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Internet-based Treatment of Anxiety and Depression*

Professor Gavin Andrews
Professor
School of Psychiatry
The University of New South Wales, Sydney

It is a pleasure and an honour for me to be here. I first worked in Asia in 1970 for the World Health Organization in Malaysia, Kuala Lumpur, designing a psychiatry training programme for Malaysia. I was much younger then. Professor Yap's reputation was extremely well-known to me, and when he died in 1971, I was in Europe in contact with the WHO. People kept saying, "That's your area and you must know him because he is so famous." So it is an honour for me to give this lecture.

I don't mean to do radical things. As you get older, you do more conservative things. But what we're doing is now treating people when they're at sea, treating people with anxiety depressive disorders over the web. It just seems wrong. But we're 2500 patients in now we're treating and I'm starting to believe that what we are doing is true. Now I have three things I would like you to think about – why on earth does this work? What does it mean to our understanding of depressive and anxiety disorders? After all, we're just teaching people new skills. How can it be possible that these chronic disorders disappear and what's the role of internet therapy in the health services?

Depression and anxiety disorders are seven percent of the burden of human diseases and I have to keep saying this in case there are any physicians in the audience who fear the burden of diabetes plus arthritis. They are serious and we have to keep saying that about common mental disorders. They are the principal cause of disability in the world and they are not really well treated by medication or face to face therapy perhaps largely because adherence is the problem. Patients don't have to take medication and, contrary to behaviour, they don't always do what they should do. So the real question we asked was would internet therapy do better?

It is important to realize that anxiety often causes depression so if you've got social phobia, it's very likely you're depressed as well. I'm of the generation that doesn't really understand the relationships. There are quite a few websites for what we do overseas, which provide therapy on line. One program used by Professor Gavin Andrews and his colleague Cuijpers at the University of New South Wales set up immediate results. We do what we do in our face to face meetings and transported it onto the web. The 10 week programme, people will do the fixed lessons and the homework on a training worksheet. There are so many people in Australia with anxiety disorders and depression, there probably aren't enough physicians to go around and this could be one solution. This programme treats people who are mild, moderate or severely depressed. It does not want to treat people who are actively suicidal.

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*Transcript of the presentation at the 19th Yap Pow-meng Memorial Lecture of the Mental Health Association of Hong Kong delivered on 24th June 2010.

We've now done 14 randomized control trials with 1200 people. We've done them in depression and in social phobia and in panic and generalized anxiety disorder. We get the same results in all of them. The patients are severe and they make the same progress. Most drug trials have nominated to treat three or four or five. Treat five and get one better. We treat two and get one better. Allowing all based on intentions to treat calculations, that is if people drop out, they are counted against you. It seems even better at six months and there's very little clinician time involved.

Our receptionists or nurses do just as well, to remind people to keep working at the programme. It's through all the skills this whole room has built up, the professional skills, are complimentary to the programme. In other words we should let the programme do its work and then we pick up the people who haven't gotten better, which is what we're doing in our own clinic now. With those people it's standard care when those people are first referred to us. Of the first 100 people, 99 said "yes, I'd love to do that". When they're not sufficiently better at the end, we're very happy to see them face-to-face, and for clinicians, that's a good job because now nothing is routine. 80% of the people over the web complete their course, which is enormous to have that level of adherence.

At the start, 60% were completed. Of the completed, 1/2 were mild, 3/8 were moderate, 1/8 were severe, which is really primary care distribution of depression. These were people who heard about us over the media and they volunteered for treatment. Eight or nine out of ten either had their onsurge of first depression early and had had many episodes, had had years of depression and had been commonly depressed at least for the last two years. These were not trivial cases. After treatment ¾ no longer met criteria for depression – only one of this particular sample was moderate and none stayed severe (Figure 1). These are to my view uncanny results. We've never had results like this before and I've done numbers of longitudinal studies of treating people with depression. It took me by surprise and I'm sure it surprises you.

	PHQ-9 None (0-9)	PHQ-9 Mild (10-14)	PHQ-9 Moderate (15-19)	PHQ-9 Severe (20-27)
Before treatment		++++++++++ ++++++++++ ++++++++++	++++++++++ ++++++++++ +++	+++++++++
After treatment 10 weeks later 73% recovered	++++++++++ ++++++++++ ++++++++++ ++++++++++ +++++++++	++++++++++ +++++++	+	

* Depression: ¾ recover (Completers n=66)

Figure 1: Outcome of 10 weeks internet-based treatment

There is a group of people with social phobia. Some had social phobia alone, some had social phobia and depression, some had social phobia and GAD (General Anxiety Disorder) and some had social phobia and depression and GAD. On the social phobia measure, all four groups just got better. Of those who were most severely morbid, they improved slowly. They improved at the same rate but they were more severe to start with. If you look at the depression measure, it came down very smartly in the people who had become morbid with depression. If you look at the GAD measure, it came down very smartly in the people who had become morbid with GAD. A treatment aimed at social remedy just remedies major depression disorder and General Anxiety Disorder. In fact, we have now experimentally been doing trans-diagnostic treatment over the web. We've developed a programme to deal with people who have social phobia or panic disorder or GAD or major depression. Diagnose is unspecified. We've certainly specified but things just get better.

