Original article

Examination of bariatric surgery Facebook support groups: a content analysis

Afton M. Koball, Ph.D., A.B.P.P.[a],*, Dylan J. Jester, B.S.[b], Sarah E. Domoff, Ph.D.[c,d],
Kara J. Kallies, M.S.[b], Karen B. Grothe, Ph.D., A.B.P.P.[e],
Shanu N. Kothari, M.D., F.A.C.S., F.A.S.M.B.S.[f]

[a]*Department of Behavioral Health, Gundersen Health System, La Crosse, Wisconsin*
[b]*Department of Medical Research, Gundersen Medical Foundation, La Crosse, Wisconsin*
[c]*Department of Psychology, Central Michigan University, Mount Pleasant, Michigan*
[d]*Center for Human Growth and Development, University of Michigan, Ann Arbor, Michigan*
[e]*Department of Psychiatry and Psychology, Mayo Clinic, Rochester, Minnesota*
[f]*Department of General Surgery, Gundersen Health System, La Crosse, Wisconsin*

Abstract

Background: Support following bariatric surgery is vital to ensure long-term postoperative success. Many individuals undergoing bariatric surgery are turning to online modalities, especially the popular social media platform Facebook, to access support groups and pages. Despite evidence suggesting that the majority of patients considering bariatric surgery are utilizing online groups, little is known about the actual content of these groups.

Objectives: The purpose of the present study was to conduct a content analysis of bariatric surgery support groups and pages on Facebook.

Setting: Online via Facebook, independent academic medical center, United States.

Methods: Data from bariatric surgery–related Facebook support groups and pages were extracted over a 1-month period in 2016. Salient content themes (e.g., progress posts, depression content, eating behaviors) were coded reliably (all $\kappa > .70$).

Results: More than 6,800 posts and replies were coded. Results indicated that seeking recommendations (11%), providing information or recommendations (53%), commenting on changes since surgery (19%), and lending support to other members (32%) were the most common types of posts. Content surrounding anxiety, eating behaviors, depression, body image, weight bias, and alcohol was found less frequently.

Conclusions: Online bariatric surgery groups can be used to receive support, celebrate physical and emotional accomplishments, provide anecdotal accounts of the "bariatric lifestyle" for preoperative patients, and comment on challenges with mental health and experiences of weight bias. Providers should become acquainted with the content commonly found in online groups and exercise caution in recommending these platforms to information-seeking patients. (Surg Obes Relat Dis 2017;13:1369–1375.) © 2017 American Society for Metabolic and Bariatric Surgery. All rights reserved.

Keywords: Bariatric surgery; Support groups; Social media; Online social networking; Content analysis; Media effects

Introduction

The prevalence of obesity in the United States is an estimated 30–40% for adults ≥ 20 years of age [1], with some states expected to reach 60% by 2020 [2]. For many,

*Correspondence: Afton M. Koball, Ph.D., Department of Behavioral Health, Gundersen Health System, 1900 South Avenue, La Crosse, WI 54601.

E-mail: amkoball@gundersenhealth.org

weight loss can be achieved through nutritional, behavioral, and pharmacologic therapies. For those at higher weights, bariatric surgery represents the most durable option for losing excess weight and reducing medical co-morbidities [3–5].

Recently, social media platforms have maximized obesity-related content to appeal to individuals who are attempting to lose weight. Unfortunately, not all of the content is medically accurate or helpful for individuals with excess weight, especially those considering bariatric surgery. Undoubtedly, the Internet impacts decision-making processes for patients undergoing bariatric surgery. A recent study of 212 candidates for bariatric surgery found that 95% had Internet access and 78% reported having researched bariatric surgery [6]. When researching, 81% of participants wanted to know more about the surgical techniques used and 72% wanted to know more about patient outcomes [6]. Another study examined online bariatric resources for the quality of information provided [7]. Of 30 websites, none were rated as "excellent," 2 were rated as "good," 4 were rated as "fair," and the remaining 22 were rated as "poor" [7]. Most commonly, websites did not describe how the surgery would affect overall quality of life [7]. Another study found that Facebook is the preferred place to search for information by bariatric patients (81%), followed by search engines (70%). Weight loss after surgery (77%), healthy eating (77%), regaining weight (69%), postoperative care (64%), physical activity (62%), and plastic surgery (60%) were the most commonly searched topics [8].

