Visual Communication Desensitization (VCD©): A novel two-phased approach to interviewing

traumatised individuals in investigative contexts

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Option 2 - Studies with human participants

Ethical standards

Declaration of conflicts of interest

Author A [Janemary Castelfranc-Allen] has declared no conflicts of interest

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Ethical approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institution at which the research assistants consulted/were based (Tbilisi State University) and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent

Informed consent was obtained from all individual participants included in the study

Abstract

Investigators in international law enforcement, security and other response agencies are increasingly faced with the challenge of interviewing distressed or traumatised victims or witnesses as a result of war, genocide, human trafficking or sexual violence. In such cases, the need for effective interviewing is critical to obtain the reliable and detailed evidence necessary for the pursuit of justice. However, to date, best practice investigative interview approaches have not explicitly incorporated techniques to address the psychological needs of distressed or traumatised individuals – nor have therapeutic approaches addressed the investigative need for accurate and detailed information. The current article presents a Case Study and laboratory experiment charting the development and early stage testing of an innovative approach, the Visual Communication Desensitization (VCD©) interview procedure, designed to secure accurate accounts rapidly while reducing distress. The VCD© interview procedure comprises a two-part cognitive-behavioural approach to eliciting information from a co-operative but traumatised victim or witness. It was originally developed to respond to the needs of a traumatised victim of violent sexual assault who, as a result of psychological trauma associated with her assault, was unable to communicate and provide evidence in court about her experience. Part 1 of the procedure comprises a 'narrative graph' information gathering component and Part 2 comprises a dove-tailed therapeutic component. Although further research is necessary, the laboratory findings reported here and observations during applied practice suggest this technique may be beneficial for assisting traumatised interviewees to provide their accounts. As such, the VCD© interview procedure has the potential to support capacity building in humanitarian response contexts and international investigation goals.

Introduction

Given widespread geopolitical instability, the number of men, women and children experiencing distress and trauma as a consequence of war, genocide, human trafficking or sexual violence is increasing. By the end of 2014, the number of people forcibly displaced by conflict and human rights violations stood at an all-time high of 59.2 million, many of whom remain interned in refugee camps near their conflict zones. More recently, many others have taken significant risks to seek asylum and refuge in Europe (UNHCR, 2015). Displaced people from Middle Eastern and Central African conflict regions are likely also to have endured the additional endemic, but less visible, problem of gender-based violence (UN Security Council, 2015; World Health Organization, 2013). Further, by 2012, approximately 4.5 million people, primarily women and children, were estimated to have been forced into lives of sexual exploitation (International Labor Organization, 2012) and it is likely that sex trafficking numbers have increased markedly with the more recent influx of refugees from the Middle East to Europe (International Organization for Migration, 2015). Domestic crime statistics also suggest that there has been an increase in violent crime, particularly against women, since 2009 (Walby, Towers, & Francis, 2015). Such humanitarian and gender-based abuses have a significant effect on the psychological well-being of victims and inflict a long-term impact on rehabilitation and recovery at both the individual and societal level.

In critical response contexts, specialist resources to respond to the psychological needs of victims and to obtain witness accounts often, unsurprisingly, take second place to the more urgent need to preserve life and ensure basic safety (World Health Organization, 2006). However, receiving authorities and other agencies are faced with two equally pressing concerns in terms of response to victims: (i) The need to conduct investigative evidence-gathering (*what has happened and who is responsible?*); and, (ii) The need to provide humanitarian-therapeutic support (*how can we help the individual?*). Both concerns rely on gathering reliable information based on people's memories for traumatic events. At present, approaches to the collation of such information are not necessarily

well-informed by good interviewing practice, adequate techniques to manage trauma, or the application of standardised approaches. These deficits may lead to incomplete or unreliable accounts while also failing to address the psychological needs of traumatised individuals. Worse, poor interviewing practice may increase and prolong trauma of interviewees and also result in distress for any intermediaries involved and the interviewers themselves (e.g. see Sandick, 2012). Finally, inadequate contemporaneous accounts (i.e. incomplete, erroneous, contaminated) obtained using poor interviewing methods are likely impede the future delivery of justice.

