

## **How does the way we think about Schizophrenia influence the way we treat our patients\***

**Professor Sir Robin Murray**

Professor of Psychiatric Research  
Institute of Psychiatry, Kings College  
Strand, London

It is very good to be here, and I am pleased to give this lecture for many reasons but particularly because, firstly, when I was a young psychiatrist, one of the very few names of Asian psychiatrists I knew was Professor Yap. He was famous for having described culture-bound syndromes. When we sat our exams to become a member of the Royal College of Psychiatrists, you needed to know about the work of Professor Yap, so I have known about his work for very many years, and of course I know from coming to Hong Kong of his big role in establishing the university and of his work at Castle Peak and also in the community.

The other reason I am pleased to come is because you are the Mental Health Association of Hong Kong and one knows how important it is to care for people in the community, probably a lot more important to take care in the community rather than in psychiatric hospitals. It is quite easy to treat patients in hospitals. It is much more difficult to keep them well in the community.

### **What is Schizophrenia?**

This is a picture of ladies at a wedding in Scotland in the early 1970s. This is me and my

girlfriend at the time. I probably shouldn't show it to you because you may think these ladies are badly dressed. Maybe you think that Scottish people are always badly dressed. These ladies were from the mental hospital because this was the wedding of one of the occupational therapists. She was a very enthusiastic lady and she decided to invite some of the patients from the hospital to her wedding. This alarmed her mother and she was very worried about this. But they came and actually behaved better than the ordinary people who came to the wedding. They didn't get drunk, they didn't have any arguments, and they were very nice. But you can see that they all are a bit institutionalised, and if you look at their hands, you can see that they are all sort of tightly clenching, which you used to see with high doses of anti-psychotics. This is the way people appear who are on too much anti-psychotics.

Many of you have probably never seen this because of more modest doses of anti-psychotics today. In those days people were given too high doses of anti-psychotics. Schizophrenia was thought to be a discrete disease for which it was thought to be just one treatment, which was anti-psychotics. If people didn't respond to the anti-psychotics, what did you do? You gave them more, bigger doses.

We now know this was quite foolish. In those days people thought that schizophrenia was a genetic brain disease. This is a picture of a very famous geneticist called Elliot Slater, who believed that schizophrenia was caused by a single gene. He thought that all of us, ordinary, normal people, do not have a schizophrenia gene but one per-cent of the population has such a schizophrenia gene which is expressed and causing the schizophrenia. You get the gene and you get ill.

At that time there was a lot of reaction to this, as psychiatry in Britain was thought to be authoritarian and there was a reaction to this view. There were all of us normal people and then there were people with schizophrenia. They had a gene for schizophrenia and the rest of us did not. We were very dissimilar from schizophrenia people.

There were anti-psychiatrists. One of the most famous British anti-psychiatrists was a man called R.D. Laing, who said that genetic factors are not important. He said that psychotic people are not different from the rest of us. The things that worry the rest of us like having an enjoyable job, having a family, having a girlfriend, having a nice time, he said that these are the same things that worry people with schizophrenia. They are not categorically different from the rest of us. The experience and behaviour of people with schizophrenia is much more intelligible and understandable than has come to be supported by psychiatrists.

So there were two extremes. The biological psychiatrists who said that it is just a brain disease, so give patients anti-psychotics. And there were the social anti-psychiatrists who said it is not genetic, it is not biological but just a sort of deviation. Of course, both of them went too far. Slater thought it was too medical and Liang and his colleagues ignored the role of genetics. We now know that there is a genetic component. But it is not like Slater thought.

### **Genetics of Schizophrenia**

From 2002 we began to identify genes. People find genes for everything. Genes for diabetes. Genes for intelligence. Actually one of the very important genes is that there are genes which prevent people from sitting in the front of lecture theatres. Everywhere you go people have this gene. People start by sitting at the very back, but as you grow older this gene is not so expressed, and once you become a professor this gene is not so active so you can sit at the front.

Genes have been blamed for lots of things, and genes have also been identified for schizophrenia. One big gene – you get this gene and you get schizophrenia. It is not like that at all. There are lots of tiny little genes. It is a bit like intelligence or height. Why are some people tall and some people short? For genetic reasons to a considerable extent. There are lots of little genes that cumulatively act together to cause you to be tall. And it is much the same for schizophrenia, lots of little genes. There is a very famous risk gene for schizophrenia, and if you carry this gene, instead of your having a 1% chance of developing schizophrenia, you have a 1.1% chance. It is not even double your risk; it is a tiny increase. So you need to have lots of these little genes. Slater was wrong to think there was just one gene. The anti-psychiatrists were wrong to think there was no genetic contribution but Slater was also wrong in thinking there is just one big gene because there are lots of little genes.