In-person support groups for bariatric patients are an integral part of the postoperative lifestyle. Past research highlights that those who attend support groups lose more excess weight than those who do not attend such groups [9]. Online support groups have recently gained attention by many bariatric patients. Research shows that 84% of bariatric patients join or follow support groups on Facebook [8]. When asked about the beneficial aspects of online support groups, members highlighted interacting with other patients, giving or receiving support, exchanging experiences, and accessing information as most beneficial [8]. Despite these benefits, the study found that increased bariatric surgery social networking was correlated with fewer follow-up visits and more negative reactions from providers [8].

Despite evidence suggesting that the majority of patients considering bariatric surgery are utilizing online support groups, little is known about the actual content of these groups or how helpful/supportive they may be. The purpose of the present study was to conduct a content analysis of bariatric surgery support groups/pages on Facebook. This study aims to describe the type of content posted, what information is given and sought by users, and other features of posts that may be salient to bariatric surgery health professionals. Given the overwhelming popularity of these support groups/pages and the frequency of member questions and posts, the goal of this research is to help professionals better understand what online content their patients are likely accessing.

Methods

Data collection

Facebook groups and pages were examined during May and June 2016 to facilitate identification of the most popular ones for analysis. Facebook groups are places for group communication to occur around a particular topic area and can be: (1) public (accessible to the general public if one has a Facebook account), (2) closed (member names can be viewed publicly, but one must join to view discussions and contribute to the group), or (3) private (group membership and discussions are completely private to nonmembers). Pages are public spaces for administrators/entities to post material and receive comments.

Facebook groups were examined first; thousands were available, with membership ranging from 1 to 34,901 online users. Groups with <5,000 members appeared specific to geographic location, families, surgeons, or healthcare facilities, whereas those with >5,000 members appeared more diverse. The first 50 groups listed for each search term were recorded. Searched terms included "bariatric," "bariatric surgery," "bariatric surgery group(s)," "bariatric support," "bariatric surgery support group(s)," "bariatric surgery complication support group," "gastric bypass," "gastric bypass surgery," "gastric bypass support," "gastric bypass surgery support group(s)," "bypass support group," "gastric bypass and sleeve," "gastric bypass and sleeve support group," "gastric sleeve," "gastric sleeve surgery," "gastric support," "gastric sleeve support," "gastric sleeve support group(s)," "sleeve," "sleeve support group," "weight loss surgery," "weight loss surgery support," and "weight loss surgery support group(s)." Approximately 515 unique groups were identified.

Public groups with the highest numbers of members were reviewed first. Membership ranged from 1 to 310 online users. Closed groups with the highest numbers of members were reviewed next, with membership ranging from 1 to 39,410. Because many of the largest groups were closed, messages were sent to the administrators of 10 groups with the highest member counts. An overview of the study protocol and an explanation that identifiable member/group information would not be recorded were included in the messages. Of the 10 administrators who were contacted, 4 responded; 2 declined the request to join, citing group policies on researchers in the group, and 2 accepted the request. Those who accepted allowed a pseudo-Facebook account to join the group under a false identity to examine the content of posts.

Facebook pages were examined next, and were publicly accessible to anyone with a Facebook account. Pages were examined by using the same search terms given above. Support pages were far less common than support groups,

and many were specific to an organization, product, or geographic location. As with groups, the first 50 pages listed for each search term were identified; 325 unique pages were recorded. Pages gain popularity with "likes," as groups gain popularity with members. The range for page "likes" was 2 to 106,188. Pages were objectively chosen by analyzing the content of the postings. If the pages aligned with the content commonly found in groups, were written in English, and offered a space for followers to converse, the page was considered for data extraction.

The content of the posts was transcribed retrospectively from May 1 to June 1, 2016. Given the sheer volume of posts, it was decided to pursue coding with the largest Facebook group we were given access to and the largest public Facebook page available (i.e., researchers coded 1 large representative Facebook group and 1 large representative Facebook page). More than 10,000 individual posts were gathered and transcribed without any identifiable information before investigators proceeded with coding. Content was coded by 2 researchers (A.M.K. and D.J.J.), who attained reliability (all $\kappa > .70$) before independent coding. This study was approved by the Institutional Review Board of the first author's institution.