I've spent the last 10 years working with the American Psychiatric Association on the new DSMV. All that labour to define it in an elegant way. So we've done a systematic review of the world literature and we found 22 high quality studies. There were six studies of depression, eight studies of social phobia, six studies of GAD. The whole thing is homogenous. It doesn't matter the diagnosis. Everyone does equally well. That's something I certainly was never trained to conceptualize. The other important thing is that this represents seven different countries and eight different groups, all getting the same results. So what I'm telling you today is not unique to us. It's just that now everyone is doing it and getting the same results.

We're starting to roll out for the last six months. I've been going to divisions of general practice in Australia and talking to rural doctors by the website www.crufadclinic.org. All our research papers, 20 of them now are on the website, for patients to read and for doctors to read. We've got courses about mental health,and we've got courses about physical illness, because at the beginning the clinicians said to us that you're got to do better than just anxiety and depression. Otherwise your programme will be known as the 'mad' programme. Stigma is alive and well in Australia. So we've now got patient education courses for people with diabetes, arthritis and heart failure and so on. There's a common design. We started off with interactive courses tailored to the individual but we ended up with one size fits all, just simple skill remedies. Each course has six lessons, a cartoon story (Figure 2). There are written instructions, and they really are the heart of it. If you give patients handouts to take home and read, they never do. But by seeing the cartoon stories, they say "That's me!" We've got testimonials from patients. We've got additional material like relapse prevention. We ought to talk about what you do when you relapse. I was too scared to do that. But the patients email us and say, "Thank God for lesson 6. Of course I know about this. I've had five or six episodes before. Just finding someone honestly talking to me about this was tremendously encouraging."

We're currently developing a set of programmes for Chinese Australians. The two psychologists who work with me, Chinese Australians, have put a lot of work into it. I'm quite surprise because the cartoon re-drawn is much prettier. How do I make it clear? I'd like to tell you a story about my experience with depression." "The core of those troubles is the fear I have within myself, which is really the core issue in depression. It's not what's outside; it's what's inside." Nothing seems fun any more, life has lost its colour". It follows exactly our story. We have no idea whether it's going to be culturally appropriate. We're about to start on a randomized control trial. It's not available for others to use yet until we've shown that it works because we don't like sending things out if we don't know if it works.

Here's our story of a lady with worry disorder, generalized anxiety disorder. I think this describes it. "What if I forget something the kids need for school? I'll look like a bad mother...The teachers won't write a good

Figure 2: Cartoon story of CRUFADclinic Course

recommendation for the kids' high school applications, and they won't get a good education so they'll never get a decent job." GPs tell us, "Gavin, we see people like this every day."

On the first day we launched this programme, five women rang up and said "How do you know how I think?" So somehow the cartoon format reaches inside people so they say, "This is me. I ought to pay attention and learn." That's our friend with social phobia. That's our lady with striped hair. The girl with panic disorder and agraphobia. The contact stories are important because I think they let people identify and they then want to work harder.

Clinicians register and they get a book of prescriptions for their patients. Each prescription tells a patient how to log on, and each prescription is linked to the subscribing clinician who gives email feedback to update each lesson. The clinician remains clinically responsible. ..... Our clinicians, meaning anyone who's clinically responsible, they can be psychologist, social worker, nurse, doctor or sychiatrist. As long as they are clinically and legally responsible for their patient, we're delighted for them to log on and use the system. The prescription tabs include panic disorder, social phobia, pressure and general anxiety disorder. There're also school problems, substance abuse and anxiety and depression programmes, for prevention of these disorders in teenagers, for parents to use with those teenagers. This is no miracle. We have no evidence that it works people who are actively suicidal. Please exclude people, even though they're depressed, with a history of schizophrenia, or bipolar disorder or substance use disorder or personality disorder.

How effective is it? This is our own clinic where we took people and we're comparing face-to-face versus internet based CBT. The two groups end up in exactly the same spot. The difference is that on face-to-face therapy we spent 13 times the amount of time with the patient. Internet therapy got the same result in 1/13th of the time (Figure 3).

