

## Special Thematic Section on "20 Years after Genocide: Psychology's Role in Reconciliation and Reconstruction in Rwanda"

# Supportive-Expressive Group Therapy for People Experiencing Collective Traumatic Crisis During the Genocide Commemoration Period in Rwanda: Impact and Implications

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### Abstract

In Rwanda, the annual commemorations of the genocide are associated with an increase in the level of collective traumatic crises whereby many people participating in commemoration activities present various symptoms, including emotional distress and re-experiencing traumatic events of the 1994 genocide. These sudden crises normally last between 30 and 120 minutes and can affect hundreds of people at big commemoration events. They are accompanied by a degree of urgency that disturbs the whole assembly. This article briefly presents an overview of these crises and highlights the results of a study on the effects of a supportive-expression group intervention in the post-crisis period for people who experienced these collective traumatic crises. The study compares the therapeutic progress made by a group of people who participated in a supportive-expression group therapy program as compared to those who did not receive the intervention. The study suggests that the supportive group intervention can improve the overall psychological wellbeing of people who experienced collective traumatic crisis even though it was ineffective for some symptoms.

**Keywords:** genocide, Rwanda, commemoration period, collective traumatic crisis, supportive-expressive group therapy

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In April 1994, Rwanda suffered a genocide distinguished by its intensity in that one million people were killed during 100 days, representing one-seventh of the country's population, and by the fact that it was committed by Rwandans against other Rwandans, sharing the same culture, the same religious beliefs, the same language,

the same history and living on the same hills (L'Institut de Recherche et de Dialogue pour la Paix [IRDP], 2006). Given the intensity and severity of violence, the enormous loss of human life, the deep destruction of the social fabric, and the extremely large numbers of Rwandan survivors who experienced major traumatic events, it is not surprising that the prevalence of mental disorders such as post-traumatic stress disorder (PTSD) and major depression have been constantly reported to be high during the past two decades (Bolton, Neugebauer, & Ndogoni, 2002; Boris et al., 2008; Cohen et al., 2009; Dyregrov, Gupta, Gjestad, & Mukanoheli, 2000; Hagengimana, Hinton, Bird, Pollack, & Pitman, 2003; Munyandamutsa, Nkubamugisha, Gex-Fabry, & Eytan, 2012; Schaal, Dusingizemungu, Jacob, & Elbert, 2011; Schaal & Elbert, 2006).

The latest study done at the national level shows that PTSD prevalence is estimated to be 26.1% in the general population, while the overall prevalence rate for major depressive episodes is 22.7% (Munyandamutsa et al., 2012). Studies conducted on the most at-risk populations tend to find even higher prevalence than those on the general population. A nation-wide survey conducted on a sample of 3030 young genocide survivors aged 8 to 19 years one year after the genocide (May 1995) showed that the PTSD rate was 54% (Neugebauer et al., 2009; for earlier partial publication of these results see Dyregrov et al., 2000; Jensen et al., 1997). Similarly, Hagengimana et al. (2003; data collected in 2001) found a PTSD prevalence rate of 45.2% in a sample of Rwandan widows who survived the 1994 genocide. In another study, conducted ten years after the genocide (2004) on youth heads of household, Boris et al. (2008) found that 53% met the criteria for major depression. PTSD and depression were measured 11 years after the 1994 genocide by Cohen and colleagues (2009) among HIV-infected Rwandan women aged over 15 years during the genocide (including rape survivors) and were found to be 58% and 81%, respectively.

Evidence of mental health consequences of the genocide are consistently observed throughout the year, but the manifestation of traumatic memories appears to be particularly acute during periods of genocide commemoration that extend from 7<sup>th</sup> to 13<sup>th</sup> April each year (Gishoma & Brackelaire, 2008). Some survivors are taken back to their past traumatic experiences, which are acted out in the present. They see militia armed with machetes attacking them, or members of their families, or they see their houses being burned. They report re-seeing and re-feeling exactly what they saw, heard and felt in 1994.

These episodes of flashbacks are usually associated with the reproduction of escaping gestures such as running to evade the killers, hiding under chairs, or gestures of protection of certain body parts. They may elevate hands to protect their heads against a machete, or forcefully interlace legs in order to resist rapists (Gishoma & Brackelaire, 2008). The overflow of anxiety, psychomotor agitation and loss of temporal and spatial orientation are always present. The participation of survivors in commemoration activities, especially seeing dead bodies of beloved ones during inhumation ceremonies awakens the traumatic experience that results in a wide range of symptoms. We have, for example, observed hiccups crises with symptoms such as suffocation, states of stupor, and reactions in which people become numb or fall into states of unconsciousness. Loss of consciousness and falling down can be followed by muscle stiffness or the experience of the muscles becoming unresponsive. There may also be states of unconsciousness with muscle shaking that are reminiscent of epileptic seizures.

Crises are often triggered by external stimuli that emerge from the commemoration sites and ceremonies. All human sense organs can serve as a conduit through which a crisis is precipitated but it is generally through sight (watching documentary movies on genocide, seeing clothes that belonged to a family member or a part of their body during exhumation, seeing a friend or an unknown person falling down at the beginning of crises), by hearing (testimonies, poems, songs related to the genocide, piercing cries or calls for help from people in crisis) by smell

(odor of mass graves). But given the degree of hypersensitivity resulting from internal traumatic memories of what people experienced during the genocide, even a whisper or a silent moment can be enough to be a trigger. Therefore, external stimuli can range from a seemingly less significant event such as seeing a mass of people participating in the Walk to Remember and thinking that it is an attack by *Interahamwe*<sup>1</sup> genocidaires to a very powerful event such as burial of bodies. Whatever the kind of trigger, when the first traumatic crisis is triggered, it is common to observe a phenomenon that could be described as contagion, in which one individual's traumatic crisis triggers a trauma reaction in people nearby, and then to somebody at the other end of the commemoration site and so on back to the first individual in a sort of feedback process.

