IPWSO Health ECHO abstract
June 15, 2021: Behaviour and Mental Health

Please note this document is abridged from audio transcription of the Zoom session. Some errors resulting from the transcription process may be present.

IPWSO hosts: Georgina Loughnan (GL)

Presenters: Tony Holland (TH) and Christian Eberlein (CE)

Video link

Tony Holland: Behaviour and Mental Health

PDF available here.

Q&A Following Tony Holland's Presentation

Q: I felt this presentation reflected my own thoughts on Prader-Willi syndrome and mental health. This is exactly how we discuss it (with colleagues) in our group. Thank you very much.

TH: The importance of the IWPSO Mental Health Network is, if we can all agree around this, it will bring consistency to our approach around the world. At the moment psychiatrists, families and others are struggling in parts of the world, not having had the opportunity to develop this understanding. Our task is to try and help them.

Q: It took us years to come to this point of understanding and we all went through different stages of understanding mental ill health in PWS.

GL: Such a brilliant talk and so well explained, Tony. No one needs to ask a question.

Poll question

1. Do many of your clients with PWS see psychiatrists? Are those that do medicated? (Note: responses did not record.)

a) No, not many see psychiatrists
b) Yes, but they have not been prescribed medication
c) Yes, and are medicated
d) I am a psychiatrist and see people with PWS (and typically prescribe medication)
e) I am a psychiatrist and see people with PWS (and do not typically prescribe medication)

f) Other (use chat box)

2. Of the people with PWS who are referred to psychiatrists, are they referred for… (Multiple Choice)

a) Aggressive behaviour 10 responses
b) Psychotic behaviour 12 responses
c) Depression 5 responses
d) Other 1 response

Case presentation (Abridged)

GL: Dr Christian Eberlein works as a psychiatrist and psychotherapist at Hannover Medical School in Germany since 2010. First cases of PWS related mental problems were treated there in 2011, and since 2013 the Department of Psychiatry at Hannover Medical School offers a specialized outpatient department for mental health in rare genetic disorders with a focus on PWS. Dr. Eberlein has been the leading physician of this outpatient department since 2015. Every year over 100 patients with PWS from the whole county are treated and the number is growing every year. He wrote the brief guidebook "mental health and PWS" for the German PWS association together with Prof. Frieling and Dr. Deest and is a researcher in PWS related mental health problems.

Case presented:

Age and gender: 19, male

Diagnosis and date of diagnosis: PWS (maternal uniparental disomy) diagnosed in 2002 (age <1 y.), psychotic symptoms diagnosed in 2017

Treatment and significant information to date:

This patient showed impulsive behaviour and temper tantrums since childhood. In 2017 this challenging behaviour got worse, and he was admitted to a psychiatric hospital and was treated there for over 4 months. Shortly after discharge, assaults on family members were even more severe than before which again led to hospitalization. This time he stayed in hospital for 6 months. In this time, he got diagnosed with schizophrenia. He said he thought he was Justin Bieber, and mistook hospital staff as family members. Even the slightest disturbance or smallest demands could eventually lead to aggressive behaviour.

During the second hospitalization he was treated with chlorprothixene, olanzapine, levomepromazine, haloperidol, biperiden, topiramate, growth hormone, oxytocine and finally clozapine. At discharge he was treated with 25 mg clozapine twice a day and topiramate 25 mg twice a day. Additionally, 20 mg levomepromazine was prescribed in case of severe arousal. BMI at discharge 33.8 kg/m2 (BMI at admission 32.4). The patient moved out of his parents' house and into a specialized supported setting. Family and patient reported that he felt tired all the time.

First contact with our outpatient department was in early 2020. Since then clozapine was reduced. Due to temper outbursts, manic and psychotic symptoms hospitalization was necessary again for 6 weeks in mid-2020. He was admitted to the psychiatric hospital in his hometown which is several hundred km away from Hannover. This time clozapine and topiramate was stopped and he received quetiapine in a high dose of 650 mg /day. Psychotic symptoms vanished but can still occur up to today in challenging social situations or when he feels forced to do something.

Past medical history – General:

The patient was diagnosed with a mild mental retardation with special problems in logical reasoning. Skin picking occurs regularly.

Somatic diagnoses: scoliosis, obesity, growth hormone deficiency, gynaecomastia

Past medical history – Physical:

Although he did not gain too much weight during the second hospitalization, we know that the patient gained at least 10 to 15 kg during the first hospitalization. Partly as a side effect of the medication, partly because normal psychiatric wards can't offer the necessary degree of food restriction.

Past medical history – Psychosocial:

The patient overrates his own abilities and is often disappointed when he is confronted with reality. This may lead to what seems to be a sign of psychosis. In these states, psychosocial interventions or simply giving him the feeling that he is accepted and part of the community helps him finding his way back into reality. Care givers and family members often mistake these states and worry that hospitalization is required again. It is a still ongoing process for all involved to support him in an appropriate way.

