

Schizophrenia and Autism: Let their Genes Speak

MARSHA D. SPEEVAK

Over the past several decades, laboratory genetics has evolved in pace with the technological advances that influence everyday home life. Just as the camera, telephone, and computer have morphed into today's smart phones, clinical genetics, cytogenetics, and molecular genetics have merged into a single practical field: clinical cytogenomics. Photomicrographs of chromosomes taken on 35mm film and on digital cameras in the 1970s and 80s have been replaced by laser-scanned images of arrays of hundreds of thousands of bits of DNA, portrayed on screen as a "virtual karyotype". Manual and automated gel-based DNA sequencing have been replaced by massively parallel sequencing (NGS, Next Generation Sequencing) that can spew out the entire human genome (all 3 billion base pairs) in less than a day. Deep phenotyping has replaced the gestalt of genetic diagnoses.

Information overload: the access to data seems to be outstripping our ability to comprehend it. Thus, despite all of this technology, we still struggle to understand many aspects of genetic disease. Among the most difficult and challenging are the multifactorial diseases that result from genetic predisposition and the environment. In this article the biological, genetic, and environmental links between schizophrenia and autism are explored.

Genetics and Schizophrenia: Early observations

The genetic nature of schizophrenia was first studied in detail through analyses of hospital and police records as well as twin studies in the early to mid 20th century by Franz Josef Kallmann (1897-1965). In 1938, Kallmann reported a 19% incidence of schizophrenia among offspring of an affected parent, and considered this increased risk to be genetic. The risk to offspring is now estimated to be about 13% and the sibling risk about 16%.¹ Although it was reasonable for critics to think that these risks could be attributed to aberrant parenting, adoption studies (into and out of schizophrenia families) show that the increased risk is indeed genetic.

continued ▼

INSIDE

Editor's Note	2
The Advent of Facebook and its Impact on Mental Health	7
Interviewing Skills	11

Welcome to the Spring/Summer 2014 edition of Synergy.

Our cover essay tackles a topic that, to many, especially those not working in the field, may seem complicated. And it is. And yet Dr. Speevak actually tackles it – wrestles it to a stop so that we can observe it and understand what we see without the blur of motion or the danger of being trampled: the genetics of two mental disorders and her fascinating research.

Our second essay takes a popular topic, indeed one that touches most of us daily – Facebook and social media – and uncovers complexity in how it can affect our mental health.

Finally, our back pages go to a lighter piece about learning to interview patients. Levity is necessary after a long Canadian winter.

We hope you enjoy the prose and, as always, welcome your comments.

EDITORIAL BOARD

Eric Prost, MD, FRCPC.
Editor,
Assistant Professor,
Department of Psychiatry,
Queen's University.

Karen Gagnon, MLIS.
Assistant Editor,
Director of Library Services,
Providence Care.

Roumen Milev, MD, PhD,
FRC Psych (UK), FRCPC.
Professor and Head of Psychiatry,
Queen's University,
Providence Care, Kingston General
Hospital and Hotel Dieu Hospital.

SYNERGY SUBMISSION GUIDELINES

Synergy invites submissions from members of the mental health community in Southeastern Ontario and beyond. We encourage articles on current topics in psychiatry. Our essays are scholarly in outlook but not number of footnotes. We strive to publish good prose and ideas presented with vigour. Articles range from 500 – 1000 words. Longer articles may be accepted.

Copyright of all material submitted for publication in *Synergy* rests with the creator of the work. For inquiries regarding the use of any material published in *Synergy*, please contact Ms. Krista Robertson
robertk4@providence care.ca

Articles may be submitted in the form of a Microsoft Word document as an email attachment.

Queen's University
Hotel Dieu Hospital
Providence Care
Kingston General Hospital
Frontenac Community Mental Health
Services
Ongwanada

Genetics, Behaviour, and the Sex Chromosome

In some ways, genetics has a shady past when it comes to the study of abnormal behaviour. Dr. Kallmann himself strongly supported the idea of sterilizing unaffected relatives of schizophrenia patients to reduce the impact of this disease on society. Another prime example was the stigmatization of the XYY male by genetic researchers in the 1960s and 70s. Although the additional Y chromosome was correctly thought to cause increased average height as compared to XY males, it was incorrectly concluded that the extra Y caused violent criminal behavior. This assumption was eventually debunked through less biased studies, which found only a slight increase in minor, non-violent crime that was solely attributable to lowered intelligence.

