



Career Spotlight - Genetic Counselling

Interview conducted by Career Services, University of Manitoba

October 25, 2011

Genetic Counsellors featured/interviewed:

Sherri Burnett, Genetics & Metabolism Program

Specialty: Maternal Serum Screening

Education: B.Sc. from University of Manitoba, M.S. in Genetic Counselling from University of Minnesota

ABGC accredited

Shannon Chin, Genetics & Metabolism Program

Specialty: Prenatal

Education: B.Sc. from Brandon University, M.Sc. in Genetics from University of Manitoba
CCGC accredited (received CCGC through previous certification route)

Jessica Hartley, Genetics & Metabolism Program

Specialty: Metabolic and Newborn Screening Program

Education: B.Sc. from University of Guelph, M.S. in Genetic Counselling from Northwestern University (Chicago)

ABGC accredited

Melissa Hicks, Genetics & Metabolism Program

Specialty: General Genetics, Maternal Serum Screening

Education: B.Sc. from University of Western Ontario, M.S. in Genetic Counselling from Wayne State University (Detroit)

ABGC accredited

Kim Serfas, Genetics & Metabolism Program

Specialty: Hereditary Breast and Ovarian Cancer Clinic

Education: B.Sc. University of Manitoba, M.Sc. in Genetics from University of Manitoba
CCGC accredited (received CCGC through previous certification route)

1. When/why did you decide to become a genetic counsellor?

- **Kim:** I loved genetics, but didn't find laboratory bench work as rewarding as I had hoped. And I liked the idea of health care and patient contact, but wasn't interested in Nursing or other health occupations where I'd be dealing with blood. My job as a Genetic Counsellor, working primarily with individuals and their families who have had cancer or are high risk for cancer, provides me the opportunity to share my enthusiasm for genetics by translating complex information to help patients understand their diagnoses.
- **Jessica:** I discovered the field of Genetic Counselling during my undergrad when I took a course in Human Genetics. I also volunteered at a Genetic Counselling clinic during my undergrad which helped me further understand the occupation. I chose the field of genetic counseling for both the science and social aspects. I also appreciate the weekday work hours.
- **Shannon:** I chose Genetic Counselling because I loved the balance of science and working with people. My interest in Genetic Counselling began during my second year of university; during a Bioethics course I learned about a case of Huntington's disease and was introduced to the profession.
- **Melissa:** I initially thought of a career in Medicine and only learned about Genetic Counselling in my third year of university when a professor in my Human Genetics course talked about the occupation. Genetic Counselling seemed like a great fit for me, since I really wanted to focus on helping families with genetic conditions specifically. As a bonus, it required fewer years of schooling than Medicine.
- **Sherrri:** I decided to go into Genetic Counselling during the 2nd/3rd year of my undergrad when I realized that laboratory work was just not for me. I liked the balance of science and interaction with patients that genetic counseling offered. I have always been a "people person" and a profession that allowed me to combine working with patients and utilizing my love of genetics seemed perfect.

2. What would you recommend to a student who is considering this occupation? What activities might help them "test the waters" or prepare for this career?

- Plan ahead!! Experience, not just grades, is important. Programs are very competitive so looking into the different schools as soon as possible is advised. Volunteer experience is needed and/or extremely helpful for your interviews with these programs.
- Volunteer in a genetic counselling centre and/or gain counselling experience – i.e. volunteer with a crisis counselling line, pregnancy health centre or women's health clinic. The Genetics and Metabolism Program at Health Sciences Centre also accepts volunteers.
- Within your undergraduate degree it can be helpful to take courses in human genetics, counselling, family dynamics, psychology and sociology. It can also help to gain skills in scientific writing and/or take a Research Methods course. Laboratory skills gained through

schooling or co-op / work-learn programs will also help prepare you for your genetic counselling training.

- Genetic counselling (GC) programs are exceedingly competitive and having previous volunteer/work experience is instrumental in gaining acceptance to a graduate training program. It can also be helpful to meet with other genetic counsellors who have been through the applications process.
- An undergraduate degree in genetics provides a good foundation for a GC training program. The focus within a genetic counselling master's program is on application of human genetics subject knowledge. Also, be aware that schools in the United States generally require you to write the GRE (Graduate Records Examination) as part of your application to their programs.

3. What does a typical day on the job look like?

- Every day is different, and the work will vary depending on your specific position and the centre you work in. A typical week has a mixture of desk work and clinical interactions. Some centres have more clinic work. We usually don't see patients every day.

A typical week can include:

- patient visits and follow-ups
- desk work, paper work, telephone contact with patients and other health care professionals. Tele-Health/phone counselling can be a major part of some genetic counselling positions. Genetic counsellors who work for registries are on the phone most of the time.
- conducting research for caseload – this includes researching different diseases and cases and continuous use of tools like PubMed.
- public education and professional education, some of which requires significant prep time. Genetic counsellors are involved in teaching in other professional programs as well, like medical schools.
- liaising with medical doctors and other health care professionals

4. What do you like most about your work in this profession?

- **Jessica:** The constant learning. I am always learning new things and looking at how to further help my patients.
- **Shannon:** The problem solving. In my work I am doing research and applying what I know to new cases and situations.
- **Sherri:** The patients. People never cease to amaze me with their resilience and courage. My opinions and beliefs are consistently challenged, which I feel makes me a more understanding, open minded individual.

