Post-traumatic stress prominent in TB and HIV patients

High rates of tuberculosis (TB) and HIV co-infection are often linked to mental health issues such as post-traumatic stress disorder (PTSD), which contribute further to poor health. *Karl Peltzer et al* conducted a study to establish the extent of PTSD symptoms associated with TB, TB/HIV co-infection and the retreatment of TB patients whose first treatment was unsuccessful.

In South Africa approximately 60% of people with TB are co-infected with HIV. It is an area of concern that there is limited or no data available on the prevalence rates of mental disorders such as PTSD and its associated factors. Therefore, the aim of this study was to establish the prevalence of PTSD symptoms and associated factors in patients in TB, TB retreatment and/or TB/HIV co-infected primary public health-care patients.

PTSD describes a set of symptoms that may occur after exposure to a traumatic event such as rape, physical assault, mugging/robbery and/or a life threatening accident or serious or sudden medical illness. This event can be protracted and continuous but is more frequently a single, time-limited event (e.g. rape and natural disaster). In this context, for the person who has experienced a diagnosis of TB, the exact nature of the trauma is unclear.

Other studies have found depression and anxiety in HIV-infected and HIV and TB co-infected individuals, but little is known about PTSD in TB and/or HIV co-infected patients.

Methods

A survey was conducted among 4 900 TB patients in 42 public primary care clinics in three health districts in South Africa, namely eThekwini, Nelson Mandela Metropolitan area and Siyanda. These areas have the highest TB caseloads in South Africa.

The survey measured PTSD symptoms, psychological distress (anxiety and depression) and alcohol misuse. Other relevant measures, such as adherence to medication, stressful life events and sexual risk-taking behaviours, were obtained through structured questions within one month of anti-TB treatment.

The interviews were conducted by trained external research assistants for a period of six months from mid-April to mid-October in 2011. Questionnaires were translated and back translated into the major languages of the study participants (Afrikaans, Tswana, Xhosa and Zulu). About 60 fieldworkers were employed during the period of data collection, at least one per clinic, and in larger clinics two fieldworkers.

Measures

The following socio-economic characteristics were measured: age, gender, educational level, marital status, income, employment status and residential status were assessed. Poverty was assessed with five items on the availability or non-availability of shelter, fuel or electricity, clean water, food and cash income in the past week.

Results

For those who had tested for HIV, 59.9% were HIV-positive, 22.1% of the HIV-positive patients were on ART and 9.6% had never tested for HIV.

One in five patients (20%) were daily, or almost daily, tobacco users and 23.3% were hazardous or harmful alcohol users. Regarding non-adherence to TB medication, 33.9% indicated that they had taken less than 90% of their TB medication in the past three to four weeks.

Of those who were on ART, 42.1% reported that they had taken less than 90% of their antiretroviral drugs in the last four weeks. A large proportion (81%) reported psychological distress and 3% had attempted suicide. Overall, 29.6% screened positive for PTSD, 28.5% among men and 30.8% among women.

Treatment for depression

Of those who screened positive for PTSD and anxiety/depression (severe psychological distress), 21.4% and 17.3% respectively, were using anti-depression medication. Of those who screened positive for both anxiety/depression and PTSD, 32.7% were using anti-depression medication.

Stressful life events

Overall, 38.6% of the TB patients reported having experienced some traumatic event in their lives and 29.6% of the sample screened positive for PTSD symptoms in response to a traumatic life event. The most common traumatic events reported by TB patients with PTSD symptoms are shown in Table 2. They included death of family, partner or friend (33.4%), followed by disease-related worst event, including being diagnosed with HIV, TB or with HIV and TB (17.9%).

Discussion

The present study found that 29.6% of the TB public primary care patients screened positive for PTSD symptoms in South Africa, which is similar to findings in HIV patients in other countries. This study found that the common 'worst events' experienced by these patients included death of family, partner or friend and being diagnosed with HIV, TB or HIV/TB co-infection. A study conducted in Tanzania had similar findings.

This study also found that HIV/TB co-infection was associated with higher rates of PTSD or PTSD symptoms, as in some other studies. The HIV/TB co-infected patients have a greater chance of contracting multiple drug-resistant TB (MDR-TB) as well as extra drug-resistant TB which are life-threatening and often lead to death. Being a TB retreatment patient was, in this study, not associated with higher rates of PTSD symptoms than in new TB patients, indicating that the diagnosis or re-diagnosis of TB may not lead to more PTSD symptoms.

Further, this study found an association between HIV risk behaviour (unprotected sex, alcohol and drug use before sex) and PTSD, which is a finding supported by several other studies. This calls for intensified HIV broad-based behavioural prevention interventions to address risk-taking behaviour among TB patients.

Contrary to other studies, however, this study did not find an association between PTSD symptoms and ART and anti-TB drug non-adherence.

This study found an association between HIV risk behaviour (unprotected sex, alcohol and drug use before sex) and PTSD.

