

Genetic Counselors' Perceptions of Student Supervision Across Service Delivery Models

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Background

- The use of videoconferencing and telephone to deliver GC services has become more widespread, with the most substantial increases surrounding the Covid-19 pandemic (Mills et al., 2021).
- Continued utilization of telehealth GC services is anticipated post-pandemic (Bergstrom et al., 2021; Breen et al., 2021; Dratch et al., 2021; Madden et al., 2020).
- GC student supervision across service delivery models remains relatively unexplored.

Methods

- 26-item online questionnaire distributed in 2021 via the American Board of Genetic Counseling and the Association of GC Program Directors listservs
- Inclusion criteria:** Patient-facing genetic counselors in North America with ≥ 1 -year GC experience, who supervised ≥ 3 GC students in the last 3 years

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Demographics (N=132)

Variable	n (%)	NSGC PSS Comparison ⁺
Age (n=131)		p = 0.113
25-29	45 (34.4)	
30-34	38 (29.0)	
35-39	18 (13.7)	
40-44	11 (8.4)	
45-49	12 (9.2)	
>50	7 (5.3)	
Years of Experience (n=132)		p = 0.020
1-4	49 (37.1)	
5-9	40 (30.3)	
10-14	17 (12.9)	
15-19	11 (8.3)	
20+	15 (11.4)	
Race/Ethnicity (n=131)		p = 0.014
Ashkenazi Jewish	1 (0.8)	
Black/African American	1 (0.8)	
East Asian (Chinese, Japanese, Korean, Okinawan, Taiwanese, Tibetan)	6 (4.6)	
South Asian (Bhutanese, Indian, Maldivians, Nepali, Pakistani, Sri Lankan)	12 (9.2)	
West Asian/Middle Eastern/North African	1 (0.8)	
White	109 (83.2)	
Prefer Not to Say	1 (0.8)	
Hispanic/Latinx (n=129)		p = 0.849
Yes	3 (2.3)	
No	124 (97.7)	
Gender (n=131)		p = 0.814
Female	122 (93.1)	
Male	7 (5.3)	
Non-Binary	1 (.8)	
Prefer not to say	1 (.8)	
NSGC Region (n=129)		p = 0.641
1: CT, MA, ME, NH, RI, VT, CN Maritime Provinces	12 (9.3)	
2: DC, DE, MD, NJ, NY, PA, VA, WV, PR, VI, Quebec	30 (23.3)	
3: AL, FL, GA, KY, LA, MS, NC, SC, TN	21 (16.3)	
4: AR, IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, OK, SD, WI, Ontario	39 (30.2)	
5: AZ, CO, MT, NM, TX, UT, WY, Alberta, Manitoba, Sask.	13 (10.1)	
6: AK, CA, HI, ID, NV, OR, WA, British Columbia, Yukon	14 (10.9)	
Work Setting (n=131)		p < 0.001
Academic Medical Center	81 (61.8)	
Laboratory	3 (2.3)	
Physician's Private Practice	5 (3.8)	
Private company – telegenetics	10 (7.6)	
Private Medical Center (non-profit or for profit)	20 (15.3)	
Public Medical Center	11 (8.4)	
Other	1 (0.8)	
Primary Practice Area (n=132)		p = 0.944
Cancer Genetics	44 (33.3)	
Cardiology	5 (3.8)	
General Genetics -Adult	3 (2.3)	
Metabolic	2 (1.5)	
Neurology	7 (5.3)	
Ophthalmology	2 (1.5)	
Pediatrics	33 (25.4)	
Prenatal/Preconception	33 (25.4)	
Other	3 (2.3)	

* All participants did not answer every question, so n < 132 for several items.
⁺ Demographics compared to the NSGC 2021 PSS (NSGC, 2021) for all variables except for region, which was compared to the NSGC 2019 PSS (NSGC, 2019)

Supervision Experience (2019-2021)

	In-person (N=132) n (%)	Video (N=129) n (%)	Phone (N=125) n (%)	Other (N=20) n (%)
0	7 (5.3)	25 (18.9)	62 (47.0)	17 (2.3)
1	6 (4.5)	12 (9.1)	11 (8.3)	0 (0.0)
2	18 (13.6)	12 (9.1)	10 (7.6)	0 (0.0)
3	15 (11.4)	20 (15.2)	9 (6.8)	0 (0.0)
4	6 (4.5)	15 (11.4)	7 (5.3)	0 (0.0)
5	11 (8.3)	11 (8.3)	8 (6.1)	0 (0.0)
> 5	69 (52.3)	34 (25.8)	18 (13.6)	3 (2.3)
Total*	580	415	216	3

*Total represents number of students supervised by this method across sample. For students >5, the total number of students was determined by multiplying the number of responses by 6. If participants supervised more than 6 students by this method, the value would be an underestimate. This method of data collection may not capture students who were supervised by more than one method.

Perceived Supervisor Competency Difficulty

	Difficulty Score (DS)* Mean (SD)	Difficulty Score (DS)* Mean (SD)		
		In Person N=128	Video N=106	Phone N=75
Establish a mutual trusting working alliance	1.5 (0.6)	2.1 (0.91)	2.6 (1.13)	2.6 (1.13)
Identify Learning Needs of Student	1.7 (0.59)	2.1 (0.87)	2.6 (1.04)	2.6 (1.04)
Assist student in developing a counseling plan	1.5 (0.61)	1.9 (0.81)	2.3 (1.06)	2.3 (1.06)
Intervene during session to direct student	1.5 (0.7)	2.6 (1.13)	3.2 (1.28)	3.2 (1.28)
Provide Feedback to Student	1.4 (0.57)	1.9 (0.86)	2.4 (1.15)	2.4 (1.15)
Promote self-evaluation, exploration, and problem-solving	1.5 (0.61)	2 (0.93)	2.5 (1.13)	2.5 (1.13)
Total Difficulty Score[#]	3.1 (2.89)	6.6 (4.25)	9.5 (5.53)	9.5 (5.53)

+Supervisor competencies were selected from published literature (Eubanks Higgins et al., 2013) to reflect a range of skills that involve student-supervisor communication.

*Each task was rated on a 5-point Likert scale, with 0 corresponding to "Very Easy" and 4, "Very Difficult."

Responses were summed over the six items to produce a score between 0 and 24. Participants who answered "Have not performed using this model" on at least one item for a delivery mode were not given a score for that delivery mode.

- No statistically significant association between DS and age, number of students supervised, specialty, work setting, receiving training on phone and/or video supervision, or service delivery models experienced during training.
- Less GC experience was associated with higher telephone DS (p=0.022)

Comfort Level and Preferences

Majority predicted **continued to increased use of telehealth for patient care**

- Most **comfortable in-person** and least comfortable by telephone for both patient care and student supervision, but to a greater extent for student supervision (p<0.001).
- Majority **preferred in-person** for both patient care (66%) and student supervision (81%).

Conclusions

- Service delivery model changes in the field have an impact on GC education.
- The student-supervisor relationship may be different via telehealth.
- The stronger participant preference for and comfort with in-person supervision, despite the forecast for continued telehealth rotation opportunities, points to a need for supervisor education specific to telehealth rotations.

Future Directions

- Focus groups with 29 participants complete and analysis in progress
- Repeat project to obtain student perspective
- Create guide for telehealth GC rotations

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