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Depressive and Anxiety Disorders In The Community – Reflections From The Hong Kong Mental Morbidity Survey 2010

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Before I start I would like to thank the Mental Health Association of Hong Kong for giving me this opportunity to share with you the reflections of the findings of the Hong Kong Mental Morbidity Survey (HKMMS). This is the first time that I've publicly talked about the results of this particular study because the final report has just been accepted by the research office of the Bureau two weeks ago. So thank you very much for giving me this opportunity.

I would like to start by giving acknowledgements because this is a big project. If you could believe me, the completion of this particular study is the work of a very big team and with a lot of miraculous things happening in the past few years.

The commissioned study was funded by the Health Services Research Fund of the Food and Health Bureau of the Hong Kong Government. Also, we would like to thank Kwai Chung Hospital especially Dr. Lo for giving us the space and the office for three years so that the team can house their office during all the field work studies – very, very important – thank you Dr. Lo. And I would also like to thank the selected households and the participants for the study.

It is a consortium of the efforts of many field investigators, academics and also experienced technicians in Hong Kong. The directors of the British Psychiatry Division are also part of our team and Professor Jim van Os, an experienced academic in the world of psychiatric research.

The field investigators are all psychiatrists who worked entirely outside their work hours to do these two studies. They are psychiatrists from different hospitals in the territory. It is not just a single person, but many, many peoples' work. The research staff actually and we have a small team of what we call research assistants and they work late for 24 hours a day, seven days a week or whenever the participants can come, and they come any time.

The objective of my brief talk here is to utilize some of the findings of the HKMMS, which we called it, to see how big is the problem of depression in the Hong Kong community. Is it as serious a problem as what we think? And is depression potentially preventable? I don't intend to answer these questions, I just want to show some of the findings so that we can have some impressions.

The Problem of Mental Disorders

First of all this is very familiar in Hong Kong about mental health; we all know about it for many decades. Mental disorders increase the risk for both communicable and non-communicable diseases, not only for mental disorders themselves. They contribute to unintentional and also intentional injury. They are not about self-harm and suicide all the time, but many patients with mental disorders

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have all kinds of accidents, as they are prone to develop accidents. Also they have co-morbidity with physical health problems.

The presence of mental disorders with physical health problems actually complicates help-seeking, diagnosis, treatment and prognosis. The pathway to care as mentioned by Professor Bhugra is greatly influenced by a person's cultural background. We do not have time to talk about mental care here in this brief talk, I just want to tell you that it's very complicated if you have more physical and mental problems. Mental problems contribute to the most disability-adjusted life-years.

Mental health problems also contribute to mortality, not only suicide but other mortalities. Neuropsychiatric disorders account for 1.2 million deaths every year from accidental death, non-accidental death and also physical death. And just a rough estimate is 800,000 people commit suicide worldwide every year – this was about ten years ago – now this is different. Many, many people have deaths attributable to psychotropic and alcoholic substance use.

World Mental Health (WHO) Survey

This is a very important problem. How big is the problem and how many people suffer from mental health problems? From the World Mental Health Survey conducted by Kessler using CIDI (WHO Composite International Diagnostic Interview) over many, many countries, at least over 15% of the general population, that is one sixth or one seventh of the general population suffers from some forms of mental disorders. How many people here in this theatre – 500 or so – we can count 70 to 80 would have a diagnosable mental disorder. It is a prevalent problem which is as prevalent as flu these days. Now, similarly, we can have mental problems. If I ask you, just upon your heart, do you think that you have at least generalized mental disorder? I will raise my hand.

Lifetime prevalence of mental disorders ranges significantly across different cultures, depending on the methodology. Even in the same city estimates have wide ranges, but at least I just want to show you the lowest estimation is 18% so it is a really a very prevalent problem. Anxiety disorders are about 5%, mood disorders and depression about 3%, substance use disorder 1.3%, any mental disorder 12 to 47%. So the range varies very significantly.

I was in the Netherlands a few months ago. A psychiatrist told me that they had just completed their studies. It's about 45% prevalence of mental disorders in the Netherlands. Of course you can think that substance abuse is so common. If you count substance abuse, the prevalence is a lot. There are a lot of cultural issues in terms of psychiatric epidemiology.

