CONFERENCE ABSTRACT

What are diabetes patients discussing on social media?

European Telemedicine Conference 2016, Oslo 15-16 November

Elia Gabarron[1,2]; Meghan Bradway[1,2]; Eirik Årsand[1,2]

1: Norwegian Centre for e-Health Research, University Hospital of North Norway, Tromsø (Norway)
2: Department of Clinical Medicine, Faculty of Health Sciences. The Arctic University of Norway, Tromsø (Norway)
Correspondence: Elia Gabarron; Phone: +4794863460; E-mail:elia.gabarron@telemed.no

Introduction: Social media channels are being used more and more by people with diabetes for exchanging health information, experiences with their chronic condition, and asking and giving advice to their peers[1]. The objective of this study is to describe the nature of the information that is shared on Norwegian diabetes social media groups, and the users' reactions to these posts.

Methods: The content and reach of 400 posts were downloaded from 4 different social media platforms: 100 posts each from the Norwegian diabetes patient association's open Facebook group, Twitter, and Instagram, as well as 100 posts from a diabetes closed Facebook group. No personal data was extracted. Three independent reviewers classified the posts into four categories (Scientific content; Healthcare services; Self-management; and Diabetes awareness). Inter-rater agreement was calculated. Discrepancies regarding categorization were discussed until agreement was reached. The study outline was declared exempted from purview by the Norwegian Regional Ethics Committee. Permission to conduct this study was obtained from both diabetes patient groups.

Results: The inter-rater agreement was Fleiss' kappa=0.561, considered a moderate agreement[2]. Self-management was the most frequently posted topic by the closed Facebook patient group (64%), and also the most commented on; while the most common posts on the Association's open Facebook group, Twitter and Instagram were focused upon diabetes awareness (65%; 48% and 88% respectively), p<0.001. The kind of posts that was most commented upon in the Association's Facebook group were those of scientific content. No posts about healthcare services were shared by the closed patient group; and only 1 post on self-management was found in the Association's open Facebook group, while none appeared on Twitter or Instagram. Diabetes awareness posts were the most liked by both Facebook groups, while the Association's Instagram users liked more scientific content. An overview of the nature of the posts and the users' reactions are summarized in the Table.

Table. Nature of the posts and users' reactions. Mean (95% confidence interval)

Nature of the posts	Closed Facebook group (3.266 members)	Open Facebook group (28.086 members)	Association's Twitter (2.943 followers)	Association's Instagram (3.553 followers)
Scientific content	n=6 posts	n=17 posts	n=38 posts	n=8 posts
Likes	21.83 (-6.31÷49.97)	275.53 (130.12÷420.94)	0.79 (0.45÷1.13)	153.83 (-16.05÷323.72)
Shares	0.83 (-0.85÷2.51)	61.18 (27.43÷94.92)	0.79 (0.47÷1.11)	not applicable
Comments	13.67 (-2.51÷29.84)	20.53 (5.08÷35.98)	not applicable	2.67 (-1.82÷7.15)
Healthcare services	n=0 posts	n=17 posts	n=14 posts	n=6 posts
Likes	0	185.18 (65.15÷305.20)	1.43 (0.45÷2.41)	72.17 (62.25÷82.09)
Shares	0	167.35 (-61.35÷396.06)	2.50 (1.44÷3.56)	not applicable
Comments	0	11.94 (6.20÷17.69)	not applicable	1.17 (-0.87÷3.20)
Self-management	n=64 posts	n=1 post	n=0 posts	n=0 posts
Likes	13.41 (8.37÷18.44)	1500	0	0
Shares	0	132	0	not applicable
Comments	19.84 (13.53÷26.16)	75	not applicable	0
Diabetes awareness	n=30 posts	n=65 posts	n=48 posts	n=88 posts
Likes	34.73 (22.63÷46.83)	295.85 (208.89÷362.35)	3.02 (0.62÷5.42)	96.58 (82.33÷110.83)
Shares	0.43 (0.01÷0.86)	55.82 (26.42÷85.21)	3.08 (-0.41÷6.58)	not applicable
Comments	10.50 (2.17÷18.83)	13.28 (8.63÷17.93)	not applicable	1.32 (0.92÷1.72)

*Chi-Squared test, p<0.001

Conclusions and discussion: While the closed group's users tend to exchange more information on self-management, the three open social media channels offer more information on diabetes awareness. Due to its reach and users engagement, healthcare providers should consider collaborating with diabetes patient associations and diabetes patients' social media groups to promote health education[1].

References:

1. Hernandez M. Diabetes social media: A tool to engage patients. Can J Diabetes 2015;39(3):194
2. Landis JR, Koch GG. The measurement of observer agreement for categorical data. Biometrics 1977;33:159–174