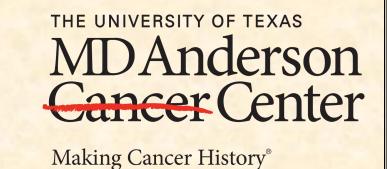


# Attitudes and Beliefs Towards Social Media in Patients with Advanced Cancer

Rida Khan MD, Jacqueline Tschanz MD, Maxine De La Cruz MD, David Hui MD, Astrid Grouls MD, Diana Urbauer, Eduardo Bruera MD

UT MD Anderson, Houston, Texas



# INTRODUCTION

Social media is widely used but few studies have examined how patients with advanced cancer engage with social media regarding their illness. The objective of this study was to examine the attitudes and beliefs toward social media use among patients with advanced cancer.

#### **METHODS**

This was a cross-sectional survey of patients with advanced cancer at an outpatient Supportive Care Clinic at a tertiary care cancer center. Patients were included if they reported any social media use. We administered a 39-question survey examining: (1) general social media use, (2) coping and utility, (3) attitudes towards discussing their diagnosis on social media, and (4) Facebook use. The answers ranged from "strongly agree" to "strongly disagree." "Strongly agree" and "agree" were coded as agreement.

#### RESULTS

Of 117 patients, the mean age was 56.5 years (range 25-82), and 72 (61.5%) were women. The 3 most popular social media platforms were Facebook (n=113, 96.6%), Instagram (n=76, 65%), and YouTube (n=74, 63.2%) (Table 1). Sixty-two (54.9%) Facebook users and 21 (27.6%) Instagram users reported using the platforms multiple times per day. As shown in Table 2, 65 (57%) agreed it is acceptable to use social media to communicate serious news to family and friends, and 70 patients (60.3%) agreed that they find it important to connect with others outside of their immediate family and friends through social media. Study participants also reported that social media helped them cope with their diagnosis emotionally (n=57, 49%), spiritually (n=44, 37.9%), and physically (n=28, 24.3%).

# Table 1: SOCIAL MEDIA ACCOUNT USAGE IN THE PAST 3 MONTHS

Social media	Have account	Never	A few times per month	A few times per week	About once a day	Multiple times per day
Facebook	113 (96.6%)	2 (1.8%)	15 (13.3%)	20 (17.7%)	14 (12.4%)	62 (54.9%)
Flickr	27 (23.1%)	26 (96.3%)	1 (3.7%)	0	0	0
Instagram	76 (65.0%)	24 (31.6%)	9 (11.8%)	16 (21.1%)	6 (7.9%)	21 (27.6%)
LinkedIn	56 (47.9%)	35 (62.5%)	9 (16.1%)	8 (14.3%)	2 (3.6%)	2 (3.6%)
Reddit	32 (27.4%)	27 (84.4%)	3 (9.4%)	0	0	2 (6.3%)
Snapchat	42 (35.9%)	22 (52.4%)	3 (7.1%)	11 (26.2%)	2 (4.8%)	4 (9.5%)
TikTok	42 (35.9%)	24 (57.1%)	5 (11.9%)	5 (11.9%)	5 (11.9%)	3 (7.1%)
Tumblr	33 (28.2%)	28 (84.8%)	1 (3.0%)	3 (9.1%)	0	1 (3.0%)
Twitter	51 (43.6%)	26 (51.0%)	11 (21.6%)	5 (9.8%)	3 (5.9%)	6 (11.8%)
YouTube	74 (63.2%)	15 (20.3%)	15 (20.3%)	22 (29.7%)	7 (9.5%)	15 (20.3%)

Note: The proportion of having an account is calculated based on total sample size 117, and the proportion of how frequently patients use the account is based on number of people having that account.

# TABLE 2: SOCIAL MEDIA SURVEY RESULTS

Social Media General Survey Statements	n (%)
Sharing Information	
I have discussed my cancer diagnosis on any of my social media accounts.	73 (63)
It is acceptable to use social media to communicate serious news to family and friends.	65 (57)
It is very important to me that news of my cancer be shared personally, rather than through social media.	64 (56)
It is more important to me that serious news be shared quickly rather than personally.	28 (25)
I have requested that family and friends not discuss my cancer or its treatment on their social media pages.	26 (23)
Connecting Socially	
I find it important to connect with others outside of my immediate family and friends through my social media accounts.	70 (60)
Coping	
Using my social media accounts helps me cope with my cancer diagnosis emotionally.	57 (49)
Using my social media accounts helps me cope with my cancer diagnosis spiritually.	44 (38
Using my social media accounts helps me cope with my cancer diagnosis physically.	28 (24