Recent studies in the journal *Nature* show there may be 40 risk genes reported for schizophrenia. The biologists got very excited about this, many saying, "Oh, genes are causing schizophrenia". There must be at least 100 of these genes. It's difficult to know. If you have a big gene which causes an illness like cystic fibrosis, you can try gene therapy because if there is just one gene, you can try and alter the

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affect of that gene. Some of you are into learning disorders so you must come across phenylketonuria. You give people a diet deficient in phenylketonuria and you can counter-act the affect of the gene. But if there are 100 genes all doing different things, it is difficult for the drug companies to say, "We will try to target this gene and develop a drug". It has been a bit of a problem.

The other question is, "If there are all these little genes, do the rest of us carry them?" Do you and I have schizophrenia genes? The answer is Yes. This is very nice for patients to know, I think. Patients used to think, "I have schizophrenia so I am different from the rest of you. I am genetically a mutation." Patients hated this, at least in Britain. Patients did not like the idea that they had a gene which messes up their brain and causes them to develop schizophrenia. So it is nicer for patients to think that the genes involved in schizophrenia are genes which are involved in normal brain function. Usually these genes are advantageous and helpful in our normal brain function. It is just that you get an unfortunate combination of them. Most of us have susceptibility genes for diabetes or coronary artery disease, but you probably will not express the asthma gene unless you live close to a motorway. And the diabetes gene will not express itself unless you get very fat.

It is the same with schizophrenia. Lots of us are carrying around some genes for schizophrenia but unless nasty things happen to us environmentally, we will not express these genes. We think there are more than 100 genes involved, and this is much more compatible with the idea that liability to psychosis is distributed through the normal population. Schizophrenia is just severe psychosis, at least in my view. It is just that these people have a greater number of the genes which together contribute to schizophrenia. It is not that the rest of us have none of these genes. It makes us think that people with schizophrenia are not

like men from Mars. They are a bit like the rest of us, and we should think about them and relate to them in a way that we would relate to people who do not have psychiatric disorders.

### Nosology of Schizophrenia

Apart from the delusions and the hallucinations, most of the time most people with schizophrenia are quite sensible. Sometimes people think that this is a dimension, that it is not like a proper medical disorder. If you think about medical disorders, lots of medical disorders are at the end of a distribution. For example, obesity. At what point does somebody become obese? It is not as if you have 99% of the population is not obese and one person is fat. You have a distribution from the very thin people to the ordinary people, to those people who are a little bit fat, to those people who are moderately fat, to those who are obese. And similarly for anaemia. It is not that at a certain point of the dropping of the haemoglobin you become anaemic. It is a distribution or hypertension or blood pressure. It is not that the normal population walk around with a particular blood pressure and people with hypertension are totally different. There is a distribution. So, for example, in these medical disorders we think there is a normal distribution and we put the cut-off point, rather artificially, at the level at which we think you need treatment. For example, for hypertension, for high blood pressure, at least in Britain, a diastolic blood pressure greater than 19 millilitres of mercury is the level at which we say, "Well, this is hypertension and we will treat it". But it is not as if having a blood pressure of 91 is very different from 89. Everybody knows it is a dimension.

The trouble with schizophrenia is that we think it is an absolute category, and we get psychiatrists having very silly arguments in court as to whether someone has schizophrenia or not. A psychiatrist will be hired by the defence and will say that this person definitely

has schizophrenia. They will say that this person definitely was not in control of his actions at the time because he has this disease called schizophrenia, and you hold him responsible for his action. Then the prosecution will fish around and find another psychiatrist who is prepared to deny that the person has schizophrenia. He'll say that definitely no, he doesn't have schizophrenia. But of course you do not have the equivalent of medical doctors saying that this person has a diastolic blood pressure of 91 and therefore definitely hypertension and this person has one of 89 and definitely not hypertension. They realize there is not much difference. So it is a question of how schizophrenic you are, how psychotic you are. This is why there are all these arguments between psychiatrists saying that sometimes they think the patient falls here and they have schizophrenia and sometimes they fall here and they do not have schizophrenia but they are on a dimension towards schizophrenia. So we think there are lots of little genes that contribute towards people developing schizophrenia.

### Environmental Factors

What about environmental factors? When I was trained in psychiatry, we thought it was genetic and there was nothing involved with the brain. We did not think of environmental factors would increase the risk of schizophrenia. So what environmental factors do increase the risk of schizophrenia? What sort of things do you think can happen to people to increase the risk of schizophrenia? Work stress? Stress in general. Any particular aspect of work stress? Any other types of stress? Do you think any childhood factors are relevant? We now know – and we have done a lot of epidemiological factors on this – living in a city increases your risk of schizophrenia. That is interesting, particularly for people living in Hong Kong! People who live in the country have lower rates of schizophrenia, at least in the West. One of the reasons for that

seems to be the greater anonymity in the city. You can live in a tower block and not know your neighbours. If you live in a little village, you know your neighbours, you have grown up with them, and you get to know them and to trust them. If you live in the downtown area of a big Western city, you do not know your neighbours and if you do know them, many are drug dealers, you may be suspicious of them, so it is more stressful living in cities. I do not actually know enough about social cohesion in Hong Kong. Do people who live in a tall building in Hong Kong know their neighbours? Neighbours are protective and social interaction is protective. But you can become isolated in cities.