These crises have been named "*Ihahamuka*" by the community and "traumatic crisis" by Rwandan mental health professionals. They generally last between 30 and 60 minutes, but in some cases longer. Small events such as the slamming of a door or a cry of another person in crisis are often enough to bring back symptoms that were otherwise waning in intensity. Therefore, it is not uncommon to have a person whose crisis will last a whole day or night, and exceptionally, some cases have required hospitalization for a week.

These sudden traumatic crises often affect hundreds of people on one site of commemoration. For example, on 7 April 2010, at the launch ceremony of commemoration at Amahoro National Stadium, which lasted about two hours, the attending psychosocial intervention team received 194 people who had experienced crises. During the commemorative vigil organized later the same day, 85 other people with traumatic crisis were received. Throughout the week of national mourning that runs from 7 to 13 April, a total of 3193 people were reported to have developed these traumatic crises at different commemoration sites. The number of cases has been similarly high for the last three years. In 2011, it was estimated that 4363 people presented traumatic crisis during the commemoration week while it was 4095 in 2012 and 3702 in 2013 ([République du Rwanda, Ministère de la santé, 2010-2013](#)). Women are more likely than men to experience collective traumatic crises. The proportion of women varied from 70% to 90% during the last four annual commemorations editions.

The first recorded episodes of these crises date back to 1995, but the phenomenon had spread to several commemoration sites by the tenth commemoration (2004). Throughout the duration of the second decade after the genocide, it has become almost a general rule that this type of crisis occurs at ceremonies of genocide commemoration in Rwanda. For some people it may be a temporary crisis without large consequences in their daily life but for others, it is symptomatic of a permanent and profound psychological trauma. The incidence of these crises has generated special emergency interventions (under the leadership of the mental health department of the Ministry of Health) that allow effective management of the acute phase of crisis on commemoration sites. However, previous interventions have remained at the emergency phase, with a lack of a proper follow-up system for people who present repetitive crises during commemoration or those who do not regain psychological adjustment in between crises but never come back by themselves to consult health services.

Therefore, we decided to set up a treatment program for people who had experienced crises at commemoration sites in order to complete the emergency intervention already in place. From a practical perspective, supportive-expressive group therapy was chosen because a) it seemed to be easy to implement in a rural setting and had good cost-effectiveness potential, b) the Remera-Rukoma mental health service had trained workers familiar with this approach, c) the technique was currently being used by some psychosocial institutions in Rwanda but had not been evaluated, and d) research suggests that the group intervention is well suited for survivors of traumatic events (Foy, Eriksson, & Trice, 2001).

In recent years, a growing body of research has recognized the therapeutic benefits of group therapy for participants, particularly in the context of acute or chronic psychological trauma (Allen & Bloom, 1994; Corbella, 2004; Lubin, Loris, Burt, & Johnson, 1998; Sloan, Bovin, & Schnurr, 2012; Sloan, Feinstein, Gallagher, Beck, & Keane, 2013; Tardif, 2011). The form of group interventions vary considerably depending on the type of trauma (sexual abuse, war trauma, traffic accident), duration (permanent vs. limited time), the composition of the group (gender, open vs. cohort group), theoretical foundations (supportive-expressive group, cognitive-behavioral approach, systemic approach) but in general, studies of the effectiveness of group therapy have concluded that there are positive effects, regardless of the type of therapy (Foa, Kerane, Friedman, & Cohen, 2009).

Supportive-expressive group therapy, as its name implies, puts the focus on a) group support and b) emotional expression, among people who c) face a common health problem or another life-threatening condition, and in the presence of d) therapists who facilitate supportive interactions among members and guide the exploration of ways to cope with the problem. Some common goals of supportive-expressive group therapy include facilitating mutual support among people suffering from the same health problem, reducing isolation and loneliness feelings, enhancing expression of emotion, making meaning out of the problematic condition and facilitating the integration of events in the life of group members, enhancing symptoms control, improving coping skills, dealing with existential concerns, helping patients to develop a life project (Carlson et al., 2013; Classen et al., 2008; Flannery & Everly, 2000; Maldonado et al., 1996). Therapeutic achievements are mainly based on the therapists ability to provide a secure and consistent place where patients feel safe enough to express what they are thinking and feeling. The place (in a therapeutic setting) becomes a real context of a supportive relationship (Grenyer, Luborsky, & Solowij, 1995). Therapy achievements are also based on the therapist–participants' interactions within this place which allow the exploration of past and current concerns. The telling of narratives and the therapist's ability to manage these and the group process is a key element: through supportive and expressive techniques such as listening, clarification, and confrontation, the therapy explores past episodes and supports the participants' use of coping strategies and of their social networks. The process of self-understanding is also based on interactions between participants. The group creates a safe context within which participants can talk and hear about themselves and enhance their capacity for emotional regulation. The responses of the therapist and other group members also provide new information about the self and others (Foy et al., 2001; Lemma, Roth, & Pilling, 2010; Luborsky, 1984).

To address the issue of repetitive traumatic crisis during genocide commemoration periods in Rwanda, we implemented a supportive-expressive group therapy program for people who experienced collective traumatic crisis during this period. The primary outcome expected from these groups was the reduction of loneliness feelings and negatives emotions (fear, anxiety, sadness, disgust, anger, and shame) among participants, as well as better coping and reduction of the number of relapse during the following commemorations. Secondly, other psychological benefits, including depression and trauma-related symptoms reduction were expected. The aim of the present study was to explore the effect of this model in a rural setting and by utilizing local personnel.

