

Portrait of the Master Genetic Counselor Clinician: A Qualitative Investigation of Expertise in Genetic Counseling

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Abstract This study comprises an initial empirical description of personal and professional characteristics of master genetic counselors—those considered to be experts in the profession. Fifteen peer-nominated genetic counselors, actively engaged in providing clinical services to patients, participated in semi-structured telephone interviews exploring their personal qualities, inspirations, and perspectives on professional development of expertise. Analysis using modified Consensual Qualitative Research methods yielded 7 domains and 33 categories. Findings indicate master genetic counselors have a strong passion for and dynamic commitment to the profession. They also have insatiable curiosity and are life-long learners who are reflective, self-aware, confident, and recognize their limitations. They are authentic and genuine, and consider their personality to be their counseling style. They form collaborative and interactive relationships with patients based on trust, and they have nuanced attunement to the complexity and multiple levels of the counseling *process*. Master genetic counselors have deep empathy and are inspired by patients and colleagues, and they derive personal meaning from their work. They are affected emotionally by their work, but effectively manage the emotional impact. They view their professional development as ongoing, influenced by colleagues, patients, mentoring, multicultural considerations, and their own family of origin. They also believe professional

development of expertise occurs through critical reflection upon the experiences one accrues. Additional findings and their relationship to theory and research, study strengths and limitations, implication for training and practice, and research recommendation are discussed.

Keywords Professional development · Genetic counselor expertise · Master genetic counselor · Qualitative study · Personal and professional characteristics

Genetic counseling is “a process of helping people understand and adapt to the medical, psychological, and familial implications of genetic contributions of disease...[including] interpretation of family and medical history to assess the chance of disease occurrence or recurrence, education about inheritance, testing, management, prevention, resources, and research, [and] counseling to promote informed choices and adaptations” (Resta et al. 2006, p. 77). Genetic counselors translate medical facts and risk statistics into language patients can understand, and they “are active and compassionate participants in patient’ efforts to understand their genetic risks, endure their emotional struggles, and make life-altering decisions” (McCarthy Veach et al. 2010, p. 1; Weil et al. 2006). To date, however, little published research has documented how genetic counselors *best* perform their myriad of roles. Even fewer published studies explore the personal characteristics and professional development associated with excellence in those roles.

The concept of “expertise” or “mastery” has been explored in various human services professions, including psychotherapy (e.g., Skovholt and Jennings 2004), social work (e.g., Nilsson et al. 2007), nursing (e.g., Adams et al. 1997; Benner 1982), and physical therapy (e.g., Jensen et al. 1992), among others. Research in those fields suggests both

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personal characteristics, as well as personal and professional experiences, play a role in the professional development of the “best of the best” practitioners. Arguably, the same may hold true within the field of genetic counseling. Thus, the purpose of the present study was to describe personal and professional characteristics of master genetic counselor clinicians—those considered to be experts or among the best-of-the best clinicians in the profession.

Defining “Master Genetic Counselor”: Perspectives on Expertise

There is no universally accepted term denoting an exemplary or expert genetic counselor. The present investigation appropriates the term “master genetic counselor” from seminal research describing “master therapists,” that is, exemplary practitioners of psychotherapy (Jennings and Skovholt 1999). The term “master therapist” itself lacks an agreed upon definition (Jennings et al. 2003), and equally vague are synonyms such as “seasoned,” “well-regarded,” and “considered among the best of the best among their professional colleagues” (Jennings and Skovholt 1999, p. 8). Lack of a standard definition may be related to the difficulty of defining expertise in human services professions that involve highly complex activities and processes (Overholser 2010; Ryan et al. 2005).

Despite the lack of standard definitions of terms, studies in fields which share certain similarities with genetic counseling (e.g., Adams et al. 1997; Benner 1982; Jensen et al. 1992; Nilsson et al. 2007; Skovholt and Jennings 2004) demonstrate that practitioners viewed as experts possess certain common characteristics: 1) a multidimensional knowledge base developed through life and work experience, 2) an ability to recognize patterns within their clinical encounters, 3) a set of more elaborate cognitive skills than those professionals who are less developed, and 4) a strong motivation to continue learning. Additional similarities include openness, innovativeness, and creativity; a patient-centered and holistic view of one’s patients and a strong commitment to and authentic interest in them; and attention to patients as multidimensional individuals with unique life contexts and psychosocial considerations. Expert clinicians in these studies also manifest depth and competence, have a confident and well-defined professional identity, and they are self-aware and self-reflective.

Professional Development of Expertise in Genetic Counseling

Some researchers have investigated aspects of genetic counselor professional development. None, however, specifically explored either optimal development processes or the characteristics expert genetic counselors bring to their practice. Rantanen et al. (2008) purported to investigate “ideal genetic

counseling” (p. 445) in their analysis of 56 international guidelines governing genetic counseling. They concluded that “the ideal counselor was seen as someone who has good knowledge of human genetics and at the same time is an empathic person, whose communication is clear and who realizes the special situations that patients are facing” (p.449). Their conclusions, however, seem more akin to minimal skills of entry level counselors [cf. Accreditation Council for Genetic Counseling (2013) Practice Based Competencies, 2013] than a description of excellence.

A limited amount of literature shows that personal and professional experiences impact genetic counselors’ development, and learning and professional growth continue beyond graduate school (McCarthy Veach and LeRoy 2012; McCarthy Veach et al. 2002; Runyon et al. 2010; Zahm et al. *in review*). Two series of *defining moments* (McCarthy Veach and LeRoy 2012; McCarthy Veach et al. 2002) variously describe the impact of genetic counselors’ first-hand experiences with patients, personal grief and loss, ethical dilemmas, and proactive approaches to their professional development. Their experiences led to increased self-awareness, enhanced professional functioning, and new professional activities. Pivotal to these defining moments was the counselors’ use of self-reflection in order to grow from their experiences.

Runyon et al. (2010) assessed genetic counselors’ perceptions of important post-degree learning. Responses reflected intrapersonal, interpersonal, and professional realms of learning. Within these realms, respondents identified growth in a number of personal qualities including: self-efficacy, self-assessment ability, ability to have realistic self-expectations, ability to accept that some things are uncontrollable, open-mindedness/acceptance of others viewpoints, ability to manage personal biases, values and opinions, empathy and “presence” with patients, acceptance of uncertainty and that one cannot know everything, and commitment to lifelong learning.

Research on genetic counselor personal values offers further clues about the profile of a master genetic counselor. Pirzadeh et al. (2007) assessed 292 genetic counselors’ personal values. Across experience levels, the counselors highly valued benevolence (concern for others), self-direction (independence), achievement, and universalism (protecting the welfare of all).

Zahm et al. (*in review*) systematically investigated professional development of 34 genetic counselors across three experience levels (novice, experienced, and seasoned). They concluded that developmental processes occur throughout the professional life span, each component of professional development mutually influences the others, and there are positive and negative avenues of development. Prevalent themes included: increased focus on patients’ emotional needs and less focus on counselors’ agendas; increased focus on patients’ psychosocial contexts and needs; defining success

via a patient's individual needs; increased willingness to acknowledge whether one has succeeded with patients; and more realistic expectation of one's role. In considering differences among the experience groups, Zahm et al. reported that for seasoned counselors, in particular: 1) their definitions of helping changed over their careers, as they became more realistic, more confident, and less anxious about their limitations; 2) they described more varied, deep experiences, particularly related to patients and their impact on clinical work; and 3) they expressed more ways in which their personal lives had intertwined and affected their professional work. The researchers speculated that genetic counselors' development is influenced not only by years of experience but also by the quality of experiences, and how they process and integrate those experiences. They recommended research to determine factors that promote optimal development.

