

ORATION

FACULTY OF MEDICINE, UNIVERSITY OF KELANIYA ORATION

Post-Traumatic Stress: the Sri Lankan experience

ORATOR: Dr Shehan Williams



Dr Shehan Williams is a Senior Lecturer in the Department of Psychiatry, Faculty of Medicine, University of Kelaniya.

He had his undergraduate education at the Faculty of Medicine, University of Kelaniya and qualified MBBS with second class upper division honours and distinctions in Medicine and Physiology.

He trained for his MD and Board Certification in Psychiatry from the PGIM (Colombo) at the North Colombo Teaching Hospital, Ragama and the Professorial Psychiatry Unit at University of Oxford, UK. He was a commonwealth scholar at Linacre College and a research fellow with the Oxford Project to Investigate Memory and Ageing (OPTIMA). He has more than 35 publications in peer reviewed journals and more than 75 conference presentations. He has received Presidential awards for research in successive years. He is a reviewer for numerous journals including the British Medical Journal and the British Journal of Psychiatry. He also edits the South Asian Journal of Psychiatry.

He is an undergraduate and postgraduate trainer and examiner. He is also an executive director of Lanka Alzheimer's Foundation.

SUMMARY:

Few countries in the world have experienced the myriad traumas that Sri Lanka has faced over the past three decades. The 30 year civil war was perhaps the most traumatic and disabling. It was not only the people in the north and the combatants and their families that suffered, but many in the south as well. Of note is the quelling of the dissent by Sinhala youth in the south by the government during the late 1980s which resulted in many young people going missing with no records as to their whereabouts, accepted now as dead. However, the tsunami of 2004 eclipsed all the others in terms of its magnitude and ability to wreak havoc within a few minutes,

leaving thousands dead and many others deprived of their families, friends, livelihoods and lifetime earnings. In the midst of these major traumas, the day to day traumas that are seen in middle income countries with limited resources are often ignored. Snake bite related trauma among farmers, accidental injuries such as spinal cord transections and even suicide. These and other traumas and their psychological impact is the thrust of this oration.

The following studies will be discussed: delayed psychological morbidity associated with snakebite envenoming and possible psychological interventions to reduce the adverse outcomes; the role of religiosity and cultural perception as predictors of depression in relation to a spinal cord injury patient population; suicidal trends and their relationship to trauma in post-war Sri Lanka. Also discussed are the high prevalence of depressive disorder and post-traumatic stress disorder (PTSD) in war affected females and elders, and finally, the persisting psychological issues in families of missing individuals from the war, youth unrest in the 1980s and the tsunami. The wider issues in achieving 'closure' in those with unresolved grief, and the need for an appropriate national response is highlighted.

THE FULL ORATION

The oration is based on the following papers:

- (1) Williams SS, Wijesinghe CA, Jayamanne SF, Buckley NA, Dawson AH, Lalloo DG, de Silva HJ. Delayed psychological morbidity associated with snake bite envenoming. *PLoS Negl Trop Dis*. 2011; 5(8): e1255. Epub 2011 Aug 2.
- (2) Arya S, Xue S, Embuldeniya A, Narammalage H, da Silva T, Williams S, Ravindran A. Coping strategies used by traumatic spinal cord Injury patients in Sri Lanka: a focus group study. *Disability and Rehabilitation*. 2016; DOI:10.3109/09638288.2015.1111433
- (3) Rodrigo A, Owada K, Wainer J, Baker R, Williams S. Comparison of suicide rates in Sri Lanka during and after the civil war. *Australasian Psychiatry*. 2013; 21(4): 410.
- (4) Ariyaratne R, Arulrajah S, Ariyananda D, Ariyaratne J, Athanayake S, Azhar M, Bandara A, Bandara R, Williams SS, Kuruppuarachchi KALA. A study on anxiety and depression among military personnel injured in the war. In: *Sri Lanka Medical Association 114th Anniversary Academic Sessions 2001, March, 2001, Colombo*.
- (5) Attidiya DSR, Balasuriya BMAC, Dissanayaka DRWAB, Manuelpillai S, Williams SS. A study on post war stress among elderly internally displaced persons. In: *Sri Lanka Medical Association 124th Annual Scientific Sessions 2011, June 2011, Colombo*.

