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Public opinions about surgery in older adults: a thematic analysis

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STRUCTURED ABSTRACT

Objective: To examine public opinions of surgery in older adults.

Background: Increasing numbers of older adults are undergoing surgery. National healthcare organizations recognize the increased risks of postoperative complications and mortality in the older surgical population and have made efforts to improve the care of older adults undergoing surgery through hospital-level programs. However, limited research has explored the opinions and responses of the wider U.S. public regarding surgery in older adults.

Methods: We performed a qualitative, thematic analysis of reader comments posted in response to online newspaper articles relating to surgery in older adults. Articles were published in 2019–2020 and targeted for a popular press audience.

Results: 908 reader comments posted in response to 6 articles relating to surgery in older adults were identified. Articles were published in online editions of print newspapers with a digital circulation between 1.3 and 5.7 million subscribers. Three themes were identified:

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1) wariness/distrust towards healthcare: including general distrust of medicine and distrust of surgery, 2) problems experienced: ineffective communication and unrealistic expectations, and 3) recommended solutions: the need for multidisciplinary teams and patient-centered communication.

Conclusions: Overall, the public viewed surgery in older adults with wariness/distrust due to ineffective communication and unrealistic expectations. Specialized surgical care tailored to the unique needs of older adults is needed. The public perspective suggests that U.S. health systems should strongly consider adopting programs that provide care to meet the unique needs of older adults undergoing surgery and ultimately improve both patient outcomes as well as their surgical experience.

MINI ABSTRACT

To examine the public opinions of surgery in older adults in mainstream media, a qualitative, thematic analysis of reader comments posted in response to six online newspaper articles was performed. Identified themes suggest the need for specialized surgical care tailored to the unique needs of older adults.

Keywords

Content analysis; geriatrics; opinion

INTRODUCTION

Older adults are the largest growing segment of the American population, with the number of seniors expected to reach 77 million in 2034.¹ An increasing number of older adults are undergoing surgical procedures. Of the 51 million surgical procedures performed across the United States in 2010, over 19 million were performed on patients aged 65 and over.² These surgical patients are medically complex and are at higher risk of morbidity and mortality than their younger counterpart.^{3,4} In a cohort of older adults undergoing major surgery, 17% of patients died within one year of their operation.⁵

Given the greater vulnerability for poor outcomes in the older surgical population, healthcare organizations have attempted to create programs and standards to address the needs of older surgical patients. The American College of Surgeons recently developed the Geriatric Surgery Verification (GSV) Program and the Institute for Healthcare Improvement created the Age-Friendly Health Systems (AFHS) initiative which both focus on improving outcomes and the experience of the older patient.^{6,7} Programs aimed at quality improvement in surgery can be resource and time intensive to implement. As programs throughout the nation begin developing specialized surgical care for older adults, understanding public opinion about surgical care for older adults helps inform whether such initiatives are needed and valued from a public perspective and is critical, yet lacking.

Public discourse on issues related to surgery in older adults is occurring in mainstream news media. We leverage news coverage on the topic to achieve the objective of this study—describe public experiences and opinions through reader response to news articles about surgery and surgical care in older adults.

METHODS

Data Source

Online popular press news articles were used as the data source. A 2011 report by Pew Research Center's Project for Excellence in Journalism identified the top 25 news websites using detailed audience statistics compiled by the Nielsen Company in 2010 (Table 1).^{8,9} From this list of 25, news sites were excluded if they were from outside the United States, came from pure news aggregators or news sites that did not allow for comments. We searched these remaining news sites for coverage of geriatric surgery using the search terms 'name of news site (e.g., Washington Post)' 'surgery' AND 'older' OR 'elderly' into Google News. We included articles within the date range 1/1/2019 – 12/31/2020.