Unfortunately, investigative interviewing approaches developed in civilian policing contexts may fail to meet the requirements of many victims, witnesses, investigators and NGOs in broader response contexts. For instance, gold-standard police interviewing procedures, such as the cognitive interview (Fisher & Geiselman, 1992), have not been designed to address the psychological needs of traumatised interviewees who may be experiencing high levels of distress. Therefore, a major challenge for investigators (e.g. police; International Criminal Court) and other groups (e.g. asylum-assessors, frontline or receiving NGOs) working to build evidence for reporting or tribunal purposes, lies in eliciting detailed and reliable accounts from such traumatised individuals (Sandick, 2012). Obtaining accounts can be especially difficult to achieve when many victims have been witnesses or participants in conflicts that have occurred under rapidly shifting circumstances, and often after potential informants have informally repeated their accounts and shared their experiences with an array of individuals and agencies (Herlihy, Scragg & Turner, 2002). Indeed, Berasmo (2011) highlights the challenges faced in international investigation cases, noting in particular the difficulties of 'old evidence' and 'contaminated' witness testimony. Too often, accounts of incidents or abuses become distorted or contaminated, as a function of delay, poor interview techniques and a lack of understanding of how to ethically elicit accounts from reticent, confused or traumatised victims (Hope, 2013). Additionally, the use of sexual violence charges has been limited in international crimes against vulnerable populations in part because of reticence, disregard or

embarrassment over investigating matters pertaining to sexual activity (Aranburu, 2010). These observations resonate with calls for improved interview procedures and training for those conducting such investigations (O'Brien & Kebble, 2014; Sandick, 2012).

In these contexts, victim and witness memory for their experiences can be affected by distress and trauma (Hamilton, 2014). For example, memory for traumatic events can appear fragmented or compounded so that sequence and perception of time become distorted. Symptoms of post-traumatic stress disorder (PTSD) can also include amnesia or difficulty recalling important aspects of an event and involuntary distressful memories or 'reliving' events (Brewin, 2007). These and other factors can contribute to the difficulty of gathering coherent or time-lined information from traumatised persons suitable for legal purposes. Assessments and interventions designed to assist persons experiencing symptoms of trauma, such as PTSD, come to terms with their experiences (e.g. Narrative Exposure Therapy; Cognitive Processing Therapy) focus, quite appropriately, on therapeutic benefits rather than investigative or evidentiary concerns (Bass et al., 2011). Difficulties can occur, however, when investigative and clinical interviewing goals conflict. For example, therapeutic interviewing processes may risk distorting a victim-complainant's memory for events either by supporting or reinforcing statements as if they are fact and/or utilizing procedures that risk creating false memories, such as visualisation or other suggestive techniques (Goff & Roediger, 1998; Laney & Loftus, 2008; Strange, Garry & Sutherland, 2003), thereby reducing the prospect of obtaining accurate information.

While there is a sizeable literature on investigative interviewing in domestic policing contexts (Vrij, Hope, & Fisher, 2014) and an emerging literature on frontline psychological interventions in challenging contexts (e.g., Bass et al., 2011), we are not aware of any interview method that has been explicitly devised to serve a therapeutic function for the interviewee *in order* to help them communicate their memories for traumatic events (through visual as well as verbal procedures) and simultaneously protect the need for them to deliver a reliable account for the investigator.

In this article, we present a case study and a laboratory-based test of an innovative interview procedure suitable for use, in the first instance, to gather information from traumatised victims and witnesses. This interview procedure has been developed to overcome the tension that exists between eliciting information for investigative purposes (in which the focus is necessarily on the accuracy and quantity of information elicited), and the gathering of information in the therapeutic context (in which reports are accepted as reflecting personal experiences and the focus is more on managing trauma effects).

Visual Communication Desensitization (VCD©) Interview Procedure

The Visual Communication Desensitization (VCD©) interview procedure comprises a two-part cognitive-behavioural approach to eliciting information from a cooperative but traumatised victim or witness. Part 1 of the procedure comprises a 'narrative graph' information gathering component and Part 2 comprises a dove-tailed therapeutic component. The development of both parts of the VCD© interview procedure has been informed by the memory literature, the PTSD literature and clinical experience in eliciting evidential accounts from traumatised individuals. Development of the procedure also took into account that intrusive thoughts and images associated with trauma memories are often visual and yet assessments of an individual's trauma state typically rely on verbal procedures such as clinical interviews and questionnaires (e.g., Foa, Ehlers, Clark, Tolin & Orsillo, 1999). Further, asking someone to articulate their trauma memories may pose a communication hurdle for those who feel for cultural and/or religious reasons that their experiences are unspeakable (Dudgeon, 2012), those communicating in a second language, and/or those afraid of the consequences of disclosing abuse (International Rehabilitation Council for Torture Victim, 2009). As victims of trauma can present with symptoms that interfere with communication, the key initial aim of the VCD© interview procedure is to reduce distress levels in order to encourage a traumatised interviewee to provide clearer and more complete information. Consistent with contemporary

approaches to the attenuation of PTSD symptoms via visuospatial tasks (Holmes, James, Kilford & Deeprose 2010) and emotion regulation training (Bryant, Mastrodomenico, Hopwood, Kenny, Cahill, Kandries & Taylor, 2013), the VCD© interview procedure aims to assist traumatised individuals by providing self-directed visual feedback through the use of a 'narrative graph'. This procedure is intended to (a) enable interviewees to indicate and control the levels of distress experienced; (b) prompt further recall, and; (c) facilitate the production of a time-lined account.