Psychiatric Morbidity Survey

I would like to talk about the UK's Psychiatric Morbidity Survey because the methodology of this survey is the method that we adopted for the Hong Kong Mental Morbidity Survey. For the UK's Psychiatric Morbidity Survey already three surveys have been conducted to evaluate psychiatric morbidity among adults living in private households, in 1993, 2000 and 2007. I understand the fourth one is now underway.

This UK survey is the first one of the WHO World Mental Health Survey that is a two-phase approach. The two-phase approach is to give special focus on significant psychiatric diagnosis. The CIDI, the WHO1 is a one-stage process – it is more intensive. This one is probably more effective in terms of identifying significant psychiatric diagnoses. The Revised Clinical Interview Schedule is a grand theory approach of structure to assess common mood symptoms, generating ICD10 diagnoses of common mood disorders.

So in the case of Psychiatric Morbidity Survey in 2000 – I just want to show you depression – the rough prevalence is about 5%, the mixed anxiety and depressive disorder is about 8.9%, and the generalized anxiety disorder is roughly 5%. For this study I will focus on depression. I just want to say that about one sixth of the respondents of the UK survey suffered from common mental disorders at any one time. The one-week prevalence of common mental disorders from the UK survey is about one sixth (Figure 1).

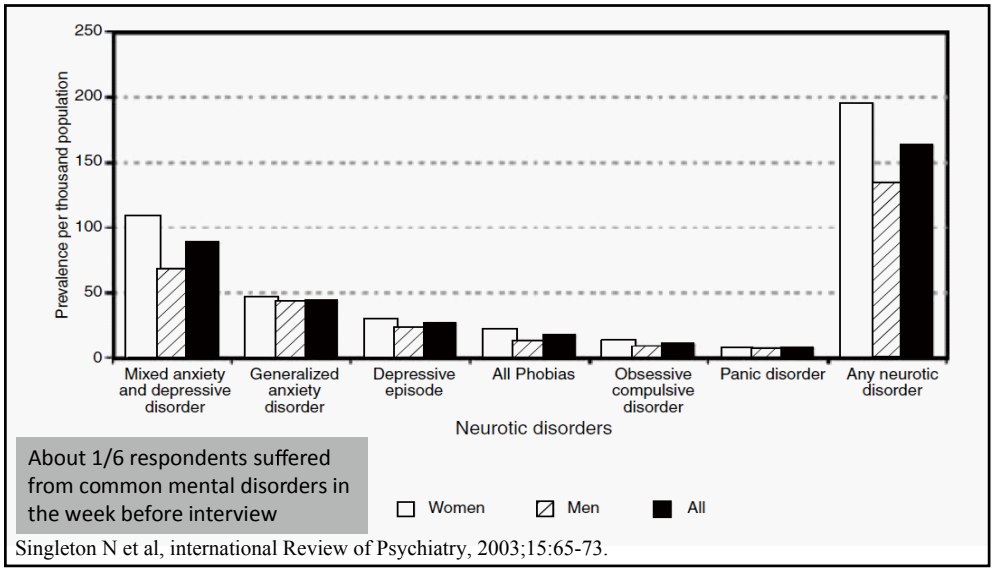

Figure 1: UK Psychiatric Morbidity Survey in 2000

Community Epidemiological Study in Hong Kong

So how about other places? Coming back to our community, epidemiological studies in four provinces in China. There are many epidemiological studies conducted in China. I just want to highlight this one because it used the SCID interview schedule for the DSM-IV. So the one-month prevalence of any mental disorder was about 17.5%, depressive disorder 6%, anxiety disorder 5.6%, substance abuse disorder 5.9%, and psychotic disorder 1%. So generally using different methodologies, the prevalence is similar.

For Hong Kong the first population survey of mental disorder was conducted in 1984 by Professor CN Chen at the Chinese University of Hong Kong. The catchment area at that time was the Shatin District of Hong Kong, so his team needed to meet over 7,000 community subjects with a Diagnostic Interview Schedule III generating DSM-IV diagnoses, DSM-III diagnoses. The overall prevalence of any psychiatric disorders was about 19.5% in men and 18.3% in women. This prevalence included the record use so you have a little bit of adjustment. So it's slightly higher than we expected. But at least the message here is that even 30 years ago the prevalence of mood disorders and any psychiatric conditions was not low. It has been prevalent and it is a common problem all the time, at least in the history that we are aware of in Hong Kong.