Coding process

A coding manual was created by the investigators and subsequently edited to achieve clear and concise coding criteria that achieved reliability between coders (Table 1). In addition to the research questions highlighted above, themes to be coded were guided by the most recent American Society for Metabolic and Bariatric Surgery recommendations for the presurgical psychosocial evaluation of bariatric surgery patients [10]. The type of information coded included whether: participants were pre- or postsurgery; participants were seeking recommendations, and the type of information sought; participants provided recommendations or information, and the type of recommendation or information provided; a post related to postsurgery progress was made; participants were supportive or posted inspirational content; anxiety content was present; maladaptive eating behaviors were reported; depression content was present; other severe mental health content was present; participants reported poor body image; weight bias was present; alcohol-related content was present; and participants spoke of sexual victimization. See Table 2 for more descriptions of coding variables.

Statistical analyses

To describe the prevalence of different types of thematic content, frequencies were computed by page and by group. Two-sample z-tests for the equality of proportions were conducted for all major themes and for chosen subthemes. The α-threshold was adjusted by applying Bonferroni corrections.

Results

Facebook support page content

The public support page was formatted in a question-and-answer style, with members submitting anonymous questions to be posted by administrators. Anyone with a Facebook account would have access to reply. The data set was made up of 3,556 posts over a 1-month time frame. Users asked 273 specific questions (7.7%) and created 2,068 unique replies (58.2%). Questions asked most frequently were related to nutritional content (44%, $n = 44$; e.g., "What protein supplement should I use?") and medical content (56%, $n = 153$; e.g., "How do I prevent my hair from falling out?"). Likewise, recommendations on nutritional content (23.7%, $n = 490$; e.g., "You should use Genepro protein") and medical content (8.7%, $n = 180$; "I would suggest buying Biotin and multivitamin supplements to prevent hair loss") were most frequently posted in response to those questions. Specific products or tools were recommended in nearly one-quarter of all replies (23.2%, $n = 480$; e.g., "You should buy Oikos® Greek Yogurt!"). When providing anecdotal experiences or nonrecommending information, nutritional content (44.5%, $n = 920$; e.g., "I buy greek yogurt to get my breakfast protein in") and medical content (31.1%, $n = 644$; e.g., "I used fish oil supplements when my hair was falling out") were most frequent.

Users occasionally posted about progress since surgery (20.8%, $n = 739$). These progress posts commonly included updates about weight loss, weight maintenance, or weight regain (69.3%, $n = 512$; e.g., "I lost 60 lbs since my sleeve surgery"). Less common were "before and after" posts, where members would post statistics or pictures before surgery and after surgery to highlight their physical transformation (19.8%, $n = 146$; e.g., "Before I was 355 lbs, now I am 201 lbs!"). Comments about changes in appearance (14.1%, $n = 104$; e.g., "I can see collarbones!"), functional health improvements (11.8%, $n = 87$; e.g., "Eighteen months out, I don't have sleep apnea anymore!"), and changes in mental health (11.6%, $n = 86$; e.g., "I feel much happier since having surgery") made up the rest of the progress posts. Members wrote these more often in a positive tone (77.3%, $n = 313$) than a negative tone (22.7%, $n = 92$).

Expressing support or encouragement was included in more than one third of all posts (37%, $n = 1,305$; e.g., "You'll do great with your surgery!"), whereas mention of anxiety (3.9%, $n = 137$; e.g., "I am worried about surgery"), eating behaviors (0.5%, $n = 19$; e.g., "I thought my food addiction would go away"), depression (1.2%, $n = 43$; e.g., "I can't control my depression this week"), other mental health issues (0.2%, $n = 8$; e.g., "My bipolar disorder is making weight loss impossible"), poor body image (1%, $n = 34$; e.g., "I am disgusted with my arm-flaps"), and

