THE EPIDEMIOLOGY OF MENTAL HEALTH ISSUES IN THE CARIBBEAN

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Caribbean region

- Consists of 26 countries and territories
- Most countries classified as Small Island Developing States (SIDS) by the United Nations
- Haiti one of the least developed countries in the world
Caribbean

- Antigua and Barbuda
- Bahamas
- Cuba
- Grenada
- Guyana
- Haiti
- Jamaica
- St. Lucia
- Dominica
- Martinique
- Guadelope
- Dominica
- Monsterrat
- Aruba, Bonaire, Curacao
- Puerto Rico
- Santo Domingo
- British and United States Virgin Islands
21st Century Caribbean

- British West Indies
- Spanish Caribbean (now regarded as part of Latin America)
- French Caribbean (still politically part of mainland France)
- Dutch Antilles
- Fragments still owned by the United States (Puerto Rico and the Virgin Islands)
Migration patterns

- European settlers moving to the West Indies
- Africans slaves to work on plantations
- After abolition of slavery indentured labour from India and China
- Secondary immigration of Caribbean people to Central America, North America, UK to seek employment

Caribbean and disasters

- Caribbean particularly vulnerable to both natural and human generated disasters
- Disasters include floods, earthquakes, volcanoes, droughts. Mass death due to illness, violence
- 1970 to 2000 the Caribbean region recorded average 32.4 disasters per year with 226,000 fatalities and 7,500 deaths per year
- Earthquakes accounted for 53% of total mortality
Haiti 2010

- 230,000 fatalities (official count not determined)
- 3% of Haiti’s population
Impact of a disaster

- Impact on population vast and deep in its ramifications
- May result in the onset of new mental health problems such as depression, PTSD
- Relapse and worsening of pre-existing mental illness such as depression, dementia
Mental illness

- Mental illness not initially recognised by European colonizers

- Drapetomania was defined as “a mental disease of slaves which caused Blacks to have an uncontrollable urge to run away from their masters, the treatment of which was whipping the devil out of them”

Epidemiology of common mental health disorders in the Caribbean

- Paucity of recent literature
- Most studies from larger English speaking Caribbean states
- Jamaica, Barbados, Trinidad
Psychotic disorders

- Characterised by altered perception of reality
- Symptoms: delusions, hallucinations, thought disorder, impaired social and occupational functioning
- Schizophrenia
- Schizoaffective disorder
- Delusional disorder
- Brief psychotic episode
- Schizophreniform disorders
Schizophrenia

- Literal translation ‘split mind’
- The most crippling of the psychiatric disorders
- Costs more than all the cancers combined

Nobel Prize Winner John Nash
DSM-IV-TR Criteria for Schizophrenia 295.XX

**A – Characteristic symptoms -** two or more of the following, one month, less if treated:

1. Delusions
2. Hallucinations
3. Disorganized Speech
4. Disorganized or Catatonic Behavior
5. Negative symptoms

**B – Social/Occupations Dysfunction**

*One or more areas of functioning, work, self care or interpersonal relationship.*

**C – Duration**

- Continuous signs of disturbance for six months
- Continuous criteria for a month, less if treated
- May also include Prodromal / residual symptoms
Schizophrenia

- Reports of high rates of schizophrenia in African Caribbean populations living in England
- Six fold risk ratio when compared to white indigenous population
- Up to 18 times as high for children of African Caribbean immigrants
- May be due to misdiagnosis or due to major etiological factors specific to African Caribbean people living in the UK
Schizophrenia

- Earliest report from Jamaica in 1962 incidence 150 per 100,000 (Royes K 1962)
- 13 per 100,000 in 1974 (Burke 1974)
- Four completed incidence studies in Caribbean
  - Jamaica 1995 2.09/10,000 (Hickling and Rodgers Johnson)
  - Trinidad 1996 2.2/10,000 (Bhugra et al)
  - Barbados 1999 2.92/10,000 (Mahy et al)
  - Suriname 2005 Selten et al
- Incidence of 2-3/10,000) confirming prevalence rates constant throughout the world
- Dominica 1992 Dominica 11.8/10,000 (selective migration)
Epidemiology not known

- Schizoaffective disorder
- Delusional disorder
- Brief psychotic episode
- Schizophreniform disorders
Psychotic disorders and disasters

- Persons with these conditions at risk for decompensation after disasters
- Severe stress associated with disasters associated with worsening of illness
Mood Disorders

- **Major Depressive Disorder:** one or more major depressive episodes, episodes must last at least **two** weeks

- **Dysthymia:** two-year history of depressed mood, must not be without for two months, less severity than major depression, constant for a period of two years (children one year agitated depression)

- **Bipolar I Disorder:** one or more manic episodes, usually with a history of depressive episodes (can have psychotic aspects)

- **Bipolar II Disorder:** one or more depressive with at least one hypomanic episode, no psychosis

- **Cyclothymic Disorder:** persistent mood disturbance **lasting at least two years**, must not be without for two months, less severity than bipolar

