Chapter 15

Advanced Intervention Strategies for Suicide in Patients with Chronic Mental Illness

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ABSTRACT

Chronic mental illnesses are common to find in routine clinical practice and suicide is one of the dreaded outcomes. The concept under defining chronic mental illness has evolved in few decades as now the critical elements for defining the chronic mental illness are psychiatric diagnosis, functional disability, and illness duration. There are various studies on prevalence of suicide and especially in patients with CMI. There is rising trend of research on suicide in patients with psychiatric illness in last decade and found ever over thousand published article in year 2014. This chapter will include literature based on various aspects of suicide including neurobiological factors like neurotransmitters, neural circuits, genetic and epigenetic factors, response on pharmacotherapy and newer generation novel treatment strategies and various psychosocial factors.

INTRODUCTION

Chronic Mental Illnesses (CMI) are common to find in routine clinical practice. The concept for defining chronic mental illness has evolved in few decades. The three critical elements for defining the chronic mental illness are psychiatric diagnosis, functional disability and illness duration. Based on these elements there will be different understanding regarding outcome of CMI. Among various outcomes based on psychiatric diagnosis and associated disability, the most dreaded one is suicide. The great majority of
people who experience a mental illness do not die by suicide. However, of those who die from suicide, more than 90 percent have a diagnosable mental disorder. Suicide has been studied in various populations and attempts were made to understand these above factors mentioned. Based on the projected rising trend of diagnosable psychiatric illness in general population and undoubtedly more indulge of stressful life, the trend of suicide seems to be reciprocative. This concern has been acknowledged and appreciated by service providers since long back but still seems unmatched with current need. There are various Intervention Strategies brought into practice which are broadly grouped as pharmacological, non-pharmacological and novel techniques but two extreme aspects of spectrum which required specific intervention are early detection of suicide risk and intervention in suicide rescued victims. These have been the area of research not only for mental health professionals but also for other medical disciplines like forensic medicine, internal medicine, emergency and trauma etc. This chapter will detail about suicide in CMI, prevalence, burden, factors related to suicide and different advanced interventional strategies as part of management.

**Prevalence**

There are various studies on prevalence of suicide and especially in patients with CMI. According to calculations based on data reported to World Health Organization [WHO] (2015), by its Member States, in 1998 suicide represented 1.8% of the global burden of disease and it is expected to increase to 2.4% by the year 2020. Suicide is among the 10 leading causes of death for all ages in most of the countries for which information is available. There may be differences in statistical data among various dependent variables like age, gender, ethnicity and other sociodemographic profile in suicide epidemiology but at same time it is difficult to draw qualitative analogy among the same. In some countries, it is among the top three causes of death for people aged 15-34 years. Suicide does not just occur in high-income countries, but in fact, 75% of global suicides occurred in low and middle income countries in 2012. In the year 2020, approximately 1.53 million people will die from suicide based on current trends and according to WHO estimates. Ten to twenty times more people will attempt suicide worldwide. This represents on average one death every 20 seconds and one attempt every 1-2 seconds. In India (based on National Crime Records Bureau [NCBR] report, 2014), more than one lakh persons commit suicides every year in the country during the decadal period from 2004 to 2014. The number of suicides in the country during the decade (2004–2014) has recorded an increase of 15.8% (1,31,666 in 2014 from 1,13,697 in 2004). The increase in incidence of suicides was reported each year till 2011 thereafter a declining trend was noticed. The population has increased by 14.6% during the decade while the rate of suicides has slightly increased by 1.0% (from 10.5 in 2004 to 10.6 in 2014).

**Burden**

Mental health conditions are the leading cause of Disability-Adjusted Life Years (DALYs) worldwide and account for 37% of healthy life years lost from Non-Communicable Diseases (NCD). By disease, mental illness will account for the largest share of the economic burden in both 2010 and 2030, just slightly greater than cardiovascular diseases (figure-1). They are followed by cancer, chronic respiratory disease and diabetes.

Among these conditions, unipolar depressive disorder, alcohol use disorders and schizophrenia constitute the greatest global burden in terms of disability (see the Table 1).