Purpose of the Study

Research on professional development and expertise in genetic counseling and related fields suggests personal qualities strongly influence how genetic counselors grow from professional and personal experiences. One might postulate that master genetic counselors possess certain characteristics that contribute to optimal growth. This study explored more fully the personal qualities exemplary genetic counselors bring to their work, and it comprises an initial attempt to empirically define the meaning of "expertise" as a clinician in genetic counseling. The major research question was: What are the personal characteristics of genetic counselors who are considered exemplary by their peers? Consistent with studies of experts in other fields (Benner et al. 1992; Fook et al. 2000; Jensen et al. 2000; Skovholt and Jennings 2005), genetic counselors, recommended by their peers, were invited to share their professional stories and views of their work and the profession through semi-structured interviews. Interviews focused on the *person* of the genetic counselor who engages in clinical practice and what may be involved in becoming *expert* in the profession.

Methods

Participants

Upon approval from a University of Minnesota Institutional Review Board, we recruited genetic counselors who are considered exemplary clinicians by their peers. The first author emailed 54 leaders in the genetic counseling field [defined as past-presidents of the National Society of Genetic Counselors (NSGC), and/or recipients of one of two national awards presented annually by the NSGC — the Jane Engelberg Memorial Fellowship and/or the Natalie Weissberger Paul

National Achievement Award], asking them to nominate people they viewed as exemplary genetic counselors. The invitation asked them to nominate individuals whom they would: (a) offer as a referral to a family member or close friend because they considered the person to be among the "best of the best" genetic counselors, or (b) would have full confidence in seeing for their own genetic counseling, or (c) whom they consider to be a master genetic counselor. Additional nomination criteria included being an ABGC certified genetic counselor and either currently practicing or having practiced within the past 2 years.

Six of the 54 emails were undeliverable. Six leaders responded and nominated a total of 27 different genetic counselors. Each of the 27 nominees received an email invitation to participate in a telephone interview and were told they would receive interview questions in advance to allow for reflection. There was one reminder invitation. Of the 27 nominees, six did not respond, two declined to participate, three were not eligible (due to no longer seeing patients), and one did not follow through on an interview. Thus the final sample consisted of 15 individuals, a number that meets recommendations for obtaining data saturation (redundancy) in Consensual Qualitative Research (CQR; Hill et al. 1997).

Instrumentation

We developed a semi-structured interview guide (See Appendix) informed by literature in other healthcare fields (Adams et al. 1997; Nilsson et al. 2007; Jennings and Skovholt 1999) and in genetic counseling (e.g., Runyon et al. 2010). Sixteen questions, with occasional prompts for clarification and elaboration inquired about participants' perceptions of distinguishing characteristics of master genetic counselors; necessary attitudes, values and traits; how master counselors develop; the impact of genetic counseling on the counselor; positive and negative experiences; inspirations and motivations; what constitutes success; and views of the work and the profession (the latter two topics are not part of this report). These questions were followed by 16 questions eliciting information about participant demographics.

Procedures

The first author conducted semi-structured interviews by telephone in 2010. Following each audio recorded interview, she made field notes regarding her impressions of the interaction. Upon completion of data collection, interviews were transcribed.

Data Analysis

Data were analyzed using modified CQR methods (Hill et al. 1997). The research team consisted of the first author (an

advanced doctoral student in counseling psychology at the time of the study), and two research assistants (master's students in a mental health counseling program). Team members independently coded responses for five randomly selected transcripts. They inductively developed *domains* (rationally-derived topic areas), constructed *core ideas* or summaries of the content in each given case (interview), and identified *categories* (more specific topics within domains). They engaged in cross-case analysis to consider which domains and categories were represented across the sample. Throughout this process, the team met to discuss and reach consensus on coding. After coding the first five interviews, each subsequent interview was coded independently by two team members (the first author and one of the master's students). The second author, a licensed psychologist, served as data auditor, reviewing codings for consistency and sense. Disagreements were discussed to reach consensus.

Results

Participant Characteristics

As shown in Table 1, there were 12 women and 3 men ranging in age from low 30s to mid-60s (Mdn=57). Most identified themselves as Caucasian/European-American, and all were from the United States or Canada. They held graduate degrees from a total of 9 different institutions; nearly all had an MS degree, and several held additional degrees. Participants were generally quite experienced (Mdn=27 years of genetic counseling experience; Range: 6–36 years). All were currently practicing genetic counseling and saw a median of 7 patients per week (Range: 1–18). Most worked in hospital or university-related settings in a variety of specialties, most frequently cancer or prenatal genetic counseling. At the time of the study, nearly everyone was also engaged in teaching and/or supervision, and many were also engaged in research.

Interview Characteristics

Interviews ranged from 34 to 77 min (Median=57 min). Although participants varied in the degree to which they reviewed the questions in advance, most spoke at length, and the interviewer had the impression that they were quite reflective, forth-coming, engaged, elaborative, and seemed comfortable being emotionally expressive.

Analysis of Interview Responses

Data analysis yielded a total of 7 domains, and 33 categories (See Table 2). The following section contains descriptions of domains and categories, along with illustrative quotations. Participants' responses were multifaceted and often coded in

Table 1 Participant demographics ($N=15$)

Variable	<i>n</i>
Gender	
Female	12
Male	3
Racial/ethnic identification	
European-American/White	12
Racial/ethnic diversity	4
Age (in years)	15
Median=57	
Range=Low 30's-Middle 60's	
Years of Genetic Counseling Experience	15
Median=27	
Range: 6–36	
Average number of patients seen per week	15
Median=7	
Range: 1–18	
Percent time in patient contact per week	15
Mean=53.8 %	
Range=5–100 %	
Employment	
Full-time	11
Part-time	4
Current and previous areas of practice specialization ^a	
Prenatal	11
Pediatric/adolescent	7
Cancer	6
Specialty Clinics	6
HD-Adult Neurology	5
Alzheimer	≤3
Hearing/Vision	≤3
Hematology	≤3
Metabolic	≤3
Molecular	≤3
Other	≤3

To preserve participant anonymity, certain details regarding race/ethnicity, age, and practice specialty were omitted

^a Participants could endorse more than one practice specialization

multiple categories within a given domain; thus *n*'s for categories refer to total number of responses. Of note, throughout the interviews, participants vacillated between describing themselves and their experiences, and speaking about master genetic counselors in general.