Migration increases the risk of schizophrenia. Let me take Malaysia as an example. You fly into the airport and how do you get into the city? Do you get a bus or do you get a taxi? Say you get into a taxi. How many minutes is it before you think the taxi driver is driving around in circles in order to increase his charge? For me it is about seven minutes. When you are in a foreign country, you do not quite understand things. You go to Japan and you have no idea what the signs say. You are more lost. Would you buy a second hand car in Thailand? Would this be a good idea? It might be cheaper. How would you know if they were fiddling you or not? It is difficult to buy a second hand car for ladies especially. You have to be a man to buy a second hand car. Do you think the garage man is totally honest? The point that I am trying to make is that if you are in unfamiliar situation – whether it is a garage in a foreign country, a taxi in a foreign country or whatever. – you are more suspicious. Migrating from things you are familiar with to things you are unfamiliar with increases your suspicion and your paranoia. To be honest, it is probably to some extent justified. Some taxi drivers do overcharge visitors. People will sell a bad car to a visitor because you do not understand. And these things increase your risk of paranoia and psychosis.

Having a lower IQ increases the risk of psychosis. What is the average IQ of people in Hong Kong? Is it 100? What is the average IQ of an Englishman? 80? 90? It is also 100 actually. I do not care – I'm Scottish, so you can laugh. People who develop schizophrenia have slightly lower IQs. Have any of you seen the movie with John Nash, *A Beautiful Mind*? He was a very brilliant man who developed schizophrenia and that is relatively unusual. More often you get people with an IQ just a little bit lower than their brothers and sisters. So something has happened during development to slightly impair their cognition. Lower premorbid IQ increases the risk of schizophrenia and early childhood trauma increases the risk. Biological psychiatrists who said that it was just a brain disease used to ignore patients when they said that they had been abused or maltreated as children. This increases the risk of schizophrenia. This is not surprising because people with schizophrenia distrust others and have poor relations with others. If you have been beaten badly by your parents, it can deviate you in this direction. Particularly with ladies who develop schizophrenia, child abuse is a factor one should ask about. So do you ever talk to patients about child abuse? It is more important for ladies with schizophrenia than with men

with schizophrenia. Sometimes you will come across patients who will hallucinate the voice of the person who abused them way back in childhood. Even bullying increases the risk of psychosis. Sometimes you come across people, even at age 40, who hallucinate the voices of the children who bullied them at school. These factors that alienate children increase the risk of psychosis.

Drug use, I think you have a problem with ketamine. Cannabis, ketamine, amphetamines increase the risks. I saw a patient two weeks ago who became psychiatrically ill in Hong Kong, an Englishman, who came out here to work in an architectural firm. To his great surprise, he was the only European among 75 Chinese. For some reason he thought Hong Kong firms would be full of English people. He was shocked. And of course all these 75 people spoke Cantonese, so he was in a position of being in a situation where everyone spoke a language he did not understand. He became paranoid. It is quite easy to understand. People are whispering away and probably talking about the weather, politics, football or whatever, but he began to think they were talking about him. Feeling alienated and excluded is a risk factor for schizophrenia.

### Minor Psychotic Symptoms

One of the interesting things is that in recent years psychiatrists have started doing studies of the general population. We know if you take depression, or you take anxiety, it is a bit like the depression or the anxiety that I have had in the past or the anxiety that you would get before taking an examination. You think you understand anxiety neurosis because you have been anxious. We used to think, in the days of Slater, that we did not understand schizophrenia because normal people did not have psychotic ideas, but some normal people do have psychotic ideas. When you do surveys of the general population, you find that up to 10% of the general population will report one or two psychotic ideas. For example, they might be paranoid about their neighbour. In Hong Kong, where people live so closely together, do you ever have trouble with the neighbours above or below? Someone will say that a child is walking across the floor deliberately to keep me off my sleep. The people above are really not doing this but people get paranoid. You might ask what this has to do with schizophrenia. Some people believe that they hear a voice or that other people influence their brains. They walk about normally and they do not have problems, because these are very minor and they do not tell people about them.

