UNIT 3  GLOBAL BURDEN OF MENTAL ILLNESS

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3.0 INTRODUCTION
In the last two units we have read about the magnitude of the mental illness in India and the world. Mental illnesses have a large impact on individuals, families and communities. The individual suffers the distressing symptoms of illness, is unable to participate in domestic, professional and leisure activities and faces discrimination due to the stigma associated with these illnesses. The families are required to provide physical and emotional support and at the same time bear the stress of coping with disturbed behaviour of the mentally ill person. They also face economic constraints, disruption of routine household activities, stigma and discrimination, restriction of social activities. The community is burdened with provision of care, loss of productivity and legal issues.

This Unit aims to deal with the concept of burden, its measurement and briefly provide the statistics of burden due to the psychiatric disorders and its implications.

3.1 OBJECTIVES
After studying this Unit, you will be able to understand:
- Need to measure burden of illness;
- Measuring the burden of disease;
- The Global Burden of Disease (GBD) approach to measure health status;
- The global burden due to the mental illnesses; and
- Implication for disability studies on mental illness.
3.2 NEED TO MEASURE THE BURDEN OF ILLNESS

Traditionally the prevalence, incidence and mortality have been used to measure the impact of disease in population with high prevalence and high mortality. This has resulted in more focus on the high mortality illnesses especially the infectious diseases and malnutrition with resource allocation and policy framework directed at them. However, in order to understand the burden due to illness one must first understand the sequence of event leading to disease and the consequence of the disease. This is broadly referred to as the “Burden of Disease Framework”.

As suggested in Figure 1, most diseases and injuries including mental illnesses result in functional impairment. The sequence of event leading to disease and its consequence can occur even without the preceding step or the duration may vary from one disorder to other. For example, environmental factor like an earthquake can directly lead to injury and that in turn, can cause death or may immediately result in handicap limiting most of the activity of the person. Also, not all diseases should necessarily lead to death as last step. Thus, barring a few highly fatal illnesses, most of the diseases cause both fatal (death) and non-fatal (handicap) outcome, and so any measure of burden of disease should include both. Thus, in order to capture the impact of both premature death and disability in a single measure, a common currency is required.

3.3 MEASURING THE BURDEN OF ILLNESS

The two common currency used to measure burden are “economic loss due to illness” and “time loss due to illness”. The use of “economic loss” as a measurement of the burden is problematic because it measures only the economic burden due to the illness, and ignores other types of burden (e.g. stigma). The use of “time loss” as a currency has been used widely. The loss of time could be due to premature death or due to poor quality of life (disability).

3.4 THE GLOBAL BURDEN OF DISEASE (GBD) APPROACH TO MEASURE HEALTH STATUS

Till the year 1990, the focus of the health organisations and the various governments was on illnesses with high mortality – namely the communicable diseases and malnutrition. However, in most parts of the world including the developing countries like India and China, the non-communicable chronic illnesses like unipolar depression and heart diseases were becoming leading cause of premature death and disability. Further, because of the interventions on the fatal illnesses most of the countries of Asia and Latin America started witnessing the so-called “epidemiological transition” resulting in the inversion of
the population pyramid. There was a steady increase in the adult and geriatric population and steady decline in the young population due to decline in birth rate. Strategic health planning for the emerging scenario required basic data on comparative burden due to the various illnesses, risk factors for such illnesses, intervention required to tackle such illnesses and the impact the interventions on the burden of those illnesses.

In order to systematically collect and analyse the required data, the World Bank in 1992, commissioned the initial Global Burden of Disease (GBD) study to provide a comprehensive assessment of the disease burden as in 1990. It provided the framework for integrating available information on a population’s health. It also provided some understanding of how that population’s health was changing at that point of time. The first study was done by World Health Organisation (WHO) in collaboration with Harvard Institute of Public Health and 100 other collaborators around the world. The study was done at both global and regional level. It used disease categories codified in the International Classification of Diseases (ICD) and introduced a new metric – disability-adjusted life year (DALY) – to quantify the burden of disease. The overall outcome of the study revealed information which contradicted rather than confirmed the prevailing perception about the public health at that point of time. Like the heavy burden due to the mental illnesses such as depression, alcohol dependence and schizophrenia which had been underestimated by previous assessments. While the death due to the mental illnesses was estimated at 1 percent, the study revealed that they were responsible for about 11 per cent of the disease burden worldwide (the details of the burden of mental illnesses will be discussed in subsequent section).

