View Abstract

CONTROL ID: 4260543
CURRENT CATEGORY: Artificial Intelligence
CURRENT SUBCATEGORY/DESCRIPTORS: Endoscopy: General AI Including Clinical Pratice
PRESENTATION TYPE: ASGE Oral or Poster
PRESENTER: Vinay Jahagirdar
PRESENTER (EMAIL ONLY): VINAYJAHA@GMAIL.COM

Abstract

TITLE: ARTIFICIAL INTELLIGENCE (AI) IN GASTROENTEROLOGY (GI): RESULTS FORM A MULTI-CENTER INTERNATIONAL STUDY ASSESSING PATIENT KNOWLEDGE, BELIEFS AND CONCERNS

AUTHORS (LAST NAME, FIRST NAME): Jahagirdar, Vinay[1]; Srinivasan, Sachin[2]; Khalaf, Kareem[3]; Calo, Natalia[3]; Desai, Madhav[4]; Hayes, Vincent[4]; Chhabra, Rajiv[5, 8]; Campbell, John P.[5, 8]; Gautam, Misha[5]; Kandulla, Nivitha[5]; Campbell, Carlissa[6]; Parasa, Sravanthi[7]; Sharma, Prateek[6]

INSTITUTIONS (ALL): 1. Division of Gastroenterology, Hepatology & Nutrition, Virginia Commonwealth University, Richmond, VA, United States.
2. The University of Kansas Medical Center, Kansas City, KS, United States.
3. University of Toronto, Toronto, ON, Canada.
4. Borland Groover Clinic, Jacksonville, FL, United States.
5. University of Missouri-Kansas City, Kansas City, MO, United States.
6. Kansas City VA Medical Center, Kansas City, MO, United States.
7. Swedish Medical Center, Seattle, WA, United States.
8. Saint Luke's Hospital of Kansas City, Kansas City, MO, United States.

ABSTRACT BODY:

Abstract Body : Background: Artificial intelligence (AI) integration in gastroenterology (GI) is rapidly advancing, transforming diagnostic and therapeutic approaches, such as enhancing polyp detection and disease prognosis. However, patient perspectives on AI's role in GI, including its reliability, privacy concerns, and impact on clinical care, remain unexplored.

Methods: This cross-sectional survey-based study was conducted among patients visiting the GI clinic or endoscopy center at three different practice facilities in Ontario, Canada; Kansas City, Missouri; and Jacksonville, Florida. After IRB approval, a structured questionnaire of 24 questions was administered via REDCap platform to evaluate participants' knowledge, beliefs, and concerns regarding the use of AI in GI. The survey also collected demographic, socioeconomic, and medical data to assess associations with AI perspectives. Participation was voluntary, and informed consent was obtained. Descriptive statistics were used to summarize survey findings, and Chi-square tests were performed to assess associations.

Results: 230 out of the 265 patients who agreed to participate completed the survey (87%). The mean age was 49.7 years (SD 19.3), and 60% were female. 56% were employed, and 44% were college graduates.

Younger respondents (≤30 years) (19%), males (76%), and those with post-graduate education (48%) demonstrated higher levels of AI knowledge. Caucasians (50%) and Asians (17%) reported highest levels of prior AI experience in GI or endoscopy. 61% believed that AI and human expertise can complement each other in providing medical care. Regarding trust in AI, 33% expressed neutrality, and 30% reported trust. Data privacy and reliability were the top concerns, with 47% and 60% concerned about privacy risks and AI reliability, respectively (vs 22% and 11% not concerned; p=0.037). Despite concerns, 74% of respondents emphasized the importance of being informed about AI's role in their care. 93% felt the physician should remain responsible for the final decision, even if AI is used. Respondents were divided on accountability in the event of an AI-related medical error, with 50% holding physicians responsible and 26% attributing responsibility to AI manufacturers. Younger respondents and employed individuals leaned toward holding manufacturers accountable (p=0.01, p=0.03). African American respondents and individuals with lower educational attainment (primary or high school) reported more significant concern about the impact of AI on healthcare costs (p=0.005, p=0.048).

Conclusion: Despite limited self-reported knowledge of AI, patients are cautiously optimistic about its role in healthcare and GI. Privacy, reliability, and cost concerns underscore the need for transparent communication

and education. Physicians must address these concerns to foster trust and enhance patient engagement in AI-integrated care.

Complete respondents	230
Age (years): % (n)	
<30	17% (39)
31-45	23% (58)
46-60	30% (69)
61-75	12% (28)
>75	18% (36)
Gender	
Female	60% (136)
Male	40% (93)
Other	<1% (1)
Geographical Region, % (n)	
The Far North	1% (2)
West Coast	2% (5)
Prairie Province	0
South Canada	31% (71)
French Canada	0
Mountain West	0
Midwest	24% (56)
Northeast	6% (10)
South	31% (72)
Southwest	3% (8)
Marital status	
Married	53% (122)
Widowed	4% (9)
Separated	4% (9)
Divorced	10% (24)
Single, never married	29% (66)
Ethnicity	
White	71% (163)
African American or Black	9% (21)
American Indian or Alaska Native	2% (5)
Asian	10% (22)
Native Hawaiian or Other Pacific Islander	0% (1)
Other	6% (13)
Prefer not to answer	2% (4)
Highest level of education	
Primary/Elementary Education not completed	2% (4)
High School	29% (67)
College Graduate	46% (101)
Post-graduate	23% (58)
Employment status	
Employed full time	56% (128)
Employed part time	6% (14)
Unemployed	4% (14)
Retired	26% (60)
Student	4% (10)
Annual income (in USD)	
<$25,000	19% (43)
$25,000-99,999	53% (123)
$100,000-149,999	14% (33)
≥150,000	13% (31)
Medical conditions	
GERD	22% (51)
IBD	25% (56)
EoE	1% (2)
IBS	17% (39)
Celiac disease	1% (2)
History of colon polyps	13% (3)
History of GI cancer	4% (10)
Chronic liver disease	5% (11)
Chronic heart disease	5% (12)
Chronic kidney disease	4% (5)
Chronic lung disease	5% (11)
Diabetes	10% (23)
Hypertension	18% (41)
High cholesterol	22% (51)

Table 1: Patient demographic information

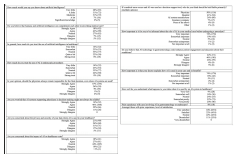

Table 2: Survey questions and responses

DISCLOSURE

The following authors have completed their 2025 DDW disclosure: Vinay Jahagirdar: Disclosure completed | Sachin Srinivasan: No Answer. | Kareem Khalaf: No Answer. | Natalia Calo: No Answer. | Madhav Desai: Disclosure completed | Vincent Hayes: No Answer. | Rajiv Chhabra: Disclosure completed | John Campbell: No Answer. | Misha Gautam: Disclosure completed | Nivitha Kandulla: No Answer. | Carlissa Campbell: No Answer. | Sravanthi Parasa: Disclosure completed | Prateek Sharma: Disclosure completed