Delayed psychological morbidity associated with snakebite envenoming

Introduction: This study looked at the psychological impact of snakebite on its victims, especially possible late effects for the first time. It assessed delayed somatic symptoms, depressive disorder, post-traumatic stress disorder (PTSD), and impairment in functioning, among snakebite victims.

Methods: The study had qualitative and quantitative arms. In the quantitative arm, 88 persons who had systemic envenoming following snakebite from the North Central Province of Sri Lanka were randomly identified from an established research database and interviewed 12 to 48

months (mean 30) after the incident. Persons with no history of snakebite, matched for age, sex, geographical location and occupation, acted as controls. A modified version of the Beck Depression Inventory, Post-Traumatic Stress Symptom Scale, Hopkins Somatic Symptoms Checklist, Sheehan Disability Inventory and a structured questionnaire were administered. In the qualitative arm, focus group discussions among snakebite victims explored common somatic symptoms attributed to envenoming.

Results: Previous snakebite victims (cases) had more symptoms than controls as measured by the modified Beck Depression Scale (mean 19.1 Vs 14.4; $p < 0.001$) and Hopkins Symptoms Checklist (38.9 vs. 28.2; $p < 0.001$). 48 (54%) cases met criteria for depressive disorder compared to 13 (15%) controls. 19 (21.6%) cases also met criteria for PTSD. 24 (27%) claimed that the snakebite caused a negative change in their employment; nine (10.2%) had stopped working and 15 (17%) claimed residual physical disability. The themes identified in the qualitative arm included blindness, tooth decay, body aches, headaches, tiredness and weakness.

Conclusions: These findings led the investigators to consider a psychological intervention post snake bite to reduce psychological morbidity (1).

Perceived functional impairment and religiosity as predictors of depression in a Sri Lankan spinal cord injury patient population

Introduction: In Sri Lanka, the Sri Lankan Spinal Cord Network (SLSCoN) official website conservatively estimates SCI to affect 2,000 Sri Lankans annually; this incidence, which is significantly greater than the World Health Organization's estimate for the global population (2), is predicted to rise due to increased road traffic and industrial accidents(3).

Methods: The aim of this project was to assess psychiatric morbidity, coping and quality of life among the Sri Lankan SCI patient population. Both quantitative (questionnaires) and qualitative (focus groups) data collection methods were used.

Results: Clinically significant depressive symptoms were found in 41% of our patient sample, with 28% suffering from either moderate or severe depression. Religiosity scores inversely correlated with depressive symptoms and the qualitative study findings showed that religious practices enabled participants to cope with their disability.

Conclusions: This study points to the role of culture and religion in enabling persons afflicted with physical and mental trauma in adjusting to their disability.

Suicide rates before and after the war

Introduction: The effect of war on suicide rates has been widely investigated since it was first discussed by Emile Durkheim more than a century ago (4,5). Durkheim and subsequent investigators argued that great national wars and revolutions such as world wars, referred to as 'popular wars', increase the social integration, patriotism and sense of purpose among citizens resulting in fewer suicides (4,6). A decrease of suicide rates has almost universally been

documented in occupied countries that have remained neutral in World Wars and countries involved in national wars and revolutions (4,7,8,9). This decrease has been more noticeable among men than women.

Methods: In this paper, we compare suicide rates in whole of Sri Lanka during the civil war and in the subsequent post-war period using police records.

Findings and conclusions: Our study shows a significant reduction in the suicide rates following the war, particularly in males. This is in contrast to other wars and may have been due to the hopelessness and lack of purpose during the civil war which contributed to anomie and greater suicidality. This is a positive trend that needs further exploration.

A study to determine post war stress among females and elderly IDPs in the Wanni district and injured soldiers

Introduction: Psychological problems after being exposed to war trauma were described as "shell shock" in World War I, and "combat fatigue" in World War II (10,11). After the Second World War, mental health professionals began to recognize that these difficulties were not hereditarily-predisposed mental illnesses like schizophrenia or manic depressive illness, but a different type of psychological problem resulting from the experience of extreme stress in a war zone.