Since 2000, the World Health Organization began publishing regular GBD updates for the world and its regions. GBD results for the year 2001 provided a framework for cost-effectiveness and priority setting analyses. Since 2002, country-specific estimates were also published by WHO after a country consultation process. The 2004 update was published in 2008 and the results of the same will be discussed in the rest of the chapter. In 2007, Global Burden of Diseases, Injuries, and Risk Factors Study (the GBD 2010 Study) was launched with the aim of comprehensive and systematic revision of the current levels and trends in all major diseases, injuries, and risk factor.

Disability-Adjusted Life Year (DALY)

As already discussed, in order to understand the impact of various illnesses, especially chronic illnesses there is a need to measure both disability and premature mortality with a single measure. The DALY is a health gap measure, which combines information on the impact of premature death, disability and other nonfatal health outcomes. One DALY can be thought of as one lost year of “healthy” life.

![Fig. 2: Concept of Disability-Adjusted Life Year (DALY)](image)

**DALYs for a disease are the sum of the years of life lost due to premature mortality (YLL) in the population and the years lost due to disability (YLD).**

Besides the global estimation of the burden of disease, regional estimation of data for disease prevalence and their burden for various regions is also done. The various ways in which the data has been categorised are:
1) Based on gender, age.

2) Based on GNP (Gross National Product) – high, middle and low income countries. For most part of the report the low and middle income countries (LMIC) are grouped together.

3) Based on 6 WHO regions.

India has been categorised as LIMIC in South-East Asia Region (SEARO).

Check Your Progress 1

Note:  
1) Read the following questions carefully and answer in the space provided below.

2) Check your answers provided at the end of this unit.

1) What do you understand by Global Burden of Disease?

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2) Define Disability-Adjusted Life Year (DALY).

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3) Differentiate between Years of life lost due to premature mortality(YLL) and Years Lost to Disability (YLD).

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3.5 THE GLOBAL BURDEN OF DISEASE DUE TO THE MENTAL ILLNESSES

In the following sections, the current burden of mental illness and its projection to future (2030) both at global and regional level (India and SEAR) will be discussed.

The tables on the next pages list the top 10 causes of death and DALY. The figure clearly demonstrates that the leading causes of death are non-psychiatric illnesses. However, when we consider the total disability (DALY), depression ranks as the third most important cause. Depression and alcohol use disorders rank within the top 20 causes of DALY, constituting about 6% of total DALY worldwide. Also many of the other top causes like ischemic heart disease, premature birth, road traffic accidents which rank among the top 10 causes have psychiatric causes as a risk factor, which is not reflected in the estimation of disease burden. Thus, it is clearly evident that psychiatric illnesses and the consequences thereof are responsible for huge disease burden globally.
Table 1: Leading cause of YLD and DALY globally

<table>
<thead>
<tr>
<th>Mortality</th>
<th>DALYs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ischeamic heart disease</td>
<td>Lower respiratory infections</td>
</tr>
<tr>
<td>2 Cerebrovascular disease</td>
<td>Diarrhoeal diseases</td>
</tr>
<tr>
<td>3 Lower respiratory infections</td>
<td>Depression</td>
</tr>
<tr>
<td>4 Chronic obstructive pulmonary disease</td>
<td>Ischeamic heart disease</td>
</tr>
<tr>
<td>5 Diarrhoeal diseases</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td>6 HIV/AIDS</td>
<td>Cerebrovascular disease</td>
</tr>
<tr>
<td>7 Tuberculosis</td>
<td>Prematurity, low birth weight</td>
</tr>
<tr>
<td>8 Trachea, bronchus, lung cancers</td>
<td>Birth asphyxia, birth trauma</td>
</tr>
<tr>
<td>9 Road traffic accidents</td>
<td>Road traffic accidents</td>
</tr>
<tr>
<td>10 Prematurity, low birth weight</td>
<td>Neonatal infections and other</td>
</tr>
</tbody>
</table>