In contrast to an extra Y chromosome, studies of patients with an extra X chromosome (XXY males, XXX females) have more convincingly shown that the extra X chromosome is associated with susceptibility to psychiatric disorders, including autism and schizophrenia.² However, ascertainment bias is always a concern, and due to the rarity of sex chromosome abnormalities in the general population and increased ethical concern and vigilance regarding individual rights to privacy, an unbiased prospective analysis of psychosocial issues associated with sex chromosome abnormalities is unlikely to be done in the foreseeable future.

Autism and Schizophrenia: Different but Similar

Although frequently considered to be different psychiatric disorders, Autism Spectrum Disorder (ASD) and Schizophrenia (SZ) have much in common. Both have a population frequency of approximately 1.1% (ASD, 1.14%³; SZ 1.1%⁴). Both diseases have similar heritability, with similar sibling risks (16-20%). Both diseases have delayed onset, and both are genetically heterogeneous with hundreds of candidate gene loci discovered, many of which are common to both. Unlike typical genetic diseases that have a single causative mutation, ASD and SZ are complex disorders, influenced by a variety of environmental factors. It has been argued that the primary deficit for both conditions is social cognition, with autistic individuals interpreting the social context in an underdeveloped fashion, and schizophrenia individuals experiencing it in an overdeveloped fashion.⁵

Delayed Onset and the Environment

Since SZ onset usually occurs in early adulthood, in theory there is ample opportunity to search for risk factors. However, few prospective studies exist that have looked at this in an unbiased way. The NFBC (National Finland Birth Cohort Study) of 1966 evaluated 12,000 subjects born in 1966 for risk factors for schizophrenia. The strongest factors included parental psychosis (OR 4.1) and CNS in-

Marsha Speevak, PhD, is an assistant professor in the Department of Laboratory Medicine and Pathobiology at the University of Toronto. She is a staff cytogenomicist, Credit Valley Site, Trillium Health Partners, and is the current President of the Canadian College of Medical Geneticists (CCMG).

continued ▼

fection (OR 3.7).⁶ But the authors also found evidence suggesting that mild early developmental delay was a predisposing factor as well. ASD presents at a much earlier age than SZ and, as a result, there is less opportunity to evaluate the preventable environmental triggers that might influence onset. However, critical maternal factors thought to increase the risk for ASD have been identified. These include maternal infection, stress, and certain drug exposures.⁷ Interestingly, autoimmunity has been separately linked to both autism and schizophrenia and it has been suggested that variants in the major histocompatibility complex may be somehow responsible. In fact, autoantibodies directed against neurotransmitter receptors have been detected in people with schizophrenia.⁸ Another proposed mechanism of environmental influence is abnormal epigenetic regulation of gene expression (DNA methylation and histone modification) and this has been implicated in SZ as well as ASD.⁹

Cytogenetic Syndromes and Copy Number Variation

Schizophrenia and autism are well known to be associated with a number of cytogenetic syndromes, including Rett, William, and DiGeorge syndrome. Each of these disorders is caused by a relatively large chromosomal deletion that usually includes several linked genes. Each is defined by a predictable phenotype that includes a specific set of intellectual and physical deficits, which earns them the "syndrome" moniker. However, the genetic causes of isolated, non-syndromic ASD and SZ are much more difficult to define. Recently, new discoveries about the genetics of these disorders have been made through copy number analysis.

Copy number analysis is the study of the small genetic imbalances that are present in each and every one of us. It is now recognized that copy number variation played a significant role in the evolution of our species. Copy number variants (CNVs) contribute uniqueness to the individual, affecting traits such as resistance or susceptibility to disease. They can be very common or very rare, and most are inherited in a direct, Mendelian fashion. In cases where the CNV is *de novo*, or involves a gene or regulatory region of importance, it can be disease-causing. Very recently, through the use of new DNA technologies, CNVs have been found to be associated with a growing number of neuro-developmental disorders, including intellectual deficit, specific language delay, and attention deficit disorder. CNVs are also associated with SZ and ASD and, although many are *de novo*, some are inherited from an unaffected, or a mildly affected, parent. These include 15q13.3 deletion (including candidate gene *CHRNA7*) and the 1q21.1 deletion/duplication region.

