

## Chapter 34

# Insights Into Tweets Associated With Congenital Heart Disease

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### ABSTRACT

*The use of Twitter in healthcare has allowed healthcare professionals the opportunity to break down boundaries with patients. Previous Twitter studies relating to cardiology have explored features of tweets associated with professional organisations and journals focusing on cardiology. However, there have been few studies into tweets associated with congenital heart disease (CHD). This article shows the extracted and analysed study of 2,854 tweets associated with congenital heart disease. The results highlighted that the presence of a higher number of URLs, hashtags or followers didn't lead to a high number of retweets. Content analysis was carried out on 250 randomly selected tweets from the sample. Analysis of tweet content found that information was shared rather than being sought, with content sharing being the most popular style of tweet. This highlighted the power of Twitter in offering access to support to CHD sufferers and families via an online platform. Support exists in various means, whether it is sharing experiences or learning more about CHD health campaigns.*

### 1. INTRODUCTION

Congenital heart disease (CHD) spans a wide range of birth defects that affect the inner workings of the heart. Congenital indicates that the heart condition is present at birth (NHS, 2015). One in 180 babies in the UK and one in 40,000 babies in the USA are diagnosed with CHD every year (British Heart Foundation, 2015; Centre for Disease Control and Prevention, 2015).

With more CHD patients living into adulthood due to advances in medicine, the use of social media provides a useful platform for discussing health care. A survey of 1,060 adults from the USA discovered how age influences social media engagement. More than 90% of the adults surveyed, who were aged 18–24, would engage in health activities or trust information posted on social media. In terms of sharing

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*Table 1. Categories of social media*

Category of Social Media	Definition	Examples
Microblog	A type of blog where users can send short messages to each other. Microblogs can be used to disseminate information and communicate with others.	Twitter, Identi.ca
Social Networking Sites (SNS)	Services in which users set up a profile in order to establish a connection with friends or other users who have similar backgrounds or interests.	Facebook, MySpace
Theme Networking Sites	Social networking sites that are based around a particular theme such as nursing.	CureDiva, PatientsLikeMe
Mashups	A web page or application that combines content from more than one source to produce a new service that adds value.	Google FluTrends
Wiki	Communal websites in which content can be easily edited.	Wikipedia
Media Sharing Sites	Services that allow users to upload and share media such as videos and photos as well as allowing users to comment and tag media.	YouTube, Flickr

Source: Adapted from Grajales III, Sheps, Ho, Novak-Lauscher, & Eysenbach, 2014

content, more than 80% of 18–24-year-olds would share health information through social media. In comparison, less than 45% of adults aged 45–64 would be likely to share information via social media (Pwc, 2012). Social media consists of a variety of platforms in the medical field as illustrated in Table 1.

Studies carried out into the use of social media in cardiology (Jones, Cassie, Thompson, Atherton, & Leslie, 2014; Jørgensen et al., 2013; Minto et al., 2015) emphasized how the use of social media by cardiology patients can break down boundaries between patients and cardiologists as well as other health-care professionals.

One popular social media platform at present is Twitter, a microblogging site with 320 million monthly active users as of September 2015 (Twitter, 2015b). Twitter allows users to send up to 140 characters called “tweets” to other users. Each Twitter user has a set of followers. A follower is another Twitter user who will see the user’s tweets in his/her timeline and appear in the user’s followers’ list. Friends of the user are those whom the user follows. In terms of Twitter profiles, the default privacy setting is to make the tweets visible to the public. Besides tweets, a Twitter profile contains a background image, profile photo and header photo. The profile owner also has the option to complete the location section, a URL and a short biography, which appears on public profiles (Twitter, 2016). Tweets can contain features such as mentions, hashtags and URLs. Mentions are referencing another user in a tweet. To mention other users in a tweet, the @ sign is included at the beginning of the tweet followed directly by the user-name. A hashtag is a phrase or word preceded by the symbol #. When a user clicks on a hashtag, tweets containing the same topic or keyword will appear. URLs link to content such as websites, resources and articles. In order to protect the number of characters in a tweet (which must be no greater than 140 characters), Twitter shortens all URL links to 22 characters (Twitter, 2015a).

In order to share content from another user you find interesting, with your followers, the tweet posted can be retweeted. The practice of retweeting allows information to spread through Twitter and reach new users. There are various motivations for retweeting information, e.g. to validate another user’s thoughts, inform audiences, demonstrate friendship and to refer to less popular people in order to signpost users towards less visible content (Boyd, Golder, & Lotan, 2010).

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