Past medical history – Medical/Allied Health Support:

The more he feels independent from his family, which is a necessary step in his psychosocial development, the higher the risk of being unable to cope. The patient is aware of his disabilities but that leads to overacted presentation of abilities he only wishes to have (e.g. driving a car, living an independent life, going to university).

Key questions for the participants to consider with regards to this case:

One of the main questions is how to confirm the psychiatric diagnosis?

What are we talking about when talk about psychosis and PWS?

How can we help someone like this patient to make the next developmental steps and help him cope with everyday social issues?

Does antipsychotic medication really make a difference in PWS patient suffering from psychosis?

Discussion following Christian Eberlein's case presentation

CE: I think we can say this patient received nearly every medication the pharmaceutical industry offers for psychosis and it didn't help him very much.

TH: You've raised the issue that treatment is guided by diagnosis. So, in the general population, if someone has schizophrenia, we assume there is an underlying cause to that which then respond to your intervention. You've highlighted one of the issues here which is, we use the term psychosis because the person has abnormal beliefs and experiences. What do we really mean? What is the underlying mechanism that causes that and is it the equivalent to schizophrenia? Probably no. I think you and other have used the term cycloid psychosis. We're a bit stuck in not knowing how best to describe it or the underlying pathophysiology is of this abnormal mental state. We accept it's there but we don't really know what's causing it. That's going to hinder how we move forward.

Q: I am not a psychiatrist, but I have seen patients with PWS who benefit from small doses of anti-psychotics. I feel the most important thing is the environment so before starting medication you must ensure the environment is okay for the patient and perhaps in the correct environment small doses of anti-psychotic can help.

CE: I agree with that.

As Tony highlighted, the way we describe these abnormal states may lead to a different approach in treating them. It's all about the environment at first, and in the second step you can think about treating with medication. I always think carefully about medication for these states where reality perception is altered. It's not like treating a patient with schizophrenia where you get them to take a medication and everything seems better a week later. That is not what we see when we treat people with PWS and what we call psychosis. Is it okay to call it psychosis?

TH: The problem is, what else could we call it? This is nothing to do with temper outbursts; this is when you get the change in mental state and the onset of these abnormal beliefs and experiences.

About the issue of the environment, environment is absolutely critical when it comes to issues such as temper outbursts and skin picking. The person I described, who I saw with psychosis, he was in a very good environment, and for no apparent reason became unwell. So, you could not say it was because of an abusive environment or changes in his environment.

When it comes to temper outbursts your starting point is not one of medication. When it comes to psychosis, if we're correct in calling it psychosis, it's reasonable to say there is a clear role for medication. The issue then is what is the best medication?

Q: I agree, though the reality is many adults with PWS have fantasies such as those of a small child, and tell stories. It is important to distinguish between situations where they are really psychotic, anxious, terrified, by delusions and childlike fantasies such as having children of their own. Sometimes in group homes staff ask if this is psychosis.

TH: Right, and you would say no very clearly as it is not psychosis.

CL: On environment, in this case moving out from the parental home made a difference, but without medication he wouldn't have managed the steps he took over the last year.

GH: Perhaps as a result of the IPWSO Mental Health Network and the work of the people involved with this ECHO, IPWSO might be able to work towards coining some terms that could be used for people with PWS who suffer psychosis but also severe confabulation that causes issues.

TH: Part of it will be to address this issue of what is appropriate to call psychosis and what is not appropriate to call psychosis. Also, to identify where the gaps in knowledge are. As Christian argued, we call upon anti-psychotic medication when we think someone has psychosis. At present really there aren't the trials that allow us to say what is best, what dose is best, (typically start low) it's very difficult to do those sorts of trials. Typically, not many of use see that many people with PWS who've become mentally ill. We have to call upon people's individual experience about what works and doesn't work which isn't ideal but that's the level of evidence we have.

The one thing we haven't talked about is the complications with antipsychotic medications, particularly of weight gain, and therefore the importance of choosing your anti-psychotic medication carefully if you're going to use is.

Q: It's important to be aware of weight gain as a side affect and also many anti-psychotic agents are anticholinergic. What we learned in the first phase when we started to treat people with PWS, in many cases people have lots of medication, as in the case Christian presented, and a very high anticholinergic burden. There you can get into a circle where you reduce the intellectual ability by the anticholinergic burden even further, patients have less possibilities to cope with their environment and even produce more symptoms.

In many cases when we started reducing the medication, some of the symptoms the medication was given for actually got better. This is a very important side effect and many anti-psychotics (have similar) anticholinergic agents and are reducing the intellectual capabilities of our clients further so everyone should have this in mind, especially if you see that patients are treated with olanzapine, clozapine, or even quetiapine which can be much more problematic than other not as anticholinergic (medications).