One model for the study of the genetic link to SZ and ASD is the 22q11.2 deletion syndrome (22qDS). It is estimated that 23-27% of individuals with 22qDS have SZ or schizoaffective disorder and up to 50% have ASD.¹⁰ Thus, it is believed that the deleted segment contains one or more important SZ/ASD susceptibility genes.¹¹ Many loci on other chromosomes have been identified through copy number analysis as well as next generation sequencing. The most interesting gene families are the Neuroligins and Neurexins. These are brain

specific cell adhesion molecules involved in synaptic connectivity and include *NRXN1*, *NRXN2*, *NRXN3*, *NLGN1*, and *NLGN4*, to name a few.¹²

Prefrontal and Orbitofrontal Cortex

Hierarchical expression patterns of specific genes are believed to be required for proper brain development, and it has been proposed that abnormal expression patterns during the prenatal and early postnatal periods result in altered behavioral phenotypes.¹³ Recently it was reported that 22qDS patients with more severe positive symptoms of SZ had increased cortical thickness in the right medial orbitofrontal cortex, a brain region critically involved in social cognition.¹⁴ In another recent study, nine autism candidate genes were found to have convergent activity in the cortical projection neurons of the prefrontal cortex in middle pregnancy.¹⁵ These coincidences lead to speculation that the foundation for SZ and ASD is laid at various times during prenatal brain development and some of the critical action takes place within the orbitofrontal cortex.

Summary

ASD and SZ are affected by many of the same genetic and environmental adversities and appear to share the same neuro-developmental pathways. The following factors may be implicated in facilitating susceptibility to ASD and SZ:

- 1 A sensitized brain – minute perturbations in normal brain development at critical time periods, possibly brought on by maternal autoimmunity or flawed epigenetic regulation.
- 2 A compilation of genetic error – abnormal copy number and sequence variants additively disrupt genes that have roles in the development of the prefrontal cortex.
- 3 An exacerbating environment – infection, drug interactions, or stress poorly handled by the compromised genetic background.

Conclusion

The passage of time plays a very important part in the human condition. We undergo a very long period of development, from the embryo through to young adulthood. Our development occurs sequentially and interactively, physically and socially with the world. Every step of the way, we are guided by our species-dependent genetic makeup and by the sum of differences that make us individuals. How we experience our lives is determined by our brain-managed perception of the world. Perturbations in gene expression in the brain at certain time points may be critical in altering how the autistic or schizophrenic prone individual experiences the world in comparison to others. Identification of the genetic susceptibility loci, the environmental triggers, and the specific windows of time where concerted gene activity is critical, will hopefully one day lead to opportunities for pre-symptomatic screening and prevention of schizophrenia and autism before they take their toll on individuals and their families.