## Methods

### Research Design

We used a quasi-experimental design with a between-participants variable (supportive-expression group vs. waiting-list condition) and a within-participant variable (pre-test, mid-test, and post-test).

## Participants

Participants were recruited among people who experienced collective traumatic crises during commemoration ceremonies during April 2010 in the Kamonyi district, one of 30 administrative districts of the Republic of Rwanda. Specifically, the clinician responsible for emergency intervention compiled a list of 63 people who presented traumatic crises at major commemorations sites in the Kamonyi district. She also held a meeting with the survivors' associations (Ibuka, Avega) and identified another 22 persons who experienced crises at smaller commemoration ceremonies. At our request, she contacted potential participants by phone, home visits, or through the survivors' associations. From a list of 85 persons, 48 were selected based on our inclusion criteria. They a) had suffered from a traumatic crisis during the 2010 commemoration activities, b) have reported at least one other crisis in previous commemorations, c) resided in the Kamonyi district or near the region, d) were available for the duration of the study. Participants ( $N = 48$ ) were then randomly allocated to one of two conditions: participants in supportive-expressive groups ( $N = 16$ ) and a waiting list condition ( $N = 32$ ). The dropout rate was 6.25% (one person involved in the intervention group and two people on the waiting list). Socio-demographic characteristics of the two conditions are displayed in [Table 1](#).

## Intervention

The intervention was designed to create bonds of mutual support among people who expressed extreme distress during the genocide commemoration period in Rwanda. While collective commemorations involve thousands of people remembering the past, small group therapy sessions have the advantage of offering a space where people feel secure to share intimately what is haunting them and are assured that they will be listened to. They were allowed to talk about themselves, to put into words what they live and express in terms of crisis and in a state of unconsciousness. The intervention encouraged expression of thoughts and feelings related to the lived experience during commemoration period and about traumatic events. The facilitators also encouraged them to search for the meaning of their experiences, enhance symptom control and to identify strategies that could prevent relapses for upcoming commemorations, deal with other existential concerns expressed by participants.

The 16 members of supportive-expressive group met monthly from January to October 2011 (10 sessions) and each session lasted 120 to 150 minutes. The sessions were facilitated by two psychiatric nurses working for the mental health department of Remera-Rukoma hospital and a clinical psychologist from the Kigali Health Institute. We were tempted to split the group of 16 members into two groups of 8 people but as this would have forced us to acquire additional facilitators we used a single group of 16 people with three facilitators. Facilitators from mental health department of Remera-Rukoma hospital were always present while the third facilitator (the psychologist) missed three sessions because of his other responsibilities. Group sessions were audio-recorded.

During January and February the group moved around the theme of lived experience to previous crises and preceding commemorations. Participants also talked about the meaning of their participation in commemorations, their difficulties, their expectations and how they benefited from commemorations. Approaching the month of April, the group's interests focused on the upcoming commemorations: participants had the opportunity to describe what they were feeling at that moment, their fears for the month of April, what they planned individually to do and they tried to identify strategies that would prevent relapse or reduce the severity of possible anticipated crisis. For example, some of the members asked other members to accompany them when they were participating in commemorations. The chosen member could hold their hand when they become weak or could help them to move away from the commemoration site before they lost control. Others identified their warning signs before the crisis



outbreak. Sessions from April and May concentrated on ongoing commemorations, on how participants were coping with grief, on past actions, emotions, thoughts and difficulties, on what participants had learned about themselves after commemorations. Some participants reported having been accompanied by other group members, and others had received assurances that the mental health nurses facilitating their groups would be present at the commemoration site.

From June to October 2011 the group continued the work of exploration of the factors that lead to crisis. Participants also had the freedom to share with the group what they felt was important for them and the group gradually identified challenges but also possible solutions and mutual advice. The topics discussed mainly focused on violence endured during the genocide, the loss of their family members and the fact that they became *incike* (living without family, feeling completely alone), commemorations, *gacaca* (traditional courts), the burial of bodies, being neighbours of former genocidaires, the meaning of life after genocide, living conditions, family conflicts etc. Participants expressed their lived experience of genocide, their present life, the challenges they face and how they manage them. They were encouraged to talk about their emotions, physical sensations, thoughts and behaviors in relation to the events narrated. However, some felt that there are some parts of their history related to genocide that they were not ready to talk and it was respected until they decide themselves to share. The end of each session was preceded by relaxation exercises. Given that participants were mostly Evangelical Christians (the majority population in the Remera-Rukoma hospital catchment area), they proposed ending some sessions with religious songs (and a short session of dancing) and we accepted this suggestion. The attendance rate for the supportive-expressive groups was 96.6%.

Participants in the waiting list condition were simply asked to complete questionnaires during the month of January, April and October, in the same weeks as those participating in supportive-expressive groups. Individuals assigned to the waiting list condition received an invitation “to participate in research about people experiencing collective traumatic crisis during commemorations by completing questionnaires on three occasions”. The possibility of intervention was not mentioned and they did not expect intervention in the post-crisis phase because as stated above, it was familiar for all participants to live with symptoms and to present new crises on the occasion of next commemorations. After October 2011, they were offered supportive counseling by the same group facilitators from mental health services/Remera-Rukoma hospital.

Group therapy sessions and the completion of the questionnaires took place in rooms provided by the Remera-Rukoma hospital. Each participant received a fee of 2 to 5 Euros as a compensation for their transport every time they came to participate in supportive-expressive groups or to complete questionnaires.

## Measures

### Socio-Demographic Profile

A structured questionnaire was developed to collect information on the socio-demographic profile such as age, sex, marital status, education, socioeconomic status, employment. It was completed in the first session of the program.