- **Bipolar Disorder NOS**
Major depression

- Global Burden of Disease Report estimates that depression was the fourth leading cause of burden among all diseases and that it accounted for 4.4% of the Total Disability Adjusted Life Years.
- Depression is referred to as the ‘common cold’ of mental disorders.
- Lifetime prevalence up to 17%.
- MEDLINE trawl of two hundred and seventy-five publications on mental health issues in Caribbean people revealed a paucity of written articles on depression.
Symptoms of depression

- Loss of interest in pleasurable activities such as sex
- Feelings of guilt or worthlessness
- Anxiety and restlessness
- Thoughts of death and suicide
- Social withdrawal
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Major depression

- Validation Zung Scale in Jamaica (Ward et al. 2001) and in Trinidad (Maharaj et al. 2005)
- In 1971 Hickling reported that 32% of inpatients and outpatients had depression
- Lifestyle survey in Jamaica in 2000 one in five respondents between 15-74 reported features of depression in the past month (Wilks, R et al. 2000)
- Family practice survey one of every eight adult patients may be depressed (Maharaj R 2007)
- UWI students in Jamaica study found that depression may be a significant problem (Lowe et al., 2009)
- Secondary school students in Trinidad found one in four to have significant depression (Maharaj R et al. 2004)
- Adolescent depression survey in Trinidad survey found 14% to be depressed (Maharajh HD et al. 2006)
Major depression

- Comorbid depression with SLE, persons attending primary care clinics, diabetes hematological diseases, range 25 - 40% (Hutchinson et al 1996, Hutchinson et al 2004)
- Community study suggests prevalence 14% (Bhandan et al 2005)
- Postpartum depression > 15% (Ramesar et al 2006)
- Depression prevalence rates from 12% to over 25% in adolescents and adults in the Caribbean
Bipolar disorder

- No incidence studies
- UK, Leff 1976 reported high incidence rates for mania in blacks
- Trinidad, Neehall 1991 0.8/1000 admission rate for affective psychosis
- Jamaica, Hickling and Rodgers-Johnson 1995 0.16/1000 for affective psychosis and age corrected (15-55 years) prevalence rates off 0.23/1000
- Trinidad, Hutchinson et al 2003 found some evidence that persons of African descent more likely to present with psychotic illness while people of East Indian descent have non-psychotic disorders such as depression
Mood disorders and disasters

- Persons with these conditions at risk for decompensation after disasters
- In persons with depression the decreased energy, loss of interest and impaired concentration may reduce one’s ability to react rapidly and appropriately in the case of an emergency.
- Bipolar disorder may have worsening of symptoms or relapse
Anxiety disorders

- Generalised anxiety disorder
- Panic disorder
- Obsessive compulsive disorder
- Posttraumatic stress disorder **
- Phobias
Anxiety disorders

- Twitching or trembling
- Muscle tension
- Headaches
- Sweating
- Dry mouth
- Difficulty swallowing
- Abdominal pain
- Dizziness
- Rapid or irregular heart rate
- Rapid breathing
- Diarrhea or frequent need to urinate
- Fatigue
- Irritability, including loss of your temper
- Sleeping difficulties and nightmares
Anxiety disorders

- Few studies with little data available
- In 1971 Hickling reported that 12% of inpatients and outpatients had anxiety states
- However, based on information from psychiatrists in the region these disorders may be have as high as or higher incidence and prevalence rates when compared to depressive disorders
- Trinidad, Jamaica, Barbados, Bahamas GAD, OCD, PTSD, Social phobia
Anxiety disorders and disasters

- Disruption and displacement caused by disasters expected to increase propensity for anxiety disorders and reactions
Suicide

- Associated with psychiatric illness in 70% of cases, depression most frequent psychiatric diagnosis (60%)
- PAHO publication: Suicide Mortality in the Americas
- 16th leading cause of mortality worldwide (WHO 2008)
- Suicide rates increasing
- Males greater than females 3.5:1 (WHO 2001)
- Females attempt more than males (WHO 2001)
- Major problem for multi-ethnic Caribbean countries such as Trinidad and Tobago, Guyana and Suriname
Relationship between mental health and suicide

- Closely related
- Affective disorders and schizophrenia high suicide rates
Suicide

- Burke Trinidad early 70s reported 1.4/100,000
- **Mahy noted that suicide rate in Trinidad rose to 12/100,000 by 1988**
- Mahy Barbados 1989 rate 2.3/100,000 and 2.8/100,00 in the Bahamas
- **Hutchinson and Simeon Trinidad 1997 12.3/100,000. This study looked at suicides between 1986 to 1990. El:African 54%:42% and females of El compared to African 2:1**
- Abel et al Jamaica 2009 2.0-2.7/100000
em
- Cultural differences, access to poisons, alcohol abuse
- Males use more violent and lethal methods eg shooting, stabbing, hanging
- More recent studies find rates of 2.0/100,000 – 12.3/100,000
Suicide and disasters

- The devastation, displacement and hopelessness which occur after a disaster may increase the risk for suicide
Attempted suicide / Deliberate self harm