Data collection and analysis of reader comments

This study analyzed all comments made in response to each of the selected news articles and reported common themes within the comments. Our goal was to analyze the entire range of comments posted by readers in order to identify any themes contained in them and to examine frequencies by theme. Comments and the text of the articles meeting inclusion criteria were uploaded to qualitative research software, NVivo 12 (QSR International, Burlington, MA), for coding and analysis. Off-topic comments, repeated comments, or short responses to other comments such as "thank you" were included in the n of comments but excluded from further analysis. When commenters explicitly identified their role (e.g., patient, family member or friend, provider), this was noted. We adopted an inductive approach to qualitative thematic analysis to analyze the news articles and comments. Two members of the research team (CD and MR) individually read through the articles and comment sections to develop the initial coding scheme. Codes were further refined through serial review of the newspaper comments and relationships were identified between emerging themes. Lastly, the source articles were also coded to better understand the potential influence of the article's content on the comments analyzed. Discussion among all researchers occurred throughout the analysis process to promote consistent coding and obtain consensus on the identified themes.

RESULTS

Six newspaper articles were identified containing 908 comments, all of which were analyzed for content.^{10–15} Table 2 presents readership characteristics. The topic areas of the included articles are shown in Table 3. Two of the articles discussed the deleterious effects of postoperative delirium using either the author's personal or other patient anecdotal experiences as exemplars. One article discussed how the overuse of leg-stent surgeries could result in additional complications. The article that garnered the most comments discussed the role of frailty in contributing to postoperative mortality and other complications, while two articles discussed the lack of communication between surgeons and patients about surgical risk and postoperative expectations. Only one article provided a positive perspective about prehabilitation interventions that patients can consider prior to surgery (Table 3).

Most commenters did not self-identify themselves into a particular role (n=521); others identified as family members/friends of patients (n=197), and patients (n=143). Three main themes were identified with each containing two subthemes: 1) wariness/distrust towards healthcare: general distrust of medicine and distrust of surgery, 2) problems experienced: ineffective communication and unrealistic patient expectations, and 3) recommended solutions: the need for multidisciplinary teams and patient-centered communication (Table 4).

Theme 1: Wariness/distrust towards healthcare

Subtheme 1: General distrust of medicine—Many comments presented a general distrust of medicine/healthcare (n=386). Commenters noted that the best way to mitigate the risks in healthcare for the older adult was to stay away from the hospital entirely and avoid extra or unnecessary medical procedures/prescriptions.

“Stay away from all doctors and all hospitals. You will live longer and healthier. Be responsible for yourself and take care of your health in every way possible.” (Unknown, Washington Post (WP))

Subtheme 2: Distrust of surgery—This general distrust of medicine was also described as wariness towards surgery and surgeons (n=101). Commenters were cognizant of the increased risks of surgery among older adults and described it as best avoided unless necessary or to consider other non-surgical options.

“Surgery is sometimes overkill. The patient should speak up and say “no” if necessary, or at least postpone it several months to consider other options.” (Unknown, New York Times [NYT])

Commenters cited fee-for-service payment models and the financial influences of health insurers as reasons to be skeptical of surgeons (n=98). Surgeons were described as financially incentivized to do as many surgeries as possible, even if the procedure was not warranted or did not benefit the patient. One article cautioned about “unnecessary procedures” and “egregious practice patterns.” In addition to financial incentives for surgeons, other commenters mentioned that health insurers are focused on paying the least amount possible, resulting in earlier discharges after surgery, difficulty accessing care, and unnecessary visits to increase reimbursement.

“A surgeon’s income depends on doing surgeries--the more the better. I think they are way too biased to have the responsibility of helping patients make this decision.” (Unknown, NYT)

Despite this overall negative view, there were several dissenting positive views in favor of surgery and surgeons (n=37).

“My father-in-law had surgery at 101 years old, for what turned out to be a metastatic colon cancer... the surgery was my father-in-law’s decision. It was important to him to relieve the pain he was experiencing. Surgery did that and gave him some quality of life before he left us.” (Family member, NYT)

“Most, but perhaps not all, surgeons fully recognize the complications associated with surgery in elderly and I am certain that is part of the discussion regarding risks and benefits.” (Unknown provider, WP)

Theme 2: Problems experienced

Subtheme 1: Ineffective communication—Commenters described how their personal experience led them to believe that surgeons do not communicate enough about the risks of surgery preoperatively, and often communicate too little or too late (n=55). Furthermore, comments within this subtheme described the communication style of surgeons as often problematic, rude, or dismissive, with a lack of communication between providers and different health care teams.