>> **Table 2:**
Reported worst event by tuberculosis patients who screened positive for PTSD symptoms

Traumatic event	N=1891	%
Death of family member, partner, or friend	632	33.4
Being diagnosed with HIV	257	13.6
Witnessed killing, shooting or assault of family member or other person	184	9.7
Accident, injury, disability	164	8.7
Major family problems, divorce	83	4.4
Family member, partner or friend diagnosed with HIV	81	4.3
Domestic and intimate partner violence	77	4.1
Raped (self or family member such as daughter)	73	3.9
Physical assault	65	3.4
Victim of serious crime, robbery, hijacking, shooting	61	3.2
Miscarriage, suicide of family member, suicide attempt	58	3.1
Being diagnosed with TB (second/third time, MDR)	43	2.3
Diagnosed with HIV and TB	37	2.0
Poverty (no shelter, no food, lost job, no job, imprisonment)	34	1.8
Natural disasters (lightning, burnt house, floods	29	1.5
Diagnosed with other chronic illness (other than HIV) (mental illness, cancer, stroke, epilepsy, child paralysed, ...)	13	0.7

Conclusions

The present study found high rates of PTSD symptoms. Health-care systems should be strengthened to improve delivery of mental health care, by focusing on existing programmes and activities, such as those which address the prevention and treatment of TB and HIV. Further studies should continue to clarify issues in the assessment of traumatic events and PTSD and treatment guidelines for co-morbidity.

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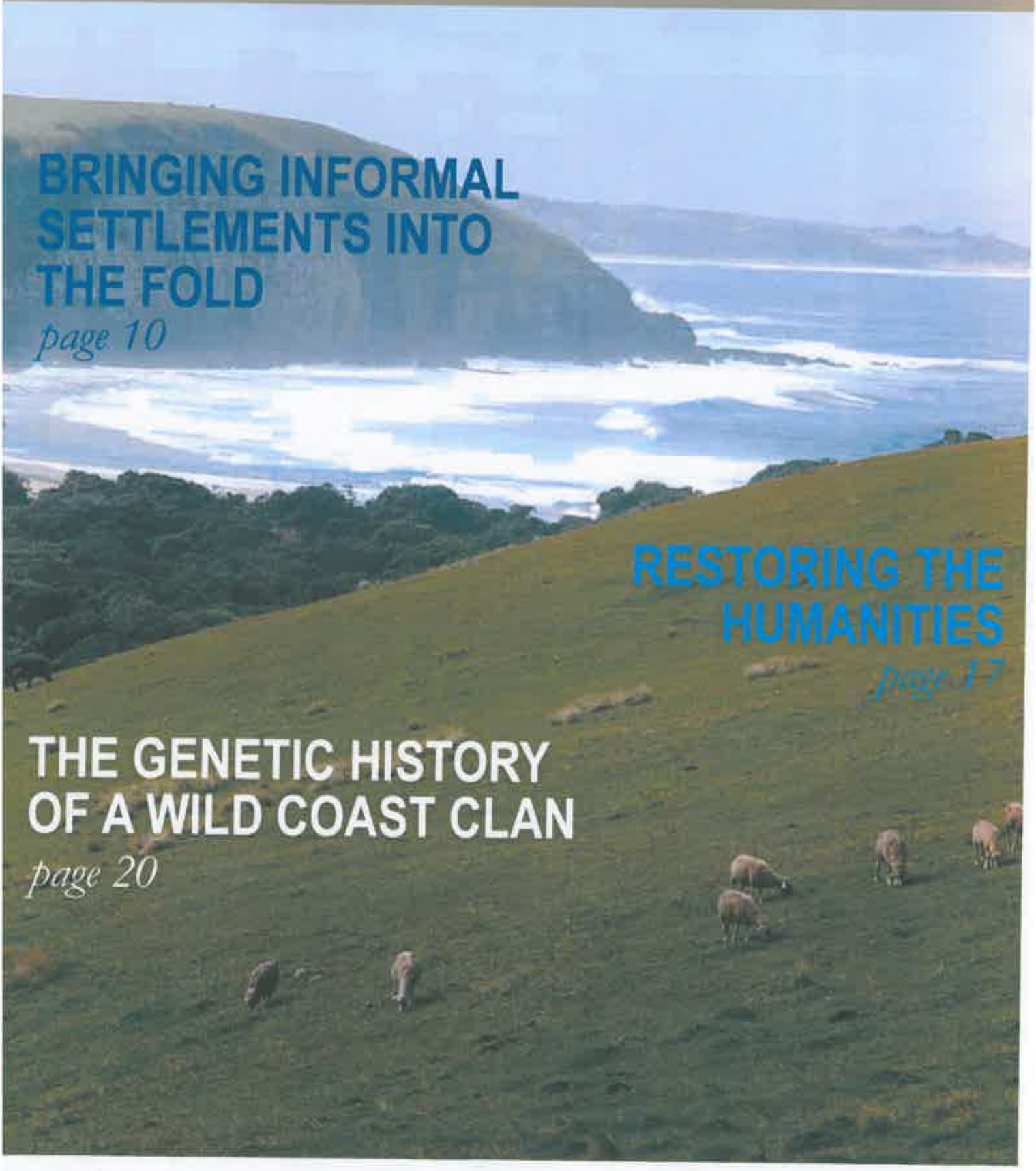

BRINGING INFORMAL SETTLEMENTS INTO THE FOLD

page 10

RESTORING THE HUMANITIES

page 17

THE GENETIC HISTORY OF A WILD COAST CLAN

page 20