# Scaling Up What Works: Using EMDR to Help Confront the World's Burden of Traumatic Stress

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Global estimates of trauma exposure, classified under the heading "Four Violences," demonstrate that the world faces a mental health crisis of truly epidemic proportions. Given the extent, severity, and consequences of trauma-based disorders (including posttraumatic stress disorder) worldwide for individuals, communities, and societies, the current minimal global public health response needs to be addressed. An important part of the response should involve the implementation of timely treatment both during and after a crisis. Eye movement desensitization and reprocessing (EMDR) therapy offers a potentially scalable intervention that combines effectiveness, efficiency, affordability, and acceptability—essential preconditions—for launching an ambitious global trauma therapy plan. An overview of both challenges and solutions to effective scaling up and global implementation is provided, including the areas of policy, funding, and ethics. This article concludes with a list of activities (including research) that should be initiated without delay as part of starting up a global trauma therapy plan.

**Keywords:** global trauma prevalence; EMDR scalability; task shifting; paraprofessionals; dilemmas; action plan

he profound importance of addressing the global problem of trauma can hardly be overestimated—for human and world development and even for world peace. The contribution large-scale trauma healing could make to enhance social, economic, and cultural productivity, as well as individual educability, creativity, and well-being, could well be historic. Effective trauma treatment could stop immense and insidious silent inner suffering, which includes posttraumatic stress disorder (PTSD) but goes well beyond that:

As indicated by the adaptive information processing (AIP) model (F. Shapiro, 1995, 2001, 2014; Solomon & Shapiro, 2008) that guides EMDR therapy's clinical applications, the recognition that unprocessed memories are the basis of a wide range of pathology highlights the urgency of treating victims of trauma and other adverse experience because of debilitating effects that range far beyond that of simple PTSD. These unprocessed memories of adverse events

affect both mental and physical health, as well as the ability to learn, and the quality of personal and work relationships. (F. Shapiro, 2014, p. 183)

Moreover, effective treatment could help break the causal chains of violence begetting violence and abuse begetting more abuse transmitted from generation to generation.

### Scale of the Problem

Statistics on the worldwide extent of current accumulated untreated trauma are incomplete. Many countries have barely begun to measure trauma occurrence, and the World Health Organization (WHO) only began to collect prevalence data in the late 1990s. PTSD lifetime prevalence rates range from a low of 0.3% in China to 6.1% in New Zealand and between 6.8% and 7.8% in the United States (Gradus, 2011). These sometimes surprising variations may be explained by the use of different definitions, population subgroups, or methodologies, making these statistics

hard to compare. Lack of awareness of trauma-based disorders—especially PTSD, but also phobias, anxiety and panic disorders, chronic and phantom limb pain, pedophilia, complicated mourning, and other health problems (Oren & Solomon, 2012)—and/or stigma attached to it may also influence the prevalence measurement. On top of that, they may be deliberately underreported or overestimated for political or other purposes.

The United States arguably has the most accurate PTSD statistics. As a thought experiment, let us take its lifetime prevalence rate (say, 7%) of the general adult population. Then project this prevalence onto the world's population of 7 billion. That would yield a figure of some 500 million people with PTSD. That may not be sophisticated epidemiology and one could quarrel about whether it is reasonable to assume that the world as a whole (including the populous developing world) reaches that U.S. level, or a lower level, or even a higher level of prevalence. But this thought experiment gives us a quantitative order of magnitude about the global burden of trauma.

In the absence of good statistics, another, indirect approach is to estimate how many people are *exposed* to traumatic circumstances and events. This, too, might give us a rough sense about the extent and severity of trauma, PTSD, and other trauma-based disorders worldwide.

# **Exposure to Traumatic Events:** "Four Violences"

Perhaps the various types of *violence*—direct, natural, structural, and cultural (Galtung, 2008)—may offer a helpful prism through which to consider the *potential* magnitude of the problem and to bring into focus the various categories of traumatized victims.