Table 1
Frequency of content themes by Facebook group and page

Variable	Facebook group	Facebook page	P value
	Number of posts, %		
Total posts	3,246	3,556	–
Text content	2,615 (80.6)	3,465 (97.4)	–
Picture content	600 (18.5)	91 (2.6)	–
Video content	31 (1.0)	0 (0)	–
Presurgery	194 (6.0)	174 (5.0)	–
Postsurgery	617 (19)	987 (28)	–
Ambiguous	2,435 (75)	2,395 (67)	–
Seeking recommendations	475 (14.6)	273 (7.7)	<.001
Nutrition content	196 (41.3)	120 (44)	–
Physical activity content	19 (4.0)	20 (7.3)	–
Medical information content	259 (54.5)	153 (56)	–
Providing content (recommendation/information)	1,520 (46.8)	2,068 (58.2)	<.001
Providing recommendations	–	–	–
Nutrition content	117 (7.7)	490 (23.7)	<.001
Physical activity content	22 (1.4)	64 (3.1)	.002
Medical information content	58 (3.8)	180 (8.7)	<.001
Specific product or tool	398 (26.2)	480 (23.2)	.04
Providing information	–	–	–
Nutritional content	778 (51.2)	920 (44.5)	<.001
Physical activity content	154 (10.1)	137 (6.6)	<.001
Medical information content	557 (36.6)	644 (31.1)	<.001
Progress post	533 (16.4)	739 (20.8)	<.001
Before and after	205 (38.5)	146 (19.8)	–
Weight loss	303 (56.8)	512 (69.3)	–
Appearance	117 (22.0)	104 (14.1)	–
Functional health	20 (3.8)	87 (11.8)	–
Mental health	27 (5.1)	86 (11.6)	–
Positive post	285 (80.1)	313 (77.3)	–
Negative post	71 (19.9)	92 (22.7)	–
Support/inspirational content	838 (25.8)	1305 (36.7)	<.001
Encouragement	725 (86.5)	1177 (90.2)	–
Inspirational theme	118 (14.1)	154 (11.8)	–
Anxiety content	160 (4.9)	137 (3.9)	.03
Anxiety about eating	38 (23.8)	40 (29.2)	–
Anxiety about weight loss	48 (30.0)	37 (27.0)	–
Anxiety about surgery	69 (43.1)	53 (38.7)	–
Anxiety about social gatherings	6 (3.8)	2 (1.5)	–
General anxiety	12 (7.5)	20 (14.6)	–
Eating behavior content	22 (0.7)	19 (0.5)	.54
Emotional or boredom eating	17 (77.3)	9 (47.4)	–
Food addiction	5 (22.7)	11 (57.9)	–
Depression content	34 (1.0)	43 (1.2)	.61
Other mental health issues	7 (0.2)	8 (0.2)	.99
Poor body image content	49 (1.5)	34 (1.0)	.05
Weight bias content	47 (1.4)	97 (2.7)	<.001
Experiencing weight bias	15 (31.9)	20 (20.6)	–
Internalizing weight bias	32 (68.1)	76 (78.4)	–
Perpetrating weight bias	2 (4.3)	4 (4.1)	–
Alcohol use content	17 (0.5)	10 (0.3)	.16
Sexual victimization content	0 (0)	0 (0)	.99

Percentages represent n out of total number of posts. Categories are not mutually exclusive, so posts could be coded into multiple categories.

alcohol use (0.3%, $n = 10$; e.g., "I get drunk much quicker now") was less frequent. Weight bias content made up 2.7% of all posts ($n = 97$) and could be split into internalizing bias statements (78.4%, $n = 76$; e.g., "I am sick of my weight making me ugly"), experiencing bias statements (20.6%, $n = 20$; e.g., "My nephew called me a whale today"), and perpetrating bias statements toward other users (4.1%, $n = 4$; e.g., "Your extra skin makes your belly look disgusting").

Facebook support group content

The private support group was only accessible by admission by a group administrator. Member posts were