Domain 1 Defining Traits and Attitudes

This domain reflects participants' opinions of characteristics that distinguish a great genetic counselor from a good one, and what they regard as necessary attitudes, values or traits of a master

Table 2 Domains and categories extracted from participant responses (N=15)

Domain	Category	n ^a
Defining traits and attitudes	Insatiable curiosity, life-long learning, and deep knowledge	14
	Deep empathic understanding	14
	Self-reflection	11
	Seeking and searching	9
	Self-awareness	8
	Strong passion for and “dynamic commitment” to the field	7
	Going “above and beyond”	6
	Additional characteristics	9
Master genetic counselor development: influences	Influence of colleagues	13
	Learning from patients	11
	“Infectious excitement”: Impact of mentoring	10
	Working in a multi-cultural world	8
	Family of origin impact	7
Master genetic counselor development: processes	Development occurs over time and experience	15
	Quality of experience trumps quantity	13
Impact of the “Person” on the work of master genetic counselors	Realistic expectations of themselves	14
	One’s Personality <i>is</i> one’s counseling style	14
	Use of self: Genuine, authentic, and “comfortable in one’s own skin”	13
	The importance of fit	9
	Self-reflection promotes effective practice	8
	Confidence	8
	A merging of personal and professional selves	5
	Distinctive practice	
Being fully present and engaged	Attunement to the multiple levels of the genetic counseling process	13
	Rapport is “crucial”	8
	Balancing the power differential	8
Inspirations	Patients	12
	Deep personal meaning from the work	12
	Science, learning and new information	8
	Colleagues	4
Emotional impact	Loss, sadness, helplessness, and communicating bad news	15
	Boundaries and compartmentalizing	10
	Additional coping/self-care strategies	8

^a Refers to number of comments

genetic counselor. Many interviewees noted “master genetic counselor” is an intriguing construct, but a difficult one to define. Several expressed humility that they would be included

in such an elite group. They also said it is difficult to describe characteristics that distinguish a “great” genetic counselor from a “good” one. A couple of individuals noted the traits may differ somewhat for mastery in non-clinical versus clinical areas. A few said lack of an objective definition or outcome measures to evaluate master skills or traits and/or lack of opportunities to observe other counselors in action lessened their confidence in identifying distinguishing factors. Despite these caveats, their descriptions yielded eight categories.

Category 1 Insatiable Curiosity, Life-long Learning, and Deep Knowledge (n= 14)

All but one participant mentioned intellectual curiosity and love of learning as distinguishing characteristics. They used terms such as “thirst for information,” and the pleasure of being “intellectually stretched” that often extends beyond one’s specific specialty area. Master genetic counselors are “perpetually learning and experiencing,” and they exhibit “deep competence in knowledge” and excellence in “critical thinking and synthesis.”

It’s important to keep up with the education, keep current in the literature, to keep that knowledge base current and secure. To me it’s like painting the scaffolding over and over; it’s like you’ve got to keep it from rusting. You know you’ve got to put the fresh paint on those basics...kind of a constant rejuvenation of knowledge which is also one of the joys of this job...it’s like “brain candy,” you get to learn new stuff all the time!

This is a different concept here of translating information into a usable form...The use of a logical train of thought. If you can have a good, clear picture for a client, they’ll be able to follow it most of the time. And if you can’t, they won’t.

Category 2 Deep Empathic Understanding (n= 14)

Stemming from deep values of respect, all but one person mentioned “a drive to connect with people and to fully engage with our patients, to really understand them.” They mentioned advanced empathy and patient-centeredness, listening for a meaning deeper than what a patient presents at a surface level: “...advanced empathy is necessary. Empathy is a really complicated concept. And it’s not a set of behaviors that you can specify. It’s like trying to put your

hands on light or something.” They also described attunement to their patients’ emotions by using intuitive and perceptive skills (e.g., “There’s this internal dialogue: What else is going on here? What do I need to do to get to that place with them?”), life experience, immediacy, and strategic questioning to connect and provide an opening for emotional conversation.

Category 3 *Self-Reflection* (n= 11)

Most participants identified self-reflection as a key distinguishing characteristic. They defined self-reflection as a willingness and openness to continuously engage in a process of critical analysis of one’s thoughts and/or behaviors in order to understand motives and continually “self-evaluate” (e.g., “The ability to self-assess and to be critical of what one is doing, always—a reflective practice...”). Self-reflection requires openness, honesty, and non-defensiveness: “There’s openness not only to exploring yourself, but also discussing yourself and your cases with other people; which may or may not involve formal supervision or just colleague interaction. And a willingness to be non-defensive - honest and non-defensive.”

Category 4 *Seeking and Searching* (n= 9)

Many interviewees described master genetic counselors as thriving on continual growth. They enjoy and seek out challenges, and they are innovators and initiators. Inspired by science and learning, and with a personal desire to improve, they are driven to go beyond the status quo. These are characteristics which they acknowledge, can be positive and negative. As one individual said, they may not “feel settled” by anything. The ways in which they “seek and search” vary; for instance, they may seek more “effective and efficient” methods in the way they work, or “do research and collect evidence” for their work. For several, innovation means helping the profession evolve: “One of the things that separates the master counselors from the other counselors is the master counselors *are* the ones that are driving the field, lecturing, writing, and doing original research, and that’s how the profession

grows.”

Category 5 *Self-Awareness* (n= 8)

Many participants placed great value on deep self-awareness, particularly with respect to biases, values, ethics, and interpersonal interactions.

Well, probably one of the highest priorities is self-awareness. Having a superior [self] understanding—not just “Oh yes, I understand what I bring to genetic counseling because I have three kids, and blah, blah, blah”—but a much more in-depth sort of therapeutic understanding of who we are, how we were raised, what our biases and values and beliefs are, and how that imposes [on] and informs our work and [how they] can be barriers.

Category 6 *Strong Passion For and “Dynamic Commitment” to the Field* (n= 7)

Several counselors identified passion and finding a niche in which they were highly invested. Their “dynamic commitment” to the field is more than “just a job”: “Oh I love it. I absolutely love it. I mean I am so grateful...to be a genetic counselor...I’ve absolutely grown up as genetics has grown up...I know this sounds ridiculous—it was a calling. It really was.” Participants also referenced students they viewed as having the potential to become master genetic counselors. They compared these students to themselves during a similar developmental period, expressed delight in “exceptional” students who share their passion. Some mentioned seeing themselves in these “go-getters” whom they viewed as having an intuitive sense of the how-to’s of the field and as motivated to learn all they can.

It’s that spark. It’s the “Do I have to tell you what to do?” or do you sort of intuitively want to...do everything you can to do it well, and maybe you screw it up and make a mistake. It’s the student who comes in and says, “I didn’t really know how to do this.” You can really sense that excitement and passion, like, “I want to do this for my life, what do I need to do?” They seek out feedback...

Category 7 Going “Above and Beyond” (n=6)

Passion and commitment motivate master genetic counselors to “go the extra mile,” to help patients, sometimes to an extreme.

I think after you see a few people and you realize, I can just stuff information at them, some standard stuff, or I really want to get to know what this is, and really get these people’s story, and I think that’s sort of the point where you say, “I’m going to go out and do some more.”

I think I always go the extra mile, but I think sometimes there’s an extra, extra mile. I’m learning maybe I shouldn’t be quite so good!...Which is another thing that I think you’ll find with these genetic counselors — they just can’t say no to stuff. It’s a plus and a minus.

Category 8 Additional Characteristics (n=9)

Many interviewees variously mentioned master genetic counselors are: caring, gentle, compassionate, creative, adaptive, and flexible. They are humble in their self-perspectives (e.g., “I don’t know that I’m any more ‘master’ than anyone else”). They have a sense of humor they use in their work, and they maintain ethical and professional standards.

Domain 2 Master Genetic Counselor Development: Influences

This domain reflects participants’ descriptions of the sources of influence on their professional development. There are five categories.