### **Direct Violence**

Acts of direct violence are intended to do harm to human beings. They take on many forms and are widespread:

• No less than 1.5 billion people currently live in countries afflicted by political or criminal violence and war (The World Bank, 2011). This statistic includes countries such as Syria, Congo, Afghanistan, Iraq, and many others. More specifically, "about 300 million people now live amidst violent insecurity around the world" (Leaning & Guba-Sapir, 2013). Since the end of World War II, more than 200 wars have been fought (Yanacopulos & Hanlon, 2006) in which some 41 million people

- were killed until the year 2000 (Leitenberg, 2006). Survivors of these atrocities live on with lifelong disability, sorrow, anger, guilt, and trauma. They number in the millions. Most of us rarely consider their daily predicament and silent suffering, sometimes lasting for decades.
- More visible perhaps, at the end of 2012, some 45.2 million people were "forced displaced" (refugees and internally displaced people). That figure is on the rise in 2013 "due to unusually large numbers of new refugees and internally displaced people" seen by the United Nations (UN) refugee agency (United Nations High Commissioner for Refugees [UNHCR], 2013). This statistic is almost certainly part of the earlier cited statistics on political and criminal violence.
- One-third of all women in the world experience sexual, physical, or other abuse in their lifetime (Advocates for Human Rights, 2012). Much of this happens in the form of domestic violence by intimate partners or nonintimate partners (WHO, 2013c). Gender violence against women world-wide takes on many forms, for example, in war and armed conflict, in the name of "honor," against girl children, dowry-related, female genital mutilation (FGM), and trafficking. It is no wonder then that women are more than twice as likely as men to suffer from PTSD and other trauma-based disorders.
- Accidents kill over 1.2 million people a year and injure and disable tens of millions more (WHO, 2010); accidents, although not intended to harm, are a form of direct violence that traumatizes survivors, relatives, and first responders.

#### Natural Violence

Natural violence is both unintended and unavoidable. It comes in the form of earthquakes, tsunamis, floods, wildfires, volcanic eruptions, hurricanes and storms, drought, and extreme temperatures (now often symptoms of man-made climate change) and usually gets only momentary attention and relief aid, although its adverse consequences may linger for years.

- Worldwide, an annual average of 268 million people are affected by natural disasters (EM-DAT: The International Disaster Database, 2012). Natural disasters caused by climate change are becoming a recurring pattern and in the foreseeable future are likely to affect even larger populations.
- Loss of loved ones, something everyone experiences several times in a lifetime; for example, in 2012, an estimated 56 million people died

worldwide (WHO, n.d.). Mortality leaves countless millions bereaved each year.

### Structural Violence

Structural violence occurs when a social structure harms people and prevents them from meeting their basic needs. Although we do not usually think of poverty as a form of violence, it, too, harms and hurts—indirectly and largely—unintentionally. But structural violence is not inevitable because ultimately it is caused by human agency. Built into the structure of the world sociopolitical—economic system, it adds another dimension to the genesis of trauma.

- According to The World Bank (2014), worldwide, some 1.22 billion people lived in extreme poverty on \$1.50 a day in 2010; in all, 2.4 billion lived on less than \$2 a day that year.
- Most suffer from hunger or chronic undernourishment: 842 million people (Food and Agriculture Organization of the United Nations, 2010). Some 260 million persons who live in absolute poverty are disabled (McClain-Nhlapo, 2006). Worldwide, some 202 million people are unemployed in 2014 (International Labour Organization, 2014), 45 million of whom are in the developed economies. The number of child laborers in 2012 is 168 million (International Labour Organization-International Programme on the Elimination of Child Labour, 2013).
- These are obviously traumatizing circumstances: Poverty as a pervasive and insidious social-global reality constitutes a traumatic condition of chronic adversity with devastating consequences for mental health (Desjarlais, Eisenberg, Good, & Kleinman, 1995). If you have ever walked through the slums of Dhaka or the favela in Rio, the risk of lifelong trauma to the local inhabitants will be instantly clear.