Table 2
Definitions of variables coded

Variable	Coding definition
Original post/reply post	An original post is posted by a member or administrator to which replies are posted in response.
Text content	Text content is defined as an original post or reply without pictures or videos.
Picture content	Picture content is defined by any image attached to a post, including pictures with words.
Video content	Video content is defined by a video attached to a post via hyperlink or insertion.
Presurgery	Participants defined as presurgery must explicitly say that they have not yet had surgery.
Postsurgery	Participants defined as postsurgery must use language like "out," "postop," or "surgery."
Ambiguous	Any content that does not specify whether the participant is pre- or postsurgery is labeled as ambiguous.
Seeking recommendations	Questions posed to the greater group or to other members are counted as recommendations.
Nutrition content	**Examples:** foods to eat/avoid, beverages to drink/avoid, quality/quantity of food to consume, protein/calorie information in foods/beverages, preferences of items, answers to the question "What do you eat?"
Physical activity content	**Examples:** strength training, exercise, sedentary time, workouts, DVD/video ideas
Medical information content	**Examples:** medical questions/advice/information regarding medications, vitamins, or supplements; posts about concerning physiologic symptoms or body anatomy/physiology; posts that should be directed to medical personnel or seeing a medical professional; and questions/advice about what surgery to have
Recommendations or information	Provides recommendations or information in response to member questions.
Nutrition content	See above.
Physical activity content	See above.
Medical information content	See above.
Specific product or tool	**Examples:** specific supplements, workouts, apps, websites, readings, videos, etc.
Progress posts	These posts consist of members sharing how things are going or changes after surgery.
Before and after	When members put stats (e.g., weight, inches) and/or photos of themselves before and after surgery to compare. Sometimes called "transformation" days, for example.
Weight loss	This would reflect a value of weight or body measurement lost, e.g., "I've lost 10 lbs!" Includes comments about weight, e.g., "Weight loss is going well" or "I have not lost any weight in three weeks."
Appearance	This would refer to comment(s) strictly made about physical appearance in any way; e.g., "I have seen my stomach get much flatter after surgery."
Functional health	This would refer to comment(s) made about functional health improving, improved physical competence; e.g., better heart rate, blood pressure, glucose levels, energy, medication cessation.
Mental health	Depression, anxiety, self-esteem, or confidence changing after surgery.
Positive/negative content	This refers to whether the progress post is overall positive in tone (feel like things are progressing positively), negative in tone (feel like things are progressing negatively), or unclear/unknown/neither.
Support/inspirational content	These posts consist of members providing support or inspirational content in replies or original posts.
Encouragement	Encouragement or supportive words directed to an individual person.
Inspirational theme	Quote or message more broadly given.
Anxiety content	Not progress posts. Anxiety content should be separate from mental health changes due to surgery.
Anxiety about eating	**Examples:** "Eating makes me nervous," "Making food gives me anxiety."
Anxiety about weight loss	**Examples:** "I am worried about losing weight," "I hit a weight plateau, and I'm very nervous."
Anxiety about surgery	**Examples:** "I am worried about my surgery tomorrow," "I am anxious I failed my sleeve."
Anxiety about social gatherings	**Examples:** "I am anxious about family get-togethers," "Crowds make me nervous."
General anxiety	Unspecified anxiety content that does not fit into the codes above, e.g., general anxiety and worry.
Feeding behavior content	These posts consist of members talking about maladaptive feeding behaviors.
Emotional or boredom eating	Eating in response to negative emotions, e.g., boredom, sadness, depression, anger.
Food addiction	Mentioning being a "food addict" or "addicted to foods." Must use addiction language, e.g., "addict."
Depression content	Coded as depression if post mentions being depressed, sad, down, blue, or regretful.
Other mental health issues	Code for any description of other mental health issues present, e.g., anger problems, bipolar disorder, obsessive-compulsive disorder, posttraumatic stress disorder, eating disorder, or social situations. Must indicate diagnosis or severe psychopathology.
Poor body image content	Code for any mention of body image concerns, anxiety about appearance before/after surgery.
Weight bias content	These posts consist of bias related to weight.
Experiencing weight bias	Descriptions of being stigmatized or treated poorly because of weight, e.g., "Some lady told me I was fat."
Internalizing weight bias	Weight bias messages about the self. Internalization of weight bias includes viewing oneself as unattractive due to weight, being anxious/embarrassed about what other people think of one's weight, hating self for being overweight/gaining weight, feeling depressed when thinking about weight, using weight to judge self or others' value as a person, not feeling deserving of food due to weight. Expressing internalized weight bias, e.g., "Fat people never skip meals."
Perpetrating weight bias	Treating others in Facebook group poorly or perpetuating bias based on weight. Perpetrating bias against other people. Negative comments directed at others. Derogatory.

Table 2
Continued.