### Traumatic Events, Losses of Family Members and Crises

We also collected information on traumatic events experienced by the person during the genocide (being hunted by killers, witnessing violence/torture/mass murder, to being tortured/wounded), grief and losses of immediate family members (i.e., parents, siblings, children, and spouse), and crises during commemoration activities (number

of crises, dates, relapses). The number of crises was monitored at the beginning and the end of the sessions as an outcome measure.

### Differential Emotions Scale (DES)

To evaluate the intensity of the emotions felt by people who go through collective traumatic crisis during the genocide commemoration period in Rwanda at different times of the intervention (January, May and October), we used the abbreviated version of Izard's Differential Emotions Scale (DES; Izard, 1977), translated to Kinyarwanda by Kanyangara (Kanyangara, 2008; Kanyangara, Rimé, Philippot, & Yzerbyt, 2007). The 10-item scale is designed to measure basic emotions and the participant is asked to notify the degree to which he or she feels the proposed emotion on a seven-point Likert scale ranging from 0 "not at all" to 6 "absolutely". For this research, we used the six items related to negative emotions, namely sadness/grief, anger, fear, disgust, anxiety and shame. The internal consistency of the Kinyarwanda version used in this study proved to be acceptable with  $\alpha = .755$  at the pre-intervention and  $\alpha = .667$  at the post-intervention phase.

### The UCLA Loneliness Scale

Loneliness expressed by several participants in previous qualitative interviews (Gishoma, 2007) led us to take this feeling as one of indicators of psychosocial wellbeing of people who experience collective traumatic crisis during the genocide commemoration period in Rwanda. Several studies have established the link between loneliness and depression and anxiety (Cacioppo & Hawkley, 2009; Cacioppo, Hughes, Waite, Hawkley, & Thisted, 2006; Check, Perlman, & Malamuth, 1985; Russell, Peplau, & Cutrona, 1980; Tiikkainen & Heikkinen, 2005). Moreover, the supportive-expressive group sessions had the objective of reducing various negative feelings, including loneliness. The *University of California, Los Angeles Loneliness Scale (UCLA Loneliness Scale)* is widely used (Cacioppo & Hawkley, 2009; McWhirter, 1990). We had at our disposal the Kinyarwanda version used by Sezibera (2008) and used the same shortened 10-item version (Russell et al., 1980). The respondent indicates the level of agreement on a four-point Likert scale ranging from (0) "never" to (3) "often". Scores below 20 are considered normal while scores greater than 30 indicate a person who has a severe loneliness feeling. The internal consistency of the Kinyarwanda version was acceptable with  $\alpha = .667$  at the pre-intervention phase and  $\alpha = .704$  at the post-intervention phase.

### The Center for Epidemiologic Studies Short Depression Scale

The CES-D is widely used in research to measure the current level of depressive symptoms. The scale has also been used with samples of adolescents and adults in Rwanda (Boris et al., 2008; Cohen et al., 2009). We used the CES-D 10 (Andresen, Malmgren, Carter, & Patrick, 1994) composed of 10 items linked with main symptoms of depression. The person's responses are based on the incidence of the mentioned symptoms during the past week on a 4-point Likert scale ranging from, where 0 = rarely or none of the time (less than 1 day), 1 = some or little of the time (1-2 days), 2 = occasionally or a moderate amount of the time (3-4 days); 3 = all of the time (5-7 days). Items 5 (I was confident in the future) and 8 (I was happy) measuring positive attitudes were reversed (3, 2, 1, 0) before calculating the total score. The total score ranges from 0 to 30 and the clinical score or cutoff indicating the presence of depressive symptoms is 10 points. A CES-D 10 score smaller than 10 means that there is a low level of depression, from 10 to 14 is considered an indicator of moderate depression while scores greater than 14 indicate a likelihood of major depression (Swenson, Rose, Vittinghoff, Stewart, & Schillinger, 2008). The internal consistency of the Kinyarwanda version was  $\alpha = .584$  at the pre-intervention phase and  $\alpha = .660$  at the post-intervention phase.

### The Impact of Events Scale-Revised (IES-R)

To measure the evolution of post-traumatic symptoms, we used IES-R developed by Weiss and Marmar (1997). This instrument originated from the impact of event scale (IES) of Horowitz, Wilner, and Alverez (1979) and has been used several times in research on victims of traumatic events in sub-Saharan African countries (Derluyn, Broekaert, Schuyten, & De Temmerman, 2004; Mels, Derluyn, Broekaert, & Rosseel, 2009). To the best of our knowledge, this tool has not been used previously with a Rwandan sample. The tool was translated into Kinyarwanda by two Rwandan clinical psychologists who worked separately and two other Rwandan clinical psychologists conducted the reverse process (back translation). A meeting between independent translators and the first author established a consensual Kinyarwanda version.

The IES-R is a self-report scale containing 22 items and grouped into three subscales that measure three main categories of PTSD symptoms: intrusion symptoms are assessed by eight items; avoidance symptoms by eight items, and hyper vigilance symptoms by six items. Respondents are asked to rate the amount of difficulties they have experienced in the past month on a five-point Likert scale ranging from 0 = not at all to 4 = extremely. As the separation between the event (the 1994 genocide) and the time the evaluation was made (2011) was large and in line with previous research (Fohn, 2011; Laurent, Chahraoui, & Carli, 2007; Mels et al., 2009; Mels et al., 2010), we asked for experiences in “the last month” rather than “the last week” as in the original version. According to these authors, this difference in time does not affect results and the validity of the scale remains unchanged. The total score of the IES-R is obtained by adding the scores of all items; a total score of 33 or more suggests the presence of post-traumatic stress disorder. The internal consistency for the scale was found to be acceptable, pre-test  $\alpha = .899$  and post-test  $\alpha = .897$ .

