions (Aviram et al., 2016) from the larger trial (Westra et al., 2016). It would also be interesting to explore how these patterns of NEPCS client and therapist markers relate to therapist levels of supportive vs. directive behaviours during these

episodes (e.g., measured using the 'Disagreement MI Adherence' global from the Motivational Interviewing Treatment Integrity scale, version 3.1.1; Moyers et al., 2010). Lastly, the primary coder was not blind to the client outcome status and therapy stage, which may have resulted in biased coding.

Conclusion

The present study made a preliminary contribution towards the systematic development of a revised NEPCS-CBT manual suited for application to therapist and client responses in CBT for GAD sessions. It was the first study to differentiate therapist interventions in the 'No Client marker' segments into discrete NEPCS-CBT therapist markers, in terms of NEPCS linguistic and behavioral indicators of Problem, Transition and Change markers, and explore them statistically. The NEPCS-CBT manual also included the revision of client markers with CBT-task based criteria, to better reflect client processes evidenced in the context of engaging in CBT for GAD session tasks. The creation of the NEPCS-CBT manual and its application to an expanded sample allowed for a more dynamic and contextually informed coding which was evident in the diversity of client and therapist markers in the current study compared to the pilot study using NEPCS 2.0, developed initially in the context of a humanistic and narrative-informed, Emotion-Focused Therapy approach (Angus & Greenberg, 2011). In particular, coding with the NEPCS-CBT manual identified unique patterns of client and therapist markers associated with GAD recovery and pointed to important clinical implications for CBT therapists.

The Same Old Storytelling marker processes which include expressions of dominant, maladaptive, over-general views of self and relationships marked by lack of agency, seemed to be more common for unchanged clients, right from the start of treatment and continuing into the late stages of treatment as well. This points to the possibility that unchanged clients entered

therapy with a lower readiness for change, compared to recovered clients, and continued to struggle with abandoning their maladaptive patterns and resolving ambivalence about change. Higher levels of unexplored and unresolved ambivalence towards change at the early stages of treatment for unchanged clients might have transformed into higher interpersonal resistance at the middle and late therapy stages, through challenging therapist interventions. Evidence demonstrated in the current study indicates that therapists of unchanged clients spent significantly higher proportions of time in the more directive and challenging intervention of the T-Competing Plotlines marker at the middle and late stages. This provides support to the notion that CBT therapists may have navigated unchanged clients' ambivalence (C-Same Old Storytelling marker) through the use of -Competing Plotlines marker at the middle and late therapy stages. The directiveness, challenging, and demands for change inherent in the T-Competing Plotlines marker may have inadvertently enhanced unchanged clients' stuckness, generated higher interpersonal resistance, and negatively impacted client engagement in terms of higher client passivity, in line with previous research findings (e.g., Aviram et al., 2016; Constantino et al., 2019; Miller & Rollnick, 2002; Westra, 2012; Westra et al., 2016).

The C-Reflective Storytelling marker (i.e., explaining/exploring patterns and events with internal referents) seemed to more common for recovered GAD clients at all stages of treatment, which has been supported by previous NEPCS research (Khattra et al., 2018; Macaulay & Angus, 2023). This supports the idea that the C-Reflective Storytelling marker may represent a key narrative-emotion process that captures deeper emotional processing that is posited in research literature as needed for successful extinction of GAD and worry patterns (e.g., Foa & Kozak, 1986; Mennin et al., 2002; Newman et al., 2008; Roemer & Orsillo, 2007). The C-Competing Plotlines marker appeared in higher proportions at the late therapy stages, for

recovered clients. This suggests that the C-Competing Plotlines marker may represent a learned skill of clients challenging and integrating novel information into their same old narratives of catastrophic and limiting anxiety-based thoughts, emotions, and behaviours, to update them to be more realistic. GAD clients' engagement and proficiency in this skill at the late therapy stage may represent an important indicator of change in and of itself in CBT for GAD treatment. Higher narrations of the C- Unexpected Outcome Storytelling marker, which indicates reports of adaptive shifts in therapy, also seemed to be more common for recovered clients from middle to late therapy stages, as they challenged and integrated adaptive information into their same old stories, and eventually translated them into concrete shifts.

In terms of clinical implications, the findings point to therapists needing to pay attention to high narrations of the C-Same Old Storytelling marker at the early therapy stages and inviting clients to open up about their ambivalence about the treatment and change process. After the early sessions, sustained engagement in the C-Same Old Storytelling marker may indicate unresolved ambivalence and/or interpersonal resistance. In these moments, therapists are recommended to lower their use of directive and challenging strategies such as the T-Competing Plotlines marker to attenuate its negative effects on interpersonal resistance, and instead opt for MI-like strategies of rolling with resistance, higher levels of empathy, evocation, collaboration, and support of client autonomy (e.g., Miller & Rollnick, 2002; Westra, 2012). In NEPCS terms, these supportive strategies indicate the use of T-Reflective Storytelling ('T invites C to describe, explore, and/or explain a pattern/event') and T-Same Old Storytelling ('T invites focus on C's maladaptive anxiety patterns') markers.

Despite its limitations, the present study makes a preliminary contribution to NEPCS research literature through the systematic development of a revised NEPCS-CBT manual suited

for application to CBT for GAD sessions. Findings highlight key client narrative-emotion processes and their interaction with therapist interventions, in the form of NEPCS-CBT markers, through which successful CBT psychotherapy treatment for GAD occurs.

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Appendix A

Table A1

Narrative-emotion Process Coding System Version 2.0 Short-Version (NEPCS; Angus Narrative-emotion Marker Lab, 2015; Angus et al., 2017)

	Marker	Process Indicators	Examples
Problem marker subgroup	**Same Old Storytelling**	Expressing dominant, maladaptive, over-general views of self and relationships marked by lack of agency, stuckness.	*She was never concerned about me, she was only concerned with herself. Behave, be good, don't cause me any trouble.*
	Empty Storytelling	Describing an event with a focus on external details and behavior, and a lack of internal referents or emotional arousal.	*I was crying on the floor. The lady next door, her daughter was our babysitter, she was 16. She made me some eggs with cheese on top.*
	Unstoried Emotion Storytelling	Experiencing undifferentiated, under- or over-regulated emotional arousal, without coherent narration of the experience.	T: *Sad, so sad.* [25 sec pause, client stares at ceiling] *Are you holding back right now?* C: *Yes. 'Cause I have to take a bus later. I can't be on the bus with tear-stained eyes.*
	Superficial Storytelling	Talking about events, hypotheticals, self, others, or unclear referents in a vague, abstract manner with limited internal focus.	*The way that she talked to me and treated me in front of friends, and family. Even like my sister and father, just things that she says and does.*
Transition marker subgroup	**Competing Plotlines Storytelling**	An alternative to a dominant view, belief, feeling, or action emerges, creating tension, confusion, curiosity, doubt, protest	*I have 3 healthy children, a house, we're not wealthy but we're okay, and I sort of go...why am I not...happier? I don't know.*
	Inchoate Storytelling	Focusing inward, contacting emergent experience, searching for symbolization in words or images.	*…things seemed ok on the outside. But inside, there's...* [closes eyes, frowns] *a, like a* [silence] *black hole or a void, or…*
	Experiential Storytelling	Narrating an event or engaging in a task as if re-experiencing an autobiographical memory or interpersonal scheme.	*I walked and walked and walked like I was in a fog. It was raining and dark, and I got wound up, and I just had to walk it off. I was soaking wet but didn't care.*
	Reflective Storytelling	Explaining a general pattern or specific event in terms of own or others' internal states (thoughts, feelings, beliefs, intentions).	*There was nobody who cared, and so eventually I stopped showing them how I felt. Somewhere between there and here I stopped feeling it.*

Change marker subgroup	**Unexpected Outcome Storytelling**	Describing a new, adaptive behavior (action, thought, feeling, response) and expressing surprise, pride, relief, contentment.	*I was so anxious, but instead of wallowing in it like usual I thought 'what can I do?' So I [did] the muscle relaxation stuff…it felt so good. After, I felt like a different person.*
	Discovery Storytelling	Reconceptualizing, or articulating a novel understanding of the self, others, key events, behavior patterns, or change processes.	*I've been thinking about the theme of being uninvited in the world. I think, I never did it consciously, but I realize that I've seen myself as an intrusion for a very long time, and…*

Narrative and Emotion Process Coding System

(NEPCS)

Version 2.0 (2015)