In the first section of this article, we present a case study describing how the VCD© interview procedure was originally devised as an innovative and direct response to levels of distress that were grossly interfering with the ability of a traumatised woman (referred to here using the pseudonym "Kay") to recount events for a New Zealand criminal court, including difficulties recalling aspects of the events, and time-confusion when trying to sequence the events. Hence, the key initial aim of the VCD© interview procedure was to reduce Kay's distress levels in order to help her provide clearer and more complete information without contaminating her report. In the second section, we report the findings of an empirical study designed to determine whether using the narrative graphing technique to elicit an account has any systematic or detrimental effects on the accuracy of reporting by mock witness participants.

Case Study: "Kay"

The interviews reported in this case study were conducted by the first author who is a licensed New Zealand psychologist with clinical experience working with traumatised adults and children involved in legal systems, including NGO services for institutionalised children.

Kay was a woman in her twenties who first came to a clinic for help with memory problems. During all attempts to interview her initially she exhibited observable signs of psychological trauma such as shaking, gazing off and ceasing to speak. Her records showed she had recently been discharged from hospital following head and spinal injuries. Prior to that hospital admission she had

been interviewed by the New Zealand Police who, investigating a crime which included abduction and rape, wanted Kay to testify as a complainant. The investigators requested that Kay receive clinical assistance to achieve this but, understandably, did not want her account to be contaminated by any therapeutic process so it was decided that her initial statement to them should <u>not</u> be disclosed to the therapist-interviewer.

In an initial session with the therapist-interviewer, Kay was given a graph-like form in which the vertical axis was labelled "client sense of distress" and scaled from 0-100 and the horizontal line was open-ended and labelled the "client directed timeline". This 'narrative graph' constitutes the first part (Part 1) of the VCD© procedure. Kay was asked to remember the time the trauma event(s) happened and use a pencil to draw a line on the narrative graph that could vary (i.e. go up and down) in order to represent the interaction between her recalled experiences and her degree of distress whilst recalling the series of events. This line had to begin at a less distressful point just before the remembered distressful events and end at a less distressful point just after them. Kay was free to decide the beginning and end points of remembered trauma events. The therapist-interviewer also told Kay that she could choose to verbalise her remembered events as she progressed or remain silent if she preferred. She could stop at any time for as long as she wanted but was encouraged to get to the 'end', as she saw it, of her remembered trauma events. If she stopped, she had to try to keep her pencil in the same place and choose either to verbally describe her visualized events pertaining to that point in time ('pause point') or put a short vertical line or 'hash mark', or word(s) on her line at that 'pause point' as a reminder before proceeding until she got to the end. She could put as many hash-marks or words as she liked on her line and resume drawing the line within a given session as many times as she wanted, resuming either at the last 'pause point' or restarting from the beginning of her timeline. Initially, if Kay was silent or inarticulate, the therapist-interviewer marked the graph with a hash-point when her pencil paused and, using only open-ended questions, asked Kay what she was recalling. Kay's words or phrases were then written either next to those hash-marks or listed on

a separate sheet of paper. It is important to note that throughout the interview, the therapist-interviewer worked with this visual representation to access further details solely through the use of open questions and non-leading prompts.

A session stopped when Kay or the interviewer determined. Sessions were repeated using a new (blank) narrative-graph form to allow Kay to try to reach the end of her remembered trauma events and/or become accustomed to communicating the timeline of events. All sessions had the same start points. As sessions progressed, pause points were treated as 'anchors' and more information was requested in terms of what happened just before and just after these points. Figure 1 illustrates Kay's narrative graphs over the six sessions in which she graphed her degree of distress and narrative of trauma event.