“...doctor’s tend to minimize surgery and the ease with which the patient will recover. Possible problems or complications generally tend to be glossed over with a “you’ll be fine,” or, “it’s a routine surgery, these days.” God help you if you undergo surgery and discover you’re one of those patients who experience complications, like I just recently did.” (Patient, NYT)

Commenters described the surgery process as disjointed and fragmented. This fragmentation was described as resulting in confusing medical advice due to lack of communication both between providers (e.g., surgeon and primary care provider) and between the surgeon and patient. Furthermore, patient commenters reported feeling confused after surgery about which provider was responsible for their care. Patient and family commenters mentioned how they felt surgeons were inaccessible after surgery, even when patients experienced postoperative complications.

“Following surgery when I asked why I was having difficulty, the surgeon said, “Ask your primary care doctor. When I finish cutting, I’m through with my responsibility.” He would have learned so much if he had bothered to see the results of his surgery.” (Patient, WP)

Subtheme 2: Unrealistic expectations—Although ineffective communication was highlighted as a contributor to negative surgical experiences, provider commenters asserted that negative surgical experiences were a result of unrealistic patient expectations (n=65). These patient expectations may result from a lack of concordance among expected benefits, risks of surgery, and actual outcome.

“As a surgeon in my 29th year of practice after residency, I can tell you that patients and their families don’t care about the risks if there is any chance it might help. They all have a story about someone old and frail they heard about, in similar circumstances who did just fine. I still am on call for emergencies at a level 2 center. I see it often.” (Surgeon, NYT)

This mismatch between patient expectations and outcomes was also seen in comments from patients and family members who recounted poor postoperative experiences (n=58). These poor experiences were attributed in part to the lack of an accurate prognosis by the surgical/medical teams with a recommendation for surgery despite risks, in contrast to the comments from providers which focused on unrealistic patient expectations.

“Sometimes, it is the unrealistic desires of older patients that lead to bad outcomes. My 80-year old father never quite came to terms with being older. He opted for a long and invasive back surgery to “cure” his stenosis...Several infections and additional surgeries followed, all of which left him weak, disoriented, and in constant pain...I continue to believe his last years would have been better if he’d been offered a dose of reality from his medical team.” (Family member, NYT)

Theme 3: Recommended Solutions

Subtheme 1: Patient-centered communication—To address these problems experienced by older adults undergoing surgery, commenters also provided suggested solutions. A poignant solution echoed by many commenters was the need for patient-centered communication that encompassed an assessment of expected risks/benefits and possible alternatives to surgery, particularly if the patient was frail preoperatively (n=82). Comments in this subtheme alluded to the need to acknowledge the inevitable implications of aging, including frank discussions about how surgery fits into the illness trajectory for frail older adults and advance care planning.

“Those doctors recommending no surgery was truly humane and wise medical advice. They had been treating her and hospitalizing her for the last 20 years. They knew her tolerances.” (Family member, Wall Street Journal (WSJ))

With respect to patient-centered communication, commenters drew attention to the need to incorporate advance care planning to ensure that surgery and its expected risks/benefits were in alignment with the patient’s goals (n=72). Advance care planning was viewed as a method to avoid overtreatment towards the end of life when the family is unsure of the patient’s desires.

“Make sure your paperwork is filled out before you face end of life issues...If you are a patient, please don’t think the caregiver is trying to pull the wool over your eyes by asking you to do this. They can’t make the right decision without knowing what you want...” (Unknown, WP)

Subtheme 2: Multidisciplinary team—The advantages of a multidisciplinary team to care for older adults undergoing surgery was highlighted by commenters. The multidisciplinary team was viewed as a conduit for the provision of holistic, patient-centered care sensitive to common issues affecting older adults (e.g., quality of life concerns, physical rehabilitation needs). Advantages of a multidisciplinary team, particularly those with a geriatrician and primary care provider, include presenting both surgical and non-surgical options, making appropriate referrals, preventing complications, and decreasing fragmentation of care (n=49).