### Resilience

We measured resilience using Wagnild and Young's (1993) scale. This instrument was translated to Kinyarwanda by Ionescu et al. (2011). It consists of 25 items that assess a) the sense of personal competence and b) acceptance of self and life. Respondents are asked to indicate to what extent they agree or disagree with each item on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). The total score varies between 25 and 175; higher scores reflect a higher level of resilience. Resilience is considered very low when the total score = 25-100, low = 101-115, on the low end = 116-130, moderate = 131-145, moderately high = 146-160, and high if it is in the range 161-175 (Losoi et al., 2013). Cronbach's  $\alpha$  of the Kinyarwanda version used in this study was .919 (pre-test) and .916 (post-test).

## Results

### Equivalence of Supportive-Expression and Waiting-List Conditions

Preliminary analyses (see Table 1 and Table 2) revealed that the two conditions did not differ significantly except for the respondents' socio-economic status,  $\chi^2(1, n = 45) = 6.894, p = .018$ , in that there was more variability in status in the waiting list condition, but that there were no significant differences for the other variables with all other  $ps > .09$ .



Table 1

*Socio-Demographic Characteristics of Intervention and Waiting-List Condition*

	Intervention condition ( <i>M, SD</i> )	Waiting-list condition ( <i>M, SD</i> )
<b>Age</b>		
At testing (years)	43.07 (12.38)	46.53 (11.59)
At time of genocide	26.06 (12.38)	29.53 (11.59)
<b>Gender (%)</b>		
Female	93.30	96.70
Male	6.70	3.30
<b>Marital status (%)</b>		
Single	13.30	13.30
Married/cohabiting	53.30	40.00
Divorced/separated	6.30	3.30
Widow(er)	26.70	43.30
<b>Highest level of education attained (%)</b>		
Never been to school	0.00	16.70
Primary school	73.30	60.00
Post-primary vocational training	20.00	16.70
Secondary school	6.30	6.70
<b>Household's socio-economic status % (based on Ubudehe categorization<sup>a</sup>)</b>		
Category 2 - Very poor	0.00	14.30
Category 3 - Poor	100.00	60.70
Category 4 - Resourceful poor	0.00	25.00

<sup>a</sup>The Ubudehe socio-economic classification is done by the local administration and is based on local standards. It is comprised of six categories described by Kettlewell (2010): (1) *Umutindi nyakujya* (those in extreme poverty): is someone who needs to beg to survive. They have no land or livestock and lack shelter, adequate clothing and food. No access to medical care; children are malnourished and do not attend school. (2) *Umutindi* (the very poor): Same as 1 but physically capable of working on land owned by others, very small land holdings, no livestock. (3) *Urukene* (the poor): Have some land and housing. Live on their own labour and produce, and though they have no savings, they can eat, even if the food is not very nutritious. (4) *Urukene wifashije* (the resourceful poor): same as 3 but may have small ruminants and their children go to primary school. (5) *Urukungu* (the food rich): larger land holdings on fertile soil and enough to eat. Own livestock, often have paid jobs, and can access health care. (6) *Urukire* (the money rich): Have land and livestock, and often have salaried jobs. Good housing, often own a vehicle, and have enough money to lend and to get credit from the bank.

Table 2 shows that the participants had lost large numbers of immediate family members during the genocide, and they have also been confronted by traumatic events during the genocide and re-traumatizing events in the post-genocide period.

Table 2

*Traumatic Events, Losses of Family Members and Crises in the Intervention and Waiting-List Conditions*

	Intervention condition ( <i>M, SD</i> )	Waiting-list condition ( <i>M, SD</i> )
<b>Number of family members lost during the 1994 genocide</b>	7.33 (3.52)	7.43 (2.54)
% of those who lost at least one brother or sister	100.0%	93.0%
Number of siblings lost	5.47 (2.92)	5.00 (3.08)
% of those who lost at least one parent	93.0%	73.3%
% of those who lost at least one child	6.6%	26.6%
% of those who lost a spouse	13.3%	23.3%
<b>Number of traumatic events experienced during the genocide</b>	6.00 (1.77)	5.30 (1.74)
<b>Number of re-traumatizing events in the post-genocide period</b>	6.67 (1.71)	5.80 (1.51)
<b>Quality of family's relationship on a scale of 0-6</b>	3.67 (2.82)	4.93 (1.91)
<b>Quality of relationship with the immediate neighborhood (scale 0-6)</b>	3.33 (1.39)	3.87 (2.33)
<b>Average number of collective traumatic crises experienced</b>	13.00 (7.20)	14.90 (5.92)
<b>Year of the first collective traumatic crises experienced (%)</b>		
Before 2000	80.0	76.7
2001-2005	13.3	16.7
2006 and after	6.3	6.6

## The Intervention Effect

### Number of Crises

It was expected that supportive-expression group therapy would reduce the number of crises experienced. But we observed at Time 3 that 80% of participants in the supportive-expression condition had had at least one episode (maximum 7) when participating in the 2011 genocide commemoration activities; 76.66% had had at least one episode (maximum 5) in the waiting list condition,  $\chi^2(1, n = 45) = 0.64, p = .80$ . A *t*-test comparing the number of crises between the two conditions found that the mean number of crises experienced by the therapy group,  $M = 1.87, SD = 1.76$ , was no different to the waiting list condition,  $M = 2.03, SD = 1.47, t(43) = 0.34, p = .740$  (the results for the group therapy session include non-independent observations so the results of statistical tests for these and other variables should be treated with some caution).