Do you have horoscopes in Hong Kong? Do people read the horoscopes, particularly men? Have any ladies in this room looked at their horoscope this morning? No? Well, you do not need to admit it, but some people must have looked at their horoscope. Is this a rational, scientific occupation? "Today your stars are in alignment. Mars is in alignment with Jupiter. You will meet a tall, handsome man who will transform your life." Is there any sense in this? It is quasi-psychotic. It is a normal idea, but it is not rational. There is no rational basis for it. I am just trying to say that lots of us go about doing irrational things. One of the interesting things is that people have done these surveys

and they say that some of the general population have silly ideas; who cares? Has it anything to do with schizophrenia? Think of obesity. What makes people obese? It is not having enough exercise, sitting around too much and eating too much. For those of us with a more average weight, do these things have any effect on our weight? Yes, sitting around too much and eating too much affects normal weight and it affects obesity. The question is: do the factors that affect schizophrenia – like living in a city, having a lower IQ, taking drugs – do they affect whether you have minor psychotic symptoms? There was a big survey of 8500 people in Britain, normal people who had minor type psychotic ideas but they never went near a psychiatrist. It was particularly common with people of lower IQs, people with poorer education. With poorer education, people are more likely to misinterpret things as being directed against them, living in cities, taking cannabis, adverse life events. Adverse life events associated with schizophrenia are not like losing your job, not losing your spouse or your child dying. These are the sorts of thing that make you depressed. Being victimised, being bullied or having people burgle your house or beat you up on the street, things directed towards you – victimisation - increases the risk of minor psychotic ideas and also schizophrenia. The things which affect you and me might make us a little paranoid. I can see that you do not believe me. Patients believe that other people are talking about them or influencing them. Have any of you had this experience? You are invited to a party, you open the door, and just as you go into the room, everybody bursts out laughing. You think, "My god is my zip undone?" Ladies may think they have the wrong kind of dress, maybe blue shoes instead of red shoes, my hair looks silly. Do you not have these ideas? Never! You are all so normal you do not get paranoid ideas. Of course, I am sure you do, secretly, but you are not willing to admit it. These ideas are influenced by the same factors as influence the risk of schizophrenia. They are just tiny, and

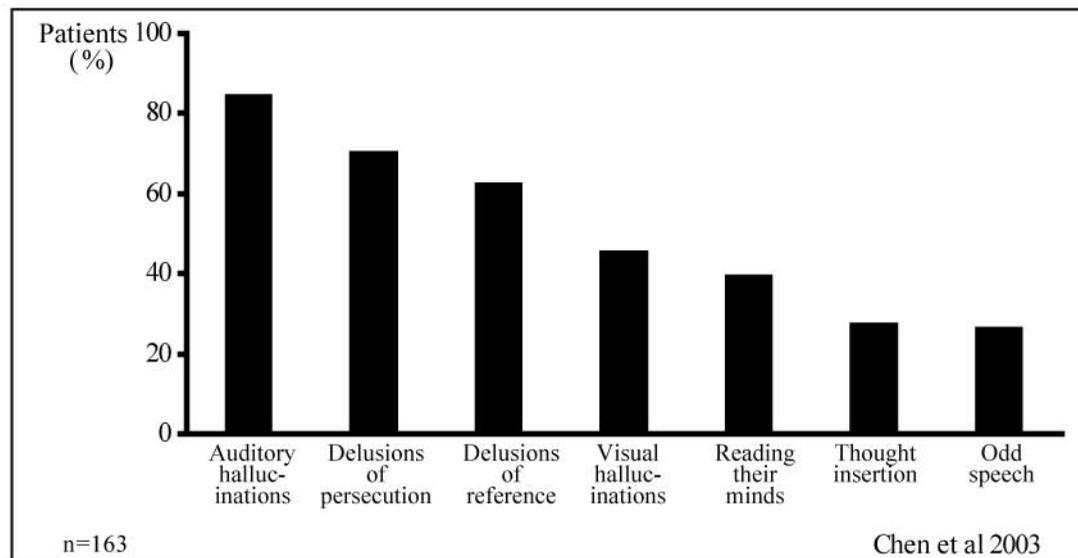


Figure 1 : Psychopathology of individuals with methamphetamine psychosis

after two minutes you realize that people were not laughing at you but they were laughing at a joke and it was an accident that you came into the room at the same time. So, what I am trying to say is that psychosis, psychotic ideas, do not just happen to people who are schizophrenic but happen to all of us. All of us are somewhere on this dimension. Some of us are very stable and never have paranoid ideas. Some people are in the middle and some people are higher. I am sure you must have friends who are very genuine and warm and would never think the worst of you. But you also have friends you must be very careful with because they can think you have done something to harm them or upset them deliberately. You have to think how psychotic are you.

Do you ever feel that other people are against you? You all work for a mental health association. Do you ever believe that others are influencing your mind? Do you ever believe that other people talk about you? Can you communicate with animals? Most people at some point think their boss might be against them. You have sat your exams. Do you have interviews here as part of a viva and do you ever think, "Oh, this interviewer doesn't like women or I know he doesn't like me." You see, you have these misinterpretations because you are so anxious. But once you pass the exam, you forget about these things. Do you think other people are influencing your mind? You turn on the television and adverts are trying to influence your mind all the time. Do other people talk about you? Of course they do; you talk about them so why shouldn't they talk about you? Members of your clinical team gossip about you. Of course they do. People always do these things.