Department of Psychology

York University

Toronto, Ontario, Canada

Marker Description	Indicators	Examples
Same Old Story		
Client's story involves over-general descriptions of interpersonal, behavioural, or thought patterns or emotional states, accompanied by a sense of stuckness.	Linguistic indicators: always, never, no matter what, here we go again. Low personal agency • Client may express helplessness, powerlessness, hopelessness, or resignation. • Client may view problematic patterns as maintained by forces outside of the self. Generic ABM, or combination specific/generic ABM • Generic ABM – Personal recollections that represent a blend of many similar events repeated over a long period of time. This includes memory descriptions of non-specific events that lack discrete connection to a particular moment in time (in contrast with a single-event memory that is specific and focused on a particular incident**).** Generic ABMs blend unique events into an amalgam or schematic representation that is meant to capture key commonalities that link the events together. • Combined Specific/Generic ABM – Represents a narrative sequence in which a specific incident or life event is contextualized within an overall life theme or pattern of life events. In this category, the specific event is used as a best exemplar of an important life theme; the meanings attached to the single event are generalized to other contexts and time periods in the person's life. Emotion is global, non-specific (secondary emotion) • An emotional response to another emotion (e.g. one emotion interrupts another emotion) • Does not fit the person's appraisal of the situation	C:…*getting all the negative message like never getting any encouragement…it's almost like* [my husband's]…*point of view is the only right one…and everybody has to follow it, like there's nothing outside of that…it's just like whichever way I turn, you know no matter what…it's never the right thing and he just doesn't want to be around me.* *** C: *Well all I can really say is that I remember the statement that she made at the time, but I guess at the time I didn't really, you know, didn't really click in, or pay much attention to it, other than that she made the statement that I guess she was number one, and everything else took second place.* T: *And, somewhere along the way there I guess you've come to realize, that's who she is.* C: *Yeah. She was never concerned about me. She was concerned about herself.* T: *Like there's no two-way in this relationship, it feels like it's all about her*. C: *It's all the one way, yup. Behave, be good, don't give me any trouble or cause me any misery, or cause me any discomfort.* T: *She's still like that* C: *Oh, yeah. Mmhmm. Yup.*

Empty Story		
Client's narrative entails the description and elaboration of external events or information, accompanied by a lack of reflexivity and absent or low expressed emotional arousal (i.e., client either does not express emotions, or acknowledges emotions but there is little arousal in voice or body).	A focus on event details. • Attention is focused almost exclusively on external events (e.g., "what happened"). • This may include factual autobiographical memories about the self (i.e., an account based on factual information). Lack of self focus in the recounting of the narrative event • The client tells a story, describes other people or events in which s/he is not involved, or presents a generalized or detached account of ideas. • Refers in passing to him/herself but his/her references do not establish his/her involvement. First person pronouns only define the client as object, spectator, or incidental participant. The client treats himself/herself as an object or instrument or in so remote a way that the story could be about someone else. The significance (meaning) of story is unclear to the listener • Significance of the disclosure of story at that moment in therapy unclear, and/or meaning of story to client is unclear. The content is such that the speaker is identified with it in some way but the association is not made clear. External voice • The external voice has a pre-monitored quality (e.g., "talking at" quality) involving may indicate a more rehearsed conceptual style of processing and a lack of spontaneity and may suggest that content is not freshly experienced. • The client's manner of expression is remote, matter of fact, or offhand as in superficial social chit-chat, or has a mechanical quality.	C: …[my kids] *don't particularly want to go anywhere with me…the only way I can get them to spend any time is if I offer to take them out for a very expensive dinner.* T: *So this must be very painful, you're still wanting that kind of connection with them. You haven't given up on that, it keeps hurting.* C: *We haven't taken a holiday in three years…they're involved with their friends to an extreme…* T: *…I have a sense that there's a lot of pain underneath what you are telling me.* C: *Oh yeah…well, of course – that goes without saying.* *** C: *And I wasn't upset or anything, I just packed up my stuff, she told me to pack up my stuff it was nothing really personal she still gave me a recommendation. It was just the fact that, in their view, I had "acted too quickly" on a potential client. I already had sent a credit check, which is my function, but the client was not yet confirmed. In my view it was confirmed and so I went ahead. And that's what attributed to them letting me go. Plus the work, I was done by 10 and had nothing to do for the rest of the day. So that's why they let me go. And I wasn't really heartbroken about it but I had actually just purchased a TV, that's when it happened. And I'd bought it like 3 or 4 days before. I asked the guy when I bought it, "if something happens, can I return it?" He basically told me it was final sale. Unless it's a warranty issue. And, um, I actually. I don't think I even took it out of the box. I went home, I took it back, and the guy who sold it to me was like, 'I thought I said no returns." So I said, "I lost my job." And then he took it back.*
Unstoried Emotion		

Client verbally or non-verbally expresses undifferentiated emotional states that are unacknowledged, disconnected or not integrated within the narrative (i.e., emotional response is not referred to or elaborated in the plot).	Dysregulated emotion (i.e., extremely intense emotional arousal apparent in both the voice and the body of the client). • Usual speech patterns are extremely disrupted by emotional overflow, as indicated by changes in accentuation patterns, unevenness of pace, changes in pitch, and volume or force of voice. • Emotional expression is completely spontaneous and unrestricted. • Emotional arousal appears to be an uncontrollable and disruptive negative experience in which the client feels like s/he are falling apart. Emotional Overflow – not dysregulated, but powerful and relatively unexplored or disconnected from narrative. Dissociative emotion. • Silence and pausing; clients appear to face obstructions in their process of self-exploration, by attempting to disengage by avoiding and/or withdrawing from emotion. • Therapy discourse markers may include discussion of difficult emotion, pauses followed by a response that indicates that client had stopped processing to the same depth as before the pause, pauses followed by jokes, or summarizing, dismissing, or distracting responses. No discernable cause of affect • Inability to identify a specific cause or starting point that explains the onset of the emotional response • Client demonstrates little or no understanding of what the emotional state means to him/her • No relational or situational context identified Somatic complaints • Client identifies points of tension in the body • Client describes pain or other bodily discomfort	T: *So it's hard to keep the lid completely shut and it keeps peeking out.* C: *yeah I find it's…affected my…stomach…you know how you get that tightness and you always feel like…sort of slightly nauseous all the time…like everything you eat kind of sits there…* *** T: *What's bad about that? It's like he's judging me, or…*? C: *Um, I think he sees, um, I don't know. It feels like all the times that I did well, it's*…[tears up]. *Sorry* [smiles], *sorry,* [reaches for Kleenex]. *Um…*[smiles, crying, covers her face]. T: *What's happening right now?* C: [silent, crying]. *It's like, now he sees the real me.* T: *I see. Now he sees the real me*. C: [client looks down at thought record, writing]. T: *And those tears are tears of? I mean I think they're important, they're telling you something…* C: [continues staring down at clipboard, fidgeting with pen, silent :10 seconds]. T: *I feel…sad? Or mad? Or…* C: [crying again]. *Sorry, I'm really sorry.* *** C:*..and I just feel like my mind is going a million miles an hour, with…same old kind of stuff.* T: *Ok, well, so…in particular, what sort of stuff?* C: [starts to cry, shaking her head. :20 silence]. *Um , uh, it's all kind of one big ball.* T: *Ok.* C: *I just, um, I don't know.* [more silence, crying]. *It's just, I'm just, it's just a never ending…I don't know, it's just kind of a big ball.*

	Physical Indicators • Change in body posture (e.g. rigid), eye contact (e.g. diminished), vocal tone (e.g. quivering or raised voice), gestures (e.g. placing hand on chest), bodily movements (e.g. hand wringing, restless legs)	
Superficial Story		
Client's emotional state and narrative expression are presented in a generalized, vague or incoherent manner. The client may talk about his or her own feelings or self-relevant ideas in a coherent manner, but with little or no evidence of exploration or discovery.	Narrative incoherence. • Story holds together loosely or is scattered. The client may talk his or her own feelings or self-relevant ideas, but in a skipping or jumping manner. • The client presents multiple trains of thought, stories or talking points within rapid succession that remain incomplete. • Connection between ideas may be unclear to therapist. Emotion is depersonalized . • The client may exhibit high or low emotional arousal; however, if the client is emotionally aroused, it is evident from his/her manner, not from his/her words. • If the client mentions his/her feelings, he/she treats them abstractly, impersonally, as objects. • The client uses third person pronouns (e.g., "one feels…") • Client appears to be removed and distant from emotional impact of narrative. Lack of self-focus. • May include biographical information about others, or descriptions or explanations. • (imagination/fantasy/projection) of others' thoughts, feelings, or behaviours • If focused on other, little discussion of self-related thoughts, feelings and behaviours Hypothetical scenarios, conjecture.	C: *And then, the moment…sometimes with certain things I just can't help myself. Without having to think of myself, it's always great when this happens, it's always down to the point. I can't think of any examples. But when it happens, all of a sudden they are just like, wow. Because of all of a sudden they just get it back.*