### Effect of Supportive-Expression Group on the Current Emotional State

Analyses of Variance (ANOVAs) with treatment (supportive-expression group vs. waiting list condition) as the between-participants factor and time (before intervention T1, during intervention T2, after intervention T3) as the within-participant factor were computed on DES total score and the emotion measures. Note that cases with missing data were omitted during analysis. Mauchly's test indicated that the assumption of sphericity had not been violated for fear,  $\chi^2(2) = 2.62, p = .26$ , disgust,  $\chi^2(2) = 4.30, p = .11$ , anxiety,  $\chi^2(2) = 5.91, p = .06$ , and shame,  $\chi^2(2) = 5.47, p = .07$ . The assumption of sphericity had been, however, violated for sadness,  $\chi^2(2) = 7.03, p = .03$ , and anger,  $\chi^2(2) = 12.75, p = .002$ , therefore degrees of freedom were corrected using Huynh-Feldt estimates of sphericity ( $\epsilon = .92$  for Sadness,  $\epsilon = .83$  for anger). Corrected tests are displayed in Table 3.

As reported in Table 3, the consistent pattern shown on all emotion measures except shame was a large increase from Time 1 to Time 2 (corresponding to the commemoration period) and a decline from Time 2 to Time 3. On

the other hand, shame decreased at Time 2 and then increased at Time 3. These effects for time, however, were conditioned by the expected treatment  $\times$  time interaction on the measures of sadness,  $F(1.84, 79.16) = 5.89$ ,  $p = .004$ ,  $\eta_p^2 = .12$ , disgust,  $F(2, 86) = 4.12$ ,  $p = .02$ ,  $\eta_p^2 = .08$ , and shame,  $F(2, 86) = 4.17$ ,  $p = .01$ ,  $\eta_p^2 = .08$ .

Interaction contrast analysis (with Bonferroni adjustment) revealed that differences that were not significant at Time 1 and 2 were significant for disgust Time 3,  $t(41) = 3.20$ ,  $p = .003$ , and sadness,  $t(43) = 3.72$ ,  $p = .001$ . Figure 1 illustrates the sadness trends across the course of the study. For shame, the difference between the two conditions was marginally significant at Time 2,  $t(40) = 1.83$ ,  $p = .075$ , and nonsignificant at both Time 1 and Time 3.

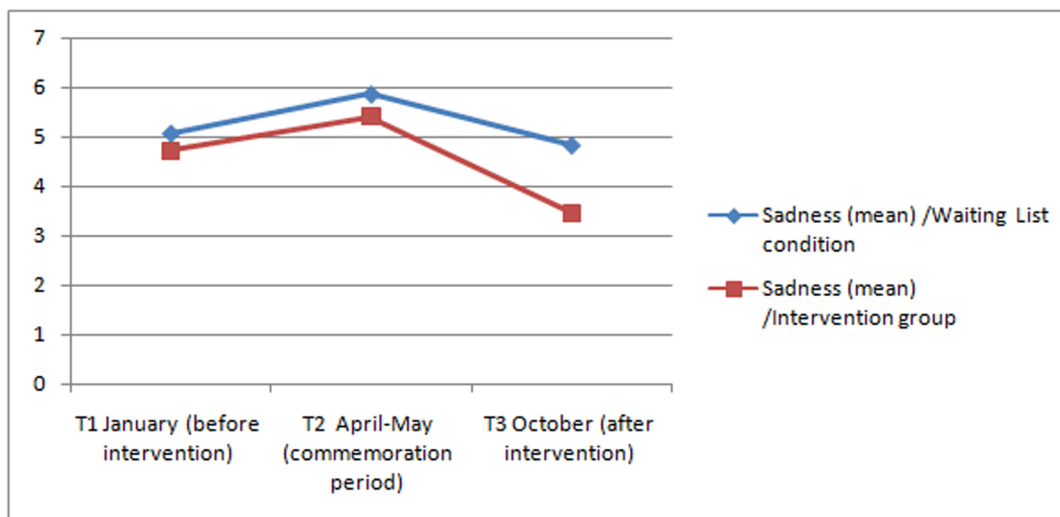


Figure 1. Sadness trends across the course of the study.

### Effect of Group Intervention on PTSD and Depression Symptoms, Loneliness and Resilience Scores

Mixed-between group ANOVAs were also computed on the measures of loneliness, depression, impact of events and resilience. Mauchly's test indicated that the assumption of sphericity was met for loneliness,  $\chi^2(2) = 3.77$ ,  $p = .15$ , depression,  $\chi^2(2) = 2.01$ ,  $p = .36$ , and resilience,  $\chi^2(2) = 1.92$ ,  $p = .38$ , but was violated for IES-R,  $\chi^2(2) = 63.81$ ,  $p < .001$ . Degrees of freedom for IES-R were corrected using Greenhouse-Geisser estimates of sphericity ( $\epsilon = .55$ ). Corrected tests are displayed in Table 4.

Table 3  
Mean Scores, Standard Deviations and ANOVA Results

Emotion	Intervention condition						Waiting-list condition						ANOVA							
	T1		T2		T3		T1		T2		T3		Treatment		Time		T x T			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F(1, 43)	$\eta_p^2$	df	F	$\eta_p^2$	df	F	$\eta_p^2$
Sadness	4.73	0.96	5.40	0.63	3.47	1.35	5.07	1.04	5.87	0.43	4.83	1.05	9.94**	.18	1,84, 79,16	41.03***	.48	1,84, 79,16	5.89**	.12
Anger	3.00	1.30	3.93	1.38	3.47	1.24	3.07	1.85	3.97	2.15	3.23	2.06	0.00	.00	1,67, 71,97	14.80***	.25	1,67, 71,97	0.46	.01
Fear	4.36	1.00	5.79	0.57	4.43	0.75	4.63	1.21	5.77	0.62	4.87	1.25	0.82	.01	2, 84	33.86***	.44	2, 84	0.92	.02
Disgust	4.50	0.76	5.36	1.15	3.14	1.02	4.87	1.52	5.63	0.71	4.40	1.75	3.15	.07	2, 84	41.72***	.49	2, 84	4.12*	.08
Anxiety	4.27	1.22	5.73	0.59	4.53	0.99	4.73	1.38	5.63	0.66	4.83	1.64	0.45	.01	2, 86	30.49***	.41	2, 86	1.59	.03
Shame	1.60	2.13	0.60	1.24	2.73	2.05	2.47	2.64	1.47	1.90	2.33	2.51	0.48	.01	2, 86	18.22***	.29	2, 86	4.17*	.08