How about in the 2000s? 10 and 15 years in the past, we did not have any door to door psychiatric survey. A telephone survey was conducted by Lee. He conducted a couple

of telephone surveys and one was about depression. Using the DSM-IV diagnoses, he interviewed over 5,000 adults on the prevalence of Major Depressive Episode. The 12-month prevalence of Major Depressive Episode was 8.4% and the risks associated with being a woman and unemployment. One third of the respondents said they had frequent thoughts of suicide. So it was a significant problem.

The Hong Kong Mental Morbidity Survey

So with my time about the Hong Kong Mental Morbidity Survey. This is the first territory wide prevalence study of mental disorders in Hong Kong, locally designed. The objectives of the HKMMS is first to estimate the prevalence of significant mental disorders. We do not have the resources to do all mental disorders. We just go for some significant medical disorders in the community of Hong Kong. We want to estimate the functional impairment, the psychosocial status, and physical co-morbidity. We also evaluate a little bit about the extent and nature of service use. The other parts are about psychosis risk states and the risk factors. And we also collect some information on possible protective factors for mental wellbeing.

The survey was started in 2010 and completed in 2013. We adopted the two-phase design with reference to the framework of the Adult Psychiatric Morbidity Survey in the UK. We successfully interviewed 5,719 adult participants, from 16 to 75 years of age (Figure 2). We generated address codes from the Census and Statistics Department and sent letters of invitation for interviews. We sent many letters and successfully interviewed 5,719 participants. Each person, one person per household to make it more random. This is the Phase 1. I am going to present to you the Phase 1 results about depression.

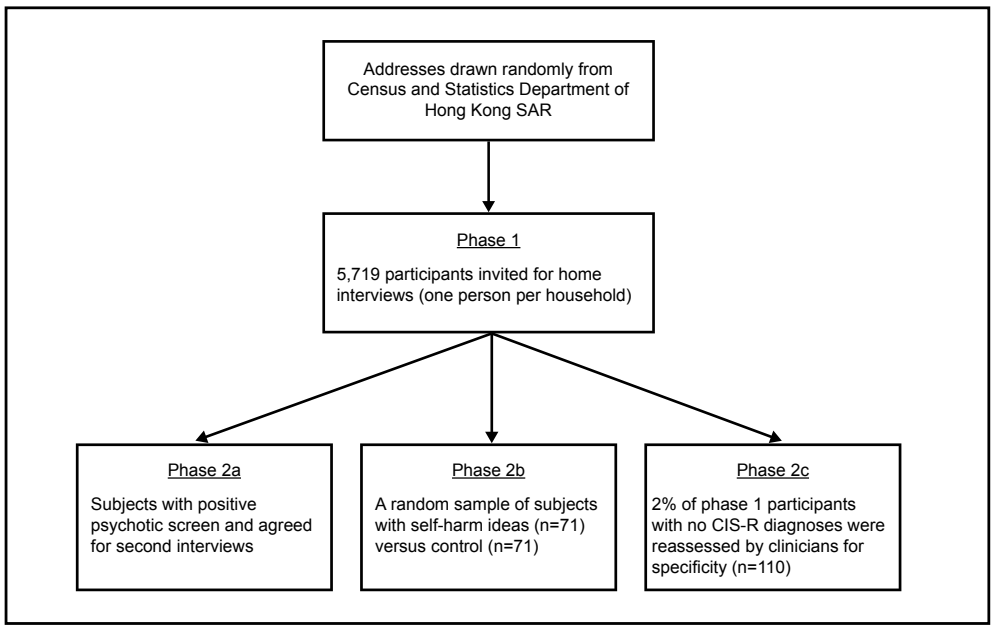

Figure 2: Hong Kong Mental Morbidity Survey – Flow of participants

We also have a Phase 2 study. Phase 2 study is first a specificity check, of the specificity of the instrument that we use in Phase 1 so that we can adjust the prevalence. Phase 2A is about psychosis – assessment of the at-risk psychotic state. Phase 2B is about suicide – the pattern of the cognitive state of people with suicidal ideas.

So what are the major findings on the depressive disorders within HKMMS? The prevalence, the weighted prevalence, the weights were applied to age, gender and the type of housing because these three things we found to affect prevalence. So the one-week weighted prevalence of any ICD-10 diagnosis for common mental disorder was 13.3%. So it's about 13, one-seventh to one-eighth of the general population has common mental disorders one week in the assessment. Mixed anxiety and depressive disorders about 6.9%, generalized anxiety disorders 4.2%, depressive episode 2.9%, and other anxiety disorders 1.5%.