	Unclear referents (e.g., “it” “that” “this”).	
Reflective Story Client’s narrative includes a coherent analysis of or reflection on an ABM, or on a behavioural, cognitive, emotional, or interpersonal pattern. Often explanatory in nature, the client may provide a “why” or “how” for the emergence of significant events or patterns, or may discuss why something matters. The client appears engaged in this process, but with limited evidence of present-centered exploration, searching, or discovery.	May be an introduction and setting the scene for further analysis or exploration. Can range from no/low emotional arousal to moderate – high arousal. Focus on self. • Narrative is told from a personal perspective and includes the details of the clients feelings, reactions, motives, goals and assumptions. Client provides description of feelings as they occur in a range of situations, or relate reactions to self-image. Abstract terms or jargon are expanded and elaborated with some internal detail. Reporting internal experience not arising from present centered exploration.	C: *It’s just, it’s shaped who I am.* T: *How so? Can you say more about that?* C:*I guess like the whole people pleasing thing. ‘Cause I guess, I had to really watch my back with her, all the time. And like, this was my home. It was supposed to be where I felt safe.* T: *Right. You sort of learned, “ok I can’t really trust people.”* C: *And she was my parent. Or a parent figure. And I just feel like, you know, I’ve always had to watch my back, I was always—and I think, this is what is now this constant, like, trying to work out every eventuality, because she was so manipulative that I had to feel like I was one step ahead of her.* **** C: *With my boyfriend it’s like we’re equal. Completely equal. And with a few of my friends I feel equal, so I can be myself with them because we’re equal.* T: *Right, so you feel like you can be yourself in relationships where you’re not inferior, or something.* C: *Right, and I feel inferior when I’m with them, then I feel inferior in my work, and then I feel inferior in my life, you know what I mean? So, I think if I start to change the relationship I have with people it will change the relationship I have with my work, the relationship I have with myself.* T: *It sounds like that’s a really important connection to make, because you just said I feel inferior in my life if I don’t sort of stand up for myself.* C*: Yeah, because you’re always constantly interacting with people, so…I guess my interaction with my friends has had a lot of impact on how…how I feel about myself, you know what I mean?*
Competing Plotlines		

Client expresses or implies competing or opposing emotional responses, lines of thinking or behaviour or action tendencies in relation to a specific event or narrative context, accompanied by confusion, curiosity, uncertainty, self-doubt, protest, anger or frustration (i.e., the client expresses feeling conflicted over the competition). Tension and incongruence are at the core of these two opposing emotional responses, ideas or behaviours.	Linguistic indicators (e.g., on the one hand, on the other hand; one part of me). Moderate expressed emotional arousal. • Arousal is moderate in voice and body. Ordinary speech patterns may be moderately disrupted by emotional overflow as represented by changes in accentuation patterns, unevenness of pace, changes in pitch. Although there is some freedom from control and restraints, arousal may still be somewhat restricted. Breach of client's beliefs and assumptions about the world and/or the self, leading to a shattered sense of identity, purpose, and/or values. • This may be reflected in questions such as, "How do I make sense of this?" "Why has this happened to me?", "Why am I behaving/why do I feel this way?", "Why do I feel two different ways?" Both of the competing emotional responses or ideas do not need to be explicitly expressed by the client. One may be implied but recognized as "competing" in the broader context of the client's previously-expressed tendencies, same-old-story, therapy goals, etc. (e.g., client can express wishes, state confusion about actions or feelings without articulating a direct desire for change).	C: *…it's like, I have three healthy children, a house, we're not wealthy by any means but we're okay, um and I sort of go "oh"…why am I not…happier? I don't know.* T: *…sounds almost like you're saying, "what's the matter with me? What's wrong with me?"* C: *yes… "what more do I need?" um, "am I grateful?" It's funny because you start to feel that you should be grateful but you, you really can't feel grateful. Isn't that awful? That's horrible. It's an awful feeling…* *** C: *And I think there's also a fear, um, that because I'm an energizer bunny, that if I slow down a little, like…I won't be as, um accomplished, you know, or people are going to notice, like "gosh,* [name] *is being lazy"* T: *Yeah, so if I'm not on top of everything and doing everything then I'm going to be a "lazy slob"* C: *Yeah.* [Laughter]. *Yes. And I don't want people to think that, obviously.*
Inchoate Story		
Client appears to focus attention inward in order to sort through, piece together, or make sense of an experience and search or struggle for the appropriate symbolization in language.	Narrative lacks clear beginning, middle, and end. • Client is unable to clearly articulate the story; the telling of the story is disjointed. Both client and therapist may find it difficult to follow the story. • Situational/relational context is only partially elaborated • Client expresses confusion or uncertainty about the causes, factors, and/or details of the narrated event.	C:…*and then for the rest of my life having no sense of self, or at least one that was really discombobulated in a way.* T: *So it feels like he took your sense of self away.* C: *Yeah, yeah* [silence]. *And I'm left…*[silence*]…because we moved, things seemed to be ok on the outside. But inside, there was…*[pause, closes eyes, scrunches up face] *a, like a* [silence] *black hole or a void, or a…not a ticking time bomb* [makes fist like a bomb], *but there was something that wasn't there.* [Silence]. *Or actually there's something that was there* [uses other hand to clasp fist*], that loathing, or*

	• Client describes a disjointed, unclear or hard to understand narrative. Client may use metaphor to symbolize an experience. Client engages in a present-centered exploration of patterns of feelings, behaviour, actions, reactions, etc., but appears to struggle to articulate something new. Disjointed description of subjective experience (internal state) of protagonists and antagonists. • Pausing and/or disrupted speech as client attempts to articulate internal experience. ○ Client struggles to symbolize novel or complex experience felt in that moment. Client is silent because of an emotional experience or due to the process of moving into contact with an emotion.	*just because…and then…and then, it just sort of, every time I became more sexually aware, it built up, and built up over the years…*
Experiential Story A client narrative of what happened and how it felt; an experiential re-entry into an generic or specific autobiographical memory with reference to the associated internal experience and emotional reactions	An emotional differentiation of what happened. • The therapist may facilitate re-entry into the landscape of action and emotion. • Moderate to high emotional arousal. • Client will discuss his/her emotions, but may also report what they saw, heard, smelled, etc. (i.e., sensory exploration). • Client's gestures, posture, or gaze may indicate review or re-enactment of the actions associated with the event. Similar to Robert Elliott's "memory reprocessing."	C:*…and all I could think of was this poor thing, she's been there all alone, she's going to think I abandoned her…that's all I could think of. It was really really awful.* T: *I can imagine, she's there all by herself, feeling so lonely.* C: *In a place she hates to be…* T: *So that must have been so hurtful and painful for you to almost feel like "I somehow abandoned her."* C: *That's what it felt like.* T: *Like, "I didn't want to do that to her."* C: *This is the same* [cat] *my father tried to kill* T: *Oh, so there was a lot of emotional attachment there…* C: *…I just felt lost. I can remember going, I went and bought a bottle of wine because wine would put me put to sleep, a glass, and I tried that and it just did nothing. I might as well have ate a candy or something, and I was just wound. And I just went out and walked and walked and walked, even where it wasn't safe and where it was dark, and it was like I was in a fog, and it was raining and raining, a thunderstorm*

		and at night, and I got wound up, and I just had to walk it off, and it's like I couldn't. I was getting soaking wet but I didn't care.
Unexpected Outcome		
Client narratives involving descriptions of "new" behaviours, emotional responses, and/or thought patterns, accompanied by expressions of surprise, excitement, contentment, pride, protest, and/or relief.	Linguistic indicators: new, different, comparisons between past and present. Specific ABMs detailing new, adaptive actions, reactions, and/or emotions in the context of previously troubling events/scenarios. Client identifies his/her own active role in the event Primary emotion is present within the story (i.e., an individual's very first automatic emotional response to a situation). • Indications of primary emotion are that emotion has to be (a) experienced in the present, (b) in a mindfully aware manner, meaning that (c) the emotion has to be owned by the client who experiences him/herself as an agent rather than as a victim of the feeling and (d) the emotion is not overwhelming; (e) the emotional process has to be fluid rather than blocked; and (f) the emotion has to be on a therapeutically relevant theme.	C: *…it was just really surprising and amazing like to see that you know, and to notice that…I just…took a completely different approach to uh answering the question and representing like what's important to me…I was very pleased with myself.* *** C: *It was like—my stomach was so bad that I was bent over, and I thought 'I'm obviously anxious for some reason,' but, as I was saying, instead of just sitting there wallowing in it I was like 'ok, what can I do?'* T: *Right, is that a change for you, in terms of—* C: *Yes, 'cause generally that is my comfort go-to place is to just sit and wallow in it, so to be able to sit and do the relaxation and kick* [the anxiety] *to the curb, it was a big change. I just keep thinking about what you said, you can't be anxious and relaxed at the same time. So I keep trying to relax myself, and do the muscle stuff, and--* T: *Right, right. So what was that like, then?* C: *Good, it felt really good. After, I felt like a different person, especially because my muscles were so tight that actually doing it helped relieve a lot of the stress, like unwinding them. I mean my anxiety was probably at like 90%, and then after I relaxed myself it was maybe like 20, 30.*
Discovery Story		
Client narratives in which a new account is constructed as a client describes his or her subjective experience, accompanied by a sense of	Moderate emotional arousal. A general overview of an event or a description of a specific incident or event (past, present, or future; actual or imagined).	C: *I think that that...humiliation was the currency that my parents dealt in...when they where disciplining myself and my sisters... and I felt - I feel - very sad about that.* T: *mm-hm...when you talk about it now...*