### Cultural Violence

Cultural violence often lies at the root of direct and structural violence. It manifests in prevailing attitudes and beliefs about power and "necessity" of violence—ideas taught since childhood and surrounding everyone in daily life. It comes in many forms: apartheid, discrimination, oppression, colonialism, exploitation, and racism—each of which exerts a chronic stress that may lead to trauma (Rich et al., 2009). "Just" war theory, ideas about honor killings or the need for capital punishment, are some examples of the cultural beliefs

that justify violence. Although cultural violence per se may not traumatize in large numbers, it leads to structural and/or direct violence; therefore, it must still be confronted at a deeper level to bring about more effective primary prevention of trauma altogether by eliminating or mitigating its sources. Although common and widespread, no statistics are available to quantify the extent and severity of this type of chronic adversity.

This quantification of the four violences, we may conclude, lends credence to the assertion that global statistics on PTSD and other trauma-based disorders are probably considerably underestimated. In any case, it is clear that the world faces a trauma problem of truly epidemic proportions.

Many of these categories of traumatic experiences or events overlap, often adding insult to injury and putting millions of people in double jeopardy by causing multiple traumas. Of course, not all traumatic experiences will lead to PTSD, although many of those who spontaneously "recover" from trauma continue to live with *some* residual scarring showing up soon after the event or sometimes much later (delayed onset).

# Challenges of Preventing and Treating Trauma

The magnitude of this challenge may, by itself, cause a sense of being overwhelmed among those charged with the responsibility to mobilize responses. But need it be?

Ideally, traumas would be prevented altogether, and in fact, many different policies and actions are already under implementation to prevent or mitigate traumatizing conditions. These include disaster preparedness, initiatives against domestic and collective violence, zero-tolerance codes (e.g., against bullying, sexual harassment), strengthening resilience, promoting a culture of peace and nonviolence, poverty alleviation, protection of human rights and civil liberties, disease prevention, disarmament, and many others. But given the fact that many traumatizing circumstances are often beyond direct control of those (potentially) affected, it would only be realistic to expect that the number of new cases of trauma, PTSD, and other trauma-based disorders in the world each year will remain high and may even increase. This means that the prevalence of trauma and serious disorders such as PTSD will only come down if the world succeeds in effectively treating its victims on a large scale.

Meanwhile, for most of the world—and especially for low-income countries—the huge individual and global burden of trauma and traumatic stress has remained largely hidden: It is undiagnosed, unrecognized, and therefore untreated. The unmet need for trauma treatment of people living with PTSD world-wide remains enormous.

It may therefore seem surprising that trauma therapy as a topic was not included in the UN Millennium Development Goals (MDGs) for 2015. In fact, until more recently, mental health altogether (including trauma and PTSD) has not been an explicit global policy priority despite its high disability-adjusted life year score. Mental disorders account for about 160 million lost years of healthy life per year (WHO, 2001)—a huge economic burden. In practical terms, worldwide mental health receives around 2.8% of health budgets; for high-income countries, it is 5.1%, but low-income countries allocate much less: under 0.5% of already small health budgets (WHO, 2011). What may be left for trauma therapy is absolutely not in proportion to the extent and severity of the problem.

Opinions differ regarding the reasons why such a massive world problem has not come into sharper focus and moved higher on the world agenda. Perhaps financial and human resources are not allocated because of (a) a lack of understanding among policy makers and donors. Indeed, *other* "pressing" health concerns get higher priority, such as HIV/AIDS, immunizations, and infectious or chronic physical diseases. One exception is the budgets for military veterans of some countries, and there are some encouraging signs that increasingly include trauma therapy in (short-term) donor aid for disaster and humanitarian relief.

But lack of proper appreciation is only one factor. There are several other obstacles: (b) social stigma or people's sense of fatalism, resulting in failure to seek trauma treatment; (c) difficulties with diagnosis, measurement, and recognition, especially in different cultural settings; and (d) poor coordination and limited integration of mental health into public health services, which may prevent trauma victims from getting proper treatment. All these reasons are undoubtedly important and play a role.