- Ingestion of tablets prescription and OTC
- Ingestion of chemicals and household cleaning products
- Self cutting (personality disorders)
- Blood sucking
- Genital mutilation
- Attempted hanging
- Drowning
Attempted suicide

- Mahy reported attempted suicide in Guyana of 43/100,000 in 1965
- Mahy and Griffith put rate of attempted suicide in Barbados at 28/100,000 in 1978
- Mahy reported attempted suicide in Trinidad of 87/100,000 in 1984
- Mahy reported attempted suicide in Barbados at 65/100,000 in 1989
- Halcon (2000) reported 12.1% adolescents attempted suicide in nine Caribbean countries
Suicidal ideation

- A 2004 study found suicidal ideation in 18.4% of school adolescents in Guyana by Emmanuel Rudatsikira, Adamson S Muula, Seter Siziya. Published in 2007
Homicide

- Growing throughout region Trinidad 1.3 million with >500 homicides per year
- Prior to 1970, Jamaica's murder rate was less than that of the USA. In 1971 it was 152 and in 2009 it was 1680 Jamaicans.
- Gangs, guns, drugs, social inequalities, poor conflict resolution skills, poor anger management
- Neurocognitive disorders
Dementia

- Epidemic of dementia
- Demographic shift with persons living longer-healthy heart, kidneys etc but unhealthy brain (prevention)
- Increased Alzheimer’s disease and vascular dementia
- Hendrie, Eldemire-Shearer Jamaica 1996, Eldemire Shearer and Gibson 2005, Gibson
- Querol et al Cuba 2005 10% of persons over 65 suffer from dementia
- National prevalence study dementia Trinidad and Tobago launched 16 April 2012
- Baboolal et al dementia 2010 prevalence ranging from 30% to 90% in selected vulnerable groups
- Vascular dementia and mixed dementia important because of high rates of diabetes and hypertension
Dementia and disasters

- Impact on persons with dementia worsening of disorder
- Impact on caregivers including emotional, physical and financial strain
Substance use

- Alcohol consumption and burden of disease in the Americas
Substance abuse

- Part of the culture – birth, death, wedding, divorce, funeral, carnival, sex
- Strategic transhipment point secluded bays, inlets, poor coastal surveillance
- Alcohol, cigarettes, crack cocaine, cannabis, OTC drugs, benzodiazepenes, codeine, gasolene (petrol), opiates such as pethidine and other opiate, ecstacy, heroin, combinations such as black cigarettes
Substance abuse studies

- Student surveys in Trinidad (Pantin 1971, Remy 1985, Bernard 1985, Singh and Maharaj 1991)
- Secondary school prevalence study Bahamas 2002
- School surveys BVI 2004
- School surveys found alcohol followed by tobacco followed by cocaine
- Alcohol 80-90%, tobacco 35-45%, cannabis 8-10% and cocaine 1=2%
- Drug use patterns in Grenada, alcohol use in 75% adults (Prabakhar 1999)
- Country report CICAD database in Barbados in 2002
- Civil service employees St. Kitts and Nevis 2003
- National patterns of drug use in Jamaica (Weaver and Wray, 2004)
Substance use studies

- Trinidad 26% all admissions to POSGH alcohol related (Prasad, 1979)
- Grenada 33% all admissions to general hospital alcohol related (Sharma, 1989)
- Barbados 31% male admissions to general hospital alcohol related (Mansoor & Edwards, 1991)
Substance induced disorders

- Psychosis
- Withdrawal
- Abuse
- Dependence
- Dementia
- Anxiety disorder
- Mood disorder
Cannabis

- Prince et al. (1970), in Jamaica 20 patients per year admitted to mental or general hospitals with acute psychotic reactions allegedly precipitated by ganja.
- In one general and one mental hospital the, ganja smokers comprised 20% of the psychiatric admissions.
- Ganja psychosis described by Knight in 1976
- Cannabis use might modify clinical presentation of psychiatric illness
Personality disorders

- Hickling and Paisley published study on personality disorder
- Anecdotal reports of significant numbers of persons with borderline, antisocial and obsessive compulsive personality disorder
Child and adolescent psychiatry

- Full range of disorders including developmental disorders, mood disorders, conduct disorders, substance abuse, anxiety disorders, psychosis, adjustment disorders
- 26% outpatients in clinics had history of CSA (Baboolal et al 2007)
- Neglect
- Violence
- Separation and loss
- Few child psychiatrists
- Few clinics
Persons with mental disorders as a vulnerable group

- The stress and upheaval of disasters increase the risk of development of new mental disorders and the exacerbation of pre-existing disorders
- Persons with mental illness are a vulnerable group in the face of a disaster
- Community mental health services may use registers to identify at risk groups in order to prevent adverse mental health outcomes
- Ensure access to medication, emotional support
- Identify new cases of mental disorders
- If a disaster strikes any of our Caribbean countries then we have to treat those who we have identified pre-disaster and any victims that become ill after the disaster
THANK YOU