Figure 1 here

As can be seen from Figure 1, Kay did not reach the 'end point' of her account until the fourth session. In addition, her distress levels followed a similar path across all sessions, although amount and timing of information reported varied across sessions. Kay's report initially comprised single words or phrases that were written down by the interviewer (JM writes) and, in the last two sessions, progressed to sentences that Kay wrote herself. Her account was consistent across sessions. During sessions 4, 5 and 6 she had gaps in her recall that were labelled 'P' for "passed out". Part 1 of the VCD© interview procedure (narrative graph) allowed Kay to provide information at her own pace, provided her with visual 'anchors' to prompt further recall, and placed remembered events immediately in sequence within a time frame.

This information, captured on the narrative graphs, along with written notes of what she reported, then provided the basis for a therapeutic process in Part 2 of the VCD© interview procedure. This therapeutic process started with dividing the 'levels of distress' on her last graph

into equal bands from 0-100 with least distressing events falling within 0-10 and most distressful

events within 90-100 (as illustrated in Figure 2).

Figure 2 here

Kay was introduced to cognitive procedures typical of systematic desensitization as developed by

Wolpe (1964), initially comprising a graduated physical relaxation procedure, incorporating

visualizing a calming scene of her choice to combat tension, as well as rational self-talk elements of

Cognitive Behaviour Therapy (CBT). She then was asked to relax, visualize events initially from her

narrative that fell within the lowest level of distress band (0-10) only, and replace these with both the

visualized calming scene and self-talk. This continued until she could visualize the target narrative

within this distress band and remain calm. The process was repeated across several sessions in a

step-wise fashion up the hierarchy of levels of distress, using items from across Kay's trauma

timeline within each step. Again, the therapist-interviewer used only open questions to elicit

information and Kay proceeded up the hierarchy at her own speed.

Case Study: Discussion

Through the use of Part 1 and Part 2 of the VCD© interview procedure, Kay successfully met her

goals to speak about and otherwise clearly communicate events wherever they fell across the

timeline within each of the bands (levels) without dissociating or becoming unable to verbalise her

experience. Her report during sessions subsequently was found to be consistent with her original

statement to the police. She was able to provide relevant detail when asked first within therapy

sessions and then in the trial, leading to successful prosecution of her assailants.

Although use of the VCD© procedure in clinical practice has so far been successful in a

number of settings at enabling traumatised individuals to reduce their distress levels and provide a

coherent account of their experiences (see General Discussion), the procedure has not, to date, been subjected to empirical testing to determine whether any aspect of the narrative graphing procedure systematically impairs, impedes or otherwise contaminates recall. Best practice interviewing typically emphasises the importance of open questioning and unimpeded free recall (Vrij, Hope & Fisher, 2014). Given that the narrative graphing task adds an additional output element to assist the interviewee represent, and subsequently attenuate, distress levels, we sought to determine whether this additional component had any detrimental effect on either the *accuracy or quantity* of information reported. For sound ethical reasons it is not generally permissible to generate high levels of distress in experimental participants. Therefore, we focused our attention on an assessment of the accuracy and quantity of information reported under laboratory conditions. Using a standard mock witness paradigm, we compared the information provided by mock witnesses who provided their account using the narrative graphing procedure (VCD© Part 1) with those who provided their accounts in a verbal free recall format.

Method

Design and Participants

Fifty adult members of the public (29 females, 21 males) were recruited, using contacts and social media, in Tblisi, Georgia, by research assistants trained in the VCD© interview procedure by the first author. The selection criteria for inclusion were that participants were aged <55 years of age and wore corrective lenses as necessary. The average age of participants was 28.85 years (range 20-51 years). After witnessing the stimulus event, participants were randomly allocated to one of two experimental conditions: the VCD© Narrative Graph condition (NG condition; n = 28) or the Free Recall condition (FR condition; n = 22).

Materials

The stimulus event was a short film segment (2 mins). The event depicted a professionally filmed staged scenario in which a male perpetrator breaks into a house and begins to verbally threaten the three females in the house (one of whom is apparently his ex-partner). The women escape from the house and manage to impede and evade the perpetrator. Although no physical violence was depicted, pilot evaluations of the stimulus event indicated that the event was engaging and reflected a mildly distressing scenario due to the implied threat to the female characters. Further, pilot participants were able to plot a representation of their recall to the scenario that reflected their perception of the implied threat (i.e. increased distress ratings when threat was greatest). Participants were warned in advance about the content of the stimulus event via appropriate informed consent procedures.

Procedure

Participants were instructed to imagine themselves as witnesses to the incident shown and then watched the stimulus event individually on a laptop computer screen. After a short delay, participants were reminded of their witness role and were asked to recall as much as they could about the event they had seen, from beginning to end. In both conditions, participants received the same overall recall instructions requiring them to report as much information as they could about the witnessed incident including detailed descriptions of people, actions, objects and settings. No time restrictions on reporting were imposed in either condition.

