ABSTRACT
Primary care physicians have been providing treatment for patients with mental illnesses such as depression and anxiety. It is recognised that they are also pivotal in the prevention and early detection of mental illnesses. This paper summarises primary care physicians’ roles in the promotion of mental health as well as the primary, secondary, and tertiary prevention of mental illnesses.

Keywords: Mental health promotion, mental illness prevention, primary care

INTRODUCTION
It has been estimated that about 450 million people in the world suffer from some form of mental health disorder. In 2010, mental and substance use disorders accounted for 183.9 million DALYs or 7.4 percent of all DALYs worldwide, and it has been argued that this is a significant underestimate. The 2016 Singapore Mental Health Study (SMHS) showed that one in seven people in Singapore has experienced a mood, anxiety, or alcohol use disorder in their lifetime. Compared to the same study done in 2010, there was a slight increase in the lifetime prevalence of mental illnesses. However, the proportion of people with mental disorders who were not seeking help remains high and a significant treatment gap remains.

As such, mental disorders represent an immense psychological, social, and economic burden to society. There are limitations in the effectiveness of treatment modalities for the treatment of mental health disorders, and resources to deliver these interventions. One study suggested that optimal treatment at optimal coverage is only able to reduce the burden of mental illness by 28 percent. Hence, the only sustainable method for reducing the burden caused by these disorders is prevention.

PROMOTION AND PREVENTION
According to the World Health Organisation (WHO), mental health is not just the absence of illness but is rather conceptualised as a state of well-being in which the individual realises his/her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his/her community. Mental health promotion and prevention elements are often present within the same programmes and strategies, involving similar activities and producing different but complementary outcomes.

Mental Health Promotion
The WHO describes mental health promotion as “positive mental health, considering mental health as a resource, as a value on its own and as a basic human right essential to social and economic development”. Mental health promotion interventions vary in scope and include strategies to promote the mental well-being of those who are not at risk, those who are at increased risk, and those who are suffering or recovering from mental health problems.

Mental health promotion aims to promote positive mental health by increasing psychological well-being, competence, and resilience, and by creating supporting living conditions and environments.

Mental Illness Prevention
Mental disorder prevention aims at “reducing incidence, prevalence, recurrence of mental disorders, the time spent with symptoms, or the risk condition for a mental illness, preventing or delaying recurrences and also decreasing the impact of illness in the affected person, their families and the society”. Illness prevention efforts may use mental health promotion strategies as one of the means to achieve these goals.
In the area of mental health promotion and illness prevention, the main arenas for the interventions are often outside of the health setting, such as the schools, communities, and workplaces. Nonetheless, there are significant roles for healthcare as well, and primary care plays a significant part.

What can primary care doctors do?

In 1966, an American family physician, Enelow, wrote that “…the family physician is the nation’s greatest resource for the prevention and recognition of emotional disturbance…” At the time when the article was written, little was known about the development of mental health disorders, and much less about how, and what to promote or prevent. The prevention of mental illnesses was restricted to the early detection of “impending mental disorder” and instituting of treatment to preclude the necessity of treatment in a hospital.

Nowadays, there is greater awareness and evidence of the determinants which have an effect on the onset of mental disorders. Box 1 shows just a few examples of factors that have been found to be related to the onset of mental disorders. The risk and protective factors can be individual, family-related, social, economic, and environmental in nature. These interplaying factors have a cumulative effect across an individual’s lifespan. Interventions are then aimed at counteracting the risk factors and reinforcing the protective ones. Certainly, changes in legislation, policies and resource allocation will improve nutrition, housing, access to education, economic stability, and community network. These go a long way to improve the health, social and economic development of societies, but it is beyond the scope of this paper.