discovery resulting in a reconceptualization, reorganization or new understanding of the self.	An experiential description of how one feels or felt during the specified event. A Reflective or interpretive analysis of current, past, or future events and/or subjective experiences, in which the client: • Examines own behaviour in situations/relationships. • Plans future behaviour alternatives. • Examines own thinking in situations. • Explores own emotions in situations. • Discusses new understanding of patterns in own. behaviour and/or that of others. • Is self-questioning**.** A reconceptualization of the Same Old Story. An exploration or description of changed patterns (behavior, thought, emotion, interpersonal) or understandings, including some discovery of *how* the change occurred (i.e., indicating that the client has perspective on own change process).	C: *Yeah because I feel like they criticized and nagged and were negative to the point where I chose no longer to be honest with them...and because we had such a limited discourse they really didn't know who the heck I was.* *** C: *Just being able to unravel that ball of wool is huge. Because now, if I'm feeling anxious, I start to unravel why. And for me that's huge. Because then I have a reason. Do you know what I mean? Because then it's not like 'oh it's anxiety and I can't control it," it's like "oh well I'm anxious because I'm going to this appointment and I don't want to see my ex-employers who I just sued." Do you know what I mean?* […] *And it's giving it acceptance as well, like "you don't like any of those situations, you're having a bad day, and that's OK. You're not mad, it's anxiety but the situation is stress-provoking because* [x, y, z reasons], *and then being able to change it as well.*
No Client Marker		
Segments in which there are no client markers present (e.g., where therapist is talking, "chit-chat", scheduling).		
Unclear Marker		
Segments in which a marker is present that does not fit a pre-existing category, but it is clear to coders that some narrative-emotion process is taking place. This is generally a "holding" category, until a new category is formed or until a judge can be brought in to help resolve coding.		

Appendix B

Narrative-Emotion Process Coding System – Cognitive Behavioural Therapy (NEPCS-CBT)

Adapted from

Narrative-Emotion Process Coding System 2.0 (NEPCS)

Angus Narrative-emotion Lab (2015); Angus, Boritz, Bryntwick, Carpenter, Macaulay & Khattra (2017)

The NEPCS-CBT manual below contains process indicators and exemplars of client NEPCS markers in CBT for GAD sessions, and therapist markers that correspond with their respective client NEPCS markers. Please note that not every client NEPCS marker was observed in CBT sessions to have a corresponding therapist marker. Therefore, only the therapist markers that appeared in CBT for GAD sessions and captured therapist linguistic, emotional, and behavioural interventions cohering with already existing process indicators of client NEPCS markers, were mentioned and defined in this NEPCS-CBT manual. The following client NEPCS markers were observed to have a corresponding therapist marker - Same Old, Reflective, Competing Plotlines, Unexpected Outcome, and Discovery Storytelling marker.

The NEPCS-CBT manual is arranged according to NEPCS marker subgroups – Problem, Transition, and Change markers, with individual client and therapist markers listed under these three subcategories. There are a total of 16 NEPCS markers outlined in the NEPCS-CBT manual. Out of the 16 NEPCS markers, 10 of these markers belong to the client-NEPCS markers category and six of the markers belong to the therapist NEPCS markers category.

NEPCS-CBT Markers

Problem Markers

1, 2. Same Old Storytelling Marker

Marker Description: Narrative includes over-general descriptions of interpersonal, behavioural, thought patterns and/or emotional states, accompanied by a sense of stuckness and a lack of self agency.

1. Client-Same Old Storytelling (C-SOS)	**2. Therapist (T) invites focus on client's maladaptive anxiety patterns**
Definition and Process Indicators	**Definition and Process Indicators**
-Similar marker description as general C-SOS described above, except that C-SOS in CBT occurs within the context of therapist-guided tasks in sessions (e.g., thought records, behavioural experiments, imaginal exposure, agenda setting etc.), when clients discuss their anxiety-related patterns (Exemplar 1 below). -In terms of additional CBT-task specific criteria, C-SOS in CBT sessions is also coded when clients: -Narrate rigid and repetitive patterns created within the CBT treatment in relation to usefulness and practice of tasks/tools, and completing homework, which may be coupled with feelings of frustration, hopelessness etc. (e.g., not completing tasks and verbalizing reasons such as not having enough time, tasks/tools being ineffective for the client's condition; Exemplar 2 below).	-This marker can occur within the context of CBT tasks or in response to a spontaneous client narration of any client NEPCS code. -This marker is coded in CBT sessions when the therapist: -Explicitly asks the client to describe and elaborate on their maladaptive anxiety patterns, worst-case scenarios and over-general views of self, others, and relationships (Exemplar below). -Stays with, empathizes with, and summarizes and/or elaborates on the client's maladaptive anxiety patterns/concerns, -explicitly inquires the about the client's anxiety/distress levels in relation to contents of the imaginal exposure script.
Exemplars – C-SOS	**Exemplars – Therapist (T) invites focus on client's maladaptive anxiety patterns**
Exemplar 1 - T inquiring about client's presenting issues in session 1 C: I just worry about everything. It could be from driving in traffic to my debt, living alone, being in a relationship and then worrying that it will end. Every little, day to day thing, that for somebody else is such a simple thing, for me, it is overwhelming. It's like my mind is constantly going, I worry about everything. I can't even pinpoint anymore-I worry about work, my future, money…I am feeling this internally and I can't stop it, switch my mind off. The wheels are always turning in my mind… T: Mhm, yeah, sounds like it has taken a life of its own. C: It has, it has, it controls me…my every action. *Exemplar 2 – Therapist reviewing client's homework in session* Therapist (T): I want to spend the first 15 mins of the session going over your thought records as well as the relaxation diary. Where do you want to start off with the homework?	*Exemplar - C and T filling out a thought record in session* T: If you didn't have time to figure it all out properly and you did say the wrong thing, ask yourself what's the worst thing that could happen? C: That the argument could escalate or that my intentions are not understood, my intentions are seen as bad when they are never really bad. T: Yeah, that's kind of like the worst-case scenario for you – that somebody does not understand what your intentions are…so if you said the wrong thing, it's really hard to correct it, yeah say more. C: Yeah, that is true, in this specific situation, with my constant over texting, I kept repeating the same message but made it sound different. I wanted him to say that he understands my intentions and that we are all good, no issues.

Client (C): Well, I kept trying to do the discriminating, relaxation thing, it's not as easy as I'd like it to be because I feel like the tension in my body is always at an intense level. So, I am having a hard time letting go of it, I don't know… (*10 sec pause*) it's just so hard. T: Ok, have you been trying it in a spot where it's quiet, at home, where can you give yourself time to go through the whole procedure? C: Yeah (*sighs*), I have been doing it in my room and I find that I get really frustrated with the fact that I can't get through the whole thing, or I am still feeling really tight. So, I just stop in between. T: So, it sounds like there are thoughts that are getting in the way again...of doing it right? C: Yeah, maybe, I don't know. I am not doing it well or to the extent that it should be done. It's also really, really hard to do it in a moment when I am not very tense. I have anxiety all the time but when I am already relaxed, I find it hard to initiate the exercise because I am already relaxed. I think there a subconscious part of me that doesn't want to feel tense when I am already relaxed.…so why do it? T: Can I see your relaxation diary? C: (*10 sec silence/pause*) It's blank, I haven't filled it. T: That's ok. C: But I did do the thought record you wanted me to do.	

3. Client Empty Storytelling Marker

Marker Description: Narrative includes client descriptions and elaborations of external events or information, accompanied by a lack of reflexivity, self-focus, and absent/low emotional arousal. No corresponding therapist marker was observed in CBT sessions.

3. Client-Empty Storytelling (C-Empty)
Definition and Process Indicators
-Similar definition as general Empty Storytelling Marker described above, except that C-Empty in CBT sessions occurs within the context of therapist-guided CBT tasks in sessions (e.g., thought records, behavioural experiments, imaginal exposure, setting session agenda etc.). -In terms of additional CBT-task specific criteria, C-Empty in CBT sessions is also coded when clients: -Describe their worries, anxiety patterns, and/or external situations in a list-like format, focusing excessively on external details of situations/others, accompanied by fast/pressured speech, low emotional arousal/emotional engagement, little to no meaning-making and/or reflection.
Exemplar - C-Empty
Exemplar - T inquiring about C's thought record homework C: (*C speaking fast)* My boss had basically told the other staff members on Thursday…the other staff had a meeting with him that day but I was with a patient all day that day. My coworkers went in and said on my behalf, C* (*client*) chose this week for vacation, and that they chose that other week, and it was all fine. But then, when I went in, I am like I am entitled to five more holidays than other people, so I picked more days. My boss then proceeds to tell me that he wasn't happy with this decision we had all made. I said, well, why wasn't this discussed Thursday? Today is next week, Wednesday evening. Why am I getting the brunt of it because they made it look all fine, and then he took it out on me?