Patients love it. Someone logged in and gave us this quote. "I found the first session to be great. I was sceptical. It's got a professional feel about it. After spending years explaining my symptoms to the doctors and psychologists, it was a relief to find out where I could get on with fixing the problem." We are culpable as a profession. We spend endless time taking

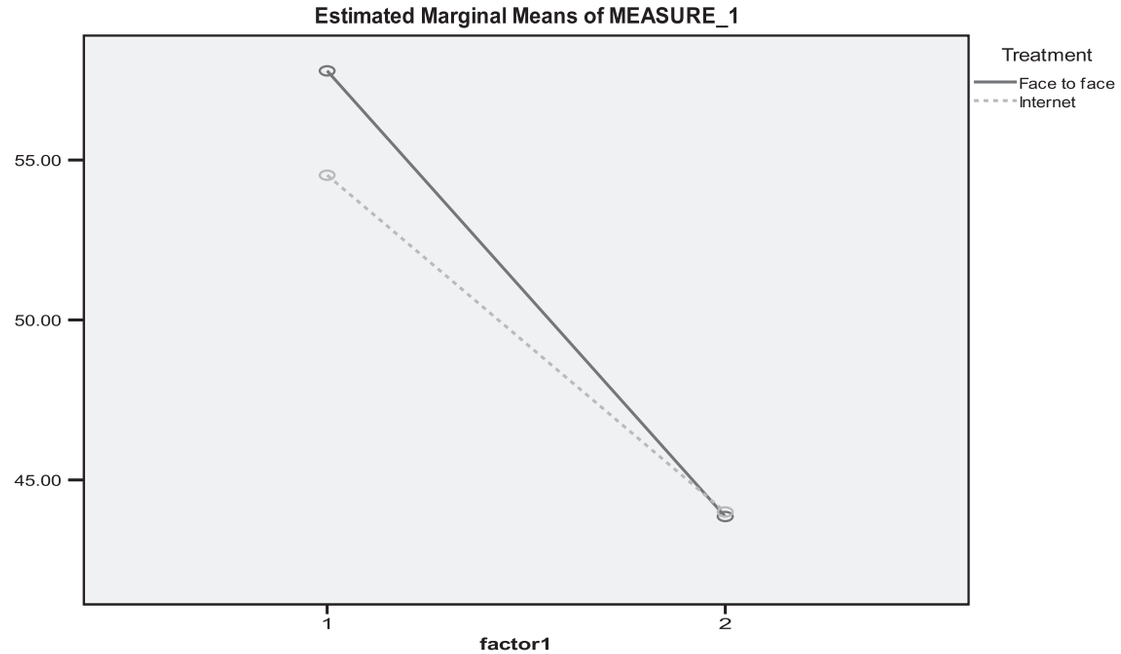

Figure 3: Comparison of face to face CBT and internet-based CBT

people's stories and precious little time fixing them.

We've taken feedback from those out in the field who have been using it. We've developed a system check so that the consumers can get in easily. We've got all types of reminders to keep them doing their medicines. We've got good feedback for clinicians. And if the person types in a score with a measure of distress, the clinician gets an automatic email which says, "Alert. Molly's ... score has jumped by four points. We suggest you review this." We also send an email to Molly saying, "Not so right this week. We think you should go back and see your clinician." Patients seem to like that and the clinicians seem to value it. Clinicians can actually see patient lists to see how they're doing. We've let consumers download a letter off the website and take it to their clinicians and say, "Would you prescribe this for me?" Clinicians are enormously offended by this and ring me." We keep talking to the clinicians and if they won't move in the right direction, we'll use their patients who are fairly good at making clinicians behave in the right way.

I'm not so innocent to believe that when some 50 year old man commits suicide while doing my programme for depression, his angry 25 year old lawyer-daughter won't look around for people to sue; she will join the action with the doctor who prescribed it and the university and the hospital. We will simply say research started, this programme is without fear; it would have been negligent not to use it. I've no idea what the judge said because we do not know how many suicides we've already prevented BUT through much time and 3000 patients've been through this programme. We've solid evidence of their numbers. The lack of it occurs when people don't do the programme.

Since January 1, 471 people with depression have registered, 319 had time to complete but only 99 have completed. The adherence rate, or completion rate, is way below what we do research–wise. In anxiety, the same sort of feature – way below what we can do. There are big numbers. In the first three months of the year close on 1000 people are doing these two courses. We took note of this and we've already instituted changes to make certain that we've got automated reminders for people to keep them at it, and we keep scrutiny to the clinicians. This is not, "Do this course and don't bother me for three months''. This is, "Do this course and either I or my practice nurse or my receptionist will ring you or email you weekly to keep you going. After all it doesn't take much time."

So we have a new way of curing anxiety and depression disorders. It's more effective and cheaper. It's loved by the patients. And there's slow uptake by the clinicians. I'm really glad we can have a conversation about what I think is unnatural; it wasn't what I was trained for. These are some of the answers to the questions: why does it work? What's it mean to our understanding of anxiety and depression. And what's the role of iCBT in a health service?

摘要

抑鬱症及焦慮症的互聯網治療法

抑鬱症和焦慮症是常見的精神病，它們共佔澳洲人類疾病經濟負擔的百分之七。如何有效爲患者提供治療，一直是各界關注的議題。本文介紹澳洲悉尼#設計的「互聯網治療法」，透過網上的互動功能，嘗試爲抑鬱症及焦慮症病人進行診斷及處方。他們亦透過互聯網推行精神健康教育工作及認知行爲治療，獲得正面的成效。

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