There are also some specific issues related to mental disorders which may lead to under-reporting and underestimation of burden due to mental illnesses. Stigma associated with mental disorders is likely to lead to considerable under-reporting, particularly of events such as suicide. For example, accurate counting of suicides in India has shown that rates are much higher than those reported in routine statistics and that self-inflicted injuries account for a quarter to half of all deaths in young women. Mental disorders are also risk factors for and consequence of other health problems. For example through the contribution of alcohol use to road traffic accidents or liver disease — alcohol use accounts for nearly 4% of the attributable disease burden in LMIC. Another example is the relationship between the mental health of mothers, and birth-weight and child nutrition and health. Studies from South-East Asia Region have demonstrated that maternal depression after childbirth is common, and that it is a strong, independent, risk factor for child growth failure in the first year of life; maternal depression is also associated with an increased risk of child physical health problems and incomplete immunization. Another example is the association of mental disorder and substance use to HIV/AIDS. Mental disorders and substance abuse are risk factors for HIV/AIDS, and mental disorders such as dementias and depression are consequences of HIV/AIDS. Mental illness may also be a major impediment to adherence with anti-retroviral drugs, a key requirement for successful management of HIV/AIDS. In most of the above conditions, the burden is attributed to the physical illness rather than the mental illness which are either risk factors or consequence of the physical illness. Thus, the actual burden and projection of burden due to the mental illness could be much higher than currently estimated.

**High relative burden of psychiatric illnesses in high income countries**

When the top causes of years lost due to disability (YLD) are compared based on income (GNP) of countries, a clear distinction between the LMIC and HIC is evident. In both economic regions, unipolar depressive disorders is the leading cause of disability but the share percentage in HIC is much higher at 14.6% as compared to LMIC (10.4%). This is also true for alcohol use disorders, dementias and drug use disorders. Severe
mental illnesses like schizophrenia and bipolar disorders rank among the top 10 causes in LMIC, though prevalence studies suggest no significant difference in their prevalence worldwide. This increased relative burden of severe mental disorders in the LMIC in spite of their same prevalence in both HIC and LMIC suggest that there is greater representation of these severe mental illnesses and underreporting of less severe mental conditions like depression and anxiety disorders in the sources from which data is collected in LMIC as compared to HIC.

Table 2: Leading causes of YLD in HIC and LMIC

<table>
<thead>
<tr>
<th>Low- and middle-income countries</th>
<th>% of total YLD</th>
<th>High-income countries</th>
<th>% of total YLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unipolar depressive disorder</td>
<td>10.4</td>
<td>Unipolar depressive disorder</td>
<td>14.6</td>
</tr>
<tr>
<td>2 Refractive errors</td>
<td>4.7</td>
<td>Hearing loss, adult onset</td>
<td>6.2</td>
</tr>
<tr>
<td>3 Hearing loss, adult onset</td>
<td>4.4</td>
<td>Alcohol use disorders</td>
<td>5.7</td>
</tr>
<tr>
<td>4 Alcohol use disorders</td>
<td>3.5</td>
<td>Alzheimer and other dementias</td>
<td>5.4</td>
</tr>
<tr>
<td>5 Cataracts</td>
<td>3.3</td>
<td>Osteoarthritis</td>
<td>4.1</td>
</tr>
<tr>
<td>6 Schizophrenia</td>
<td>2.8</td>
<td>Refractive errors</td>
<td>4.0</td>
</tr>
<tr>
<td>7 Birth asphyxia and birth trauma</td>
<td>2.4</td>
<td>Chronic obstructive pulmonary disease</td>
<td>3.5</td>
</tr>
<tr>
<td>8 Bipolar disorder</td>
<td>2.4</td>
<td>Diabetes mellitus</td>
<td>3.4</td>
</tr>
<tr>
<td>9 Osteoarthritis</td>
<td>2.4</td>
<td>Asthma</td>
<td>2.6</td>
</tr>
<tr>
<td>10 Iron-deficiency anaemia</td>
<td>2.4</td>
<td>Drug use disorders</td>
<td>2.4</td>
</tr>
</tbody>
</table>

In spite of these differences, four mental disorders are among the top 10 causes of disability in both these income group countries. Together they constitute about 19% of total YLD in LMIC and 28% in HIC. This wide gap in the percentage share of mental disorders between HIC and LMIC is due to the higher prevalence of non-psychiatric illnesses in LMIC (especially communicable diseases and perinatal and paediatric causes) and the associated burden due to them. This gap is further widened due to the underreporting of mental illnesses in LMIC.