Category 1 Influence of Colleagues (n=13)

Almost everyone noted highly valuing relationships with colleagues, expressing appreciation and respect for fellow genetic counselors, members of their health care teams, and co-workers. They valued the consultation, support, and validation they receive from colleagues and feel humbled by the skills and passion they see in them. Some mentioned the value of peer support/peer supervision and/or a desire for more of these opportunities: “You feel good when a colleague or a referring

doc calls you specifically and says, ‘Hey, my patient thought you were really good.’ We all have our insecurities, and it’s nice to get sort of an outside approval, too.”

Category 2 Learning from Patients (n=11)

Most interviewees said particularly impactful experiences involved first-hand learning accrued from patients and families with whom they worked. These experiences enhanced their counseling skills (e.g., increasing their intuition about patients, allowing for deeper empathy). For instance: “...I try to learn from my patients and recognize that even after 27 years they still have something to teach me.” and:

...I’m fond of saying, “God help my first 60 patients.” I think that you have to be humbled a few times, at least, in order to really make that transition from the classroom to the counseling room. I don’t think anybody can do this without making some mistakes. And of course...the ability to learn from your mistakes. So for me, that was important.

Category 3 “Infectious Excitement”: Impact of Mentoring (n=10)

Mentors were important to most counselors, providing support and feedback, and offering professional development opportunities. They helped participants identify their strengths and encouraged— even “prodded” — them to develop those strengths. Mentors fostered enthusiasm, often by sharing their own passion and commitment.

I remember some people I interacted with years ago, how much it influenced me when they would get excited about learning!...[They] would say, “Oh this is so cool!” or “I just had the most interesting interaction with that family and they shared this that or the other thing with me, and it was so unexpected!” I think that excitement was kind of infectious.

Participants also noted they were “paying it forward,” passing on to the next generation of genetic counselors the support and professional opportunities their mentors gave them. In doing so, a few mentioned the mentoring relationship is bi-directional (e.g., “...you don’t just learn from people who are older and wiser than you. I learn so much from my students”).

Category 4 Working in a Multi-cultural World (n=8)

Many individuals said working in a multi-cultural world has been an opportunity for growth, and they expended considerable effort to attain cross-cultural competence. They described becoming more aware of their own assumptions and responses, and more aware of their patients' identities and how those might differ from their own.

In my first job I was working with a lot of people who had very strong [religious] beliefs and values that were really different from mine and very unfamiliar. And I didn't know anything about them, so I had to figure out who these people were, what made them tick, what was important to them, how they could live with blaming themselves for 'having sinned' and that's why they had an affected child, which happened a lot...because of that, I couldn't make any assumptions. It was probably a really good way to start my career. Because I didn't know anything about anyone ahead of time, which is still true today.

Others described learning to modify a "typical" session to address cultural differences, and attempting to understand from the patient's worldview. They acknowledged that working cross culturally can be challenging: "Well, we're sitting in these rooms knowing that whether or not this woman wants to have more children is really unrelated to whether or not she will, is unrelated to anything she thinks. That is pretty frustrating"; and some noted it is challenging to balance value differences with content they regard as essential to present in sessions.

Category 5 Family of Origin Impact (n=7)

Several counselors mentioned their family of origin was influential in their professional development. Some grew up in families with a strong sense of caring about others and a value of "doing good" for one's community. Others were taught that all people have value. Some viewed their parents as role models who demonstrated pride in one's vocation and valued intellectual curiosity. Others mentioned traits that were—or were not—nurtured in their family setting.

There are only a couple of things that can't be taken away from you. One is your education and one is your ability to be a good person regardless of your circumstances and to do good. It's hard for me to say if it would have been exactly the

same [without having learned these values in my family].

I've had genetic counseling students, or people who think they could be genetic counselors, say to me, 'Oh, I could never handle that. I can't handle kids that are suffering,' or that kind of thing. And to me, I grew into this. I was brought up in this terribly neurotic family, based on guilt, and I think it was the perfect testing ground!

Domain 3 Master Genetic Counselor Development: Processes

Participants described their professional development processes and those of students they regard as potential master genetic counselors. There are two categories

Category 1 Development Occurs over Time and Experience (N=15)

Everyone described development as a gradual learning process over time, and many said it also requires experience. The length of time varies and is particularly difficult to quantify.

I think it does take some time, but I don't think there's an exact timeline. I think some of these skills are going to be innate...when [genetic counselors] enter the field. But I don't know if you can put a time line of sorts on this elusive "master" genetic counselor thing.

There's a certain amount of life experiences that create perspective for you. If you don't have them, I don't know how you would have the vaguest notion about the implications of the things you're trying to have a conversation about.

A few interviewees thought certain genetic counselors may be "naturals" at the work, but they are exceptions. They noted, however, that the *potential* to grow into a master genetic counselor may be identifiable early in a person's development.

I have seen people that are naturals. Just like naturals in different sports. They come out of the box, and they just have a way of talking to people, they're comfortable in their own skin, they know what they can and cannot do. They're naturals, and most people are not.

Category 2 Quality of Experience Trumps Quantity (n=13)

Almost everyone mentioned *quality* of experience is more influential than quantity in the developmental process. Several suggested development depends on taking advantage of opportunities to be creative and to push one's self beyond anticipated limits. Others commented that "life knocks," providing valuable opportunities for insight, and several noted the importance of learning how to apply personal life experience to the genetic counseling context: "I think that anything that we experience that gives us insight into other people's worlds, and people's losses can help us become more effective genetic counselors; can help us to develop empathy."

Domain 4 Impact of the "Person" on the Work of Master Genetic Counselors

This domain reflects responses to the question of how the person they are affects the genetic counseling they do. There are seven categories.

Category 1 Realistic Expectations of Themselves (n= 14)

All but one interviewee commented on recognizing and accepting personal limitations. Although striving to do their best, they realize each day will not necessarily bring optimal performance. They believed this awareness allows them to let go of control and perfectionism —"to let go of their ego," as one counselor put it. They also expressed an ability to readily admit mistakes to themselves and others, as they firmly believe mistakes lead to growth.

My job is to do the best job I can, not necessarily to think about what was the best I've ever done. Maybe that's what makes a [master] genetic counselor, that sometimes it does go badly, and you just deal with that. And if you get too overly ego-invested in it, this job will kill you. Nobody is perfect. Nobody is going to fix everything.

Category 2 One's Personality is One's Counseling Style (n= 14)

All but one person commented that a master genetic counselor's counseling style is grounded in their unique personality, and thus many different styles exist. They noted

significant overlap between enduring personal characteristics and their professional identity development.

Your personality is your style. The great philosopher and baseball manager, Sparky Anderson, used to say, "You is what you is, and you ain't what you ain't." And that's pretty much it. Your personality is coming out in the genetic counseling session, and mine does. I have a big ole personality, and there's no doubt it comes through, and that's probably what makes me a good or a bad counselor to different people.

Category 3 Use of Self: Genuine, Authentic, and "Comfortable in One's Own Skin" (n= 13)

Many counselors noted their "use of self" develops rapport, encourages a strong alliance, facilitates communication, and provides a safe space for patients to open up emotionally.

After you've done [genetic counseling] for a while, you get good at it, and you're not really afraid of silence in a session, and you're not really afraid if people start crying, or even if you cry yourself...It may not be as professional as you want...but it happens. It's OK. I think genetic counselors sometimes don't feel like sharing their personalities, being authentic. If you pull out your little diagrams and all you want to do is point to things, you're just hiding behind all that science. That's really not what it's all about.