That said, perhaps the most pertinent reason for not addressing trauma, PTSD, and other traumabased disorders on a scale commensurate with its extent, severity, and significance is a general *belief* that there is not much we can do about trauma—that we can neither prevent nor effectively treat it—or the belief that no effective, recognized trauma therapies are available that are also affordable and scalable. These beliefs may well explain why the worldwide action response to trauma up until now has been so lukewarm. And they may also clarify the lack of good statistics ("why bother collecting baseline prevalence rates if no large-scale interventions are planned or possible?").

Although these beliefs may have been valid until recently, today, they are no longer. The time has therefore come worldwide to stop neglecting traumatic stress (and/or being fatalistic about it) and start acknowledging that there are treatments that work. This is where eye movement desensitization and reprocessing (EMDR) therapy comes in.

# To Scale With EMDR Therapy

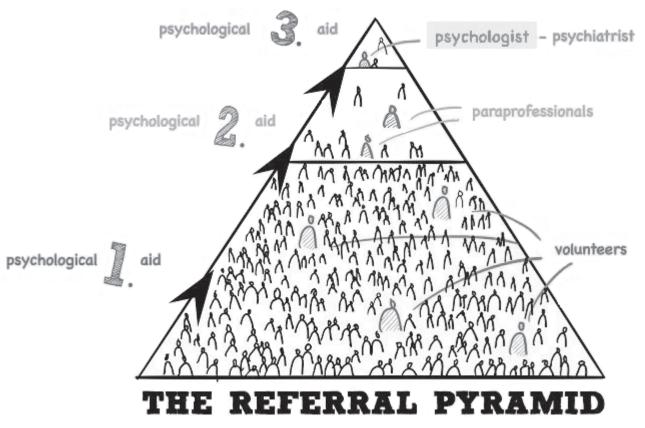
In 2013, the WHO conferred to EMDR formal recognition as an effective evidence-based therapy, putting it on par with trauma-focused cognitive behavioral therapy (CBT), noting that "Like CBT-T, EMDR aims to reduce subjective distress and strengthen adaptive beliefs related to the traumatic event. Unlike CBT-T, EMDR does not involve (a) detailed descriptions of the event, (b) direct challenging of beliefs, (c) extended exposure or (d) homework" (WHO, 2013a).

With EMDR, the world now has a new efficient and effective therapy against the damaging effects of traumatic stress, one proven to be quick, low-cost, and widely applicable in a range of crisis settings and cultural milieus.

The comparative strengths of EMDR therapy bode well for treatment on a very large scale. Here I would highlight three of EMDR's special characteristics that are a sine qua non for going to scale.

First, its rapid positive results and treatment effectiveness: EMDR requires only minimal contact time to be effective, measured in hours and (consecutive) days, not weeks and months. Moreover, the use of group protocols (Artegas, Jarero, Alcala, & Lopez Cano, 2009) currently receiving research validation will make it possible to reach larger numbers in a shorter period of time. These offer a huge operational advantage in resource-poor conflict and disaster settings.

Second, its acceptability: EMDR is minimally intrusive and minimally dependent on verbalization of the trauma experience—two more plusses—that



**FIGURE 1.** The intervention pyramid for mental health and psychosocial support.

help lower the access barrier to services and reduce cultural resistance to treatment. Moreover, various simple and readily acceptable techniques to deal with the early phases of trauma are now available (E. Shapiro, 2013).

And third, its potential as a primary (and also secondary) care intervention: EMDR lends itself well to be incorporated not only into community-based psychological first aid (PFA; WHO, World Vision Australia, & War Trauma Foundation, 2011) done by volunteers (the two bottom tiers in the intervention pyramid) but also potentially into a higher level response for mild to moderate disorders undertaken by a specially trained paraprofessional cadre to whom well-defined roles could be assigned (the third tier in the intervention pyramid; see Figure 1). The book Getting Past Your Past (F. Shapiro, 2013) lists several techniques that could readily be taught in the context of psychological first and "psychological second aid" (including stabilization, education, and psychosocial work), and there is further potential scope of incorporating other modified EMDR procedures.