continued ▼

REFERENCES

- 1 R Arajarvi, J Ukkola, J Haukka, J Suvisaari, J Hintikka, T Partonen, and J Lonnqvist, "Psychosis among 'healthy' siblings of schizophrenia patients," *BMC Psych* (2006) 6: 6-13.
- 2 S Van Rijn, H Swaab, A Aleman, and RS Kahn, "Social behavior and autism traits in a sex chromosomal disorder: Klinefelter (XXY) syndrome," *J Autism Dev Dis* (2008) 38: 1634-41.
K Eckstrand, AM Addington, T Stromberg, B Merriman, R Miller, P Gochman, R Long, et al., "Sex chromosome anomalies in childhood onset schizophrenia: an update," *Mol Psych* (2008) 13: 910-917.
- 3 G Baird, E Simonoff, A Pickles, S Chandler, T Loucas, D Meldrum, and T Charman, "Prevalence of disorders of the autism spectrum in a population cohort of children in South Thames: the Special Needs and Autism Project (SNAP)," *The Lancet* (2006) 368: 179-181.
- 4 <http://www.nimh.nih.gov/statistics/1SCHIZ.shtml>
- 5 Y Dvir and JA Frazer, "Autism and Schizophrenia," *Psych Times*, 15 March 2011.
- 6 M Isohanni, J Miettunen, P Maki, GK Murray, K Ridler, E Lauronen, K Moilanen, et al., "Risk factors for schizophrenia. Follow-up data from the Northern Finland 1966 birth cohort study," *World Psych* (2006) 5: 168-171.
- 7 RR Dietert, JM Dietert, and JC DeWitt, "Environmental risk factors for autism," *Emerging Health Threats J* (2011) 4: 7111-7122.
- 8 AL Jones, BJ Mowry, MP Pender, and JM Greer, "Immune dysregulation and self-reactivity in schizophrenia: Do some cases of schizophrenia have an autoimmune basis?" *Imm Cell Biol* (2005) 83: 9-17.
- 9 S Akbarian, "Epigenetics of Schizophrenia," *Curr Top Behav Neurosci* (2010) 4: 611-28.
K Miyake, T Hirasawa, T Koide, and T Kubota, "Epigenetics of autism and other neurodevelopmental diseases," *Adv Exp Med Biol* (2012) 724: 91-98.
- 10 AS Bassett, EW Chow, J Husted, et al., "Clinical features of 78 adults with 22q11 deletion syndrome," *Am J Med Genet* (2005) 138: 307-313.
JA Vorstman, ME Morcus, SN Duijff, PW Klaassen, JA Heineman-de Boer, FA Beemer, H Swaab, et al., "The 22q11.2 deletion in children: high rate of autistic disorders and early onset of psychotic symptoms," *J Am Acad Child Adolesc Psych* (2006) 45: 1104-13.
- 11 H Ishiguro, M Koga, Y Horiuchi, E Noguchi, M Morikawa, Y Suzuki, M Arai, et al., *Schizophr Bull* (2010) 36: 756-765.
YZ Chen, M Matsushita, S Girirajan, M Lisowski, E Sun, Y Sul, R Bernier, et al., "Evidence for involvement of GNB1L in autism," *Am J Med Genet B Neuropsychiatr Genet* (2012) 159B: 61-71.
L Hosak, "New findings in the genetics of schizophrenia," *World J Psych* (2013) 3: 57-61.
- 12 AM Craig and Y Kang, "Neurexin-neurologin signaling in synapse development," *Curr Opin Neurobiol* (2007) 17: 43-52.
EM Kenny, P Cormican, S Furlong, E Heron, G Kenny, C Fahey, E Kelleher, et al., "Excess of rare novel loss-of-function variants in synaptic genes in schizophrenia and autism spectrum disorders," *Mol Psych* (2013) Oct 15 doi 10.1038/mp.2013.127.
- 13 IF Tsigelny, VL Kouznetsova, M Baitaluk, and J-P Changeux, "A hierarchical coherent-gene-group model for brain development," *Genes, Brain and Behav* (2013) 12: 147-165.
- 14 M Jalbrzikowski, R Jonas, D Senturk, A Patel, C Chow, MF Green, and CE Bearden, "Structural abnormalities in cortical volume, thickness, and surface area in 22q11.2 microdeletion syndrome: Relationship with psychotic symptoms," *NeuroImage: Clinical* (2013) 3: 405-415.
- 15 AJ Willsey, SJ Sanders, M Li, S Dong, AT Tebbenkamp, RA Muhle, SK Reilly, et al., "Coexpression networks implicate human midfetal deep cortical projection neurons in the pathogenesis of autism," *Cell* (2013) 155: 997-1007.

The Advent of Facebook and its Impact on Mental Health

NEGINE NAHIDDI

Introduction

The advent of social media and the widespread use of wireless devices are re-defining traditional relationships and personal interactions. This is especially true for younger generations constructing their identities during the Internet Age. Information is more accessible than ever before, and with this new access comes a host of tertiary issues. This essay explores the nature of power dynamics in Facebook friendships and its effects on mental health, more specifically the ways in which Facebook is shifting self-perception and expectations of daily living. A survey of the current literature surrounding Facebook and mental health in adolescents is also examined, and suggests that the field of Psychiatry has an increasingly important role in dealing with the effects of Facebook on mental health.

Negine Nahiddi is a fourth year medical student at Queen's University. She received her undergraduate degree from the Arts and Science Program at McMaster University, with a focus in French language and literature. As such, she enjoys the intersection of Medicine and the Humanities. Negine will be continuing her training in Family Medicine at the University of Toronto.

Facebook and the gaze of the other: a philosophical perspective

A Facebook profile is an online page in which its creator is able to construct a virtual identity for him or herself – one that mirrors many facets of life from school to employment, hobbies to interests, local to international travel. Facebook is constantly encouraging its users to expand their profiles with the addition of personal information. Apart from these staples, users can also post pictures and status updates highlighting how they feel or what they are doing at any given moment. These posts are then available to a user's Facebook friends for viewing and comment at their convenience. In this way, once information is posted on Facebook, it is accessible to one's Facebook friends at all times. Compared to interactions in the physical world, this constant access changes the power dynamics that exist in the online relationship between friends.