Participants in both conditions were given some time (~1 minute) to consider the overall recall instructions before receiving the instructions specific to the condition to which they had been allocated. Participants in the VCD© Narrative Graph (NG) condition were then given a blank VCD© narrative-graph form. This form presented a blank simple graph format. The x-axis was labelled 'client directed timeline' and the y-axis was labelled 'client's level of distress' and marked 0-100 in units of 10 (as per graphs depicted in Figure 1). They were instructed to use the horizontal axis of the graph to help them sequence their memory for the witnessed event and to use the vertical axis to

reflect how they were feeling when remembering the event with marks higher on the vertical axis reflecting feelings of greater distress. Participants were instructed that they could add words or other marks onto the graph as they completed it if they felt it would help them remember details. After drawing their narrative graph, participants were then asked to asked to provide a verbal account of what they had seen (keeping their narrative graph in view). On completion of the verbal account, each participant was then asked to refocus on the narrative graph and invited to provide any further details that they could remember. In the Free Recall condition, participants were asked to provide a verbal account of what they had seen. On completion of the verbal account, each participant was then asked to refocus and invited to provide any further details that they could remember.

As the VCD© procedure is designed to be used over multiple sessions if necessary, all participants in the current study were interviewed on three occasions to assess performance in repeated interviews using the narrative graph procedure. The first interview took place shortly after viewing the stimulus, the second interview took place after a delay of one week, and the third interview took place a further week later. Participants in the FR condition also completed three sessions across three weeks. Interview instructions remained the same across all three interviews and participants remained in the same interviewing condition throughout.

Coding

Recall data were coded for accuracy using a coding template consistent with Gabbert, Hope, and Fisher (2009). An item was deemed correct if it was present in the event and described correctly, and deemed incorrect if it was present in the event but described incorrectly or was not present in the event. Sequencing errors were coded by assessing the order in which action information was reported. A sequencing error was recorded where action information was reported in the wrong sequence or order to that presented in the stimulus event. Coding strictly adhered to the coding template and researchers discussed and resolved the coding of any ambiguous details. Subjective responses (such as "he was ugly") were not coded.

Results and Discussion

Our main interest was in the performance in the first interview which took place shortly after the event was encoded. Specifically, we wanted to assess whether eliciting information using the narrative graphing procedure had any systematic or detrimental effect on the accuracy of reporting by participants.

Accuracy rate was calculated by dividing the total number of correct details reported by the number of total details reported (correct and incorrect) to obtain the proportion of accurate details. Overall, the accuracy rate for the reported information was high and, although the accuracy rate was slightly higher in the FR condition ($M = 98\%$) than the NG condition ($M = 96\%$), this difference was not significant, $t(48) = 1.81$, $p = .08$, $d = .63$. For the first interview, there was no significant difference between conditions for the number of correct details reported (FR $M = 55.68$, NG $M = 45.75$; $t(48) = 1.95$, $p = .06$, $d = .57$). Similarly there was no difference between conditions with respect to the number of incorrect details reported (FR $M = 1.36$, NG $M = 2.00$; $t(48) = -1.76$, $p = .25$, $d = .34$). There was also no difference in the number of sequence errors reported between conditions (FR $M = 0.14$, NG $M = 0.18$; $t(48) = -0.39$, $p = .69$, $d = .11$). This pattern of results was replicated across the second and third interviews with no significant differences emerging between the experimental groups on any of the dependent measures (see Table 1).

These results suggest that the Narrative Graph, Part 1 of the VCD© interview procedure, does not significantly impair quality or quantity of information provided about a witnessed event (relative to Free Recall) across repeated interviews. Although the means indicate that fewer correct details were reported in the Narrative graphing procedure across sessions, the differences were not statistically significant between conditions. It is also worth bearing in mind that the goal of this method is not necessarily to elicit more information than existing methods but rather to provide a method by which to interview a traumatised individual in a way that addresses both investigative and therapeutic concerns.

General Discussion

The VCD© interview procedure is based on solid principles underpinning both interviewing and current understanding of the effects of trauma. The VCD© interview format was originally developed to reduce and manage the trauma of a potential complainant so that she could communicate her memory for a traumatic event coherently, uncontaminated by the interview process, and consistently during cross-examination. It has since been developed in the course of consultation with investigative interviewing practitioners and clinicians internationally.