In this regard, promising efforts are underway to design and adapt existing EMDR protocols (Jarero, Amaya, Givaudan, & Miranda, 2013; Luber, 2014) so that they can be used *as part of PFA* and/or *after* it has been administered: as a kind of psychological second aid delivered by paraprofessional staff working in the referral system as a link between PFA and mental health professionals at the tertiary level. This "task shifting," which in its details would vary from context to context, would help rationalize the use of scarce professional resources through timely and proper referral when higher skills are called for. Throughout, utter care must be exercised to minimize risks and manage referrals when needed.

Under the acronym SUNDAR (Hindi for "attractive"), Patel (2012) summarizes this idea as follows:

Simplify the message
UNpack the treatment
Deliver where people are
Affordable and available human resources
Reallocation of specialists to train and supervise

This restructuring is vital because the most immediate and pervasive constraint to scaling up trauma treatment is undoubtedly (and will remain in the future) the severe and chronic shortage of qualified professional and even paraprofessional personnel, especially in the developing world—even more so in situations of crises (disasters and violent conflict). Current WHO estimates are that over 1.7 million mental health professionals will be needed around the world to close the treatment gap for mental, neurological, and substance use conditions (WHO, 2011). This number includes professionals treating trauma but does not include the number of primary mental health care frontline workers needed.

Having been involved for 30 years as a development professional with United Nations Children's Fund (UNICEF) and The World Bank in the design and implementation of large-scale public health and nutrition programs in the developing world, I have no illusions about the challenges associated with going to scale with non- or paraprofessional workers in a selective primary health care setting. But involving non- and paraprofessionals is imperative, a sine qua non, one that will also demand "solutions" to many practical policy and political issues and even ethical dilemmas that will come to the fore.

## Risk-Benefit Analysis and Ethical Policy

As we have seen, tens of millions of people are traumatized each year; most of them will have no access to treatment. Now is the time to be bold *and* responsible in our efforts to take on the trauma epidemic: to achieve maximum trauma reduction in the shortest possible time. This requires that the principle of "do no harm" be recontextualized to include the acceptance of some calculated and manageable risks that inevitably occur when (a) projects are scaled up to programs and (b) some selected tasks, involving the use of simplified EMDR and trauma-focused CBT, are shifted down from professional to paraprofessional and community workers. That is the only way in which we can *begin* to tackle the very large number of traumatized people.

Lest we forget: Treatment deferred is treatment denied. In ethical terms, the act of omission may in this case, in fact, be far more serious than the act of commission. The existence of effective treatment modalities makes it unconscionable to allow traumatized people to continue suffering and families, communities, and societies to be harmed as a result.

At the occasional, manageable risk of misdiagnosis or mistreatment, vastly more trauma cases could be treated if paraprofessionals, equipped with intermediate yet appropriate skills, were allowed to share the work burden now facing the inadequate numbers of psychologists, psychiatrists, and other professionals dealing with mental health issues. This makes it vital that emphasis be placed on a careful analysis on the characteristics of individuals that can be selected for this task and judiciously evaluating the application of simplified EMDR protocols by paraprofessional providers. A rigorous evaluation of outcomes in settings supervised by licensed mental health professionals can ensure timely treatment for all on site during the development process.

### **Doing the Doable Now**

The huge scale of the trauma problem and the enormous challenges it presents may themselves cause overwhelm, cynicism, and even paralysis. But that should not be the take-away message of this article—quite the contrary. EMDR itself is a big cause for optimism about the possibilities for scaling up trauma therapy, and the world can undoubtedly find responses to the new challenges it generates. For example, WHO's recently approved Comprehensive Mental Health Action Plan 2013–2020 (WHO, 2013b) would be supported by EMDR (together with other trauma therapies).

Although the "psychology community" can define the mental health problems and their potential solutions, it cannot solve these problems by working alone. Therefore, although a leadership role would naturally fall on the many professional organizations of psychologists, psychiatrists, and other mental health specialists, it would have to be shared with experts in many other disciplines, such as communications and social marketing, training and pedagogy, statistics and epidemiology, monitoring and evaluation, resource mobilization, advocacy, and others. No one can do it alone.

Meanwhile, what are some of the things that can be done more immediately by representations of the various EMDR therapy organizations? Here are some manageable activities that could now be undertaken to great advantage for the cause:

- Systematically map all significant stakeholder organizations, including pertinent UN agencies (UNHCR, Red Cross, UNICEF).
- Design a grand partnership strategy for (and with) each of them.