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

Table 4  
UCLA-R, IES-R, CES-D, RS Mean Scores, Standard Deviations and ANOVA Results

	Intervention condition						Waiting-list condition						ANOVA							
	T1		T2		T3		T1		T2		T3		Treatment		Time		T x T			
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	F(1,42)	$\eta_p^2$	df	F	$\eta_p^2$	df	F	$\eta_p^2$
UCLA-R	34.28	2.99	32.71	3.53	26.28	2.33	33.33	4.04	32.56	4.33	33.76	3.80	3.56	.07	2, 84	45.45***	.52	2, 84	65.59***	.61
CES-D	19.15	3.95	20.46	4.01	17.07	3.89	19.40	3.82	20.96	3.10	18.86	3.61	0.69	.01	2, 76	9.25***	.19	2, 76	1.03	.02
IES-R	61.61	12.33	72.46	9.60	61.61	12.65	58.68	15.18	71.82	9.08	58.00	14.70	0.36	.00	1,10, 44,31	47.21***	.54	1,10, 44,31	0.58	.01
RS	117.50	16.67	116.14	16.16	119.21	14.67	114.11	28.19	114.25	26.72	116.39	28.66	0.11	.00	2, 80	3.31*	.07	2, 80	0.25	.00

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

As shown in Table 4, there was a significant treatment  $\times$  time interaction effect for loneliness,  $F(2, 84) = 65.59, p < .001, \eta_p^2 = .61$ , in that we found that the two conditions were similar at Time 1,  $t(42) = 1.01, p = .317$ , and Time 2,  $t(42) = 0.11, p = .912$ , but a significant difference was observed at Time 3,  $t(42) = 6.95, p < .001$ . The supportive-expression group participants experienced less loneliness than those on the waiting list after 10 months of treatment. Figure 2 illustrates this outcome pattern. There were no interaction effects on the other variables, but there was a time effect on depression and PTSD suggesting that depression and PTSD increased at the time of commemoration and then decreased again.

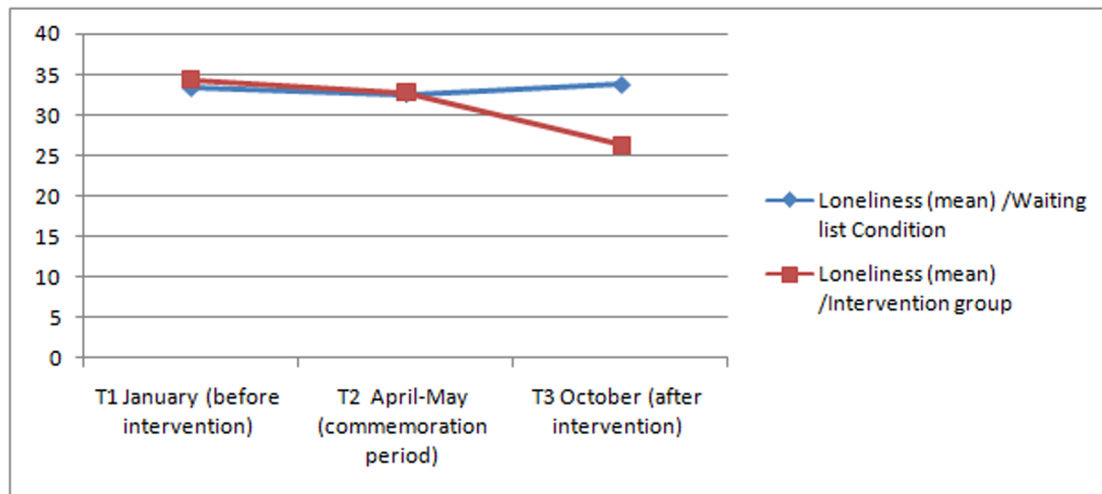


Figure 2. Evolution of the loneliness feeling across the course of the study.

## Discussion

The aim of this study was to examine the effectiveness of supportive-expression intervention for people who experience repeated traumatic crises in the context of the genocide commemoration in Rwanda. The results show that participants in the intervention condition improved significantly compared to participants on the waiting-list condition in terms of sadness, disgust and loneliness. Other reported uses of group therapy have shown the reduction of loneliness and depressed emotions in groups of civilians exposed to war (Farhood, Richa, & Massalkhi, 2014), children who were sexually abused (Nisbet Wallis, 2002), women with a history of incest or other traumatizing experience in their childhood (Herman & Schatzow, 1984; Sorenson, 2003), women with primary breast cancer (Fukui, Koike, Ooba, & Uchitomi, 2003), and elderly people living alone (Chiang et al., 2010). Our study suggests and reinforces the idea that the reduction of loneliness feelings and some negative emotions can be positive outcomes from these interventions.



This study did not, however, demonstrate effects for several other variables studied (relapses, depression and PTSD symptoms, resilience score, and intensity of anger, fear, anxiety and shame). This suggests that the intervention may not fully resolve all the issues associated with traumatic crisis and the underlying psychopathology.

Several factors could explain the lack of expected effects of the intervention: participants who received the supportive-expression therapy had a long history of traumatic crises, with the first crisis experienced before 2000 for 80% and a mean number of 13 crises per person. On the other hand, the intervention emphasized providing support and a helping environment and did not focus on the traumatic nucleus and symptoms such as fear and anxiety. The effectiveness of the intervention was also evaluated using several complementary measures, including symptoms measures and psychosocial functioning (number of relapses, depression and PTSD symptoms, primary emotions, and resilience score), but not all changes in psychosocial functioning have been measured in this study.