In recent times in Sri Lanka, a vast number of people from the Vanni region were displaced and suffered mental agony, psychological stress as well as physical injury due to the war. Among this group there were a significant number of females and elderly people who were above the age of 65 years. War invariably results in physical and mental trauma among the survivors. The females and the elderly are particularly vulnerable groups.

The objective of our study was to determine the effect of war (post war stress) among these females and the elderly Internally Displaced Persons (IDPs). We also looked at psychological morbidity in a group of injured soldiers admitted to the army hospital.

Methods: A cross-sectional study was conducted in two villages Salampan and Anthonipuram in Manthai west DS division, Mannar district. All the villagers were resettled a few months earlier, after spending nearly one year in IDP camps. All of them were first-hand witnesses of the last part of the war in Muhamalai. There were 190 registered families in these two villages. All married females between the ages of 18 and 60 years, who were not previously diagnosed with any psychiatric disorder, were interviewed after obtaining informed consent. This study was conducted in the months of March to May 2011. Three trained research assistants conducted the interviews. A pretested questionnaire was used to obtain demographic and personal data. The K10 questionnaire and the PSS-R17 and the K 10 (validated Tamil versions) to assess the extent of depressive symptoms and post-traumatic stress disorder were respectively used.

We were able to gather information from 137 spouses in these villages. They all had witnessed a traumatic incident while trapped in the final stages of the war.

The same study was extended among the IDPs currently residing in the elderly homes at Pattim and Thirukeswaram in the Vavuniya district as well as among the elderly (> 65 years old) persons in the Salampan and Anthonipuram newly resettled villages in Mannar district. All elderly IDPs meeting criteria for study inclusion and consenting to participation were included.

The elderly subjects were initially assessed by using the validated Tamil translation of MMSE to determine the capacity to give consent and to respond appropriately to the questions in the pre-tested questionnaire.

Injured army soldiers were assessed using a Sinhala translation of the Beck depression and anxiety inventory during the conduct of the war.

Results: Female spouses: We were able to gather information from 137 spouses in these villages. PTSD symptoms met criteria for diagnosis in 57% of the females. The screening tool for depression showed 63% to have significant depressive symptoms. Both depressive and PTSD features were present in 24% of the female spouses. Nearly 73% of females were having either depression or PTSD. The husbands of 31 spouses were missing at the time of the study.

Elderly (more than 65 years): In this preliminary study a total of 57 persons were assessed (females 24, males 33, elderly homes 21, resettled villages 36). Nearly half (48%) of the sample screened positive for PTSD and 25% screened positive for depression. There was no significant difference detected in females and males in the prevalence in PTSD or depression.

Injured soldiers: Of the injured soldiers, 35% met criteria for severe depression, 15% for moderate depression and 28% for mild depression. There was an association with severity of depression and thoughts of deserting the army and problems at work or in the family. Suicidal risk was identified in nearly 42% of those with severe depressive symptoms.

Conclusions: A high prevalence of depression and PTSD symptoms were seen in IDP female spouses screened. Somasundram et al (12), 1994, reported a prevalence of 25% for depression and 27% for PTSD in a post war general adult population. Our figures among female spouses was much higher than these reported figures.

Elderly IDPs too appear to have PTSD symptoms and a higher prevalence of depression when compared to the normal population. A similar situation was found among injured soldiers. Post war health services will have to address these psychological issues.

The psychological impact of ambiguous loss in families of missing individuals in southern Sri Lanka

Introduction: Ambiguous loss results from not knowing whether or not a loved one is living or dead (13). This is the situation when a loved one is abducted and not found thereafter or when he or she is a military person who is classified as 'missing in action'. This experience is different in many ways from the impact of a loss by death. When somebody is missing, his or her loved ones do not go through the process of normal grief and have to cope with distress and uncertainty, which prevents closure (14). Families of missing individuals oscillate between hope and despair (15).

Aims: To compare the psychological morbidity in families of missing individuals with those who found the remains of a loved one.