**Progressive increase in share of mental disorder in burden of disease over time**

Comparison of YLD data in the 2004 revision and the 2001 estimates show that the number of mental disorders among the top 10 causes of disability (YLD) has increased from 3 to 4 in both LMIC and HIC. Further the percentage share of YLD has also increased – from 13.3% to 19% among LMIC and 26% to 28% among HIC. This clearly demonstrates the rapid progression of burden due to mental disorders in the share of disability and the need to tackle them as seriously as high-mortality illnesses.

The regional variation in the share of neuropsychiatric disorders in disease burden

Figure 3 depicts the percentage share of neuropsychiatric disorders among all causes of YLD and DALY. The graph suggests that the WHO regions of the world can be clearly divided into 3 categories. The first one consists of Americas, West Pacific region and Europe, where psychiatric disorders are one of the leading causes of burden and disability. Besides psychiatric disorders, other non-communicable disorders and injuries
(both accidental and intentional) are the other major cause of disability. The second category of WHO regions consist of Africa and East Mediterranean region where the communicable diseases and perinatal illnesses are still the prominent causes of death and disability. The third category consists of South East Asia Region and to an extent the East Mediterranean region which suffers a ‘dual burden’ of both communicable and perinatal illnesses as well as increasing burden of non-communicable diseases, especially neuropsychiatric illnesses. This clearly indicates the need for more focus on psychiatric illnesses among the countries belonging to South East Asia Region, which includes India.

![Fig. 3: Percentage share of neuropsychiatric illnesses in YLD and DALY for all WHO regions](image)

### Increased burden of psychiatric disorders on women

Globally, unipolar depressive disorders remain the leading cause of disability for both the genders. However, the percentage share of the disorder among women is much higher than men (e.g. depression: 8.3% among men vs. 13.4% among women).
Table 3: Leading causes of YLD in men and women

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>% of total YLD</th>
<th>Females</th>
<th>% of total YLD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Unipolar depressive disorder</td>
<td>8.3</td>
<td>Unipolar depressive disorder</td>
<td>13.4</td>
</tr>
<tr>
<td>2</td>
<td>Alcohol use disorders</td>
<td>6.8</td>
<td>Refractive errors</td>
<td>4.6</td>
</tr>
<tr>
<td>3</td>
<td>Hearing loss, adult onset</td>
<td>4.8</td>
<td>Hearing loss, adult onset</td>
<td>4.3</td>
</tr>
<tr>
<td>4</td>
<td>Refractive errors</td>
<td>4.7</td>
<td>Cataracts</td>
<td>3.2</td>
</tr>
<tr>
<td>5</td>
<td>Schizophrenia</td>
<td>2.8</td>
<td>Osteoarthritis</td>
<td>3.1</td>
</tr>
<tr>
<td>6</td>
<td>Cataracts</td>
<td>2.7</td>
<td>Schizophrenia</td>
<td>2.6</td>
</tr>
<tr>
<td>7</td>
<td>Bipolar disorder</td>
<td>2.5</td>
<td>Anaemia</td>
<td>2.4</td>
</tr>
<tr>
<td>8</td>
<td>Chronic obstructive pulmonary disease</td>
<td>2.4</td>
<td>Bipolar disorder</td>
<td>2.3</td>
</tr>
<tr>
<td>9</td>
<td>Asthma</td>
<td>2.2</td>
<td>Birth asphyxia and birth trauma</td>
<td>2.3</td>
</tr>
<tr>
<td>10</td>
<td>Falls</td>
<td>2.2</td>
<td>Alzheimer and other dementias</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Depression is the leading cause of disease burden for women in both high-income and low- and middle-income countries. Besides, psychiatric disorders make up 4 of the 10 leading causes of disease burden in low- and middle-income countries, and 5 of the leading 10 in high-income countries in the age group of 15-44 years. Injuries are also important for women aged 15–44 years – road traffic accidents are the eighth leading cause globally, followed by self-inflicted injuries in ninth place. Together all neuropsychiatric conditions are responsible for 22% of global DALYs for women aged 15–59 years.