As you might expect, women have a higher prevalence of common mental disorders. Across all age groups, women have a higher risk (Figure 3). How about their age? Interestingly a major depressive episode was probably more common from middle age onwards, whereas mixed anxiety depressive disorder was more common in the younger age groups. So there is an interesting difference in symptomatology (Figure 4).

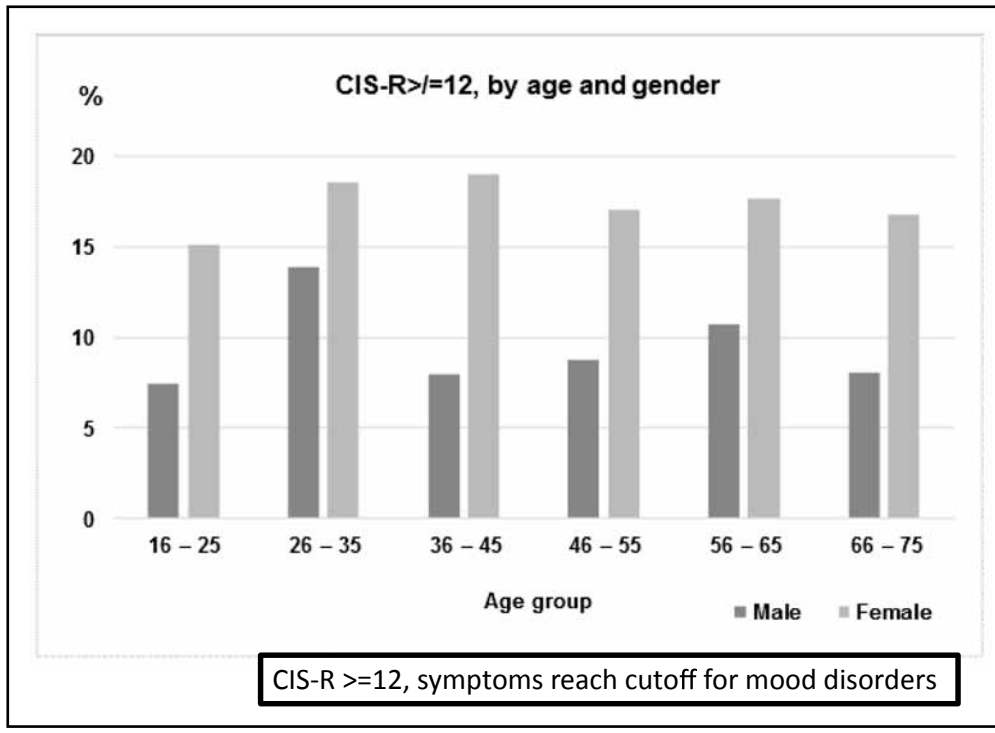

Figure 3: Common Mental Disorders by Age and Gender

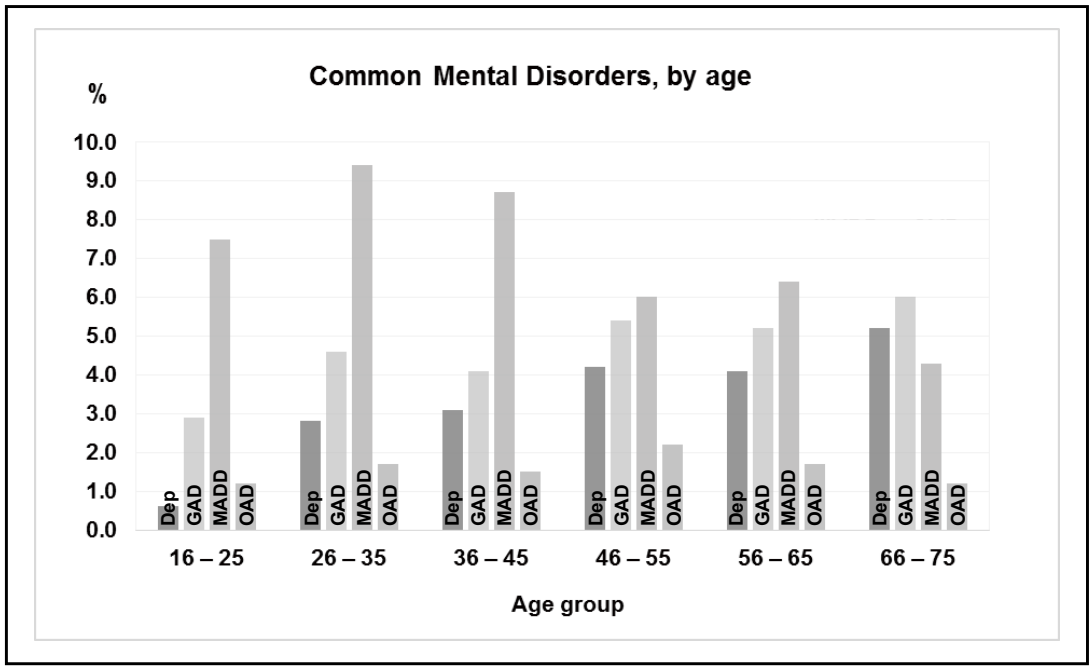

Figure 4: Common Mental Disorders by Age

In terms of psychosocial functioning, we use the Social and Occupational Functioning Assessment Scale – 100 is the best. And the mean for normal in our population in these particular HKMMS participants is 84, so it's quite high. Those with depressive disorder, the function is 58, and those with mixed anxiety and depressive disorder is 77.

It is roughly 70% who have some forms of psychosocial disturbance which is noticeable, which would affect your functioning but not to the extent that you are greatly, greatly impaired. For patients with chronic schizophrenia it is roughly 50 to 60%. So those with major depressive episodes, their psychosocial functioning is not that very much better than a patient with chronic schizophrenia which is in partial remission. The average SOFAS score for an outpatient of a psychiatric clinic, outpatient attendance with mood disorders is about 70%. So we can have a rough idea.

These are the characteristics of the varied logistical questions that we conducted (Table 1). I will just highlight the important and significant core results for depression. Being divorced, separated or widowed has a high risk of depression; being unemployed and having financial difficulties and also a family history of depression, having a chronic disease burden, and also a higher number of life events cause major depressive episodes.

Table 1
Characteristics Profiles of MDD and MADD

	Dep	MADD
	AOR (95% CI)	AOR (95% CI)
Age	0.98 (0.96 – 1.00)*	0.96 (0.95 – 0.97)***
Gender		
Male	1.00	1.00
Female	-	2.15 (1.66 – 2.79)***
Marital status		
Single	1.00	1.00