# CONCLUSIONS

Social media is often used by patients with advanced cancer, and more than half considered it to be a useful resource for sharing information, connecting socially, or coping. A previous study showed that the benefits of social media use include learning about cancer, distracting from the diagnosis, and connecting with survivors. However, some studies have found that social media use was associated with anxiety and stress. It is unclear if this association was a result of patients who were anxious were more likely to turn to social media as a source of coping, or if social media induced stress in patients, or both. Our study highlights that patients may have different preferences toward social media use for coping emotionally, spiritually, and physically. More research is needed to examine how social media can be a supportive resource for these patients.

#### REFERENCES

1. Van De Belt TH, Engelen LJ, Berben SA, Schoonhoven L. Definition of Health 2.0 and Medicine 2.0: a systematic review. *J Med Internet Res.* Jun 11 2010;12(2):e18. doi:10.2196/jmir.1350 2. AARON SMITH MA. Social Media Use in 2018. Pew Research Center; 2018. <a href="https://www.pewresearch.org/internet/2018/03/01/social-media-use-in-2018/">https://www.pewresearch.org/internet/2018/03/01/social-media-use-in-2018/</a>

3. Love B, C MT, Crook B, Donovan-Kicken E. Work and "mass personal" communication as means of navigating nutrition and exercise concerns in an online cancer community. *J Med Internet Res*. May 31 2013;15(5):e102. doi:10.2196/jmir.2594

4. Taubert M, Watts G, Boland J, Radbruch L. Palliative Social Media. BMJ supportive & palliative care. 03/01 2014;4:13-18. doi:10.1136/bmjspcare-2013-000584

5. Cho H, Silver N, Na K, Adams D, Luong KT, Song C. Visual Cancer Communication on Social Media: An Examination of Content and Effects of #Melanomasucks. *J Med Internet Res.* Sep 5 2018;20(9):e10501. doi:10.2196/10501 6. De Silva D, Ranasinghe W, Bandaragoda T, et al. Machine learning to support social media empowered patients in cancer care and cancer treatment decisions. *PLoS One.* 2018;13(10):e0205855. doi:10.1371/journal.pone.0205855 7. Ruckenstuhl P, Schippinger M, Liebmann P, Leithner A, Bernhardt G. Like or Dislike? Impact of Facebook on Ewing Sarcoma Treatment. *JMIR Cancer*. Aug 25 2016; 2(2):e11. doi:10.2196/cancer.5367

8. Picanço L, Biancovilli P, Jurberg C. Beyond the Drama: the Beautiful Life in News Feeds on Cancer. J Cancer Educ. Apr 2018;33(2):424-428. doi:10.1007/s13187-016-1094-2

9. Grimm CC, Sonia Survey on the Fate of Digital Footprints after Death. Internet Society: NDSS Symposium. 2014;

10. Bruera E, Kuehn N, Miller MJ, Selmser P, Macmillan K. The Edmonton Symptom Assessment System (ESAS): a simple method for the assessment of palliative care patients. *J Palliat Care*. Summer 1991;7(2):6-9.

11. Crawford JR, Henry JD. The positive and negative affect schedule (PANAS): construct validity, measurement properties and normative data in a large non-clinical sample. *Br J Clin Psychol*. Sep 2004;43(Pt 3):245-65.

doi:10.1348/0144665031752934

- 12. Sun X, Duan C, Yao L, Zhang Y, Chinyani T, Niu G. Socioeconomic status and social networking site addiction among children and adolescents: Examining the roles of parents' active mediation and ICT attitudes. Comput Educ.
  2021;173(C):11. doi:10.1016/j.compedu.2021.104292
- 13. Bender JL, Hueniken K, Eng L, et al. Internet and social media use in cancer patients: association with distress and perceived benefits and limitations. Support Care Cancer. Sep 2021;29(9):5273-5281. doi:10.1007/s00520-021-06077-0
  - 14. Wolfers LN, Utz S. Social media use, stress, and coping. Current Opinion in Psychology. 2022/06/01/2022;45:101305. doi:https://doi.org/10.1016/j.copsyc.2022.101305

    15. Bergenholtz H, Missel M, Timm H. Talking about death and dying in a hospital setting a qualitative study of the wishes for end-of-life conversations from the perspective of patients and spouses. BMC Palliat Care. Nov 2020;19(1):168. doi:10.1186/s12904-020-00675-1