Methods: This is a cross sectional descriptive study. Due to the complex and sensitive nature of this study, initial contact was made through grama niladharis in Dondra and Kudawella who identified the families. Using participant information other participants were recruited in the districts of Matara, Hambantota and Galle in the southern province. Ethical approval for the study was obtained from the Faculty of Medicine, University of Kelaniya and all participants gave informed written consent. The diagnosis of depression was made using a culturally adapted Beck Depression Scale and clinically confirmed by a senior registrar in psychiatry. A diagnosis of prolonged grief disorder was made according to DSM 5 criteria. Chi square comparisons were made in SPSS.

Results: These findings are from the first 140 families of missing individuals and an equal number who received the dead body. Marital status, age and employment status of the interviewees in both groups were similar ($p>0.05$). Among the families of missing individuals 17.1% were clinically depressed, in comparison to 5.9% ($p<0.005$) in those who received the remains. Prolonged grief disorder in the missing group and those who found the remains was 22.5% and 6.7% respectively ($p=0.001$). The family members of those whose bodies were found coped better than the missing group (86.6% vs 59.3%; $p <0.001$).

Conclusions: Family members of missing individuals have higher psychological morbidity than families that have confirmation of death by seeing the mortal remains.

Overall conclusions

Psychological morbidity and post traumatic stress are prevalent in Sri Lanka in a variety of situations. Innovative home grown approaches to address this issue will have to be developed as shown in the intervention for snake bite victims. Cultural and religious coping is an important component of all aspects of resilience as shown among those with spinal cord injury. While suicide rates fall, we cannot ignore the distress among the war affected and the families of the missing. Psychological services should address the needs of the psychologically affected and address their emotional needs in a culturally sensitive and relevant manner.

References

- (1) Wijesinghe CA, Williams SS, Kasturiratne A, Dolawaththa N, Wimalaratne P, Wijewickrema B, Jayamanne SF, Isbister GK, Dawson AH, Laloo DG, de Silva HJ. A Randomized Controlled Trial of a Brief Intervention for Delayed Psychological Effects in Snakebite Victims. *PLoS Neglected Tropical Diseases*. 9(8): e0003989. Available from: DOI:10.1371/journal.pntd. 0003989 (Accessed 20th December 2015)
- (2) World Health Organization. *Spinal Cord Injury*. Available from: <http://www.who.int/mediacentre/factsheets/fs384/en/> Accessed 15th December 2014).
- (3) Sri Lanka Spinal Cord Network. *Welcome to SLSCoN Official Website* Available from: <http://slspinalcord.org/> Accessed 14th December 2014).
- (4) Lyons HA. Civil violence - the psychological aspects. *J Psychosom Res*. 1979; 23: 373-393.
- (5) Rojcewicz SJ. War and Suicide. *Suicide and Life-Threatening Behavior*. 1971; 1: 46-54.
- (6) Durkheim E. *Suicide: A Study in Sociology*. Routledge & Kegan Paul; 1952.

- (7) Lester D. The effect of war on suicide rates: a study of France from 1826 to 1913. *Eur Arch Psychiatry ClinNeurosci* 1993; 242: 248-249.
- (8) Dublin LI. *Suicide: a sociological and statistical study*. New York: The Ronald Press; 1963.
- (9) Weiss JMA. Suicide: an epidemiologic analysis. *Psychiatri Q*. 1954; 28: 225-252.
- (10) Myers CS. A contribution to the study of shell shock. *The Lancet*. 1915; 185 (4772): 316-320
- (11) Salmon TW. *The care and treatment of mental diseases and war neuroses ("shell shock") in the British army*. New York: Mental Hygiene War Work Committee of the National Committee for Mental Hygiene; 1917.
- (12) Somasundaram D, Jamunanatha CS. Psychosocial consequences of war: northern Sri Lankan experience. War trauma in a civilian population. In: De Jong JTVM (Ed.). *Trauma, war and violence: public mental health in socio-cultural context*. New York: 2002. p. 205–258
- (13) Boss P. *Ambiguous loss, trauma and resilience: therapeutic work with ambiguous loss*. New York: Norton; 2004.
- (14) Boss P. Ambiguous loss: Working with families of the missing. *Family Process*. 2002; 41(1): 14
- (15) Boss P. Ambiguous Loss in Families of the Missing. *The Lancet Supplement*. 2002; 360: 39-40.