Married/ Cohabit	-	1.58 (1.13 – 2.19)*
Divorced/ Separated	2.55 (1.32 – 4.92)**	0.83 (1.17 – 2.86)*
Widowed	2.97 (1.34 – 6.54)**	-
Working status		
Working	1.00	1.00
Unemployed/ Not working	3.72 (2.30 – 6.03)***	-
Financial difficulty (Yes)	3.39 (2.32 – 4.95)***	1.92 (1.49 – 2.47)***
Family history of mental disorders (Yes)	1.72 (1.12 – 2.65)*	-
Substance dependence in past year	-	1.95 (1.14 – 3.34)*
Chronic physical illness[a]	1.37 (1.27 – 1.48)***	1.22 (1.15 – 1.29)***
Number of life events[b]	1.22 (1.11 – 1.33)***	1.17 (1.10 – 1.25)***

For mixed anxiety and depressive disorders, the younger age group is at higher risk, and being a woman has a higher risk. Marital status is not very significant. Other risk factors included financial difficulties, chronic disease burden as well as substance abuse, substance dependence, and number of stressful life events.

The difference between Major Depressive Disorder and Mixed Anxiety and Depressive Disorders is in the marital status and the age. In Major Depressive Disorder, family history is important. And in Mixed Anxiety and Depressive Disorder, younger age group, substance dependence and other psychosocial risks are important.

Is Depression Preventable?

So is depression potentially preventable? Can we make use of the data to consider something? With further analysis of factors associated with absence of mood symptoms – what happens, what effect is associated with a low rate of psychological distress? We identified a group with a low level of psychiatric mood symptoms. They had a CIS-R score of less than 5, so they were quite

good in terms of mood complaints. They were not diagnosable; they did not have psychiatric diagnosis but they had some symptoms. So comparing this group we found that age has affects – the older you are, the more likely that you have a better mental state. Education has some influence, especially higher education.

To summarize, the associated factors of low symptoms level include say, if there is absence of or low very financial difficulties, if we are financially more stable, fewer stressful life events, less physical illness burden, better social support and regular physical exercise (Table 2).