The high burden of depressive and anxiety disorders among women is due to their higher prevalence among women, the usual ratio being between 1.5:1 and 2:1. These findings have been seen not only in developed but also in a number of developing countries. Many reasons for the higher prevalence of depressive and anxiety disorders among women have been proposed. Genetic and biological factors certainly play some role, as indicated by the close temporal relationship between higher prevalence in reproductive age range which is associated with hormonal changes. Mood swings are related to hormonal changes as part of the menstrual cycle and following childbirth. In fact, depression within a few months of childbirth can be the beginning of a recurrent depressive disorder. Besides, psychological and social factors also play a significant role for the higher prevalence of these disorders among females. There may be more actual as well as perceived stressors among women. The traditional role of women in society exposes them to greater stress as well as makes them less able to change their stressful environment. Another reason for the gender differences in common mental disorders is the high rate of domestic and sexual violence to which women are exposed. Women also bear the brunt of care for the mentally ill within the family. This is becoming increasingly crucial of late, as more and more individuals with chronic mental disorders are being looked after in the community.
In contrast to depressive and anxiety disorders, severe mental disorders such as schizophrenia and bipolar affective disorder do not show any clear differences of prevalence or burden. Substance use disorders and antisocial personality disorders are much more common among men than among women. This is a consistent finding across all the regions of the world. Alcohol use disorder is the second most important cause of DALY among men worldwide.

**Disability according to age groups**

Table 4 shows the age-wise breakup of the percentage share of DALY due to neuropsychiatric disorders to the total DALY (due to all disorders) for various age and gender groups. As stated in the previous section, the share of DALY among females is more across all the income levels when compared to males. However, it is worth noting that if the various age-groups of both genders are compared the significant difference is found in the age group of 16 years and above. There is no significant difference in the age group below 15 years. Further, the percentage shares of DALY due to neuropsychiatric illnesses in the paediatric and geriatric age groups are significantly less than the corresponding figures for the age group 16-59 years. There are various explanations for this gap in the percentage share. One of the reasons could be relative lack of studies on prevalence and disability due to mental disorders in these age groups. Also, communicable and perinatal illnesses could be predominant cause of death and disability in the childhood and other non-communicable diseases more prominent cause of disability in the geriatric population.
Table 4: Percentage share of DALY due to neuropsychiatric disorders in each age group and gender

<table>
<thead>
<tr>
<th>Region</th>
<th>TOTAL (BOTH GENDER)</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TOTAL</td>
<td>0-15 YEARS</td>
<td>16-59 YEARS</td>
</tr>
<tr>
<td>WORLD</td>
<td>13.8</td>
<td>12.4</td>
<td>5.4</td>
</tr>
<tr>
<td>HIC</td>
<td>26</td>
<td>23</td>
<td>21.5</td>
</tr>
<tr>
<td>MIC</td>
<td>16.6</td>
<td>15.5</td>
<td>10.6</td>
</tr>
<tr>
<td>LIC</td>
<td>8.8</td>
<td>8.3</td>
<td>3.5</td>
</tr>
<tr>
<td>SEAR</td>
<td>11.8</td>
<td>11</td>
<td>5</td>
</tr>
</tbody>
</table>

**Intentional injuries**

In the GBD study, intentional injuries consist of self-inflicted, violent, crimes and war and conflict related injuries. Globally intentional injuries constitute about 3% share of total DALY. The DALY due to intentional injuries is worth considering because of two reasons – one, most of these intentional injuries and some violent injuries and death is preceded by psychiatric disorder which is often missed while calculating DALY for that particular condition. Secondly, this kind of burden can be only (and easily) be prevented by the early detection and management of the psychiatric illness causing it. Self-inflicted injuries and violence constitute 1.3% each and war contributes to 0.5% of total DALY. In males the DALY due intentional injuries and all its sub-categories is much more than females (4.6% in males vs. 1.8% in females). This significant difference is due to the higher rate of completed suicides among males, higher prevalence of substance use disorder, antisocial personality disorder and higher involvement in war and crimes.