- **Melissa:** The variety. There is a lot of variety within the work and a variety of different patients and people that I work with.
- **Kim:** Working with patients. Often we are interacting with people at some of the most stressful and difficult times in their lives and we have the opportunity to help in some small ways even if it is just to listen or clear up misconceptions.

5. What are some of the challenges of this job?

- Dealing with emotionally charged situations is part of this type of work. Patients may have just learned of a cancer diagnosis or abnormal findings. Self assessment and reflection are good skills to have in this profession and help us to cope with this challenge.
- Breaking bad news to patients is another very difficult part of the job. Communication within the genetic counselling setting is more than just informing the patient of their condition, it is also about dealing with the fallout and providing support.
- Keeping up with technology is always a challenge. As well, patients often arrive to appointments with misinformation resulting from research they've conducted online. It can be a challenge to weed out credible info with patients – sorting out myths and realities regarding genetics.
- It can be a challenge to work with a diverse range of patients and professionals. There is a lot of cultural diversity amongst patients and hence individuals have varying knowledge and beliefs about genetics. We also work with a diverse range of health professionals with differing expertise and levels of knowledge and hence are always adjusting how we work and collaborate within the health care team.
- There is a lack of awareness about genetic counselling amongst other professionals. Part of collaborating with others includes explaining what we do. Genetic counselling used to be a verb; in the past it was a role that a physician might have, but now it is a multidimensional profession.

6. Can you describe the types of health issues and patients that you work with in this profession?

- We deal with a wide range of genetic diseases and with patients of all ages. Our scope of work includes:
 - Maternal Serum Screening/prenatal
 - Hereditary Cancer syndromes
 - Adult onset conditions
 - Genetic diseases such as Cystic Fibrosis, Muscular Dystrophy
 - Pediatrics – learning delays, birth defects, seizures, growth abnormalities

- Metabolism (ex: inborn differences in the body's ability to break down certain foods, nutrients, etc)
- Newborn screening
- Patient support and advocacy
- Other areas where there is now more involvement of Genetic Counsellors, includes:
 - Cardio-Genetics
 - Laboratory genetics
 - Pharmaco-Genetics (examining how an individual's genetic makeup impacts their ability to metabolize drugs)
 - Genetic testing companies
 - Work with insurance companies (involved in underwriting and education of the implications of genetic testing)

7. Other than genetic counselling units within a hospital, where else can Genetic Counsellors work? What other types of work could you enter into with the same background?

- With genetic counselling, there is a lot of opportunity if you are mobile and it can be important to be mobile especially at the beginning of your career.
- Genetic Counsellors work within the education system – teaching in training programs.
- Genetic Counsellors can work in private companies – both direct to consumer genetic testing companies, and pharmaceutical companies – working with clinicians and patients to explain genetic testing procedures.
- GCs can be contracted to work with government agencies and advocacy institutes (i.e.: public health, patient advocacy groups)
- GCs can also work as lab counsellors within health care facilities. In this role, we liaise between health care professionals and help practitioners select the appropriate genetic tests for their patients.

8. What upcoming changes, if any, do you anticipate within the field of Genetic Counselling?

- The amount of information a patient can request and the amount of information gained from one test will continue to increase. As a result, this will also increase the need for interpretation and genetic counsellors.
- Genetic Counselling is not currently a licensed profession, but this is likely to change. (In the U.S. some states already require licensing). Licensing will increase autonomy of GCs and create work in other areas. This is already happening with “direct to consumer” genetic counselling companies. Genetic counsellors are needed to provide adequate information to patients so that they can self-select testing and make appropriate decisions. Dealing with Informed Consent is a

major part of the work in this profession. Genetic testing has implications not only for the individuals being tested but also their family. Being aware of the possible outcomes of a test result and how this can impact you/your family is very important. Genetic testing is a choice and as such patients must be properly informed to ensure they wish to have such testing.

9. What should students know about the occupation when deciding if it is the right path for them?

- Genetic Counselling isn't or shouldn't be thought of as a back-up plan for medicine.
- GC training programs are very competitive and a lot of work is required if you want to be a successful applicant.
- It is important to do your research and speak with people in the profession if you are considering this path.
- There is less opportunity for advancement with Genetic Counselling, compared to some other occupations. Movement with the field tends to be horizontal – moving from one clinical position or specialty area to another. Vertical mobility is most common in the private sector.
- Genetic counselling is a relatively new profession and will continue to grow.

To learn more about Genetic Counselling, please view the following resources:

- a. Genetic Counsellor career information webpage – University of Manitoba Career Services
<http://www.umanitoba.ca/student/counselling/spotlights/geneticcounsellor.html>
- b. Manitoba Association of Health Care Professionals' Newsletter - Career Profile : Genetic Counsellors (Submitted by Jessica Hartley, MS, CGC and Kim Serfas, MSc, CCGC)
<http://www.mahcp.ca/pdf/march%20news%202011.pdf>
- c. Canadian Association of Genetic Counsellors
<https://cagc-accg.ca/>
- d. National Society of Genetic Counselors
<http://www.nsgc.org/>



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