The VCD© narrative graph interview procedure incorporates sound investigative interviewing practice as the interviewee provides their account with minimal prompts from the interviewer. Instead of a question-and-answer format, it incorporates a timeline element that should serve to enhance both recall of actions and sequencing of events (Hope, Mullis & Gabbert, 2013). Carefully conducted interviews that facilitate repeated opportunities to recall typically can elicit highly accurate details (LaRooy & Lamb, 2008; Fisher et al., 2009) and the VCD© procedure facilitates interviewees providing further detail without risk of interviewer contamination. Systematic testing of the VCD© reporting format across repeated recall sessions suggests that the procedure itself is as effective as open-ended free recall and does not significantly impair memory for (or reporting of) witnessed events.

In addition to facilitating provision of an account, the VCD© interview procedure attempts to quantify levels of distress and monitor change in emotional response. The containment of remembered events within a visual timeline, and the repeated nature of Part 1 either within a session or across sessions, acts as a means to externalise the trauma memories and has initial therapeutic benefits for the interviewee. By incorporating distress-reducing elements, the VCD© interview procedure targets a key challenge faced in many international investigative and humanitarian response settings. For example, in a report for the UNHCR, Gorlick (2002) highlights this challenge noting that the "memory of a person under stress or fearful of expressing themselves to a person in

authority can play a crucial role in an applicant's inability to provide testimony which is consistent and coherent" (p.14).

A potential benefit of the VCD© relates to the vulnerabilities of certain victims or witnesses in the context of their experience and the timing of their disclosing sensitive information. The findings of a recent review suggests that while an open-questioning approach in verbal interviews may facilitate accurate reports for certain vulnerable samples, this approach may not necessarily increase amount of information reported (Bowles & Sharman, 2014). For example, Lindholm, Cederborg and Alm (2014), observed with adolescent girls exploited in the sex trade and subjected to violence that some would "withhold information" if interviewed with open questions "soon after the exploitation has ceased" (p. 12). The VCD© allows the interviewee initially to communicate distress levels across a timeline to signal their vulnerability, then allows the interviewer to tailor their interview and ask open questions first around low-distress recollections that might be easier for the interviewee to disclose and pivotal as an entry point to subsequently obtaining relevant but either embarrassing, culturally sensitive or security information. Of course, further research is needed to establish when it might be most beneficial, for both the interviewee and interviewer, to conduct VCD© or a more traditional open-ended interviews of this nature. Finally, the graphed format of the VCD© interview results in a permanent product that allows rapid visual analyses of repeated accounts and levels of distress that is useful both to the investigator who may wish to examine or track contemporaneously dated accounts over time, and to the therapist who may wish to examine efficacy of support.

Applications of the VCD© interview procedure

The VCD© interview procedure has been found in clinical practice to assist a small number of traumatised individuals across a number of different contexts (e.g. individuals who experienced childhood sexual abuse; internally displaced persons who experienced conflict-related trauma; indigenous remand prisoners who reported being traumatised by their offending). Combined client

and clinician feedback suggests that the VCD© interview procedure provides a means for self-directed visual feedback that (a) provides an indication of degree of distress; (b) helps the person control feelings of distress; (c) prompts further recall, and (d) enables the production of a more coherent/time-lined account. It may be that for some people the opportunity to communicate at their own pace by means of a visual-narrative incorporating self-prompts can facilitate the provision of useful information and evidence without recourse to lengthy verbal interviews. For example, the narrative graph (VCD© Part 1) has the potential to be privately and relatively rapidly self-administered by non-complainant rape victims, then stored along with semen samples taken around the same time and made available for subsequent comparison with other victims' reports and semen samples to gather cumulative evidence in suspected serial rape cases. Similar usage may be possible for the reporting of abuse or repeated violence.

Training workshops on the VCD© interview procedure have been conducted with small groups of practitioners in the United States and in Georgia comprising psychologists, psychiatrists, community leaders and translators with varying experiences working with traumatised clients with either abduction, torture, or sexual assault histories. In these workshops, training on the use of the VCD© interview procedure was administered in two ways. First, in the form of a one-day 'First Responder' workshop in which participants were trained (including practice interviews) how to administer the Narrative Graph. Participants then used the Narrative Graph in vivo as an initial interview only and then learned how to make a professional referral to a therapist. Evaluation of this first responder training workshop suggests that the VCD© can be implemented by first responders with minimal training to i) gather information about trauma event(s) with no contamination of the original account; ii) evaluate any communication difficulties present during the assessment; iii) illustrate the impact of trauma on the interviewee via their graphed levels of distress; iv) reduce translator time and potentially translation errors. Second, in the course of a two-day workshop for therapeutic professionals, participants learned the narrative graphing method and how to dovetail it

with the systematic desensitization component of Part 2 of the VCD© interview procedure, and how to apply and monitor the effects of three therapeutic sessions with their clients. Para-therapists (N = 16) and Clinicians' (N = 12) subsequent feedback on clinical utility suggested that the VCD© interview procedure is useful for professionals working with highly traumatized clients, both as an initial interview procedure and as a therapy. Feedback from translators working with medical and trauma specialists indicates that the non-verbal elements of the VCD© interview procedure increased interviewee privacy, was more sensitive to interviewee cultural norms and intermediary distress.