A British psychiatrist I know, for example, a good psychiatrist, believes that he can really talk with animals and that they can talk with him. He cited this example: once he was out and he was called by the police and the social workers because one of the patients had gone

psychotic and was barricaded in his flat, very disturbed. The psychiatrist said he got to the patient's flat, a ground floor flat with a little garden and there was a cat there. He said that this cat looked up at him, straight in the eyes and spoke to him and said, "If you take my master off to hospital, who will feed me?" I went in and talked to the man and discussed the situation with him and said we would send the nurses out every day to give him his medication so he could stay at home and feed the cat. It was good for the man and it was good for the cat. Was it psychotic?

Do you know of Mr Al Fayed, the man who owns this big shop, Harrod's, the father of the man who died with Princess Diana? She was out with her boyfriend and the car crashed. The father of this man believed that this was not an accident, but he believed that there was a conspiracy with the Duke of Edinburgh, the Queen's husband, and MI5 and he has been convinced of this ever since. Nobody has taken after him because he was rich. He can get by in life. If he were a poor, working class person and he went to social security to get support for the family, and if a poor man came along to you and had a little bit of an argument with you and said you social workers and mental health officers and case managers are all the same, all part of a conspiracy, and the Governor of Hong Kong and the Duke of Edinburgh are part of the secret service, what would you do? You would say that this man is mentally ill. But if he were rich, like Mr Al Fayed, you would say, well, he has a psychotic idea but he has lots of people to look after him. There are people in society who have bad ideas. The point I am making is that the normal world is not always right. For example, our country went to war in Iraq, supposedly because our Prime Minister and George Bush believed there were weapons of mass destruction. Now everyone knows that the belief that there were weapons of mass destruction in Iraq seemed to be a delusion. Nobody else believed it. The point I am trying to make is that the world is not really very rational.

### Anti-Psychotic Treatment of Schizophrenia

We do know that the basis for acute psychosis is having too much dopamine. What is the commonest anti-psychotic in Hong Kong? Do you think they are different drugs? They are all the same. They do different things at different stages but they all block the D2 dopamine receptor. All the drugs we have all do the same thing, they affect D2 receptors. Do they stop people being psychotic? No. They stop people experiencing abnormal perceptions. They provide the chemical milieu in order that you can work on their beliefs. For example, when somebody is acutely psychotic, they may say that they are being persecuted by the secret service or being persecuted by the doctors. You give them an anti-psychotic and they begin to say they are not being persecuted so much or do not hear the voices so much. You say to them that they are not being persecuted so much now but were they being persecuted last month? They will say they definitely were being persecuted last month. Anti-psychotics diminish new experiences of psychosis but they do not diminish all psychotic ideas. So if for five years you have believed that you were being persecuted by your parents, you cannot get rid of that by an anti-psychotic because your memory stores are all full. For most of us our memory stores are filled with our holidays, our family, our children, the news, and so on. But if

you have been paranoid for five years, everything in your mind, all your memories, are mixed up thinking that you are being persecuted. An anti-psychotic can stop new ideas accumulating but you are still stuck with the old ones. It is difficult to change your mind about things.

Normal people, at least men, support football clubs. People will say, "Well, this year I am going to support Manchester United and next year I will support Arsenal". At least in Britain from age eight, you always support the same team. Why? Sometimes they are no good, but you keep believing in them. If you are a left-wing person or a right-wing person, you do not think that this year I am going to vote left-wing or this year I am going to vote right wing. You have these ingrained beliefs. You do not say that this year I am going to believe in god and maybe next year I am going to stop believing in god. It is very difficult to change your mind about things. Similarly, until I came to Hong Kong in 1985, I was a socialist in spite of all the stupidity about socialism. It was seeing Hong Kong and how successful capitalism was that changed my mind. But it was a slow process. I think you can see this in Tony Blair when he found that there were no weapons of mass destruction in Iraq. He did not suddenly say, "Oh! I've been mistaken." It took him about three years before he accepted this.