“An interdisciplinary goals of care meeting, proactively, with the surgical/trauma service, the palliative care service, therapists, case management, and spiritual care staff, is optimal. Each service can weigh in on the relative merits of the case, and help the patient/family make a decision that is consistent with the physical, emotional, social, and spiritual well-being of the patient.” (Unknown, WP)

Commenters mentioned the importance of working with family and other caregivers as members of the interdisciplinary team contributing to a successful recovery (n=27). Caregivers were viewed as valuable advocates for patients in interfacing with the healthcare system in addition to playing an important role in identifying complications, reorienting older patients, and providing needed social interaction and support.

“We can all help our family and friends by visiting and talking to them at frequent intervals during hospitalization... keep coming, stay a short time, your presence and interaction can help prevent mental breakdown, You who know the patient and are able to recognize that the behavior is not right long before a doctor or nurse who just is getting to know them now.”
(Unknown, WSJ)

DISCUSSION

To our knowledge, this study is the first to examine public opinion toward surgery in older adults. Many commenters described their wariness towards surgery in the older adult, citing overall lack of trust in healthcare or negative postoperative experiences. Commenters also discussed how to improve quality of care, e.g., advance care planning, surgeon communication about surgical risk and quality of life, and a multidisciplinary team of providers and family members to promote a holistic continuum of care, especially among older adults with complex medical needs. The results of the current study highlight the need to provide care to older adults undergoing surgery in a systematic way that improves patient experience through use of an interdisciplinary team.

The concerns highlighted by the commenters in our study are supported by a prior Canadian qualitative study of the experiences of older adults and their caregivers following ambulatory surgery. In their study, Bryson et al. thematically analyzed responses in a daily diary and identified themes including a sense of being unprepared for the perioperative experience due to lack of communication and anticipatory guidance from the care team.¹⁶ Despite their study having been performed in the setting of a different national health care system, our similar findings suggest that there is a universal need to improve perioperative care and communication to better encompass the needs of older adults. The need for more effective communication in surgery has also been highlighted by other researchers, particularly as it applies to ensuring that treatment decisions are concordant with older adult patient preferences and goals of care within the illness trajectory.^{17,18} This effective communication can be achieved through use of clinically tested interventions that aim to train surgeons in facilitating conversations with patients, such as the Best Case/Worst Case communication framework or Serious Illness Care Program’s structured conversation guide.^{19–23}

Our findings regarding wariness towards surgery in older adults supports the need of U.S. healthcare systems to be more responsive to the needs of this vulnerable population. Better geriatric surgical risk assessments that incorporate relevant geriatric factors, such as frailty, may lead to more informed conversations and shared decision making between medical professionals and patients/family members who have unrealistic expectations.²⁴ These conversations should also encompass the topics of advance care planning, impact of surgery on quality of life, and prognosis for recovery to help set realistic postoperative expectations.

Patients can also be advised to identify available social support among caregivers, families, and friends who should also be part of these informed discussions and can participate in any planning necessary to help facilitate the transition out of the hospital. Finally, multidisciplinary teams can promote continuity and minimize fragmentation of care.

Healthcare systems are increasingly adopting programs to improve geriatric surgical outcomes and patient experiences.²⁵ The GSV Program was launched in 2019 with the goal to systematically improve surgical care and outcomes for vulnerable older adults throughout U.S. hospital systems.⁶ The GSV Program includes 30 standards that address many of the important issues described in the current study.²⁵ Another ongoing national effort focused on improving care for older adults is the AFHS initiative which provides a framework for providing high quality age-friendly care through the 4Ms: What Matters, Medications, Mentation, and Mobility.⁷ Finally, the Geriatric Emergency Department Accreditation focuses on interdisciplinary staffing, standardized approaches to common geriatric issues, and ensuring optimal transitions of care to other healthcare settings.²⁷

Through qualitative thematic analysis, we were able to gain valuable insights into the national opinions of patients, families, and providers regarding surgery in older adults. We acknowledge the potential for researcher influence during analysis and for the perspective of the articles' authors to bias comments. However, we found that the types of responses were not correlated to the perspective of the articles' authors. Despite the WSJ prehabilitation article presenting a positive perspective towards surgery, only 7% of its comments discussed solutions. This contrasts with a range from 4% to 47% of comments discussing solutions in the other articles focusing on negative aspects of geriatric surgery. This suggests that the perspective of the articles' authors did not necessarily impact the perspective of the comments. Nonetheless, our results are consistent with the findings of prior qualitative research using different data sources and likely capture the themes contained in public opinion towards surgery in older adults.¹⁶