...I'm not extremely comfortable venturing way too far into psychosocial issues... I sort of see myself as a scientist first, who can be somewhat empathetic...So I think trying to be a super-duper psychosocial counselor probably was the point where I got uncomfortable in my skin and realized, I'm trying to be someone I'm not. How can I be who I am and be helpful to people? And that was probably a transition point.

Comfort with authenticity increases over time and, in part, follows from individuation from teachers and mentors.

In the beginning I think I felt I had to be [name of teacher]. I think we all felt we had to be [our teachers] essentially...My growth occurred in trying not to be who I wasn't...and probably the clinical transition was being comfortable enough in my skill set and my knowledge to just be who I was. Trying to be someone who I wasn't perhaps wasn't the best way to be helpful.

Category 4 *The Importance of Fit* (n=9)

Many counselors noted a “fit” between their personality and professional style and the specialty, work setting, and type of patients they see contributed to developing their expertise.

I have the luxury of doing genetic counseling for [specialty]...It's a wonderful fit for me, because the people who come to me, by and large, are interested in this. They want to know, which is so different from a [specialty] setting. So I think maybe part of what makes an excellent counselor is a good fit with your job. The only reason that I feel I'm good at this is because the right people are coming to see me.

Category 5 *Self-Reflection Promotes Effective Practice* (n=8)

Several participants expressed that self-reflection allows them to avoid working on “auto-pilot” and to effectively process when “self-doubt plays over and over” in their head. Self-reflection deepens their understanding of session dynamics, and helps them let go of perfectionism while also learning from situations that did not go the way they would have liked.

In the evenings or after each clinic, kind of going over in one's mind—processing the sessions—and trying to determine what was really going on. Did I miss anything? How did that go? How do I feel about that? Why do I feel the way I do about this particular patient? Is there anything there?...

Category 6 *Confidence* (n=8)

Many counselors noted their confidence affects session dynamics, for instance, it frees them up to use their personalities, to focus on emotional content of sessions, and to be more empathic: “We are much more confident in our abilities. We can toss aside the notes, and go from the hip, because we know. We're not worried that we're going to forget something. We've had so much practice.” Confidence-building derived from their work and/or their personal life experiences, self-reflection, and sometimes a “persistent drive.” Some participants used the term *self-esteem* and expressed that high

self-esteem allows them to feel stimulated rather than threatened by students' and patients' questions.

Category 7 *A Merging of Personal and Professional Selves* (n=5)

A few participants spoke in depth about integrating their personal life values, philosophies, and worldview into their work.

...the things we value in ourselves, I think they glimmer through in our encounters with people...We can't hide who we are, even though we might want to. My personal values are loyalty, honesty with myself, honesty with others; those are important to me, and I think some of those things do carry through. I think [wanting to make a difference] is probably wider than just genetic counseling, I mean it's what I aspire to. Whether I achieve it is a whole other question.

Domain 5 *Distinctive Practice*

This domain reflects participants' views of what is distinctive about their own practice as well as master genetic counselors' practice in general. There are four categories.

Category 1 *Being Fully Present and Engaged* (n=14)

All but one counselor described a desire to “engage in a dialogue” with patients. Several discussed rapport building as “engagement” or “focus” on the patient (e.g., “...approaching each case as the most important thing that you could possibly be doing at that moment”). Many counselors mentioned interacting with patients on a personal, human level.

I think it's the personal involvement. Leaving all the other activities when I'm in with a family. I may have a deadline or an appointment with somebody else waiting, or I know there's a problem I have to deal with, but it's pushing that to the very deep recesses of my brain, so that I'm fully present in the appointment.

Category 2 *Attunement to the Multiple Levels of the Genetic Counseling Process* (n=13)

Almost everyone described efforts to simultaneously attend to the various complex and *nonlinear* levels of genetic counseling, including patient dynamics, genetic counselor

dynamics, informational dynamics, and interactions among these levels. They valued “meeting the patients where they are” as one distinctive aspect of the way they practice. Many commented on the importance of tailoring sessions to meet patients’ needs, being comfortable addressing patients’ needs as they arise, and flexibly managing the complexity of emotional, psychological, social and informational realms. Attunement and flexibility promote an individualized session, adjusted with respect to pacing, focus and direction.

I don't necessarily follow an agenda, so I'm pretty willing to go with things the way the client wants to. I might be trying to keep track of a line of thinking that's related to the client's needs or agenda, but that doesn't mean I follow it. But I kind of, in my head, need to pull things together for myself. And I often try to do that overtly for the client towards the end. But that doesn't mean the session looks very linear. That's not how clients think of the story or want to interact.

Master genetic counselors may encounter challenges with regards to balancing knowledge they have gained through experience with patients’ desires.

Genetic counselors know many things. And the quest, or one quest, is to figure out what you say to a patient out of all the things you know in your head, and how to say it. So it varies from session to session. That is a skill that may separate counselors, one from the other, in terms of how good they are, how expert they are.

Several participants noted they are aware of and avoid going on “auto pilot” when presenting routine and standardized information.

I try to be [self-reflective] even during the session...when you see a lot of patients, a lot of them are there for the same reason, so it's easy to go into automatic pilot. To some extent you have to because you have to share a certain amount of standardized information. But you've got to be careful there that you're just not always on autopilot.

I try to learn a lot of practical information to help my client. So in that sense, I love counseling for things that I counsel over and over as opposed to the counselor who's easily bored. [Where they might say] “Well,

I've done 200 of these, why do the next one?” I feel like I have so much more to give my clients if I'm on my 200th case. Because then there are a lot of practical things that come from one client to another.

Category 3 Rapport is “Crucial” (n= 8)

Many counselors identified building rapport and providing a safe space where patients can open up as “crucial” (e.g., “. . .if you're going to get past being a genetic information provider, there has to be some rapport in order for people to be willing to raise issues they'd otherwise be unwilling to discuss with someone they met once or twice”; “I think that's part of what people need to feel, that you are focused on them, this is what you want to be doing, need to be doing, care about, and that they and their child are very, very important”; and “You're always on trial. [Patients] don't trust a stranger just because you're sitting in a health care office. It helps to be reminded that [trust] isn't just handed to you on a silver platter!”).

Participants described building trust through patient-centered behaviors such as valuing patients and their needs, being open to their perspectives and experiences, being genuinely interested in helping, and forming a reciprocal partnership that balances support with empowerment.

I think it's clear that I'm there to help patients. They get that sense that I'm on their side, and I'm not trying to sell them anything. I'm there to say, “Let's see what we can do to help you out one way or another here.”

Category 4 Balancing the Power Differential (n= 8)

Several counselors noted working to balance the power in the relationship by respecting and empowering patients, while also being aware of their own responsibilities in the session.

I think that genetics is a very powerful thing. And I think that it's very easy to create a sort of unequal relationship with a client, in that you're the holder of the bag. A counseling relationship is essentially a one-way relationship. Although we derive great value from successfully working with clients, we shouldn't be structuring our interaction

with clients for our own glory and success. That's a trap!

Domain 6 Inspirations

Despite frequent tragedy and loss they experience with patients, participants noted their work is deeply fulfilling and tremendously rewarding intrinsically. There are four categories.