In the physical world, the power to leave a given interaction – to end it – is in your control. On the Internet, however, your profile is still accessible to others once you have physically disengaged from the interface. Constant access to your posted information, both current and historical, removes the control available to individuals in the physical world. By its design, Facebook has created a platform on which the virtual self is constantly exposed, and thus the instances in which a person can be judged increase as well. Simply put, on Facebook, the gaze of the other is always present.

Individual awareness of scrutiny and judgment is not a novel concept. Scholars have been contemplating the gaze of the other for centuries. In the Middle Ages, religious scholars feared the ever-present gaze of the divine. During the twentieth century, in Soviet Russia, Nazi Germany, and Vichy France, individuals were subjected to the ever-present political gaze of the State. Jean-Paul Sartre, a twentieth-century philosopher, describes the gaze of the other as a constant source of self-doubt and judgment. For Sartre, the gaze of the other

continued ▼

forces us to confront uncomfortable elements within ourselves, creating an existential angst that can, in its severest form, lead to suicide. Michel Foucault, another twentieth-century thinker, uses the notion of the panopticon, a structure in which the gaze of the other is always present, as a metaphorical analogy for modern societies and their desire to control popular behaviours. Quite simply, individuals have been familiar with surveillance and judgment for centuries. What, then, makes the online experience any different?

Traditionally, the gaze of the other comes, in fact, from “the other” – a faceless, nameless entity far away. On Facebook, however, the attention comes from people whom you know, people with whom you interact in the physical world. Suddenly, the judgment that one experiences becomes more familiar and immediate. Moreover, could it be, now, that individuals are feeling judgment even when isolated from other people? For children and adolescents in particular, the constant feeling of being judged can have profound consequences on the sense of self.

Furthermore, Facebook fosters an environment in which individuals are continuously updating their profiles to showcase their lives. The culture of Facebook has evolved in such a way that this posting behaviour is expected. Though the reality of daily life is often mundane, Facebook culture awards popularity to the exciting and newsworthy. Users tailor their profiles to highlight their achievements, their outings, and their most glorious moments in an effort to gain social validation. Facebook bombards users with notifications of wedding announcements, travel pictures, graduations, and job promotions. Of course, this portrayal is not strictly representative; in reality, one does not get engaged or promoted every day. However, this virtual platform becomes part of the users’ daily reality by virtue of their regular Facebook use, and creates false expectations of daily living. One might wonder, “Everyone seems to be doing something or going somewhere, why is my life so stagnant?” This question can be detrimental to populations in whom the sense of self is already vulnerable, for example, in adolescents and individuals with depression and anxiety. As such, one would expect the need for psychiatrists to increase in these populations as a result of regular Facebook use.

Facebook and depression: a scientific perspective

The literature on the topic of Facebook and mental health is scarce; however, a few studies have been conducted.

In a 2012 study from Eastern Europe, researchers investigated the relationship between social networking and depression indicators in adolescents. 160 Serbian high school students were asked to complete an anonymous questionnaire (BDI-II) to assess their level of depression. Students were also asked to self-report data on height, weight, average time spent on social media, average time spent watching television, and average time spent sleeping in a 24 hour period. Interestingly,

researchers found a statistically significant positive correlation between time spent on social media and BDI-II scores. As the number of hours on social media increased, the severity of depression as indicated by the BDI-II score also increased.¹

Other studies are less conclusive. In 2013, 190 university students in the United States took an online questionnaire to screen for depression, and engaged in a weeklong “experience sampling method” period to assess their real time use of social media. Researchers found no statistical correlation between clinical depression and social media use. Overall, researchers concluded that counseling parents on alleged “Facebook Depression” might be premature.² Of note, the patient demographic in this study was aged between 18 and 23 years; perhaps in this older age group, the ability to deal with depressive triggers is better developed than in high school students.