4. Client Superficial Storytelling Marker

Marker Description: Client narrating events, hypotheticals, self, others, or unclear referents in a vague, abstract manner with limited internal focus, and with little or no evidence of reflexivity. No corresponding therapist marker was observed in CBT sessions.

Client-Superficial Marker (C-Superficial)
Definition and Process Indicators
-Similar definition as general Superficial Storytelling Marker described above, except that C-Superficial in CBT sessions occurs within the context of therapist-guided CBT tasks in sessions (e.g., thought records, behavioural experiments, imaginal exposure, agenda setting etc.).
Exemplar - C-Superficial
Exemplar - T and C reviewing client's mental health/anxiety history in session 1 T: So, it sounds like what you are describing is really being out of control and it has a cognitive component of thinking, it's all in your head here. Have you heard of the word - anxiety? C: Yes. I was diagnosed with anxiety, with generalized anxiety, by a psychiatrist-don't remember his name. I saw that person a few times, but after that, it didn't really, you know. A couple of times, twice, when I was really intensely studying for my exams, maybe once or twice, not sure, I went on the muscle relaxant, an anti-depressant, but I didn't really have depression though, umm, anti-anxiety, some medication and but otherwise, yeah, nothing.

5. Client Unstoried Emotion

Marker Description: Client experiencing undifferentiated, under- or over-regulated emotional arousal, without coherent narration of the experience. No corresponding therapist marker was observed in CBT sessions.

Client-C-Unstoried Emotion
Definition and Process Indicators
-C-Unstoried Emotion marker was observed only once in CBT for GAD sessions (*n=1; see Table 7; Appendix D)*. -In this one instance, C-Unstoried Emotion occurred within the context of therapist-guided muscle relaxation task in session (Exemplar below).
Exemplar - C-Unstoried Emotion
Exemplar - T reading muscle relaxation script and client following along C: (*T reading relaxation script and C suddenly opens eyes and stops following the relaxation script*) Sorry, I am panicking a bit (*C starts fanning herself with her hand and bends into her lap*)…(*10 secs pause*). T: Ok, so take a few deep breaths here, feel the cool air going in and the warm, moist air as it comes out (*T continuing to read script*). C: (*30 secs pause…C bent into her lap and holding her head against her palms*)…sorry (*C sits upright and fanning herself)* I am just thinking about the meeting after this (*C hyperventilating and opening water bottle*), ugh, I am thinking I haven't thought about the meeting enough, am I missing something? I am not prepared enough, I don't know.

Transition Markers

6 and 7. Reflective Storytelling Marker

Marker Description: Narrative includes explanation/exploration of a general pattern or specific event in terms of own or others' internal states (thoughts, feelings, beliefs, and intentions).

6. Client-Reflective Storytelling (C-Ref)	**7. Therapist (T) invites client to reflect on (describe, explore, and/or explain) a pattern or an event**
Definition and Process Indicators	**Definition and Process Indicators**
-Similar definition as general C-Reflective Marker described above, except that C-Reflective in CBT sessions occurs within the context of therapist-guided CBT tasks in sessions (e.g., thought record completion, behavioural experiment planning etc.). -In terms of additional CBT-task specific criteria, C-Reflective in CBT sessions is also coded when the client: -Actively engages with and/or reflects on anxiety patterns and treatment process, plan, homework, and their progress in treatment (e.g., client identifying what they would like more or less of in treatment in reference to personal anxiety symptoms), -Reflects on tools/techniques they utilized to manage their anxiety, -Discusses their repetitive and maladaptive anxiety pattern but with an analysis, examination, and/or a meta perspective on the pattern. These instances may be accompanied by implicit/explicit mentions of client agency, and client's ability to take on a detached perspective on their repetitive pattern rather than being absorbed/stuck in those patterns (Exemplar 1 below), -Provides an overview of thought record components/completion in an engaged manner (Exemplar 2 below). -Note that the client's narrative focus does not necessarily have to be entirely on the self for C-Reflective to be coded in CBT sessions.	-This marker may occur within the context of CBT tasks or in response to spontaneous client narration of any client NEPCS code, without the context of tasks. -This marker may be coded when the therapist: -Suggests and offers a tool to the client, -Provides psychoeducation with personalization to client context and to help with client concerns, without outright challenging client's beliefs/thoughts (Exemplar 1 below), -Asks a question and/or requests client to make sense of their anxiety patterns, events, CBT tools and tasks, and their treatment experience (Exemplar 2 below). -Conceptualizes, make sense of, provides clarity on, provides interpretation and/or analysis of clients' issues and patterns (Exemplar 2 below).
Exemplar – C-Ref	**Exemplar - T invites client to reflect on (describe, explore, and/or explain) a pattern or an event**
Exemplar 1 - C describing and analyzing a maladaptive interpersonal pattern in the context of reviewing thought record homework C: It's embarrassing…even in dating, my friends say, you sabotage the relationship, and I do. That's where my mind goes, are they going to see the real me? Am I going to panic about something ridiculous? I had been cheated on before, so that was the trigger for me to go off. Although I never show it, I am cool and collected, I am going through it all inside, the guys I date have no idea, they think I am happy, go-lucky. At 40, they	*Exemplar 1 - T and C discussing client's dilemma about coming to an important decision (getting facial plastic surgery)* C: I just want this one thing-my nose, it's not like I am going to go get my chin done, other things done. T: Yeah, what might be helpful here is that pie chart we talked about earlier and ask yourself some questions. So, what percentage of that decision to get nose job comes from family criticism, how much does

think, I am single just because I am picky, not because of anything else. And when I think about it, that's the problem, I feel like a fraud sometimes-oh god, if I really show my true colours, would this person really stick around? *Exemplar 2 - T and C completing thought record and C reflecting on new balanced thought* C: If I bring to my family all this negativity about the men I am dating, how can I expect my family to like them, when I felt so unhappy and unsure about these guys all the time. It was like, the happy times were really happy and the bad times were really bad, it was a big seesaw and they saw that. How could I expect anything different from them? After thinking about it here (*in thought record*), I felt relieved and at ease – that my family is just mirroring what I show them, they have nothing against these guys I bring. Hopefully, I will make better decisions, if I am coming in with a different mood or attitude, it will hopefully bring it in my family too…	bullying play into it based on your history? What are all the factors that lead to this decision? Is it worth it to you? What are the costs and benefits? Do you need to do it right now or can you wait until you are older? As we discussed, maybe there's some catastrophic thinking going on here – Like this is my only chance to do it and after that, I will have no other opportunity, which is not true. Another tool is maybe, we may need to do a survey of family and friends, if they have ever felt dissatisfied with their body features, without doing anything surgical about it. Maybe let's start with the pie example? *Exemplar 2 - T and C discussing C's worries in the worry log* T: Could you tell me more about why appearing weak, needing help, always needing to present this perfect image-this pattern I am seeing, is such a problem for you? Is there more background to it because it seems there's more to it? C: Well (*C sighs*), my mom is an abused wife, I have tried to help her many times as I grew older but there was always something-the kids were too little, maybe my dad will change, always something. My mom and dad still live together, it is a toxic situation, it was toxic growing up too, quite embarrassing. Oh, and my sister is an alcoholic. And I think that is where that thing about dressing nice, speaking well, doing your hair, never being weak or vulnerable, not asking for help, presenting this pristine image came to be-like a protection almost. I know all of this, it's not a big revelation to me. T: Ok, that makes sense. And that is probably why when you get that phone call then-why you get so nervous, there are all these deep-rooted things in the back of your mind, these fleeting thoughts. So, your anxiety is likely tied to these things that are much deeper but you are obviously not thinking about it at that very moment. So of course, you get super anxious when you get a phone call, you don't want to cry, appear weak or vulnerable. Makes so much sense to me.

8 and 9. Competing Plotlines Storytelling Marker

Marker Description: Narrative includes descriptions of alternatives to a dominant view, belief, feeling, or action, which typically creates tension, confusion, curiosity, doubt, and/or protest.