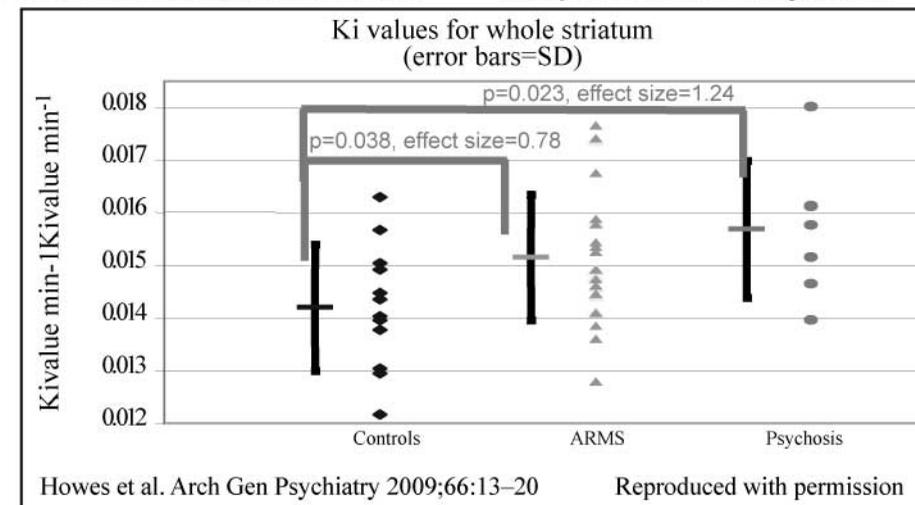


Figure 2 : Dopamine synthesis in first-episode psychosis and prodromal patients

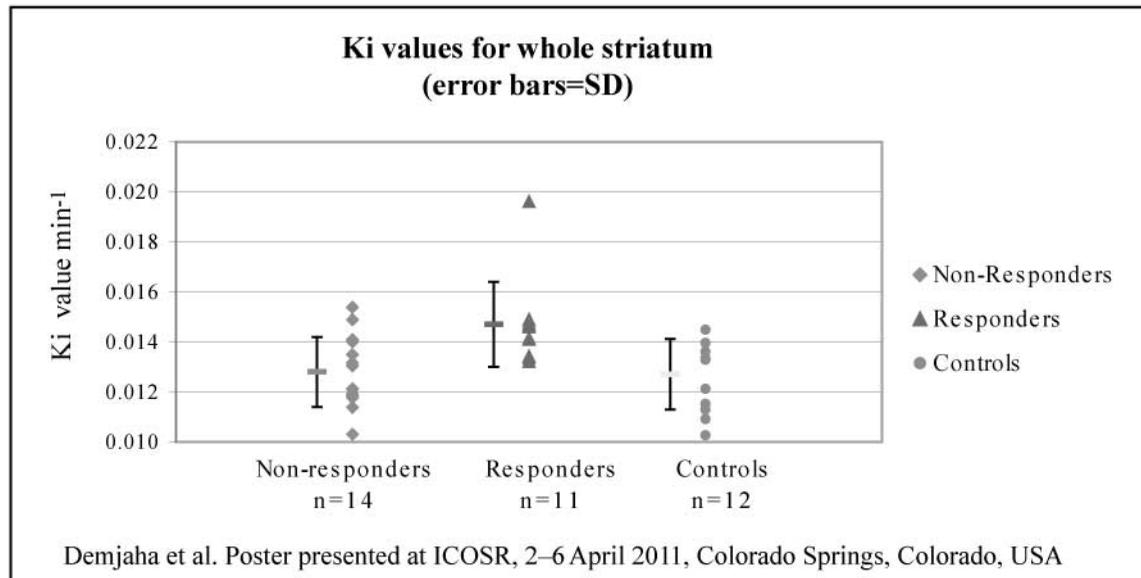


Figure 3 : Results – whole striatum

For a normal person it is difficult to change your mind. Maybe you have ruined your life. If you have been a teacher and you lose your job because you think the headmaster is against you, or if you think your wife is poisoning you and then you get treated, it is not easy to say, “Well, I have ruined the last five years of my life because I had these mad delusions.” There is a lot of reinforcement. You cannot change these things. For example, if we had given Tony Blair anti-psychotics, would it have stopped him believing there were weapons of mass destruction in Iraq? Of course not. You cannot change people’s ideas just by giving them anti-psychotics. You put them in a situation where they are less likely to have new psychotic experiences, and then you can talk to them. You can say, “Do you really have evidence that your wife is trying to poison you or that there is some animal in your intestines? Is there some other explanation? Maybe your wife is just a lousy cook. You can use psychological means to get rid of delusions rather than just suppress them with anti-psychotics.