**Projected burden of disease in 2030**

Global DALYs are projected to decrease from 1.53 billion in 2004 to 1.36 billion in 2030, an overall decline of about 10%. Since the population increase is projected to be 25% over the same period, this represents a significant reduction in the global per capita burden. Inspite of the decrease in the absolute total DALY, the percentage share of all the psychiatric disorders is projected to increase, with the total share of neuropsychiatric disorders is projected to increase from 13% currently to about 17% by 2030. Unipolar depression which is currently the third most important cause of DALY worldwide is projected to become the leading cause of disability by 2030. Non-communicable diseases are likely to account for about 66% of the DALY in 2030, while the share of communicable and perinatal causes will halve from 40% currently to 20% by 2030. Since, psychiatric disorders are often the risk factors and also frequently comorbid with other non-communicable diseases; the overall projected increase in share of psychiatric disorder will be highly significantly. The implication of this is discussed in the subsequent section.
Fig. 4: Ten leading cause of DALY 2004 and projection to 2030

Table 5: Percentage share of DALY due to neuropsychiatric disorders in 2004 and projected to 2030

<table>
<thead>
<tr>
<th>DALY</th>
<th>World (2004) (%)</th>
<th>World (2030 projection) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neuropsychiatric disorders</td>
<td>13</td>
<td>17</td>
</tr>
<tr>
<td>Unipolar depression</td>
<td>4.3</td>
<td>6.2</td>
</tr>
<tr>
<td>Bipolar disorder</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Alcohol use disorder</td>
<td>1.6</td>
<td>1.9</td>
</tr>
<tr>
<td>Dementias</td>
<td>0.7</td>
<td>1.4</td>
</tr>
<tr>
<td>Drug use disorder</td>
<td>0.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Post-traumatic stress disorder</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Obsessive-compulsive disorder</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Panic disorder</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Insomnia (primary)</td>
<td>0.2</td>
<td>0.4</td>
</tr>
<tr>
<td>Migraine</td>
<td>0.5</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Check Your Progress 2

Note:  
(a) Read the following questions carefully and answer in the space provided below.
(b) Check your answers provided at the end of this unit.

1) Differentiate between the leading causes of YLD in men and women.  

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2) Discuss the projected burden of psychiatric disorders by 2030.

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3.6 IMPLICATION FOR DISABILITY STUDIES ON MENTAL ILLNESS

Research and policy-making

The global burden of mental disorders clearly highlights the magnitude of the problem in terms of human productivity as well as social functioning. This huge burden has put mental illnesses in the focus of researchers, clinicians and policy-makers. There has been a surge in the research on the biological basis of the mental illness. This includes genetic and linkage studies, neuroimaging studies, etc. There has also been a surge in the research for pharmacological agents and development of better treatment protocols. The study has also put mental illness in every country’s policy-making agenda at all levels. One of the key accomplishments is that mental illnesses are conceptualized as long-term and often recurrent conditions and the disease management strategies and policies are developed accordingly.

Development of effective intervention

Another impact of the development of disease burden measures on the mental illness is the development of efficacy-effectiveness chain, as these measures provide a way of measuring the effectiveness (impact of treatment in the real world) of the otherwise efficacious (impact of treatment in clinical trials) interventions. An important aspect of this chain is to look at cost-effectiveness of interventions. DALYs provide a common framework for analyzing the cost-effectiveness of various interventions: how much does it cost to avert one DALY for a given condition? Studies have been mounted to gather more evidence on the effectiveness, especially cost-effectiveness of mental health interventions compared with other health interventions.

Generalizability and sustainability of interventions

One of the important revelations from the GBS studies is the universal presence of the mental illness. In every region of the world, the burden due to the mental illnesses was found to be high including the developing regions where till now more significance was put at research and policy-making level on the acute illnesses with high mortality. The implication of this revelation is that health interventions and policy-making need to be tailored to fit the needs of different populations and available health systems resources. Hence, factors influencing the needs and resources need to be studied.