Other studies explore depression disclosures on social media. In a 2011 study, researchers analyzed 200 Facebook profiles belonging to university students for self-disclosures that met the criteria for a DSM diagnosis of depression or a major depressive episode.³ Of those profiles, 25% displayed depressive symptoms and 2.5% met the criteria for a major depressive episode. Interestingly, Facebook users were more likely to reference depression if they received at least one comment on a status update that displayed a depressive symptom. Investigators also found that users who had posted their last status update more recently (suggestive of increased Facebook use) were more likely to reference depressive symptoms. The investigators interpreted this finding as a “help-seeking behaviour.” Alternatively, we must consider whether increased posts by depressed persons imply that they are using Facebook as another avenue in which to express maladaptive automatic thoughts. We must also question whether increased use of Facebook could be an exacerbating factor in their depression. Nevertheless, investigators in this study suggested that, with more research, Facebook could be used as an adjunct means of evaluating and possibly treating depression.

The media has also reported on Facebook and mental health. In March of 2012, *The National Post* reported research done by Larry Rosen, a professor of Psychology at California State University, on the newly coined term “Facebook Addiction Disorder.” Though not an official DSM diagnosis, FAD describes a state in which users are afraid to disconnect from social media lest they “miss out” on important online happenings.⁴ Pending further research, FAD could be classified as an anxiety disorder or an addictive disorder.

In a press release by The Association for Psychological Science, researchers Forest and Wood describe research assessing the content of Facebook posts from users with high and low self-esteem. In their study, they found that individuals with low self-esteem tend to view Facebook as a safe place to interact with others due to the reduced risk of uncomfortable social situations. They also found that

continued ▼

users with low self-esteem tend to post more negative comments and receive less “likes” (a form of online validation). They concluded that, while individuals with low self-esteem may feel safer disclosing information online, it might not be to their advantage to do so.⁵ These findings are very interesting in light of the perspective offered by Moreno *et al* on Facebook disclosures of depression and “help-seeking behaviour.”

Finally, in a clinical report published by the American Academy of Pediatrics, Drs. O’Keeffe and Clarke-Pearson discuss the notion of “Facebook Depression,” defining it as a depression that develops when preteens and teens spend “a great deal of time on social media sites such as Facebook”.⁶ They note that the “intensity of the online world may be a factor that triggers depression in some adolescents,” but do not offer any examples of elements that contribute to this intensity. I propose that the notions discussed in the first part of this essay, namely, (1) constant exposure and judgment of the virtual self, and (2) unrealistic expectations of daily living, are foundational to this online intensity.

Conclusion

Today, the only thing that can be said with certainty is that more research is needed. As with any portal that increases access to information, Facebook has both advantages and disadvantages. Further research will illuminate the ways in which we can better harness its advantages while minimizing the risks associated with excessive use. Although current evidence is insufficient to conclude whether a causal or exacerbating link exists between Facebook and mental health issues, expert opinion among psychologists and paediatricians indicates that Facebook is impacting mental health. Thus, the role of Psychiatry in addressing this impact will be increasingly important as Facebook use becomes more pervasive, especially among adolescents.

REFERENCES

- 1 I Pantic et al, “Associations Between Online Social Networking and Depression in High School Students: Behavioral Physiology Viewpoint,” *Psychiatra Danubina* (2012) 24(1): 90-93.
- 2 LA Jelenchick, JC Eickhoff, and MA Moreno, “Facebook Depression? Social Networking Site Use and Depression in Older Adolescents,” *Journal of Adolescent Health* (2013) 52(1): 128-130.
- 3 MA Moreno et al, “Feeling Bad on Facebook: Depression Disclosures by College Students on a Social Networking Site,” *Depression and Anxiety* (2011) 28(6): 447-55.
- 4 V Pilioci, “Is social media harming our mental health, researchers wonder?” *The National Post*, 25 March 2012. Retrieved from <http://news.nationalpost.com/2012/03/25/is-social-media-harming-our-mental-health-researchers-wonder/>
- 5 Association for Psychological Science, “Facebook is Not Such a Good Thing for Those with Low Self-Esteem,” (30 Jan 2012); Retrieved on 14 April 2013. <http://www.psychologicalscience.org/index.php/news/releases/facebook-is-not-such-a-good-thing-for-those-with-low-self-esteem.html>
- 6 GS O’Keeffe and K Clarke-Pearson, “The Impact of Social Media on Children, Adolescents and Families,” *Pediatrics* (2011) 127(4): 800-804.

Interviewing Skills

Eric Prost, MD, FRCPC, is a staff psychiatrist at Queen's University, and the editor of Synergy.