This is what you think of as common sense, everybody knows about it. But then you have to have some figures to convince you that this is positive. I would like to highlight that we can make use of the data to think about mental health promotion (Figure 5).

Table 2
Factors associated with absence of mood symptoms

	CIS-R score groups (<5 versus 6-11)
	AOR (95% CI)
Age	0.97 (0.95 – 0.98)***
Gender	
Male	1.00
Female	1.92 (1.54 – 2.40)***
Education year	1.01 (0.98 – 1.03)
Marital status	
Single	1.00
Married/ Cohabited	1.19 (0.91 – 1.57)
Divorced/ Separated	1.23 (0.79 – 1.90)
Widowed	1.63 (0.94 – 2.83)
Working status	
Working	1.00
Retired	0.98 (0.67 – 1.44)
Housewife	0.87 (0.62 – 1.24)
Student	0.80 (0.51 – 1.26)
Unemployed/ Not working	0.94 (0.61 – 1.44)
Financial Difficulty (Yes)	2.02 (1.56 – 2.63)***
Chronic physical illness burden[a]	1.30 (1.21 – 1.40)***
Number of life events[b]	1.16 (1.09 – 1.23)***
Regular exercise habit (Yes)[c]	0.73 (0.58 – 0.93)*
Social support[d]	0.97 (0.96 – 0.98)***

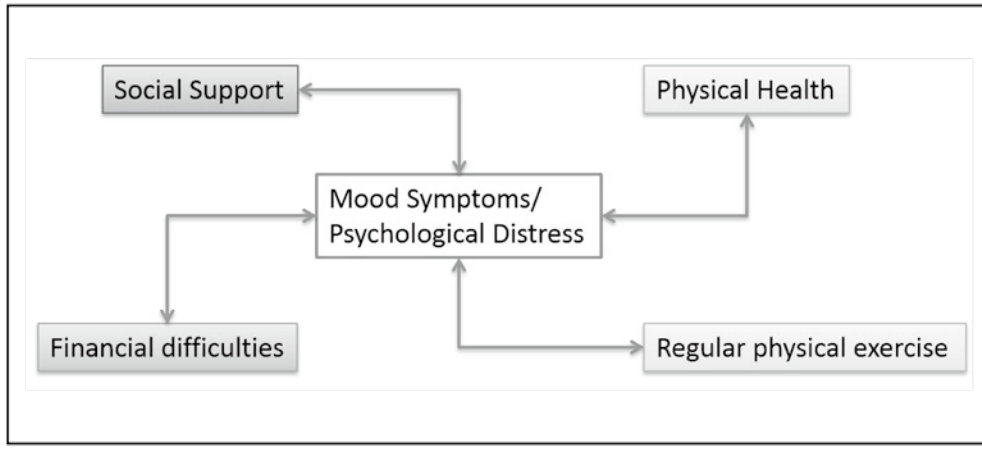

Figure 5: Mental Health Promotion

We know that mood symptoms and psychological distress, whether we approach it from the diagnostic point of view of depression or whether we approach it from the other end of the perspective being associated with low symptom levels, social support is important especially if you want to maintain a person with low symptom level. Social support is important, and good social support actually is very helpful. Financial difficulties are a very stressful thing that may tip the balance.

But more importantly, if we talk about global promotion in terms of mental health and potentially modifying the factors for depression. How about physical health? Physical health is something tangible and we can manipulate physical health more easily because people may not be aware of their physical health problems. If we have early detection and early care of physical health problems, some depressive disorders might be preventable, but not all.

Regular exercise, physical exercise stands out to be an associated factor for very low symptom level. Whether it is a chicken or an egg, whether you don't want physical exercise or whether you feel less depressed, or when you are depressed you are not doing exercise. It is very arguable, but there is much evidence that suggests that very good physical activity is good for your mental health.

So how many of these factors, common sense factors, could be transformed into interaction or promotional, mental health promotional strategies? It really depends on our efforts.

So in summary, depressive disorders were common in Hong Kong 30 years ago and also now. They may differ in symptomatology in different age groups. From the findings of the HKMMS we find that younger population is more mixed in terms, having mixed depressive anxiety symptoms, whereas the older population has more pure symptoms, either mental anxiety disorder or depressive disorder, the symptoms are more pure. Depressive disorder especially if pure affects your everyday functioning significantly. It is associated with physical health problems as well as abusive psychosocial situations and probably you are to consider this as an important health agenda.