Mainstreaming mental health with public health

Considering the prevalence and burden due to the mental illnesses, there is a need to mainstream mental health into public health. This will help in mental health getting adequate recognition, establishing the priorities and the needs of the society and the health system as a whole.
3.7 LET US SUM UP

Most mental illnesses are chronic and relapsing in nature with very high morbidity but not so high mortality. Epidemiological studies measuring prevalence, incidence and mortality present fairly accurate picture of the condition for acute illnesses, but fail to do so for chronic illnesses. Mental illnesses are burdensome in many ways – suffering, economic, social, and familial.

In order to measure the burden due to various conditions, WHO started the Global Burden of Diseases Study in 1990 in collaboration with World Bank and Harvard Public Health School. The aim was to measure disability of chronic conditions besides the acute illnesses in an Egalitarian way and to create a framework in order to monitor the burden due to diseases. The metric being used is DALY. It measures the year of life spent with disability and lost to death. The results revealed that mental illnesses poses far greater burden than was previously thought. Also, there is progressive increase in their share in all regions of the world and the share is projected to increase in future. Unipolar depression which is currently the 3rd leading cause of DALY globally is projected to become the single most important cause by 2030.

Currently there is a wide gender wise and age wise difference in the share of psychiatric illnesses in DALY. Psychiatric illnesses like unipolar depression and anxiety disorders are the top causes of DALY among women whereas alcohol use disorder and severe mental illnesses along with intentional injuries are the among the most important causes in men.

The overall challenge for public health and medicine is to allocate available resources effectively to reduce major causes of disease burden worldwide and to decrease health disparities between poor and affluent populations. The information regarding the burden of diseases clearly highlights the huge burden due to the psychiatric disorders and calls for steps to control them.

3.8 UNIT END QUESTIONS

1) What is the difference between acute and chronic illness?
2) Why should disability be measured besides measuring death rates?
3) Why is it essential to measure disability rates for mental illnesses?
4) What was the purpose behind starting GBD study?
5) How many and what are the mental illnesses among the top 10 causes of DALY? What is the projected Rank for them by 2030?

3.9 ANSWERS TO CHECK YOUR PROGRESS EXERCISES

Check Your Progress Exercise 1

1) Global Burden of Disease (GBD) refers to the burden of premature mortality and disability for major diseases. The national studies are based on GBD.

2) Disability-Adjusted Life Year(Daly) is a health gap measure which combines information on the impact of premature death, disability and other nonfatal health outcomes. One DALY is almost one lost year of ‘healthy’ life.
3) YLL refers to the years of life lost due to premature mortality in the population and YLD refers to the years lost due to disability.

Check Your Progress Exercise 2

1) Unipolar depressive disorders are the leading cause of disability in both genders but the percentage share is much higher for women. Injuries, including road traffic accidents and self-inflicted injuries are common in women. Anxiety and mood disorders have a higher prevalence rate in women vis-à-vis men.

2) The global DALYs are projected to decrease by 10%. The population increase is projected to be 25% over the same period; this represents a marked decrease in the global per capita burden. But the percentage share of all psychiatric disorders is projected to increase from 13% currently, to about 17% by 2030.

3.10 GLOSSARY

Health (WHO) – it is a state of complete physical, mental and social well-being and not merely an absence of disease or infirmity.

Disease – it is a state of psychological/ physiological dysfunction

Illness – it is the subjective state of the person who feels aware of not being well.

Risk factor – is an attribute or exposure that is significantly associated with the development of a disease and that can be modified by intervention, thereby reducing the possibility of occurrence of the disease or other specified outcomes. Risk factor may be truly causative, predictive or merely contributory.

Impairment – any loss or abnormality of psychological, physiological or anatomical structure or function

Disability – any loss or lack of ability to perform an activity in the manner or range considered normal for a human being

DALY (Disability – adjusted life year) – years of life lost to premature death and years lived with disability adjusted to the severity of the disability.

3.11 SUGGESTED READINGS AND REFERENCES


Mathers CD, Robine JM. How good is Sullivan’s method for monitoring changes in population health expectancies. Journal of Epidemiology and Community Health 1997;51:80-86