Other limitations included selection bias that those who comment are outspoken because they have had poor experiences while those with more positive experiences may be less likely to comment on these articles. The commenters may not be representative of the larger group of older adults, especially if this group is in poor health and unable to read and provide comments. However, this selection bias may be mitigated by the family members who were able to recount relevant patient experiences, and we did find that more family members/friends commented compared to patients themselves. Despite these limitations, the ability to gather a large range of public opinions is an inherent strength that further supports the need for healthcare systems to invest in specialized surgical care for older adults.

Overall, the public viewed surgery in older adults with wariness/distrust due to both ineffective communication and unrealistic expectations. Specialized surgical care tailored to the unique needs of older adults is needed and will ultimately improve both patient outcomes and satisfaction. The public perspective suggests that U.S. health systems should strongly consider adopting programs that provide multidisciplinary care to meet the unique needs of older adults undergoing surgery. Greater attention to surgical care of older adults

will provide high quality goal-concordant care that is focused on what matters most to each individual older adult.

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Table 1

Top 25 News Websites as Reported by Nielsen⁸, Separated by Category

Newspapers	Broadcast News (Television/Radio Sites)	Internet (Online-only Sites)	Regional News Sites (Online-only)	News Aggregators	Newsmagazine
NYTimes.com	CNN Digital Network	Yahoo! News Websites	Boston.com	Google News	The Slate Group Websites
Washingtonpost.com	MSNBC Digital Network	AOL News	Examiner.com (defunct)	Huffington Post	
USA Today	Fox News Digital Network			Bing News	
LA Times	ABCNEWS Digital Network			Topix	
Daily News Online Edition	CBS News Network				
New York Post Holdings	BBC				
Chicago Tribune	NPR				
Telegraph					
Guardian.co.uk					

Table 2

Readership Characteristics

	Digital Subscriptions ^a	Gender Split	College graduate	Income >\$75k
New York Times	5.7 million	56% male	56%	38%
Wall Street Journal	2.8 million	71% male	56%	38%
Washington Post	1.3 million	unknown	72%	54%

^aDigital subscription numbers are from a 2011 report by Pew Research Center's Project for Excellence in Journalism.⁸ This report identified the top 25 news websites in the United States using detailed audience statistics compiled by the Nielsen Company in 2010.

Table 3

Characteristics and summary of included articles

Source	New York Times	Washington Post	Washington Post	Wall Street Journal	Washington Post	Wall Street Journal
Title	"Frail Older Patients Struggle Even after Minor Operations" ¹⁵	"Harrowing delirium afflicts millions after surgery, especially the elderly. I know. It hit me and it took months to overcome" ¹⁴	"For older people, surgery poses risks that aren't always made clear" ¹³	"The surgical complication that can damage your brain" ¹⁰	"Going to have surgery? What you can do to make it go more smoothly" ¹²	"Doctors sound an alarm over leg-stent surgery" ¹¹
Article Summary	Frail, older adults are more likely than other patients to die after minor procedures and patients may not be fully aware of the risks of surgery due to surgeons not properly communicating them.	Up to 46 percent of all surgery patients experience "postoperative delirium," marked by confusion, disruption of mental faculties, hallucinations, and anxiety. Delirium is preventable in up to 40 percent of patients.	Per new standards, all older patients should have the opportunity to discuss their goals for their overall health and the procedure. Surgeons should facilitate these conversations with patients and their families.	Delirium may be experienced by 20–30% of surgery patients over 70. Limiting exposure to anesthesia and psychoactive drugs and promoting mobility, sleep, and sensory aids may reduce and prevent delirium.	Rehabilitation, including exercise, nutrition, and counseling programs, can help patients become as healthy as possible before surgery. Some research suggests it may help cut the length of a hospital stay by 31 percent.	Official guidelines recommend leg stents based on strict criteria. However, some physicians are stenting leg arteries at alarmingly high rates, placing patients at risk of complications.
Article Theme(s)/ Subthemes	Problems experienced: ineffective communication; Recommended solutions: patient centered communication	Warnings/distrust towards healthcare: distrust of surgery; Recommended solutions: patient centered communication and multidisciplinary team	Warnings/distrust towards healthcare: distrust of surgery; Problems experienced: ineffective communication and unrealistic expectations; Recommended solutions: patient centered communication and multidisciplinary team	Recommended solutions: multidisciplinary team	Recommended solutions: multidisciplinary team	Warnings/distrust towards healthcare; Problems experienced: unrealistic expectations
Reader Comments (n)	524	164	77	76	42	25