Category 1 Patients (n=12)

When asked what inspires them as a genetic counselor, the overwhelming response was “patients.” The interviewees spoke at length about how their patients’ resilience and personal strength inspire respect, awe, and humility. They learn from their patients and integrate patients’ experiences into their own perspectives on life (e.g., “I’m humbled by what our clients go through and how they find personal strength and hope. I carry that around with me all the time...I think it’s affected my entire life and my perspective on all sorts of things.” One counselor learned “centeredness” from a family’s resilience, perseverance, and dedication. Many individuals expressed “privilege” and honor in knowing their patients/families, and felt inspired by the coping and empowerment they see in their patients.

It never ceases to astound me the inner strength that humans have that we don't know we have. And I see these families not only getting through it, but thriving and leading reasonably normal lives and being able to make decisions to have more babies and raise other healthy normal children, and so people will pretty much amaze me.

Category 2 Deep Personal Meaning from the Work (n=12)

The deep personal meaning derived from one’s work is inspirational for many. Genetic counseling provides a “sense of purpose” and a feeling that one is making a positive impact in the world, fulfilling a strong desire to help.

Oh, it's a deep sense of satisfaction. Because we all go into this because really we want to help people. We want to make their lives a little bit better. If not their medical

lives then at least their emotional lives, and when you can see you've done that, that's great.

Although presented with humility, participants expressed pride in “making a difference.” Pride variously derived from patients’ noting the counseling’s impact, empowering patients, making a difference on a deep emotional level, and having an impact in high-stakes situations.

Category 3 Science, Learning and New Information (n=8)

Several interviewees derived inspiration from scientific aspects of their work. They felt passion about being in the midst of rapid and complex changes in genetic understanding.

One of the things I've really liked about my job is that it's a moving target...the knowledge base is always changing. The things that you said to somebody about this condition 3 years ago maybe entirely wrong, and our whole understanding of it is 180° in the other direction. That sort of intellectual fascination, both with the information base and with people's responses to data...have been remarkable.

A few participants said they derive inspiration from more formal learning activities such as meetings, reading, and research, as well as from teaching.

Category 4 Colleagues (n=4)

Four counselors mentioned colleagues’ personal characteristics (e.g., “selflessness”) as a source of inspiration. They further noted learning academically and professionally from colleagues’ resilience and efforts for the profession: “...when I see other genetic counselors who are out there pushing the limits—trying to think outside the box and see where genetic counseling can really go, and people who are...leading that charge. I think that inspires me.”

Domain 7 The Emotional Impact

Participants repeatedly mentioned the emotional intensity of their work. Three categories describe that impact as well as the counselors’ coping strategies.

Category 1 Loss, Sadness, Helplessness, and Communicating Bad News (N= 15)

Everyone acknowledged their work impacts them emotionally, using terms such as sad, distressed, “heart-broken,” or, as one participant described it: “The helplessness of life being unfair.” Many used the word “draining” to describe the emotional effects.

I think it's draining. You're often involved with people at one of the very low points of their lives. I mean whether it's a child whose got [condition], or realizing that it's a disease that their kids could get, or with neurology, losing their independence. It's harder to be super duper engaged with that but not carry the weight of it.

I got very, very close to a few families, and when their [family member] died, that was hard. I think it is a loss for me. And partly because [engaging with families] is one of the things that I love about the field.

Some counselors noted feeling more emotionally connected and invested in patients for whom the risks are higher.

The ones that I tend to be more involved with are the ones who are at high risk. So luckily those are smaller in number. It's not like every day we're dealing with these high risk patients. So they're smaller in number, but your investment is higher, and the opportunity to help them is higher. These are the people I'm more likely to think about outside of my work hours. I don't think about them all the time when I'm at home, but I do think about them outside of the [office].

Communicating bad news remains difficult. Participants described feeling distressed when they cannot provide the positive news they think people deserve. A few experienced an emotional reaction to hearing about their supervisees' patients.

Three genetic counselors also talked about their work with patients having a positive impact on their own lives. They variously noted being better prepared to handle grief in their own lives and being grateful and feeling lucky regarding their own children's health.

I'd like to emphasize, I feel working in a field like this—I must have this thought every day — is that I'm so lucky. That I think it really gives us such a unique

perspective of being blessed by healthy kids...You know the ax can fall at any moment, but so far, we've been lucky and we really recognize that.

Category 2 Boundaries and Compartmentalizing (n= 10)

Many participants used various coping methods to manage the intense nature of their work, including: balancing emotional investment with appropriate boundaries, and separating one's professional and personal lives. Setting appropriate emotional boundaries seemed particularly useful for coping with the emotional intensity.

We're all empathic and that's why we go into this, and you've got to soak in some of that emotion. I think ultimately, most of the time, you learn to keep the devil down in a hole there. You don't let it overly obsess your life. That's not good for you. And some will bug you or make you feel better more so than others, but you can't let it rule your life.

Many noted they are able to maintain emotional boundaries by “compartmentalizing” or implementing an “off-switch” (e.g., “I can go home and say it's awful what these folks are dealing with, but it doesn't emotionally tear at me. I think I've learned, or forced myself to compartmentalize, and work is work, and home is home”). Some participants talked about “protecting family time” while also acknowledging the stress of “always being behind” and giving themselves permission to *not* work at home.

Category 3 Additional Coping/Self-Care Strategies (n= 8)

A number of counselors identified self-reflection, physical activity, and/or journaling as coping strategies. Some chose a less intense work setting or one that provides variety as a way to lessen the emotional impact. Others mentioned the importance of letting themselves feel: “...sometimes I just go with whatever I'm feeling. If something is following me home, if I'm feeling sad, I just need the space to kind of dwell on it a little bit. I may not try to dispel it.” Others noted personal resilience and gaining strength from their own family as ways they cope. To help preserve emotional balance, some counselors cultivated a philosophical perspective (e.g.,

understanding and accepting their own limitations). Others used “realistic appraisal” of predicaments that are inherent to the profession. Several self-monitored for symptoms of what they termed “compassion fatigue.” A few mentioned having experienced mild burnout, but none mentioned experiencing compassion fatigue.

Discussion

The concept of “expert” or “master” genetic counselor has yet to be investigated in depth, and therefore, this study explored the question “What are the personal characteristics of genetic counselors who are considered among the best-of-the-best by their peers?” The following sections contain a discussion of major findings from interviews with 15 peer-nominated master genetic counselor clinicians, followed by study strengths and limitations, implications for training and practice, and research recommendations.

Characteristics of Master Genetic Counselor Clinicians

Speaking openly and with passion and commitment, the participants provided in-depth descriptions of their perspectives of the traits, attitudes, and values of master genetic counselors:

Master genetic counselors are voracious learners. They have an insatiable curiosity, a love of learning, and consider themselves to be life-long learners. They are constantly “seeking and searching” and hold a strong passion and “dynamic commitment” to their profession. Master genetic counselors feel honored to learn from their patients.

Master genetic counselors view development as an ongoing, career-long process. Becoming a master genetic counselor requires a certain amount of professional and personal experiences, but quality of the experiences may be more important than quantity. Colleagues, patients, mentoring relationships, and one’s own family of origin provide key experiences.

Master genetic counselors are authentic and genuine. As their professional self matures over time, they become increasingly “comfortable in their own skin” and their “personality becomes their style.” They find work settings that align with their personality/counseling style.