8. Client-Competing Plotlines Storytelling (C-CP)	**9. Therapist (T) challenges client's (C) maladaptive patterns**
Definition and Process Indicators	**Definition and Process Indicators**

-Similar definition as general C-CP described above, except that C-CP in CBT sessions occurs within the context of therapist-guided tasks in sessions. -In terms of additional CBT-task specific criteria, C-CP in CBT sessions is also coded when the client: -Narrates the costs of their maladaptive anxiety patterns, -Discusses alternative evidence and challenges maladaptive anxiety patterns, -Narrates willingness to try out/practice therapy suggestions, and/or sides with rationale/purpose/usefulness of CBT tasks/tools.	-This marker may occur within the context of CBT tasks or in response to spontaneous client narration of any client NEPCS code, without the context of tasks. -This marker is coded when the therapist: -Points to alternative evidence/perspective against maladaptive anxiety patterns including unhelpful thoughts and beliefs, -Suggests alternative tools and tasks to address anxiety-related thoughts and behaviours instead of unhelpful coping techniques, -Explicitly asks clients for alternative evidence, perspective, and ways to manage anxiety patterns through learnt therapy tools/tasks.
Exemplar – C-CP	**Exemplar - T challenges C's maladaptive patterns**
Exemplar 1 - T and C planning behavioural experiment T: Yeah, sounds like it's been a lifelong pattern for you. C: Pretty much, I am 40 now, and that's why I am like, if I am here on earth another 40, I don't want to be like this anymore. I don't want to take anxiety meds every day. I don't want to work my life around this so that I am scared to travel, to go to work, I don't have a relationship. I just feel like it's even become a lonely thing for me because I avoid. But now, I am like an AA addict, I am admitting I have anxiety but what am I going to do about it now? I am ready to try something new.	*Exemplar 1 - T and C discussing client's catastrophic thinking while completing a thought record* C: The worst thing is if I end up in a wheelchair due to this condition. T: Ok, so you could end up in a wheelchair, that's scary to think about, no one wants to live that way. But there are other people in the world who are in wheelchairs. Are they depressed for their whole life, never do anything, and waste away? C: No, they live, they cope but I don't want to be like that, I don't like it. It's limiting, I won't be able to cook, to do gardening, to look after my children, I won't be able to go shopping, I won't be able to do anything. T: How do people in a wheelchair do those things? C: Maybe they have people to help them? T: Ok, so I actually know someone who is in a wheelchair, she is studying to be a doctor, she stays in Toronto, she does all her cooking, she has someone come in once or twice a week to help her around the house. C: wow, yeah, so she does it…It would be sad, it would be hard to accept, it's not easy (*T: it will be hard to accept, it would be hard*) but I guess people do accept it when it happens, people do cope with it. But the thing about that if it did happen, I would get as much physiotherapy as possible to get myself healthy again, strong again. I would be raring to contact all the professionals to help me. I would make sure I am active, I work on a positive mindset…not just sit there. *Exemplar 2 – T suggests completing an in-session thought record to address C's unhelpful thoughts* C: I had a couple of hours at night, so I did the thought record at least, not all the things I wanted to do. I get disappointed with myself but it's unnecessary, at least I made some effort.

	T: Yeah, sounds like a lot of pressure on yourself to get the homework done right or perfect all the time…it's hard for you to be compassionate towards yourself, look at the things you did well. I mean, we can go into a thought record about that type of perfectionist thought pattern too. That maybe a worthwhile thing for us to do? We can look at the situation and see what's good about what you did. Because there is a lot of good you did, you are doing, that you brought up yourself.

10. Experiential Emotion

Marker Description: Client narrating an event or engaging in a task as if re-experiencing an autobiographical memory or interpersonal scheme. No corresponding therapist marker was observed in CBT sessions.

10. Client-Experiential Emotion Marker (C-Experiential)
Definition and Process Indicators
-C-Experiential Emotion was observed in low frequencies in CBT for GAD sessions (*n = 25, see Table 8 Appendix C).* -Similar definition as general C-Experiential described above, except that C-Experiential in CBT sessions occurs within the context of therapist-guided tasks in sessions (e.g., description of an incident for imaginal exposure, thought record completion etc.).
Exemplar - C- Experiential
Exemplar - C and T writing imaginal exposure script for exposure to C's worst-case scenario C: We go upstairs, there are no lights on, it's dark, no one answers me calling, there is no sound. I am going through the process mentally, is she dead? But then I think, maybe she is ok, maybe she is at the other house. I go to the other house and same thing, the door is open, I go in and I call, there is no response, and I start walking through the house. I start feeling sick in my stomach as I am walking because I am thinking she is not alive. I imagine all the horrible things, she has hung herself or he has hit her and she is dead bleeding somewhere. So, I don't go upstairs, I have a scary thing about bedrooms. I go into the living room and like last time, she is unresponsive laying on the couch but breathing. Then I am relieved she is there, but I am also heartbroken and upset. But I can't tell her I am upset because she is so broken. Pretty awful eh? (*C sighs and crying*). And then I can't leave her on the couch, in that situation. It's not humane, so I take her home with me, we pack her clothes…

11. Inchoate Storytelling Marker

Marker Description: Client focusing inward, contacting emergent experience, searching for symbolization in words or images.

10. Client-Inchoate Storytelling Marke (C-Inchoate)
Definition and Process Indicators
-There were no instances of Inchoate Storytelling occurring in CBT for GAD sessions in the current study. -Similar definition as general Inchoate Storytelling Marker described above.

Change Markers

12 and 13. Unexpected Outcome Storytelling Marker

Marker Description: Narrative includes descriptions of new and adaptive shifts in client's behaviours, thoughts, and/or feelings.

12. Client-Unexpected Outcome Storytelling (C-UO)	**13. Therapist (T) highlights new and adaptive client (C) shifts**
Definition and Process Indicators	**Definition and Process Indicators**
-Similar definition as general C-UO described above, except that C-UO in CBT sessions occurs within the context of therapist-guided tasks in sessions (e.g., thought record completion, behavioural experiment planning, treatment course discussion, relapse prevention planning etc.) -In terms of additional CBT-task specific criteria, since CBT for GAD sessions are less experientially focused, CBT clients may describe shifts with or without emotional expressions of surprise, pride, relief, contentment and instead, focus on the details of shifts and overall anxiety reduction. For example, clients may report specific drop in anxiety levels during thought record completion task, and simply verbalize that they feel less anxious. -C-UO in CBT sessions may be accompanied by more subtle client expressions of emotions and with a higher focus on concrete reporting of the shift. -A simple and/or vague mention of a shift by the client is not coded as C-UO in CBT, without the client elaborating and/or reflecting on that shift. In such a case, the coder relies on the duration to identify the dominant code in the clip.	-This marker may occur within the context of CBT tasks or in response to spontaneous client narration of any client NEPCS code, without the context of tasks. -This marker is coded in CBT sessions when the therapist: -Recognizes and points to client changes (typically concrete in nature) in client's narration (e.g., changes mentioned by the client cduring homework reporting/check-in/in-session tasks, that clients may/may not have explicit awareness about), -Validates, and prizes client shifts when clients describe them and/or therapist notices them, -Invites the client for elaboration on changes, and/or to make meaning in relation to shifts (e.g., asking the client how they would have typically reacted before vs. now). -Highlights/Praises client motivation, agency, and efforts involved in accomplishing changes, -Explicitly asks client if they have noticed any shifts in their experience of treatment.
Exemplar – C-UO	**Exemplar - T highlights new and adaptive C shifts**
Exemplar 1 - T and C planning treatment and reflecting on C changes T: It's a really good sign that our hard work is really paying off. C: It is, I really think so. Even my co-worker said that in a situation like this months ago, I wouldn't have been so calm. She is surprised and she even said to me, your therapy is working. T: Wow. C: Yeah, she said, you really seem different, it is helping. And I go, yeah-I am a lot calmer than I would have been had this happened months ago. I am now trying to rationalize everything-like hey, I still have my job, if my boss fires me, I will deal with it and whatever. I still have automatic thoughts, I don't always believe them though like before. I know I will get there eventually. *Exemplar 2 - C reporting on current stressful events and how she coped*	*Exemplar 1 - T and C reviewing client's thought record homework* T: This is amazing. This balanced thought really captures what this is about, looking at both sides. You have done such an amazing job looking at the whole picture, being more realistic and opening your perspective up. Really amazing job here. Let's read your balanced thought together. So, you wrote here - "*Although not everyone reacted the way I wanted them to my artwork, the whole act of creating art gives relief to my emotions and makes me happy. And even if one person likes it, not the millions of people I wished for, that one person will be connecting with me and feel seen*". These are such powerful words. C: Yeah, I think this was the best exercise ever.