Box 1: Risk and protective factors for mental disorders

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Protective Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child abuse</td>
<td>Literacy</td>
</tr>
<tr>
<td>Chronic pain</td>
<td>Positive parent-child</td>
</tr>
<tr>
<td>Substance use</td>
<td>Self-esteem</td>
</tr>
<tr>
<td>Loneliness</td>
<td>Social support</td>
</tr>
<tr>
<td>Parental mental illness</td>
<td>Stress management</td>
</tr>
<tr>
<td>Stressful life events</td>
<td>Problem-solving skills</td>
</tr>
<tr>
<td>Personal losses (e.g., grief)</td>
<td>Cognitive stimulation</td>
</tr>
<tr>
<td>Chronic insomnia</td>
<td>Exercise</td>
</tr>
</tbody>
</table>

Box 1 shows just a few examples of factors that have been found to be related to the onset of mental disorders. The risk and protective factors can be individual, family-related, social, economic, and environmental in nature. These interplaying factors have a cumulative effect across an individual’s lifespan. Interventions are then aimed at counteracting the risk factors and reinforcing the protective ones. Certainly, changes in legislation, policies and resource allocation will improve nutrition, housing, access to education, economic stability, and community network. These go a long way to improve the health, social and economic development of societies, but it is beyond the scope of this paper.

Primary care in Singapore represents the first point of contact for most patients in Singapore (with 20 Polyclinics and about 1,500 private GP clinics distributed all over the island). Just like in the USA in 1966, primary care doctors in Singapore represent one of our greatest resources in promoting mental health and preventing mental disorders.

The domains of prevention lie in primary, secondary and tertiary prevention, all three of which are applicable in the primary care setting. However, it is primary prevention where the role of the primary care doctors is greatest.

**PRIMARY PREVENTION**

1. **Screening and early detection of psychiatric disorders**

Primary care doctors can consider using a biopsychosocial approach during consultations. They should also be skilled, confident, and comfortable in dealing with patients with mental health problems. Patients with depression, for example, may present with somatic complaints such as headaches, back pain, and fatigue. They may request for medical leave or volunteer information about difficult life transitions during the consultation. The majority of patients with anxiety disorders also tend to seek help at the primary care level first. They may present with recurrent non-specific physical complaints despite thorough investigation and reassurance by their doctors.

2. **Identifying those at risk**

   * Patients with chronic medical conditions

   Patients with chronic medical conditions, especially those with pain symptoms and functional impairment are at risk for developing depressive illnesses as well as suicide. A recent study published in 2017 showed a link between physical health conditions and suicide risk, ranging from a moderate association between the most common conditions such as hypertension and back pain to significant risk among patients with HIV/AIDS, sleep disorders, or the presence of more than one physical condition (e.g. both asthma and diabetes).

   Many of these patients with a chronic condition would have frequent reviews with primary care doctors. As such, the doctors are encouraged to enquire about common mood and anxiety symptoms as part of their routine assessment.

   Cardiovascular risk factors can lead to dementia, so adequate management of metabolic conditions such as hypertension, diabetes mellitus, dyslipidaemia and obesity is preventive.

   * Patients with depression and suicidality

   Depression is the most common mental health disorder in Singapore. Clinicians need to be skilled at diagnosing and assessing the severity of depression, as well as a suicide risk.

   Primary care doctors can also consider the use of suicide risk screening tools when interviewing patients. Currently, there is no standardised suicide screening tool used in primary care to assess suicidality. The Columbia Suicide Severity Rating Scale (CSSRS) has been shown to be a good and feasible tool to be used. Such instruments can help guide the doctor in directing their patients to the right level of care (e.g., outpatient referrals
or immediate conveyance to a hospital emergency service).

c. Caregivers

Caregivers of the chronically ill and the elderly are at increased risk of high levels of stress which may lead to depression. Primary care doctors often have a good relationship not just with the patients, but also with caregivers. They are well-placed to detect and identify any caregivers who may have difficulties coping with providing care for their loved ones. Psychoeducational interventions for caregivers have shown significant improvements in caregiver burden, depression, subjective well-being, and perceived caregiver satisfaction. Again, primary care doctors can refer to community partners such as Family Service Centres (FSCs) to provide emotional support for caregivers.

d. Other at-risk groups

These include:

- Persons from socially deprived homes or neighbourhoods
- Broken families and single-parent families
- Families with violence or spousal/child abuse
- Women with three or more young children
- Children with learning difficulties and/or behavioural problems
- Persons who are facing retrenchment, retirement, bereavement, or transitions
- Persons with loneliness, social isolation, or lack of social connectivity
- Young adults who may have eating disorders, suicidality, or substance abuse
- Transient migrant workers who face cultural and other adjustment difficulties

Paying attention to the psychological and emotional wellbeing of these at-risk groups will allow the primary care doctors to identify their problems early and refer them to the appropriate social agencies where needed.