Master genetic counselors are reflective, self-aware, confident, and recognize their limitations. They engage in “crucial, dynamic and continuous” reflection that promotes insight and growth, self-awareness, and realistic expectations about one’s role and one’s impact.

Master genetic counselors form collaborative, interactive relationships with patients. They excel in developing safe, trusting relationships. They strive to be “fully present” and engaged and to provide “deep empathic understanding.” They work to balance the power differential with their patients.

Master genetic counselors have a nuanced attunement to the complexity and multiple levels of the genetic counseling process. They are aware of session dynamics, informational and emotional realms, patients’ cultural and familial contexts, world views, and coping abilities. While connecting as human-to-human they “internally multi-task,” that is, they simultaneously hold the relationship, information, translation, purpose of session, patient emotions, motivation and meaning, their own emotions motivation and meaning, while they flexibly go where the patient needs to go. They use what they know to facilitate patient decisions, based on patient needs, desires, emotions, and meanings.

Master genetic counselors have deep empathy and gain personal meaning from their work. They feel deeply inspired by their patients’ courage and resilience.

Master genetic counselors experience an emotional impact from their work, but they effectively manage it. Loss, sadness and communicating bad news remain emotionally difficult for master genetic counselors. They manage the emotional impact in various ways, including setting boundaries and acknowledging their own limitations.

Comparison of the Findings to Prior Research

Genetic Counseling Research

The results overlap with those of recent studies of genetic counselor professional development. For example, several topics discussed by the participants are similar to findings regarding what genetic counselors learn on the job (Runyon et al. 2010). These include: development of self-efficacy, confidence, and self-awareness; letting go of control and acceptance of limitations; flexibility; synergy between personal and professional life, and the importance of self-care, work/life balance and boundaries; the importance of a focus on patient interaction; and counselor empathy.

The present results are congruent with Zahm et al.’s (in review) findings for “seasoned” genetic counselors. Zahm et al. found seasoned genetic counselors’ views of helping became more realistic and less idealistic over time, they viewed reflective practice as important, and they became more focused on the individual needs of each patient. They also found accumulated professional and personal experiences lead to depth of understanding and integration of one’s personality into their style of work.

Table 3 Comparison of master genetic counselors' characteristics to tenets of the reciprocal-engagement model of genetic counseling practice

REM tenet ^a	Related master genetic counselors characteristics
Genetic information is key	<ul style="list-style-type: none"> • Insatiable curiosity, love of learning, life-long learning • Inspired by science, learning and new information • Constantly “seeking and searching” • Connect “science to the individual”
Relationship is integral	<ul style="list-style-type: none"> • Create collaborative and interactive relationships with patients • Nuanced attunement to the complexity and multiple levels of the genetic counseling process • Multicultural awareness • Rapport is “crucial” • The pedigree: “the ultimate rapport building tool” • Aware of session dynamics • Fully present and empathically involved • Deep empathic understanding • Gain deep personal meaning from the work • Compassion and “dynamic commitment” • Genuine, authentic, and “comfortable in their own skin” • Their personality is their style
Patient autonomy must be supported	<ul style="list-style-type: none"> • Collaborative and interactive relationship with patients • Nuanced attunement to the complexity and multiple levels of the genetic counseling process • Multicultural awareness • Flexible and “meet clients where they are” <p>Equalize the power differential</p> <ul style="list-style-type: none"> • Foster empowerment, efficacy, and competence • Tailor salient information for individual patients • Realistic expectations and awareness of their own limitations
Patients are resilient	<ul style="list-style-type: none"> • Inspiration=Patients resilience and courage • Foster empowerment • Deep empathic understanding
Patient emotions make a difference	<ul style="list-style-type: none"> • Fully present and empathically involved • Deep empathic understanding • Deep personal meaning from the work • Loss, sadness, helplessness, and communicating bad news • Managing the impact on their own emotions: emotional boundaries and compartmentalizing

^a Source: McCarthy Veach et al. (2007)*Research on Experts in Related Professions*

The findings indicate that master genetic counselor clinicians share many characteristics of experts in related fields such as psychotherapy, social work, physical therapy and nursing (Adams et al. 1997; Benner 1982; Jensen et al. 1992; Nilsson et al. 2007; Skovholt and Jennings 2004). For example, they share a holistic comprehension of complexity, can prioritize salient issues, are flexible and creative, and easily adapt to changing situations. They also seem to have an intuitive and internal or personalized working style, and confidence in their own professional judgment. Relationships with patients/clients are particularly salient. Furthermore, they have an ability to create strong patient relationships characterized by collaboration, emotional connection, deep caring and commitment.

Congruence of Findings with the Reciprocal-Engagement Model (REM) of Genetic Counseling Practice

The present findings are consistent with the five tenets or underlying assumptions of the REM (McCarthy Veach et al. 2007), an empirically-derived model of genetic counseling practice (See Table 3). The findings are also consistent with the REM view that counselor characteristics are a pivotal part of genetic counseling processes and outcomes.

REM Tenet: Genetic Information is Key

This REM tenet holds that genetic information is key. The master genetic counselor participants espoused the importance of genetic knowledge. In their practice, they are able to discern that which is salient for specific patients, and they are able to *translate* that information in a way that it becomes meaningful to the patient. Rather than *quantity* of genetic information, which indeed they have amassed, it may be this *refined tailoring* for the patient that sets master genetic counselors apart. Although the REM tenet is understood in the context of information for patients, it also applies when considering the person of the master genetic counselor. Master genetic counselors are “driven” to learn; they are active learners with strong curiosity and a love of learning.

REM Tenet: Relationship is Integral

This tenet reflects the centrality of relationship, connection and communication. This tenet also reflects fundamental beliefs that patients need connection in times of distress; and patients' familial and cultural relationships are crucial to who they are, how they cope, and the decisions they make (McCarthy Veach et al. 2007). The

master genetic counselors described empathic engagement, understanding and attunement to the complex process and multiple levels of genetic counseling, taking an individualized approach, and understanding the patient holistically. Additionally, they valued relationships with colleagues and mentors. Their relational orientation may have deep roots. Early family life provided a “training ground” for some participants. Consistently expressed values included all individuals have worth, intellectual curiosity is desirable, and one should take pride in one’s work. This combination of family values resonates with much in the profession of genetic counseling and also underscores prior research showing genetic counselors highly value benevolence, self-direction, achievement, and universalism (Pirzadeh et al. 2007).

Master genetic counselor relational qualities comprise particularly compelling findings. Their personality *is* their counseling style; who they are as a person is evident in their interactions with patients. This seemed true whether participants described themselves as warm and feeling-focused, or as scientifically-minded and more cognitively focused. Thus, there may not be a single type or style of master genetic counselor, but rather multiple “flavors.”

REM Tenet: Patient Autonomy Must Be Supported

The participants concurred with this tenet in many ways. They espoused a belief in a collaborative and interactive relationship and collaborative goal-setting. They were keenly aware of and worked to equalize the power differential and considered patient to be experts on themselves. Their awareness of the complexity within the session and of session dynamics allows them to tailor information to each patient, thus supporting autonomy, and respect for cultural and familial considerations. Master genetic counselors’ self-awareness and attention to their own self-care also contribute to patient autonomy. In knowing who they are and what they bring to the session, they recognize and manage their own issues in order to focus on the patient.