C: So, my son bought a condo that has been delayed over a year, the closing…his lawyers were not working that day, things not working out, so it was stressful. Normally, I would be trying to control the whole situation-do this and do that, trying to put out the flames before they happen kind of situation. But this time, I sat back, I didn't nag my son, he drew his own conclusions, handled the situations himself. I have realized that my worry and anxiety has added to my children's worry and anxiety which I feel very badly about. So, I tried not to do that, I am trying to change that pattern…so not adding stress to myself and to my family, my kids.	T: I am so happy to be hearing this, I want to know, when you write these things, how much do you believe in them? C: That one, I totally believe because it was like going back to what I did before, how I used to create art before, free, easy, happy, not worried about others judging it. T: So, by doing this homework, you came to this realization. So, the homework was, you are going to do the art, not worry about showing it to anyone, just for yourself. Just for you. C: Here it is (*C shows T her painting).* T: Oh my gosh, this is beautiful. It is. J (*client's name*), you are very talented. So, this was from your heart. So, tell me, what is happening in this painting, describe it more? C: Yeah (*C tearing up; C and T looking at C's painting)* In this picture, here my eyes are open, I can see clearly again. Before my eyes were closed, I am crouching down in this corner (*points to painting)*. You see, my eyes are slowly opening again. *Exemplar 2 - T and C planning behavioural experiment* T: I must say, you are really brave - that you are so willing to expose yourself to that, it's a big scary task for any woman who is going to have a baby. So, it is really brave of you to really put yourself in this situation, to purposely freak yourself out for a bit and read about all the bad things that could go wrong in the birthing process, with your baby. But it's for long term gain-we know that, so keep up the good work.

14 and 15. Discovery Storytelling Marker

Marker Description: Narrative includes reconceptualization or articulation of a novel understanding of the self, others, key events, behavior patterns, and/or change processes.

14. Client-Discovery Storytelling (C-DS)	**15. Therapist (T) facilitates client's (C) novel understanding of the self, others, events, and patterns**
Definition and Process Indicators	**Definition and Process Indicators**
-Similar definition as general C-DS described above, except that C-DS in CBT is coded within the context of therapist-guided CBT tasks in sessions (e.g., thought record completion, behavioural experiment planning, treatment course discussion, relapse prevention planning etc.).	-This marker occurred only two times in CBT for GAD sessions (*n=2; see Table 12, Appendix C).* -This marker may occur within the context of CBT tasks or in response to spontaneous client narration of any client NEPCS code, without the context of tasks. -This marker is coded when the therapist asks a question, empathizes, compares client's past vs. present self, requests clients to make sense of

	how they understand their new and adaptive experiences of change in terms of their view of self, others, events, behaviours, and/or change processes.
Exemplar – C-DS	**T facilitates C's novel understanding of the self, others, events, and behavior patterns**
Exemplar 1 - C and T discussing C's automatic thoughts in completed thought record homework C: So, in that moment, I was thinking, I better control myself, or else I am going to lose control. T: I think for you, it may be one big automatic thought, a lot like the other situation we talked about too. So the thought is - I will lose control and something bad will happen. C: Yeah that's true. See, that is an aha moment for me right now. I never really realized, I guess I am realizing that I have a lot of issues with control. Now that I am thinking about it, it did say that in the article you gave me. T: Yeah, that's a big thing for people with anxiety and coping with it – people wanting control and feeling like they don't have enough control. C: Ok, that's an aha moment for me. This even comes up with guys, in dating, like I try to control how it's supposed to go. And the guy I was previously with, he would say, why don't you go with the moment, why are you thinking about all these things? And now I get it, it makes sense. That's a good one for me (*C smiles*) – It's funny I think about these thoughts but never the pattern behind them. I didn't recognize it until now…it's so obvious now, it makes total sense, it's perhaps why I have difficulty at work. People at work say to me you need a leadership role, it's because it would mean I could control things, wow, I had an aha moment, it's Oprah you know (*T and C laugh*). *Exemplar 2 - T and C planning treatment and reflecting on changes* C: It is funny, she (*client's co-worker*) is at where I was months ago. T: Yeah, it's like a mirror thing, being on the other side. C: Yeah, it's like being on the other side. I see her all anxious and she barked at him in the meeting and that's why he pulled her aside. I saw that she was rude, and I thought, wow, did I react like that sometimes? Was I inappropriate at times?…I am thinking and realizing… I had that bad tone, anxious body language that shows people I am angry or anxious. And now, I am able to calm down, talk to him and say, what can we do to fix this? Let us come up with a resolution instead of being angry at each other. So maybe I have become more mature (*C and T both laugh*).	*Exemplar 1 - C reporting a new shift in the context of homework review* C: Yeah, it was so different and nice, I could relax and just be, enjoy a meal without worrying about work. I could just be present with myself and my friends, which is so new for me. My friends noticed too, I was less caught up with work things, more open to them. T: Wow, that's great-It is like a whole new person (*T and C both laugh*), very different from how you previously described your experience of going out, and your experience of yourself. Anything changed in how you see yourself, I can tell your friends see you differently, what about you? C: Yeah, I feel like a new person (*C laughs).* When I see that old me, she was so caged in worries and anxiety, and now I am no longer in that prison. I feel free, like I control my anxiety and not the other way around. It's a powerful feeling, not feeling so helpless but stronger, and able to deal with things. *Exemplar 2 – C and T discussing treatment termination* C: To be honest, before I always used to say, it's my boyfriend who helped me turn things around. But when I talk to him, he says, yeah I showed you a different path, but it was your choice to change. Before I always used to think or say, I couldn't have done this without him. The more I reflect on these changes, I think something changed - I think it is me, I did this all on my own. No one forced me to do these things but here I am. T: Yeah, it's the same for therapy, yeah, I have told you to do things here and there but what has really changed is what you are doing in your day-to-day life when we are not meeting. When you think about it, we are only meeting an hour a week. So, all that change really seems to be coming from you. Same thing, I can tell you, here are thought records, you decide if you want to do them or not, to take the info and use it or not. So, I know your boyfriend has played a role, I have played a role in you changing but I say the majority of the change has been up to you and because of you. It's a new way to see how change has happened for you, not dependent on others, but more because of yourself.

	C: Mhm, yeah this is something I needed to realize as you say that. Even now, he is going to leave my life to go live in the US, just like you are going to leave my life. I feel like, I did this on my own and I will continue to do it on my own (*C tears up*). I was always capable of this all along. It feels a little scary to end therapy. At the same time, I feel ready, I have had my training wheels on, and I think it's time to take them off and go on my own (*C tears up*).

16. Therapist-Information sharing Marker (T-info sharing)

Marker Description: Therapist talks for 30 seconds or more, in a one-minute therapy segment.

Therapist-Info sharing intervention (T-info sharing)
Definition and Process Indicators
-T-info sharing may occur within the context of CBT tasks or in response to spontaneous client narration of any client NEPCS code, without the context of tasks. -T-info sharing marker is coded in the following instances when the therapist: -Provides general psychoeducation, clarification, and review of tools/tasks, without personalization to client's specific situation, -Sets session agenda, -Plans treatment and sets up in-session tasks, -Shifts focus in session from one treatment task to another, -Fills in official paperwork, -Provides homework, -Engages in general, non-therapy-related chitchat, - Makes summary statements of client's narrated content that cannot be classified as any other therapist code, and -Reads client's imaginal exposure script (Note-Within the context of the therapist reading the imaginal exposure script, if the therapist explicitly asks the client if anything in the imaginal script triggers them and/or whether the client is feeling anxious, then that clip is coded as Therapist code - "Therapist (T) invites focus on client's maladaptive anxiety patterns", and not T-Info sharing).
Exemplar - T-info sharing
Exemplar 1 - T providing psychoeducation about anxiety in session 1 T: Anxiety has cognitive or thinking, behavioural, and emotional component, as you can see in this diagram and these components all interact together. In our treatment, we will look at and address all three components, over time. *Exemplar 2 – T introducing and explaining the rationale for a behavioural experiment* T: Something we can try a bit sooner is behavioural experiment and idea behind those is that for a lot of the beliefs you have, there isn't a lot of evidence you have against them. So, that behavioural experiment provides you with that contradictory evidence. An example is - think of someone who is nervous about public situations thinking everyone will stare at them. So, we ask that person to go into the mall and sit on a bench for an hour and take a tally of how many people actually look at them to test that belief… *Exemplar 3 - T and C planning for treatment termination*

T: Maybe before we end, it would be a good idea for us to together, list all the techniques you have learned here – like the thought records, catastrophizing, probability estimation, muscle relaxation, all the different exercises. So, you can have a record of the technique titles and what they mean, before our final session. So whenever you are confused, you can refer to that list. Also, if you are feeling really anxious in a given moment, and you want to do something, you can pull out that list and look through and be like, okay, what would fit best here.
C: Yes, that's it, that would be helpful.