**Other Drug Treatment of Schizophrenia**

Another thing that we have discovered is that some of the genes which increase the risk of schizophrenia also increase the risk of bipolar disorder. Extreme bipolar disorder is certainly different from extreme schizophrenia, but patients with schizophrenic disorder seem to be in the middle. As psychiatrists, I am sure you have been at meetings where psychiatrists have long and complicated arguments about whether a patient has bipolar disorder or schizophrenic disorder or schizophrenia. Sometimes you have patients with thick case notes who have been in hospital eight times and three times they have been diagnosed as having bipolar disorder, four times with schizophrenia and once with schizophrenic disorder. This happens in Hong Kong as well. I remember seeing a patient like this. He came in and it was clear he had schizophrenia. There was no doubt about it, so I said to the junior doctor, “Who were these psychiatrists who mis-diagnosed this patient?” The junior doctor began to smile a little and he said, “Well, Professor Murray. I’m afraid that

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you were one of them.” Sometimes patients look different. They come into hospital once and they look schizophrenic and another time they look bi-polar and another time they look schizophrenia. These disorders are not totally distinct because some of the genes are a little bit in common. One of the questions is, “Is it better to talk about dimensions than categories?” There is a lot of evidence which says the best way to describe psychotic patients is in terms of their symptoms rather than their category. If you take all of the symptoms that patients get, you can factor- analyse them. You get positive symptoms and you get negative symptoms: positive symptoms - hallucinations and delusions - and negative symptoms - lack of motivation, lack of drive, cognitive difficulties, etc. Some people with schizophrenia have manic symptoms, schizomanics, and other people have depressions. When you think about it, there is no drug just for schizophrenia. Anti-psychotics are anti-psychotic. They do not do anything much for depression; sometimes they make depression worse.

It is quite sensible to think of people having a categorical diagnosis but also maybe to think about how high they score on these dimensions. If you think of all of your patients, you will have some people who are called schizophrenia and who have lots of positive symptoms but

also lots of negative symptoms and some depression. And then you will have other people who are called schizophrenia and who have positive symptoms and are very disorganised and have some mania as well. We call them all schizophrenic but they are quite different because they scored differently on dimensions. In the future it looks like we will diagnose people according to schizophrenia or schizophrenic disorder or bipolar, but then we will be asked to score them on positive symptoms, on depression, on disorganisation and mania because this tells you more about them. You say they are schizophrenic but they have lots of positive symptoms and they need an anti-psychotic. If schizophrenic, they have negative symptoms, and they need an anti-depressant. If they are schizomanic, they need an anti-psychotic and maybe they need a mood stabilizer as well. When we think of patients with schizophrenia, we should treat the core psychotic symptoms, the negative symptoms, the disorganisation. We also need to treat affective symptoms because lots of schizophrenic patients are depressed, partly because they have such a miserable time and they think they are being persecuted by voices, they have argued with their parents, they have no money and they have a miserable life. No wonder they are depressed. These effective symptoms need to be treated as well.