Conclusion

The VCD© interview procedure has potential to assist four end-users: the traumatised person, the 'first responder', the '(para-) therapist', and the legal investigator. First, it assists persons rendered inarticulate by their trauma and/or who have difficultly conveying intensely personal events by reducing their distress and helping them communicate to another person what has happened. Second, the narrative graph (VCD© Part 1) may be suitable for 'first responders' in largescale humanitarian response contexts who need to quickly elicit coherent accounts from traumatised individuals, including victims of gender-based violence, while assessing their need for referral to specialist services. Third, Part 2 of the VCD© interview procedure facilitates, via the graphed distress levels, a further systematic desensitization process to reduce trauma response and can be used as the basis for longer-term therapy or as an adjunct to Cognitive Behaviour Therapy by therapists. Finally, when implemented correctly, the narrative graph (VCD© Part 1) should provide a permanent record of information useful to the legal investigator both as evidence gathered close to the time of traumatic event and a measure of consistency of report when compared with subsequent evidence obtained the same way.

Usefully, the step-wise and specific nature of the VCD© interview procedure in which Part 1 dovetails into Part 2 lends itself to short-course training of local professionals ranging from

investigators charged with formal investigations through to those concerned with delivery of critical social services, facilitating the rapid evaluation and referral of individuals to relevant professionals for further investigation or for psychological assistance.

In light of use to date and early-stage testing of the technique reported here, the VCD© interview procedure has potential to address immediate therapeutic and referral challenges, as well as longer-term capacity building and international investigation goals. Of course, one important limitation of this initial evaluation is that it was not possible systematically to assess the distress reducing component of the VCD© in a laboratory test. Ideally, future work should comprise a larger field trial, or ideally, an RCT, with diverse trauma populations to document clinical performance of the narrative graph in combination with its therapeutic component (e.g. following Weiss et al., 2015). Development work is also necessary to establish the most effective training manuals, referral processes and programs for first responders and therapeutic responders working with larger samples of traumatised individuals, including children and adolescents.

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Table 1. Descriptives and analyses for Interviews 2 and 3.