3. Nutrition and Lifestyle Factors

There is emerging evidence on the association of diet and nutrition with the genesis and progression of common mental disorders (e.g., food that is considered high-fat, high-sugar may lead to inflammation and oxidative stress in the brain). These processes reduce proteins, such as brain-derived neurotrophic factor (BDNF), and impact on synaptic plasticity, learning and memory. Lifestyle factors such as smoking, alcohol use and physical exercise also affect mental health symptoms. Smoking, in patients with mental disorders, is associated with an increased likelihood of suicide, worse treatment outcomes and a poorer prognosis. Physical inactivity also increases the risk of depression, and correspondingly, exercise and physical activity has been shown to have beneficial effects on depressive symptoms. A recent meta-analysis suggested that exercise reduces depressive and anxiety symptoms in non-clinical population as well.

Besides regular physical exercise and other activities that promote physical movement, it is also important to encourage patients to cultivate friendships and schedule social/pleasurable activities as these helps to manage stress and relieve depression.

Promoting good sleep practices in patients is another area that primary care doctors can pay attention to. Adequate sleep helps in mental resilience, is a buffer against stress and is vital for cognitive functioning such as memory.

Primary care doctors should be aware that certain medications to treat medical conditions can lead to psychiatric disorders (e.g., Vitamin B12 deficiency from the use of anti-glycaemic agents) that can cause depression. In an affluent country like Singapore, there are still persons with poor nutrition and even malnutrition due to dietary restrictions. Elderly patients are prone to this due to lower meat intake, which leads to a lack of protein and essential vitamins.

4. Perinatal care

Good prenatal screening and care will lower the incidence of mental conditions arising from perinatal complications. Primary care doctors should encourage folate intake as there is much evidence of it being effective in prevention of neurological conditions in the foetus. Adherence to immunisation schedules is important in the prevention of neurocognitive disorders arising from complications in infections such as measles.

Screening during early childhood carried out by primary care doctors can identify in a timely manner, developmental problems such as autism and learning disorders, which can be referred for further assessment.

5. Occupational health

Primary care doctors who do occupational health can also consider screening for mental wellbeing. Burnout is common in many employees due to the pace, demands and changes in the work environment. Factors such as intolerable heat or noise can also be stressful. Primary care doctors involved in occupational health are able to make the necessary recommendations to improve the physical environment for workers.
SECONDARY PREVENTION

Adequate training will enable primary care doctors to treat mild to moderate severity of psychiatric conditions in their practice. Simple measures such as supportive therapy and stress management would suffice for most mild anxiety or adjustment disorders. Basic psychopharmacological therapy can be initiated by primary care doctors. By managing these conditions early in the community, primary care doctors prevent them from getting more difficult to treat, and the patients from developing complications arising from their mental illness.

Family engagement by the primary care doctors is sometimes needed, as well as referral to community resources. The doctors should take note of risk factors (e.g., debts, stressful life events) or absence of protective factors (e.g., social support, housing). If the doctor is not able to address these factors directly, he/she can refer to community partners through the Agency for Integrated Care (AIC), which can help to link patients up to services in the community such as Family Service Centres, Eldercare Service, etc.

TERTIARY PREVENTION

As mental illness is often chronic and recurring, primary care doctors play an important role in relapse prevention. Cognitive deficits and social and/or vocational impairment arise from recurrent episodes of depression or psychosis, so reducing such recurrence will help prevent disability and complications. One useful intervention to achieve this is by encouraging medication adherence.

For those patients on antipsychotic medication or mood stabilisers and are being followed up by primary care doctors, screening for metabolic syndrome as well as safety monitoring for side effects and toxicity need to be regularly done.

CONCLUSION

When Dr Enelow concluded his essay in 1966, he made several predictions, one of which was that “…the family physician [of the future] will prevent many of the instances of progression to chronic psychiatric illness with which we are now plagued…” Mental health promotion will improve patients’ quality of life, reduce illness (both mental and physical), and will literally save lives through suicide prevention. Preventive strategies can be tailored to individuals and their families to help change behaviours, either directly or indirectly. Such person-centred care can reduce risk factors and enhance protective factors associated with mental ill-health. Primary care doctors can also be strong advocates for mental health in pushing for adequate resources and accessible services for their patients. Finally, primary care doctors play a vital role in mental health education for the community and along with this, the de-stigmatisation of mental illness.

REFERENCES