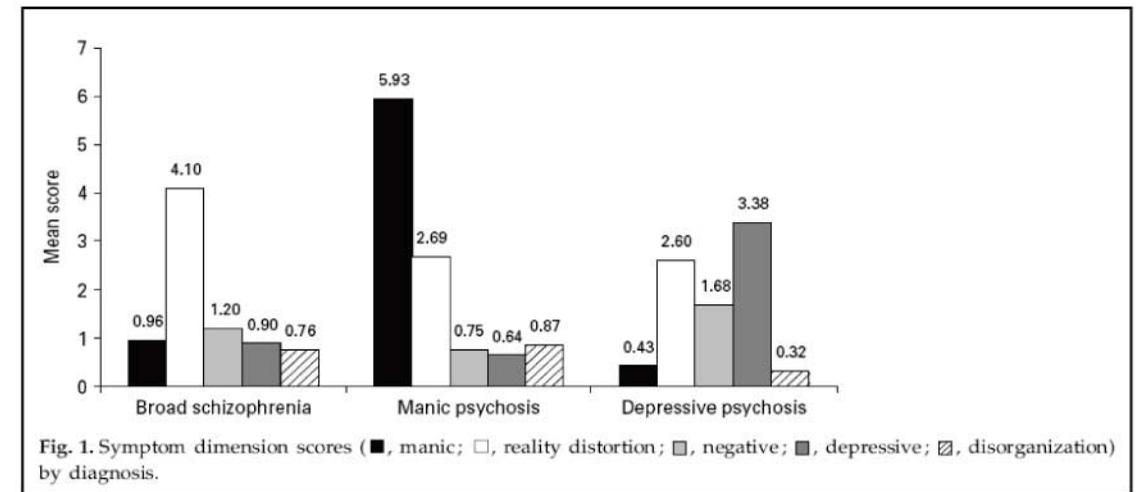


Figure 4 : Distribution of Dimensions in 536 First Episode Psychotic Patients

### Social Treatment of Schizophrenia

What about drug abuse? What drugs do people abuse in Hong Kong? A common one is nicotine. Does it do psychological harm here? There is some suggestion that heavy cigarette smokers may be more prone to depression. It is still legal here, yes? It will be interesting to know if in 10 years time it will still be legal because smoking is becoming more deviant, isn't it? Ketamine, amphetamine, cannabis can all increase the risk of schizophrenia. People with amphetamine psychosis hear lots of voices, they have delusions of persecution, delusions of reference, thought disorder, just like schizophrenia. The reason for this is that the amphetamine increases dopamine, and anything which increases dopamine in your brain increases your risk of schizophrenia. Anything which blocks dopamine makes schizophrenia better. What drug do presidents of the United States use? Bill Clinton smoked but he did not inhale, so he said. Like he did not have sex with Monica, really. George Bush took lots of alcohol, cocaine and cannabis. He admitted it. Then he met a lady who straightened him out, which was a good idea from the point of the world. It is now clear. He was in favour of legalising cannabis until he started running for president and then he came against it. They have all used cannabis. So does it do you any harm? For most people it does not do very much harm but for some people it increases the risk of psychosis. So some of these drugs – amphetamine, cannabis, cocaine – can increase the risk of psychosis because ultimately they affect the dopamine system. With patients we have to think of treating their positive symptoms, treating their negative symptoms, their disorganisation, depression, mania, anxiety. I did not speak of anxiety, but anxiety often drives the psychosis. I am sure that you see this in your patients. They are doing well and suddenly something happens and they get very anxious. At that time they may not be psychotic but if they keep being anxious for a week or two, then they begin to

get psychotic again. So you are better not to give them more anti-psychotic but try to do something to keep their anxiety under control. Similarly, there is no sense giving them an anti-psychotic if they are still taking ketamine.

Then, as I have said, there are all the social factors. If somebody has been abused in childhood or if somebody is petrified of going out of their house because they think they might be beaten up on the street, there is no sense giving them more anti-psychotics but you have to talk with them about this. We know that social isolation and social defeat contribute towards psychosis. Most of us have been brought up by parents who have cared for us, but if you have been brought up by parents who abused you or maltreated you, you end up having a distorted view of other people. If you have been bullied at school, or maybe had both of these experiences, you feel distressed by other people, you feel alienated, you feel excluded. Then you are more likely to become a psychotic.

What happens to somebody in Hong Kong who comes out from Castle Peak Hospital and needs somewhere to live? Do you arrange for them to get a house in the best area of the town, in the most expensive flat with really good accommodation? The sort of place you would like to live in? So where would they live? What sort of place would a person with schizophrenia go and live? A hostel. Would they have a room of their own? No, a shared room? How would you feel about that? Would you like to be in a room with another person who is mad? So if you come out of hospital and you have to share a room, and then say, "Oh, this is Joan and she's just come out of hospital. She had to go in to hospital because she was threatening to strangle her children." And you say, "Very nice to meet you. I'll be pleased to take this bed and you have that bed over there."

Why do we do this? People with schizophrenia are more sensitive to social

### How does the way we think about Schizophrenia influence the way we treat our patients

adversity and social trauma than the rest of us, but we get them to live in places that we could not cope with. How long would I last with a psychotic person I did not know? I certainly would not like it. I would run away. These are the peculiar things. Would we take people with schizophrenia who are very sensitive to social adversity and put them in a hostel in the most expensive part of town with millionaires? No. They would be in the poor part of town. It is the same in Britain, very strange. It is not logical. If we had a logical system, we would put them in the best places and the consultant psychiatrists would live in the hostels. I am just saying that we have to think of the medical treatment of these things. We have to think of the drug abuse, the social isolation and some of the things the anti-psychiatrists say are correct.

### 摘要

我們對精神分裂症的理解，會如何影響我們對待病人

講者重新檢視一個我們熟知的重性精神病—精神分裂症。他對何謂精神分裂症、誘發成因、病徵、診斷方法及不同的治療效果等，都作出了嶄新的見解及分析，啟發我們思考如何用一個更正確的方法對待精神分裂症的病人，讓他們的治療能達致更大的果效。

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International Schizophrenia Consortium et al (2009). Common polygenic variation contributes to risk of schizophrenia and bipolar disorder. *Nature* 460(7256), 748-52

### Upcoming Themes

The Hong Kong Journal of Mental Health is the official publication of the Mental Health Association of Hong Kong and is published on a half-yearly basis. It is an interdisciplinary journal intended to serve as a focal point for the exchange of information to both enhance the definition and development of the field of mental health and facilitate the applications of facts, principles, and methods derived from psychology, psychiatry, medicine, sociology, epidemiology, anthropology, social work, nursing, education and other health-related disciplines.

The Editorial Board has suggested several upcoming themes including (but not limited to) the followings:

- Case Management on Recovery
- Healthy Ageing
- Men's Mental Health
- Positive Mental Health
- Substance Abuse and Mental Health
- Women's Mental Health

Manuscript submission should be sent to  
Mr. Stephen Y K Sun  
Chief Editor, Hong Kong Journal of Mental Health  
c/o The Mental Health Association of Hong Kong  
2 Kung Lok Road, Kwun Tong, Kowloon, Hong Kong, China  
E-mail: mhahkho@mhahk.org.hk