REM Tenet: Patients are Resilient

The tenet recognizes patients’ strengths, adaptations and empowerment, and a belief that with appropriate support patients can handle their difficult situations (McCarthy Veach et al. 2007). The master counselors were deeply respectful of and inspired by their patients and their resilience, courage, and dignity. Moreover, patient resilience gives them perspective on their own lives.

REM Tenet: Patient Emotions Make a Difference

Patient emotions interact with all aspects of genetic counseling (McCarthy Veach et al. 2007), and the present sample’s responses, underscore this point. Emotions affect the relationship, integration of information, decisions, and coping. For master genetic counselors, bringing their authentic and genuine self into sessions means *feeling* and *holding* patients’ emotions. Everyone spoke about holding patient’s tragedy or trauma close and feeling honored when patients trust them to do so.

The participants monitored themselves for compassion fatigue, but they did not seem to have experienced it. Perhaps their admiration of patients’ abilities to thrive despite obstacles, and their own confidence in their ability to help, stem from a trait of *dispositional optimism*, which has been shown to buffer against compassion fatigue (Injeyan et al. 2011). Further, master genetic counselors’ sense of their own limitations, awareness that there will be patients whom, for whatever reason, they are unable to help, and their realistic expectations about patient outcomes, may decrease feelings of helplessness and serve as protective factors. Finally, their use of a variety of coping strategies for managing emotional distress (similar to those found by Injeyan et al. 2011), included routine self-reflection and strong relationships with colleagues.

Study Strengths and Limitations

A major strength of this study is its contribution to a small body of literature on genetic counselor professional development. This is the first study to focus on characteristics of counselors who are regarded by their colleagues as having achieved exemplary development. Congruence of the findings with those in other healthcare professions provides some comparative assurance that the participants are experts in their field. The sample was primarily female and Caucasian (which is representative of the profession), but it did include some multicultural and gender diversity.

Study limitations include that qualitative findings are not intended to be generalized to the population of interest. Another limitation is the decidedly low response rate in the two-step nomination process. This low response likely limited the pool of possible participants. Although a definition of “master genetic counselor” was provided, perhaps nominators were unsure of who to nominate. Further, there may be sample bias toward those individuals who are active in professional organizations and/or whose names are familiar.

Training and Practice Implications

The findings have training and practice implications. If one’s personality *is* one’s counseling style, then activities which increase genetic counselors’ self-knowledge may help them

develop their unique style, and potentially counsel more effectively. Graduate programs and continuing education trainings could use personality inventories which identify “ways of being” in the world [cf. Myers-Briggs Type Indicator (MBTI) (Myers 1962)]. Such self-administered instruments are easily processed, while maintaining individual privacy. The master genetic counselors believed there is no single “right style” of counseling and identified the necessity of finding and employing their own style. Supervision comprises another venue in which students can be encouraged to develop an individual style of counseling.

The participants emphasized the importance of self-reflection. Reflective practice can increase self-awareness and understanding, help identify strengths and limitations, and provide a means of addressing stress and vicarious trauma, all of which promote master development. On-going opportunities for reflection during graduate training may “set the stage” for career-long benefits. Importantly, genetic counselors should set aside time to intentionally reflect.

Participants in this study, even at their level of expertise, mentioned having no opportunities to observe other genetic counselors in action. Providing a means for such observation might promote professional development at all levels. Relatedly, these master genetic counselors noted the importance of colleagues and mentors in their development, and some expressed a desire for more opportunities for peer support/supervision. They viewed peer supervision/consultation as another way to develop skills, refine their personal style, practice self-reflection, and learn from other counselors.

The findings also suggest the utility of ongoing training in addressing and coping with intense patient emotions. Graduate training that involves helping genetic counseling students reflect on the role of intense affect and related strategies may be particularly beneficial. For post-degree genetic counselors, peer support/supervision may provide an outlet for processing the emotional intensity with colleagues who truly understand the experience (Zahm et al. 2008).

Research Recommendations

The present findings are congruent with prior studies of genetic counselor professional development and with a model of genetic counseling practice. The characteristics of exemplary genetic counselors overlap considerably with those of other expert helping professionals. Additional research is necessary, however, to validate these results. Comparisons across groups of master genetic counselors (e.g., clinicians versus counselors who excel in work other than patient contact) may reveal differing characteristics and developmental processes.

Master genetic counselor clinicians appear to possess a unique blend of empathic ability and scientific knowledge. Process studies could determine how they maneuver between these areas. Interpersonal process recall studies (cf. Gale et al. 2010), in which master therapists discuss what they were thinking and feeling while viewing a videotape of their genetic counseling sessions, would yield further insight into their “inner world” and provide evidence of how they establish rapport and connect with patients.

Participants spoke of “going above and beyond” and seeing their job as being “a calling,” while simultaneously separating their work and home lives in order to manage the emotional impact of their careers. Researchers should explore how a genetic counselor develops expertise while simultaneously balancing “passion” with a work/home ratio. Further studies can also enhance understanding of genetic counselor development, such as investigations of the types of factors that prevent some individuals from achieving a master level of development. Findings of such studies may identify areas for training and supervision interventions.

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Conflict of Interest Cacy Miranda, Patricia McCarthy Veach, Meredith Martyr, and Bonnie LeRoy declare they have no conflict of interest.

Ethical Treatment of Subjects All procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1975, as revised in 2000.

Appendix - Interview Questions

- What, in your opinion, distinguishes a great genetic counselor from a good genetic counselor? For example, what does it take to be a good genetic counselor? (e.g., attitudes, skills, values, etc.) What does it take to be *one of the best* genetic counselor?
- To become a master genetic counselor, does one need years of experience? Explain.
- In your opinion, what are the necessary attitudes, values or traits of a master genetic counselor?
- Given equally experienced individuals, what prevents some from becoming master counselors? For example,

when you think of all the skills used in genetic counseling, are there certain skills that a master genetic counselor optimizes beyond basic competencies?

- How much of genetic counseling, would you say, is an art versus a science?
- How does the person you are impact the genetic counseling you do? For example, how do you think your personal characteristics (e.g., personality traits, temperament, etc.) are reflected in your work with clients?
- What would someone say “stands out” about your practice/how you practice genetic counseling? For example, are there distinguishing aspects of your expertise? What is it that is particularly effective about how you practice genetic counseling?
- To what extent has that “distinguishing aspect” always been true of you versus something you have developed over time? If it has developed over time: What do you think contributed to your development of it?
- Can you take a moment and recall one of your most successful cases? What about it made it successful? *If you can't think of a specific case*, then tell me what generally characterizes your successful sessions.
- If you think of the other end of the spectrum, can you talk about a case that was, perhaps not your “finest moment” as a genetic counselor? What do you think was going on that made it less successful than you would have liked? How did this case affect you at the time?
- How do you know when you are doing a good job with a client?
- Are there some clients that you are not as effective with? Explain.
- How does your work as a genetic counselor affect you personally? What is the emotional impact of genetic counseling on you? How do you manage the emotional intensity of your work? For example, in mental health counseling research has found the emotional health of a counselor can affect their work with clients. Do you think that's true for genetic counselors? How does your emotional health affect the counseling you do?
- What inspires you as a genetic counselor?
- What do you think is meant by the “psychosocial” aspect of genetic counseling? How do you address that in sessions?
- If there were a recipe for making a master genetic counselor what ingredients would you use?

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