Variable	Coding definition
Alcohol use content	This would include any statement relating to any type of alcohol (e.g., beer, wine, liquor) and alcohol-related content, such as discussing how much they drink, sharing experiences of alcohol affecting them differently after surgery, experiences when intoxicated.
Sexual victimization content	These posts contain evidence of past or current sexual victimization.

lightly moderated, and community guidelines were posted. Group members would post questions without the anonymity of the support page; only support group members could reply. The group chosen for inclusion in this study was focused on sleeve gastrectomy; however, the authors found that patients with other surgical types were also represented. This data set was made up of 3,246 posts over a 2-week period. Users asked 475 specific questions (14.6%) and created 1,520 unique replies (46.8%). Questions asked most frequently were related to nutritional content (41.3%, $n = 196$) and medical content (54.5%, $n = 259$). Providing recommendations was infrequent, with nutritional content (7.7%, $n = 117$) and medical content (3.8%, $n = 58$) being the most popular. Recommending a specific product or tool made up about one-quarter of all replies (26.2%, $n = 398$). When providing anecdotal experiences or nonrecommending information, nutritional content (51.2%, $n = 778$) and medical content (36.6%, $n = 557$) were most frequent.

Users occasionally posted about their progress since surgery (16.4%, $n = 533$). These progress posts commonly included updates about weight loss, weight maintenance, or weight regain (56.8%, $n = 303$). Less frequent were "before and after" posts (38.5%, $n = 205$). Commenting about changes in appearance (22%, $n = 117$), functional health improvements (3.8%, $n = 20$), and changes in mental health (5.1%, $n = 27$) made up the rest of the progress posts. When talking about experiences since surgery, positive content (80.1%, $n = 285$) far outweighed negative content (19.9%, $n = 71$). Expressing support or encouragement was included in one fourth of all posts (25.8%, $n = 838$), whereas talking about anxiety (4.9%, $n = 160$), feeding behaviors (0.7%, $n = 22$), depression (1%, $n = 34$), other mental health issues (0.2%, $n = 7$), poor body image (1.5%, $n = 49$), and alcohol use (0.5%, $n = 17$) was less frequent. Weight bias content made up 1.4% of all posts ($n = 47$), and was separated into internalizing bias statements (68.1%, $n = 32$), experiencing bias statements (31.9%, $n = 15$), and perpetrating bias statements (4.3%, $n = 2$).

Comparison between group and page

The public page and private group were similar in their postings of personal experiences, such as anxiety (4% and 5% respectively), eating behavior (0.7% and .5%), depression (1.0% and 1.2%), other mental health issues

(0.2% and .2%), poor body image (1.5% and 1.0%), and alcohol use (0.5% and .3%) (Table 1). Seeking recommendations was far less common on the page than in the group ($P < .001$). However, page members provided nutritional ($P < .001$), physical activity ($P = .002$), and medical ($P < .001$) recommendations more frequently. In contrast, group members provided nonsuggestive nutritional ($P < .001$), physical activity ($P < .001$), and medical ($P < .001$) information and anecdotal experiences more frequently than page members. Lastly, progress posts, supportive content, and weight bias content were more commonly found on the public page (all $P < .001$).

Discussion

Online support groups are clearly a popular way for patients to get support, ask questions, and give recommendations to others pre- and post-bariatric surgery, yet before this study, little was known about the actual content of these groups. Overall, results suggest that individuals utilizing bariatric surgery Facebook support pages and groups most commonly use this space to solicit answers to medical and nutritional questions. In terms of shared recommendations and information, tools and products are frequently offered. A considerable amount of posts surrounding weight loss progress or change in appearance was noted. Finally, weight bias was expressed in both the group and the page. Individuals posted content consistent with internalized stereotypical beliefs about weight and explicit experiences of weight bias; however, this represented a small percentage of overall content.

Within the context of the existing literature, this novel study highlights the frequency with which patients who are considering or have undergone bariatric surgery turn to peers (i.e., others who have had surgery) for support. Doing so in an online forum may increase the ease and anonymity of connections. While there may be benefits to these online modalities, support given by professionals should not be ignored; in fact, the American Society for Metabolic and Bariatric Surgery requires that support groups have licensed health professionals present at or leading all meetings. This study also highlights how common solicitation of medical and nutritional information in these online venues is both a potentially helpful and harmful phenomenon. Surprisingly, few individuals commented about topics that are more

commonly discussed in in-person groups or are well known in the literature (e.g., mental health issues and alcohol use); however, given the stigma surrounding these issues, it is understandable that individuals would avoid posting about these topics. It may be that without facilitators setting those topics as agenda items for support group meetings, these conversations are not being had as often.