In Germany many patients receive melperone as a sedating antipsychotic. We just switch it to pipamperone because it's much less anticholinergic and we see less problems with deterioration.

As you know, we will not get cohorts to run full blown clinical trials to test which anti-psychotic is best but what we are trying to do is include every patient that we see in our patient registry to have a structured way of assessing symptoms, genetic subtype and so on. We also record everything we do regarding medication and other treatments and record the course of the disease and see how the symptoms change. This can be helpful if we have a structured way of looking at the way we treat patients and the outcomes. It would be worth discussing a similar registry on a broader level than just our outpatient department.

Q: About weight and antipsychotics, my personal experience is that in giving children small doses of risperidone we do not see changes in hyperphagia if the food is strictly controlled and they do not express more wishes to eat. This feeling of hunger is very specific to PWS. I acknowledge that weight gain can be seen but we should be aware their hyperphagia is perhaps not influenced so much by antipsychotics as we see in other patients. We should be careful to not assume the antipsychotic is the cause of weigh gain if it is the lack of food control.

Q: I am a paediatric endocrinologist and we find that children become more difficult and hard to care for when they enter adolescence. Environmental factors are fixed, we can't really change the setting. It is reasonable, as a means of relieving stress, to help by giving a low dose of risperidone, for example. What are the experiences there? We wait until situations occur where parents or schools say they (can't manage behaviour any more). This is often before a psychiatrist becomes involved. Could we help the situation with medication?

Q: First, to the weight gain comment, when we looked at our data regarding antipsychotic medication, psychotropic medication, in PWS we always assess the weight and what we can see is that almost any time weight gets better under treatment with an antipsychotic or antidepressant it could be because the patient is feeling better and the hyperphagia is not as much of a problem anymore. What we can see is that if they are living in a setting where the food is not controlled, weight gain can be a big problem especially on antipsychotics, so it depends on the setting.

To comment on the last question, you should always look at what is provoking the stress. Is it temper outbursts? You could discuss a medication but I wouldn't choose antipsychotics as a first response.

CL: A few years ago risperidone was the medication of choice when we tried to treat psychological issues. We then changed to aripiprazole and thought in many cases it's better than risperidone so we tried to understand why this makes a difference. We started to treat our patients, not only the patients with psychosis, but all of the patients who had aggressive behaviour and temper outbursts, and we gave them sertraline in a low dose 25mg. Temper outbursts got better so we started to offer this medication to PWS patients with a UPD, and these patients in most cases had antipsychotic drugs. This is not science, this is an anecdote, but I think I see that we can lower the dose of antipsychotics when we help them to find a state where they can cope better and they feel better on the antidepressant drug, in some cases.

Q: I would also never say you can reduce stress by giving medication. It can help people to cope but it really, really depends on the environmental issues. There needs to be some symptomatic indication to start treatment with medication especially as we know that patients with PWS are more prone to rare side effects and more sensitive to medication effects. I would say it should not be the first line of thinking to address a complicated situation by (seeking to) reduce the stress by giving medication.

Q: Thank you I think that is important because often the demand comes from the environmental structures and the stress is not reduced in the child, but in the school, so the teachers have less stress. Thank you for stating this so clearly, it’s not the first choice or a choice in many situations.

Tony Holland Summary

The main messages that my talk and Christian’s presentation brought up are first, the obvious, that mental health problems are serious issues for people with PWS and their families. It is incumbent on all of us in a professional group such as this to find answers to these problems.

Secondly, there is general agreement that the way we best conceptualise these problems is an interaction between biological vulnerability on the one hand and environmental conditions and stress on the other.

Thirdly, part of the skill in thinking about intervention is to be able to match your understanding of these issues as they affect people with PWS to the particulars of the individual that you are now seeing. Bringing together your knowledge of PWS with your assessment of that particular person is so important. Through that understanding and process of formulation, interventions emerge. They may not be fully effective, some may be difficult, but if you can reduce the severity of emotional outbursts, you are giving benefit. You may not eliminate them completely but you may reduce them.

The final message from today is that we’ve got a lot more to learn.

Upcoming Health ECHO sessions

Tue 13th July	*Sleep Disorders* Brendon Yee, Associate Professor, Respiratory and Sleep Physician
Tues 14th Sept	*Diet and Exercise and the Prevention of Obesity* Dr Constanze Lämmer, Children's Hospital, St. Bernward Hospital, Hildesheim, Germany and Georgina Loughnan, Royal Prince Alfred Hospital, Camperdown, NSW, Australia
Tues 12th Oct	*Caring and Living with PWS in Italy* Dr Maria Giulia Marini, Fondazione ISTUD, Milan, Italy

Thank you very much to everyone who attended the session and participated. We look forward to seeing you on Session 6 in July.

Ends.