- Plan the first global conference on trauma therapy bringing together principal stakeholder representatives.
- Organize strategic planning meetings at national, regional, and global levels.
- Identify and approach potential champions, goodwill ambassadors, and celebrities of national and global appeal for policy advocacy and to support the cause.
- Begin work on an authoritative annual State of the World's Trauma Report.
- Produce a powerful advocacy film on EMDR and other trauma therapies.
- Design a plan to set up EMDR courses at psychology departments or medical faculties of universities worldwide (with focus on the developing world).
- Systematically explore funding possibilities and develop a strategy for resource mobilization.
- Create a cadre of EMDR diplomats to insert "trauma therapy" as a topic in national and international meetings on humanitarian, peace and security, development, productivity, economic growth, disaster, mediation, and other issues.
- Establish a global humanitarian assistance coordinating capacity with a secretariat close to potential users of EMDR services (pro bono, contractual, retainer), with "EMDR" offering the following:
  - EMDR training at different levels, tailored to the needs of organizations, for groups (e.g., counselors, human resource (HR) managers, paraprofessionals), under contractual arrangement
  - To support online trainings, including facilitation and new language versions (with focus on the developing world)
  - To provide standby treatment services to meet staff needs at the headquarters or field offices of organizations
  - To provide rapid deployment treatment in the field, some as pro bono actions, most understanding contractual arrangement
  - To support ministries of health with setting up national trauma treatment capacity
  - To advocate in UN fora through EMDR's Humanitarian Assistance Program's (HAP) recently acquired consultative status with UN Economic and Social Council (ECOSOC)
  - · To undertake priority research

### **Research Needs**

Exactly how EMDR or any other therapy works remains a mystery that further research will ultimately reveal. But that is no reason to delay application, on a

large scale, of what we already know works. Guided by appropriate research, evaluation, and monitoring systems to manage, steer, and refine large-scale EMDR programs, we should build the ship while sailing. Because with other health innovations, many refinements need to be explored for which research and evaluation are indispensable.

Practical research needs require more urgent attention for purposes of program refinement—especially whom and when to treat and whom to train in whatalready the subject of extensive study (E. Shapiro, 2013). To this research agenda, I would add several other research priorities: (a) cost-effectiveness studies (comparing different treatment approaches), (b) a costbenefit analysis (for purposes of high-level advocacy), (c) risk-benefit studies (to guide fuller use of frontline workers and paraprofessionals in primary health care settings), (d) training research (to optimize task shifting and to maximize use of e-learning and blended training opportunities), (e) formative evaluation for mass communications campaigns, (f) baseline population surveys (to better gauge needs and track progress), and (g) innovations in large-group treatments and healing of collective trauma. Better information is also needed about risk screening, referral, and the best protocols for triage, especially at the level of psychological first and second aid. Furthermore, the role of cultural and contextual factors in trauma treatment needs to be better understood. Finally, appropriate applications of Web-based telecounseling and the use of mobile technology (including smart use of so-called dumb phones to which many of the world's poorest now have access) and trauma apps need to be further studied, developed, and applied. In general, future studies should ideally have larger sample sizes.

### Changing the Global Face of Trauma

With a 25-year track record and an organizational base of some 60 national EMDR associations plus some 100,000 professional EMDR practitioners working, often pro bono, in one-third of the world's countries (including all the most populous), there is now a critical mass that could make possible a quantum jump in scaling up. EMDR has the potential to change the face of trauma: *from* the lifelong destructive burden it now is for most of its victims *to* a transitory, treatable affliction in conflict, humanitarian, development, and "normal," everyday settings. Given their enormous magnitude and devastating consequences, traumas should be one mental health challenge we now resolve to take on as a top priority, without

delay. Because trauma makes up a major part of mental health conditions, its treatment would make a major health contribution to the estimated 700 million people who suffer from a mental condition (Patel & Saxena, 2014). It is my conviction that EMDR could play a major role in that effort.

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