Findings from this study indicate that future research to examine the accuracy of the information provided in bariatric surgery–related Facebook support groups is warranted. Given the volume of posts soliciting nutritional and medical information, which is critical for postsurgery success, learning more about whether the recommendations/responses provided align with the advice that medical professionals (e.g., dieticians, psychologists, and physicians) would provide to their patients is important. As this study is the first, to our knowledge, to examine online bariatric support group content, and given the incredible volume of content that was analyzed, we chose to focus this preliminary study on content alone, with the goal of further examining the data to determine accuracy in the future. Additionally, examining bariatric support groups to analyze associations between medically defined outcomes and patient-reported outcomes would also be an interesting future direction.

Despite the important novel contributions of this study, some limitations exist. During the course of identifying support groups/pages, the authors quickly realized the challenges in gaining access to private groups. Due to few responses and even fewer administrators granting access, it is possible that these results are specific to the page and group included, despite best efforts at choosing large, representative options; this, of course, may impact the generalizability of these findings. Time of year during which the data were collected could also be an important variable to consider and may have impacted the findings. Additionally, the page we chose was specific to patients who have had sleeve gastrectomy; different results may have occurred with pages having a more generic bariatric title (i.e., not specifically tied to gastric sleeve or Roux-en-Y gastric bypass). However, it was clear after analyzing the posts that patients with a variety of surgery types subscribed to and posted on the page despite its title. Given the nature of this study, we were unable to collect identifiable data or other demographic data about the page and group users, which may have provided more context for these findings.

Conclusion

Since the inception of social media platforms like Facebook, groups of individuals who share a common goal or experience have formed communities. These groups often inform and persuade their audiences without moderating the accuracy of their statements. Undoubtedly, bariatric surgery support groups are no different. Online platforms can be used to receive support, celebrate physical and emotional accomplishments after surgery, provide anecdotal accounts of the "bariatric lifestyle" for preoperative patients, and comment on challenges with mental health and experiences of weight bias. However, medical practitioners should exercise caution when recommending these online platforms for information-seeking patients. That is, users frequently recommend medical information, nutritional information, and specific products or tools without proper scientific citation. This may lead to dangerous consequences if patients fail to consult with their physician, surgeon, dietician, and/or psychologist, a topic worthy of further research.

Disclosures

The authors have no commercial associations that might be a conflict of interest in relation to this article.

References

[1] Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of obesity among adults and youth: United States, 2011–2014. NCHS Data Brief 2015;(219):1–8.

[2] Trust for America's Health, Robert Wood Johnson Foundation. F as in fat: how obesity threatens America's future. 2012 [cited 2017 Jan 20]. Available from: http://www.healthyamericans.org/assets/files/TFAH2012 FasInFatFnlRv.pdf.

[3] Adams TD, Davidson LE, Litwin SE, et al. Health benefits of gastric bypass surgery after 6 years. JAMA 2012;308(11):1122–31.

[4] Courcoulas AP, Christian NJ, Belle SH, et al. Longitudinal Assessment of Bariatric Surgery (LABS) Consortium. Weight change and health outcomes at 3 years after bariatric surgery among individuals with severe obesity. JAMA 2013;310(22):2416–25.

[5] Andersen JR, Aasprang A, Karlsen TI, et al. Health-related quality of life after bariatric surgery: a systematic review of prospective long-term studies. Surg Obes Relat Dis 2015;11(2):466–73.

[6] Paolino L, Genser L, Fritsch S, et al. The web-surfing bariatic patient: the role of the internet in the decision-making process. Obes Surg 2015;25(4):738–43.

[7] Akbari K, Som R. Evaluating the quality of internet information for bariatric surgery. Obes Surg 2014;24(11):2003–6.

[8] Martins MP, Abreu-Rodrigues M, Souza JR. The use of the Internet by the patient after bariatric surgery: contributions and obstacles for the follow-up of multidisciplinary monitoring. Arq Bras Cir Dig 2015;28(Suppl 1):46–51.

[9] Orth WS, Madan AK, Taddeucci RJ, Coday M, Tichansky DS. Support group meeting attendance is associated with better weight loss. Obes Surg 2008;18(4):391–4.

[10] Sogg S, Lauretti J, West-Smith L. Recommendations for the presurgical psychosocial evaluation of bariatric surgery patients. Surg Obes Relat Dis 2016;12(4):731–49.