ERIC PROST

"Now these are questions we ask everyone. Simply routine questions."

Papers are shuffled.

"Have you ever thought life wasn't worth living or thought of harming yourself?"

"No. I wouldn't do that."

"Again, just questions we ask everybody. Simply routine. And do you have any weapons in the house?"

"Oh no. No guns, if that's what you mean? I guess I have kitchen knives."

Mouthing the words slowly while writing quickly: "No-guns-just-kitchen-knives. Right. What sort of kitchen knives? Just routine questions, you understand."

"Oh, just paring knives and bread knives, you know."

"Paring-knives-and-bread-knives. Do you have any cleavers?"

"Like a meat cleaver? No, no."

"We ask everyone. No-meat-cleaver." Pauses. "No, that's not right." Screwing up face while peering at handwriting and cocking head to one side. "Cleaver with an 'a'. Okay."

Shaking head: "No, certainly no meat cleavers at home."

"Any hunting rifles?"

"No. I said I have no guns in the house."

"Right, right. Sorry." Writing: "No-guns-at-all-in-the-home."

Examining notes and scratching head.

"Do you have any blunt weapons in the house? We ask everyone."

"Well...I don't know. Nothing that was meant to be a weapon, I guess."

"You mean you have objects that are used as weapons even though that was not the manufacturer's intended purpose?"

"No, no. I don't use anything as a weapon. I meant I don't keep blunt weapons in the house, but I suppose my husband's paperweight from Costa Rica could be a weapon, you see."

"Have you been thinking about harming him with it?"

"No, no, never. It's just that it's heavy. I'm trying to think of blunt objects."

"I need to know about weapons, not just any blunt objects. Lets keep on track. Any bats?"

"Baseball bats, you mean?"

"Baseball, cricket, especially cricket I guess – they're so heavy."

"Our children's old baseball bats are in the garage still."

Writing and repeating: "Keeps-baseball-bats-in-garage."

"Any bows?"

"Like bows and arrows?"

"Yes, but I'm just asking about bows right now, not arrows. Simply routine."

Hesitating: "...No..."

"You know, long bows. Oh! What about a crossbow? Can be very lethal."

"I've never seen a crossbow."

"You know, you hold it like this..." Demonstrating. "...and it has a trigger."

"Yes, I know what one is, but I don't have one."

"Good, good. I'm glad to hear it. Spears?"

continued ▼

"Spears?"

"Routine question. Is that a 'no'?"

"Yes."

"You have spears?"

"No, that was a 'yes' to not having any spears in the house."

"Good, good. What about a flail?"

Agitated: "A what?"

"A flail. You know, it's a handle with a chain attached and then an iron ball at the end with sharp spikes coming out of it and you can whirl it around your head." Demonstrating by making a motion like lassoing a cow. "Can do a lot of damage."

"I'd hardly be able to harm myself with a flail!"

With renewed concern: "Are you thinking of other ways?"

"No, no, it's just that you couldn't inflict damage on yourself with a flail."

"You could on your husband though. You could use it instead of the paperweight from Puerto Rico."

"Costa Rica."

"Sorry." Correcting notes from two pages back accompanied by loud shuffling of paper. "And where's the flail from? How'd you come to have a medieval flail?"

"I don't have a flail. I've only just heard what it even is!"

"You seem to be a little upset. Is there something I can do to make you more comfortable? You understand we ask everyone these questions? Here are some tissues." Pauses momentarily.

"Do you have a blow gun?"

"I said I have no guns."

"It's not really a gun. More of a long straw you blow poisoned darts out of."

"You couldn't turn that on yourself anyway."

"Any poisonous plants in the house?"

Confused: "I wouldn't eat them!"

"What about succulents?"

"Succulents?"

"You know cacti, that sort of plant. Routine questions."

"I do have cactuses, but that seems irrelevant."

"Not at all. It's cacti, by the way, not cactuses. Cacti. They're very sharp. Think of all those little prickles and needles. Could be very dangerous in the wrong hands. What if one were to jam a cactus right into one's face..." Demonstrates as if thrusting a cream pie at self. "...Terrible damage. Disfiguring. You wouldn't want that, would you?"

Pauses.

"You seem quite agitated. I'm concerned if you were to return home right now, so I think it might be best if I filled out a form saying you need to stay so we can ensure your safety."

