Family matters: impact of a dot phrase on complete family history documentation during initial colorectal cancer screening visits

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INTRODUCTION

- Hereditary gastrointestinal (GI) cancer syndromes account for 5-10% of all colorectal cancers (CRCs) [1]. Studies have shown the incidence of colon cancer has been increasing in younger patients since 2013, and that approximately 20% of these cases are from hereditary causes [2-3].
- Obtaining a complete family history (FH) informs GI cancer screening and referrals for genetic testing, but this is inconsistently done during CRC screening visits.
- Previously, we improved the rate of complete FHs obtained to 28.4% from 5.2% after implementing education and a FH screening form in clinic [4].

AIM

- The aim of this study was to assess impact of a FH dot phrase on rates at which complete family histories were obtained and genetics referrals were made during initial CRC screening gastroenterology clinic visits.

METHODS

- We shared a dot phrase that prompts providers to obtain a complete FH to our GI division on February 9, 2022.
- A complete FH was defined as addressing history of cancer in first- and second-degree relatives, colon polyps in first-degree relatives, and GI disease [1].
- We reviewed outpatient GI CRC screening visits from February 10, 2022, to March 9, 2022, and compared them to a one-month period of pre-intervention visits.
- Patient visits for first CRC screening were included. Patients with prior colonoscopies or indications for diagnostic colonoscopy were excluded.
- Patient characteristics, rates of complete FH, and genetic referrals were extracted.
- Rates of complete FH and genetic referrals were compared between the pre- and post-intervention groups with unpaired T-tests.

DOT PHRASE: .FAM

‘‘Patient denies any known family history of colon cancer or other gastrointestinal cancers. Patient denies any known history of cancer in first- or second- degree relatives. Patient denies any known history of advanced colonic adenomas in first degree relatives. Patient denies any known family history of inflammatory bowel disease or other significant gastrointestinal or liver diseases known to predispose to cancer.’’

Figure 1. Bar graph comparing the number of complete FH and genetic referrals placed

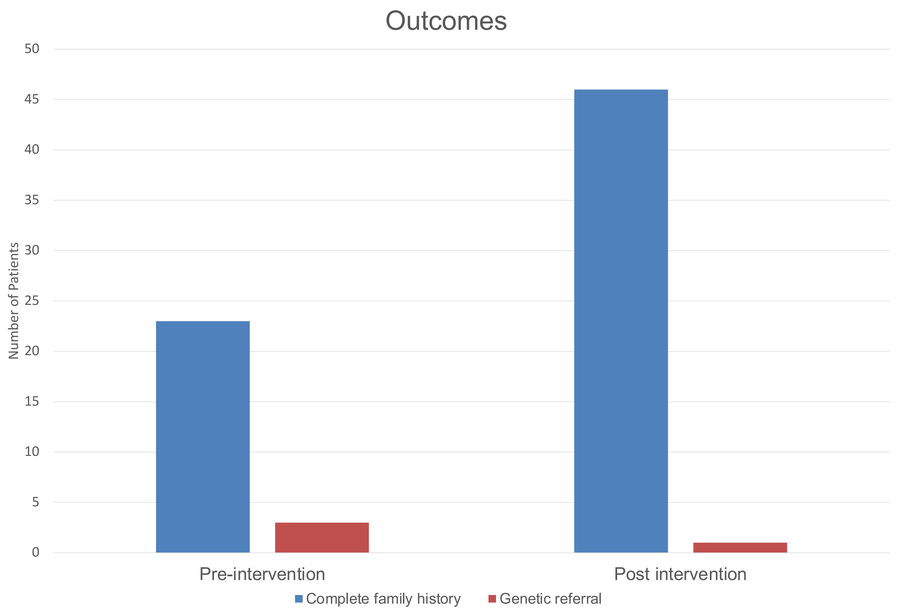

Table 1. Patient baseline characteristics and statistical analyses

Patient Characteristics	Whole Cohort, N=174	Pre-intervention N= 81	Post-intervention N= 93	p value
Average age [years]	51	51	50	
Gender, n (%)				
Male	75 (43%)	31 (41%)	42 (45%)	0.1416
Female	99 (57%)	48 (59%)	51 (55%)	0.6672
Race/Ethnicity, n (%)				
AA	85 (49%)	44 (54%)	41 (44%)	0.6455
Asian	9 (5%)	3 (3.7%)	6 (6.5%)	0.1585
Hawaiian/Pacific Islander	0 (0%)	0 (0%)	0 (0%)	
Hispanic	12 (6.9%)	5 (6.2%)	7 (7.5%)	0.4122
Other	8 (4.6%)	5 (6.2%)	3 (3.2%)	0.3173*
Unknown	11 (6.3%)	7 (8.6%)	4 (4.3%)	0.2005*
White	49 (28%)	17 (21%)	32 (34%)	0.0024
Complete FH	69 %	23 (28.4%)	46 (49.5%)	0.004
Genetic referral	3 (1.7%)	3 (1.7%)	1 (1.1%)	0.2695

*High estimated error, category with value less than 5

RESULTS

- A total of 174 patient visits were included; 93 post-intervention and 81 pre-intervention.
- The pre-and post-intervention groups were overall similar, but there were more white patients in the post-intervention group (Table 1).
- Complete FHs were obtained in 46/93 (49.5%) of post-intervention visits compared to 23/81 (28.4%) of visits in the pre-intervention group (p = 0.004).
- Genetic referrals were placed in 1/93 (1.1%) of post-intervention visits compared to 3/81 (3.7%) of pre-intervention visits (p=0.270).

CONCLUSIONS

- In our study, the rate of complete FHs obtained increased significantly to 49.5% from 28.4% after introduction of a FH dot phrase (p=0.004).
- The rate of genetic referrals was unchanged, though a larger sample size may be required to detect any potential difference.
- When upper GI problems were addressed along with CRC screening, FHs were often incomplete, suggesting a target for further intervention.
- Given there were more white patients in the post-intervention group, further observation of complete FH rates in patients based on race is warranted.
- Further efforts are warranted to increase the rate of complete FHs obtained during CRC screening visits.

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