Table 4

Representative Quotes by Theme

Theme	Sub-theme	Representative Quotations
Wariness/distrust towards healthcare	General distrust of medicine	<p>“What ever happened to the concept of “elder” care, deemed to become widespread as baby boomers aged? Instead, specialists have become detached from the concept of treating the whole patient, conferring with more, potentially, sensitive primary care physicians—and attached to their high-priced, marketed procedures. And hospitals, the corporate drivers of all things unfriendly to patients, have poor track records with infection and older patients. Recovery is up to the (out)patient, untethered from any care once the pricey visit has been billed.” (Unknown, New York Times)</p>
Problems experienced	Distrust of surgery	<p>“It is very sad to see outcomes of such where patients are pushed to have a surgery that may exacerbate their issue or decrease their quality of life in the long run. At times I wonder if it’s a tactic to increase hospital productivity and revenue rather than truly caring about the patient’s future and present health.” (Unknown, New York Times)</p>
Problems experienced	Ineffective communication	<p>“The surgeon told him he would be home the next day or at worst in two days. Instead we had to check him into a rehab center for at least ten days. A similar thing happened to my mother two years ago a simple back surgery with two week rehab recovery turned into 6 months. More questions and alternative options need to be discussed with older adults and not just cut.” (Family member, New York Times)</p> <p>“And never forget, doctors will give you all the stats on how different treatment outcomes. They will not give you stats for deciding not to have treatment at all. That lack of info was a big reason my mother died too soon. Had she not been treated her life expectancy would have actually been higher than treatment, doctors left that part out. Found out way too late.” (Family member, Washington Post)</p>
	Unrealistic expectations	<p>“Few people appreciate the toll that major surgery can take on the elderly. Even those who are not classified as “frail,” have little reserve to deal with the expected or not-expected problems that might follow - e.g., further deconditioning, delirium, blood clots, infection, heart attack, stroke, etc., etc., etc.. Death is not the enemy. Dying badly is the enemy. Many people choose major surgery because they believe not doing so means death. I sometimes tell them that their choice may end up between dying without surgery or wishing they were dead after surgery.” (Unknown provider, Washington Post)</p> <p>“...My 89-year old frail mother (heart failure, mild dementia) has had surgery twice this year, once major, once minor. In both cases, the primary care doctors and surgeons absolutely took recovery pathways into account. But in each case I wondered: the decision required weighing information and past evidence in a particular case... and the docs, however well intentioned, will almost always be able to construct a very plausible reason why in THIS case, the surgery makes sense despite recovery risks or post-op consequences. And how is a layperson to know? Are the doctors thoughtful and serious, or just manufacturing excuses? It’s impossible to be sure!” (Family member, New York Times)</p>
Recommended solutions	Patient-centered communication	<p>“...Assessing risk prior to surgery is key for everyone and even more so for elderly patients at risk for frailty. Ensuring that goals of care are consistent with expected outcomes is a starting point...Duke has a program called POSH, Perioperative Senior Health) that addresses these risk factors AND discusses surgical risk and patient expectation. Importantly, the clinic is staffed by geriatricians, surgeons, pharmacists with anesthesia’s input as well. Ask if your surgeon is part of a similar type group.” (Unknown, New York Times)</p>
	Multidisciplinary team	<p>“This is a case in point for training and funding more geriatricians and placing them front and center, along with the patient and patient’s caregivers, in the decision-making team. For most doctors, most of their patients aren’t elderly, so they have relatively less experience than geriatricians making recommendations to patients who have multiple chronic diseases, multiple medications, challenges with activities of daily living, and an overall higher risk of illness/injury/intervention complications... population-specific expertise matters” (Unknown, New York Times)</p>