Appendix C

Table C1

Client Demographics and Sample Selection Criteria

id	age	gender	ethnicity	Highest education	Employment status	Marital status	Clinically significant: Depressive disorder, Anxiety disorder	Outcome status (post-treatment, 12-months follow-up)	Sessions coded	PSWQ scores		
										pre	post	12-months follow-up
A	30	Female	Other	Completed bachelor's degree	Temporarily not able to work/go to school, or on leave	Married	No, Yes	Recovered	1, 4, 6, 8, 11, 13	72	28	20
B	40	Female	White/European	Completed postsecondary degree	Employed (full-time)	Single	Yes, Yes	Recovered	1, 4, 6, 8, 11, 13	80	20	18
C	25	Female	White/European	Completed postsecondary degree	Employed (not indicated full or part-time)	Single	Yes, Yes	Unchanged	1, 4, 6, 8, 12, 13	74	69	73
D	28	Female	Asian (e.g., South Asian,	Some postsecondary degree	Unemployed /not in school currently	Single	No, Yes	Recovered	1, 4, 6, 8, 11, 13	79	17	20

			East Asian, Southeast Asian)									
E	56	Female	White/European	Completed bachelor's degree	Employed (full-time)	Married	No, Yes	Recovered	1, 4, 6, 8, 11, 13	75	25	18
F	31	Female	White/European	Completed postsecondary degree	Temporarily not able to work/go to school, or on leave	Married	No, Yes	Unchanged	1, 4, 6, 8, 11, 13	80	80	80
G	20	Female	White/European	Some postsecondary degree	Employed (part-time)	Not indicated	Yes, Yes	Unchanged	1, 4, 6, 8, 11, 13	74.5	67	60
H	51	Female	White/European	Completed postsecondary degree	Employed (full-time)	Single	Yes, Yes	Unchanged	1, 4, 6, 8, 11, 13	78	68	74
I	30	Female	Hispanic/ Latin American	Completed bachelor's degree	Temporarily not able to work/go to school, or on leave	Married	No, Yes	Recovered	1, 3, 6, 8, 11, 13	76	32	38
J	28	Female	White/European	Completed postsecondary degree	Employed (part-time)	Married	Yes, Yes	Unchanged	1, 4, 6, 8, 11, 13	80	51	75

Notes: PSWQ = Penn State Worry Questionnaire (Meyer et al., 1990)

Table C2

Therapist Demographics

Client IDs	Therapist age	Therapist gender	Therapist education	Clinical experience (no. of hours)	Primary therapeutic orientation
C	28	Female	Master's candidate	200	CBT
D	29	Female	Completed PhD	600	CBT
E, F, H	27	Female	Completed Master's	380	CBT
A, B, J, G	28	Female	Completed Master's	325	CC
I	27	Female	Completed Master's	260	CBT

Notes: CBT = Cognitive Behavioural Therapy, CC = Client Centered Therapy

Appendix D

Table D1

NEPCS-CBT Client (C)-Problem markers: raw frequencies and mean percentages by stage, outcome, and overall

		C-Same Old Story		C-Empty Story		C-Unstoried Emotion		C-Superficial Story		C-Problem markers Total	
	Total Minutes	*f*	%	*f*	%	*f*	%	*F*	%	*F*	%
Recovered											
Early	595	115	19.33	6	1.01	0	0.00	17	2.86	138	23.19
Middle	564	37	6.56	3	0.53	0	0.00	19	3.37	59	10.46
Late	543	35	6.45	9	1.66	0	0.00	22	4.05	66	12.15
Overall	1702	187	10.99	18	1.06	0	0.00	58	3.41	263	15.45
Unchanged											
Early	568	157	27.64	6	1.06	0	0.00	23	4.05	186	32.75
Middle	579	154	26.60	4	0.69	1	0.17	18	3.11	177	30.57
Late	611	126	20.62	1	0.16	0	0.00	20	3.27	147	24.06
Overall	1758	437	24.86	11	0.63	1	0.06	61	3.47	510	29.01
Total Sample											
Early	1163	272	23.39	12	1.03	0	0.00	40	3.44	324	27.86
Middle	1143	191	16.71	7	0.61	1	0.09	37	3.24	236	20.65
Late	1154	161	13.95	10	0.87	0	0.00	42	3.64	213	18.46
Overall	3460	624	18.03	29	0.84	1	0.03	119	3.44	773	22.34

Table D2

NEPCS-CBT Client (C)-Transition markers: raw frequencies and mean percentages by stage, outcome, and overall

		C-Reflective Story		C-Competing Plotlines		C-Experiential Story		C-Inchoate Story		C-Transition markers Total	
	Total Minutes	*f*	%	*f*	%	*f*	%	*f*	%	*f*	%
Recovered											
Early	595	76	12.77	43	7.23	3	0.50	0	0	122	20.50
Middle	564	116	20.57	55	9.75	1	0.18	0	0	172	30.50
Late	543	135	24.86	65	11.97	10	1.84	0	0	210	38.67
Overall	1702	327	19.21	163	9.58	14	0.82	0	0	504	29.61
Unchanged											
Early	568	16	2.82	13	2.29	0	0.00	0	0	29	5.11
Middle	579	36	6.22	32	5.53	0	0.00	0	0	68	11.74
Late	611	59	9.66	33	5.40	11	1.80	0	0	103	16.86
Overall	1758	111	6.31	78	4.44	11	0.63	0	0	200	11.38
Total Sample											
Early	1163	92	7.91	56	4.82	3	0.26	0	0	151	12.98
Middle	1143	152	13.30	87	7.61	1	0.09	0	0	240	21.00
Late	1154	194	16.81	98	8.49	21	1.82	0	0	313	27.12
Overall	3460	438	12.66	241	6.97	25	0.72	0	0	704	20.35

Table D3

NEPCS-CBT Client (C)-Change markers: raw frequencies and mean percentages by stage, outcome, and overall

		C-Unexpected Outcome Story		C-Discovery Story		C-Change markers Total	
	Total Minutes	*f*	%	*f*	%	*f*	%
Recovered							
Early	595	5	0.84	2	0.34	7	1.18
Middle	564	37	6.56	3	0.53	40	7.09
Late	543	42	7.73	7	1.29	49	9.02
Overall	1702	84	4.94	12	0.71	96	5.64
Unchanged							
Early	568	1	0.18	1	0.18	2	0.35
Middle	579	4	0.69	0	0.00	4	0.69
Late	611	12	1.96	0	0.00	12	1.96
Overall	1758	17	0.97	1	0.06	18	1.02
Total Sample							
Early	1163	6	0.52	3	0.26	9	0.77
Middle	1143	41	3.59	3	0.26	44	3.85
Late	1154	54	4.68	7	0.61	61	5.29
Overall	3460	101	2.92	13	0.38	114	3.29

Table D4

NEPCS-CBT Therapist (T) markers: raw frequencies and mean percentages by stage, outcome, and overall

		T-Same Old Story/T-Problem markers Total	
	Total Minutes	*F*	%
Recovered			
Early	595	41	6.89
Middle	564	24	4.26
Late	543	4	0.74
Overall	1702	69	4.05
Unchanged			
Early	568	53	9.33
Middle	579	22	3.80
Late	611	23	3.76
Overall	1758	98	5.57
Total Sample			
Early	1163	94	8.08
Middle	1143	46	4.02
Late	1154	27	2.34
Overall	3460	167	4.83

Table D5

NEPCS-CBT Therapist (T)-Transition markers: raw frequencies and mean percentages by stage, outcome, and overall

		T-Competing Plotlines		T-Reflective Story		T-Transition markers Total	
	Total Minutes	*F*	%	*f*	%	*f*	%
Recovered							
Early	595	80	13.45	37	6.22	117	19.66
Middle	564	51	9.04	79	14.01	130	23.05
Late	543	61	11.23	69	12.71	130	23.94
Overall	1702	192	11.28	185	10.87	377	22.15
Unchanged							
Early	568	71	12.50	27	4.75	98	17.25
Middle	579	131	22.63	39	6.74	170	29.36
Late	611	156	25.53	51	8.35	207	33.88
Overall	1758	358	20.36	117	6.66	475	27.02
Total Sample							
Early	1163	151	12.98	64	5.50	215	18.49
Middle	1143	182	15.92	118	10.32	300	26.25
Late	1154	217	18.80	120	10.40	337	29.20
Overall	3460	550	15.90	302	8.73	852	24.62

Table D6

NEPC-CBT Therapist(T)-Change markers and T-info: raw frequencies and mean percentages by stage, outcome, and overall

		T-Unexpected Outcome Story		T-Discovery Story		T-Change markers Total		T-info	
	Total Minutes	*f*	%	*f*	%	*f*	%	*f*	%
Recovered									
Early	595	1	0.17	0	0.00	1	0.17	169	28.40
Middle	564	7	1.24	0	0.00	7	1.24	132	23.40
Late	543	4	0.74	2	0.37	6	1.10	78	14.36
Overall	1702	12	0.71	2	0.12	14	0.82	379	22.27
Unchanged									
Early	568	0	0.00	0	0.00	0	0.00	200	35.21
Middle	579	0	0.00	0	0.00	0	0.00	138	23.83
Late	611	6	0.98	0	0.00	6	0.98	113	18.49
Overall	1758	6	0.34	0	0.00	6	0.34	451	25.65
Total Sample									
Early	1163	1	0.09	0	0.00	1	0.09	369	31.73
Middle	1143	7	0.61	0	0.00	7	0.61	270	23.62
Late	1154	10	0.87	2	0.17	12	1.04	191	16.55
Overall	3460	18	0.52	2	0.06	20	0.58	830	23.99