For example, people who participated in supportive-expression groups after October 2011 started a cooperative for goat raising to support their socio-economic status growth. Similar opportunities were not available for those on the waiting-list condition. The experience of owning and gaining benefits from the cooperative could have improved the mental health and wellbeing of participants, improving their financial status and empowering their community among other benefits. Many of the participants who received treatment have also been able to tell their traumatic history without presenting any crisis in the context of a small group. Using the information and advice from these groups, some members had the courage to recover their family properties such as lands, while others were able to contact the helping associations. Participants in the supportive-expression groups have tried to experience a different attitude towards commemoration such as deciding to temporarily withdraw when they felt overwhelmed. At the closing session of October 2011 one participant, when asked to assess the impact of the supportive-expressive groups made the following observation:

It is not many things that have changed, but I am surprised myself that I have been able to attend a wedding ceremony last month. I usually do not go in such gatherings where people begin to show off their very big families and to remind us that we remained alone while we used once to have families too. Such ceremonies used to make me feel irritated and nauseous. But last time I participated and people were surprised and so I was. I felt it wasn't bad to be with others.

A range of factors would have led to her participation in a wedding ceremony, but she believed that group therapy and the exchange with other survivors during and after the group played a role.

## Strengths and Limitations of the Study

Very few studies have examined the phenomenon of collective traumatic crisis during the genocide commemoration period in Rwanda. This documents one of the clinical responses of post-genocide trauma in Rwanda. The study shows a long-lasting impact of the genocide against Tutsi on individuals and on the whole community, even 20 years after. It reveals that people who experience collective traumatic crisis during the genocide commemoration period in Rwanda had very high levels of depression and PTSD symptoms. While the intervention did not affect the presentation of crises or severe symptoms it did demonstrate benefits (for deeply traumatized people) in terms of key psychosocial measures. Moreover, the proposed intervention was based on relatively affordable local resources (mental health nurses from Remera-Rukoma hospital).

This study also has some limitations. The first limitation is related to the intervention proposed which did not directly target the traumatic nucleus as is done in some group therapy systematically targeting PTSD and in individual

therapy. It could be useful in future interventions to consistently include components that treat directly core PTSD and depression symptoms. The second limitation is that the study did not identify whether the effects of the intervention were due to the form of group therapy or to the mere participation in supportive groups. The third limitation is in relation to the participant selection process. The mental health professionals providing care during the traumatic crisis episodes were the same people recruiting potential participants in the study. Although they waited for potential participants to feel better before asking them to participate in the study, this raises an ethical concern as people who have received emergency treatment may have difficulties in refusing to participate in research conducted by people who have helped them. However, this risk was reduced before starting the study, by obtaining informed consent from participants, and reminding them that they had the right to decline to participate, with no risk or compromise to their actual or future care. The fourth limitation was that the researchers and the mental health nurse involved in the care of the participants on commemoration sites were the same ones that co-facilitated the groups. This was a deliberate choice because we wanted to ensure that there was continuity of the intervention started at the commemoration sites when participants experienced traumatic crisis. However, due to the unique context of this study, there was no guarantee of blindness of the therapist to the treatment condition and hypothesis under investigation. Participants in the intervention group had very limited financial resources, hence receiving some money as a compensation for transport may have been an additional motivating factor for their participation in group therapy sessions and may have affected the outcome being studied. Although this could present a risk of a confound, the fact that participants in the waiting-list condition who received less transport compensation had a similar dropout and attendance suggests that the impact of this factor in participation was limited. Finally, the existence of a single treatment group makes it impossible to tease out the effects of nonindependence of observations and this can only be rectified by repeated testing with multiple groups.

These limitations should not, however, hide the value of this post-crisis intervention model and we can mention that some local associations such as Uyisenga N'Manzi (working with orphans living in child-headed households) have started during commemorations of 2014 to implement supportive-expressive group therapy for young people experiencing collective traumatic crisis at different commemoration sites in Kigali.

## Conclusions

Our data suggest that the intervention was effective in reducing the sadness, disgust and loneliness felt by people who experience collective traumatic crisis during the genocide commemoration period in Rwanda. The intervention did not reduce the number of crises, PTSD and depression symptoms or fear, anxiety and shame. This suggests that group therapy was helpful for participants but was not able to tackle all problems related to crisis that arise during commemorations periods. Despite the fact that the intervention had mixed effects, these findings have direct implications for the clinicians, mental health services of different district hospitals and local NGOs working to improve the well-being of people suffering from traumatic crisis. On the one hand, the proposed intervention can be used to complement special emergency interventions that currently allow only the management of the acute phase of crisis on commemoration sites. On the other hand, beside clinical implications in the context of traumatic crises during commemorations, the benefits of supportive-expressive groups suggest that it is a promising intervention for loneliness, sadness and disgust on their own as symptoms in the context of depression or other psychosocial problems. Based on our findings, and given that there were only positive and null effects, and no negative effects identified, we can recommend that mental health services and local NGOs test this approach further. We want, however, to draw attention to the fact that it still essential to develop other post-emergency

phase interventions that handle aspects for which the intervention reported in the present study did not provide evidence of treatment efficacy.

## Notes

i) Interahamwe, meaning literally “those who attack together”, is a nickname of the militia group created around 1991 by the MRND party led by the former president of Rwanda Juvenal Habyarimana. In 1994, Interahamwe had been joined by other militia groups from other extremist political parties to commit the genocide against Tutsi.

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## Competing Interests

The authors have declared that no competing interests exist.

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