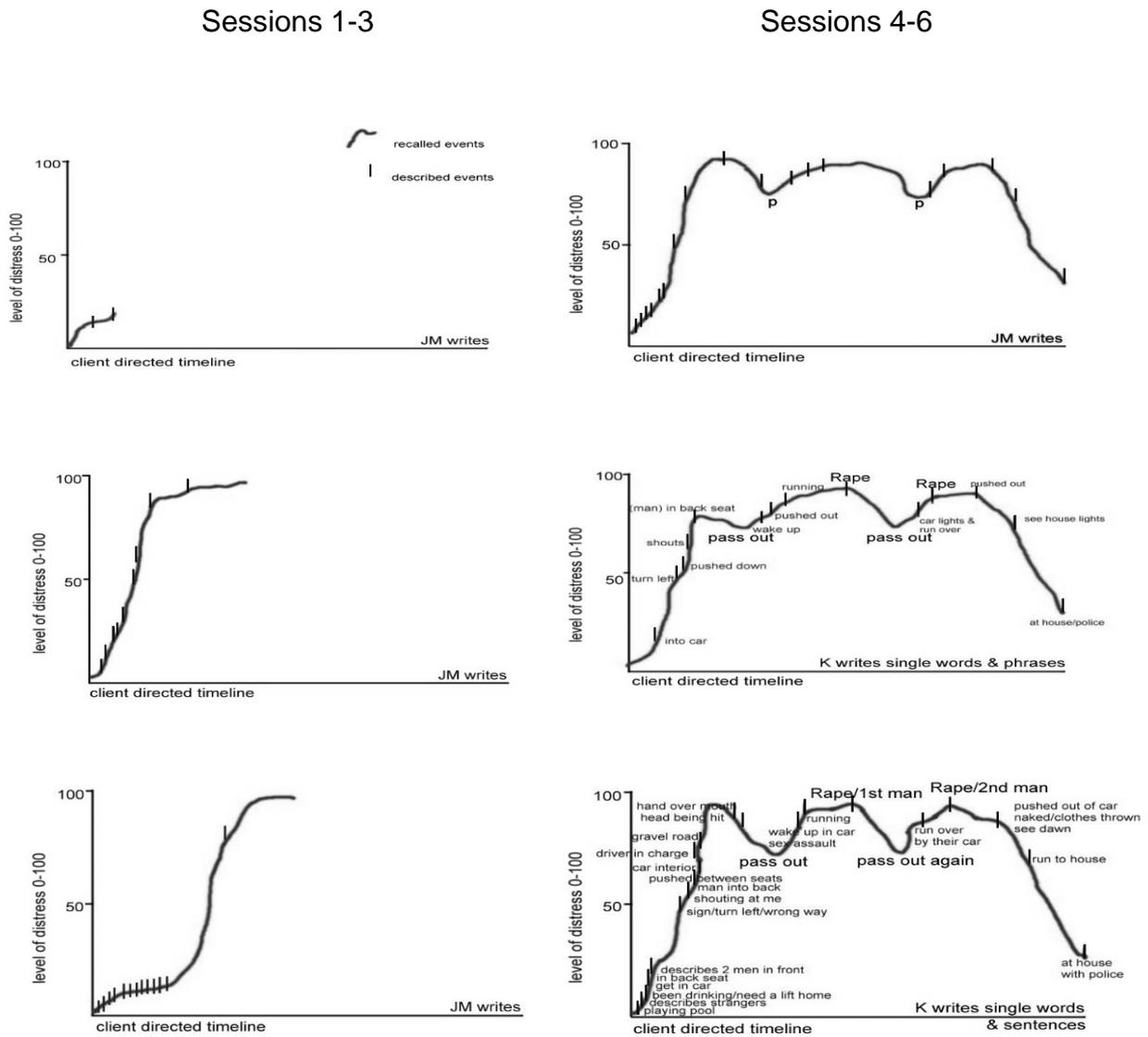|		Free Recall		Narrative Graph		t	d
		M	*SD*	*M*	*SD*		
Interview 2	Accuracy Rate	.97	.03	.96	.04	.96	.28
	Correct details	53.09	11.67	43.82	20.69	1.88	.55
	Incorrect details	1.73	2.02	1.93	2.01	-.35	.10
	Sequence errors	.46	.67	.68	1.06	-.39	.25
Interview 3	Accuracy Rate	.97	.03	.96	.04	1.12	.28
	Correct details	52.32	11.44	43.82	21.99	1.64	.48
	Incorrect details	1.73	1.86	2.11	2.38	-.62	.12
	Sequence errors	.33	.58	.29	.46	.32	.08

Figure 1. Phase 1 narrative graph completion over six VCD© interview sessions (Case Study)
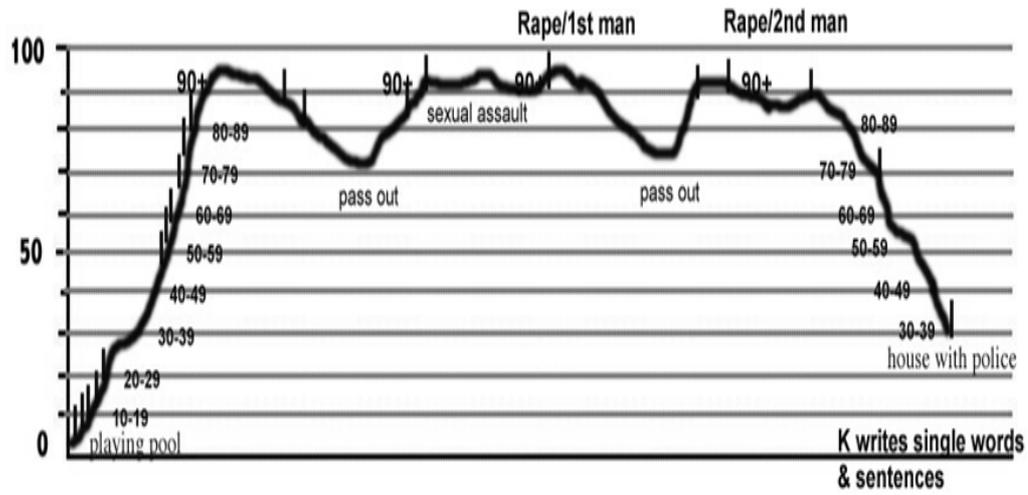
Figure 2. Example of desensitization process in Phase 2 of VCD© interview procedure (Case Study).