Memes in medical education:
Making sense of professional authority

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Abstract

Memes are highly malleable forms of visual media that provide insight into the dominant discourses within a community. This essay presents the top meme posts on /r/medicalschool, a thread on Reddit, an anonymous news-aggregating site, which are the most discussed posts by users, who are predominantly medical students. Within this digital space, users attempt to make meaning of the process of professionalization and what their new roles have in store for them. Studying those memes' accompanying comments, we find that the majority of posts center on perceptions of diminishing professional authority. These perceptions likely stem from an ontological insecurity due to significant financial burdens, debt, and risk involved in going to medical school.

Keywords

medical school, professionalization, Reddit, memes, netnography

Introduction

Reddit is a social news aggregator, a web-content rating system, and an online discussion board, all rolled into one. As of April 2019, Reddit was ranked the sixth most-visited website in the United States and twenty-first in the world, with users in the United States making up 54.4 percent of its user base, followed by users in the United Kingdom at 8.2 percent (Alexa 2019). 102
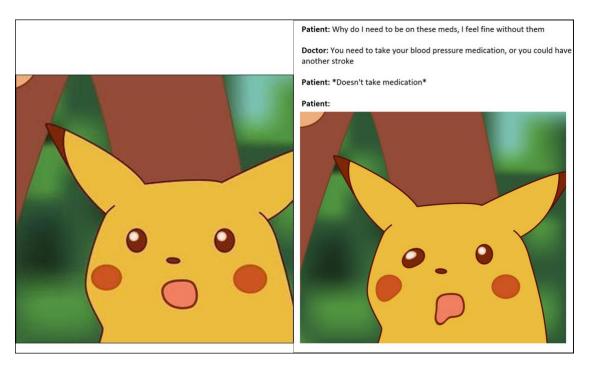
Texts, links, images, videos, and gifs (brief, repeating moving images) are posted by users, and other users then comment on them. Users can promote ('upvote') or demote ('downvote') all content, which affects where a post appears on the page; a post receiving many upvotes will be closer to the top of the page. Each vote also counts towards a total amount of 'karma', a number that indicates how popular or relevant content is to the community to which it is posted ('subreddit').

/r/medicalschool is one of these many subreddits, which was the digital fieldsite/space for Song's dissertation on medical student burnout. Analyzing such visual media as digital, cultural artifacts, Song argues, is important to fully understanding the dominant discourses within /r/medicalschool. The majority of posts are image macros (an image that has been captioned with superimposed text), created with image-editing applications that are freely available on the web. Image quality is not a concern, only the content. Bradley E. Wiggins and G. Bret Bowers (2014, 1893) consider memes a genre, defining them as 'messages transmitted by consumers-producers for discursive purposes'. Specifically, the term 'discursive' points to the repetition of subject or thematic matter, which connects one image to the others. A meme is born when one image macro is shared widely and then modified over and over again by many participants within a community that recognizes the original macro.

The images presented below are among the top ten posts that have gained the highest amount of karma since the subreddit's inception in 2011. As macros can be created by anyone, users of /r/medicalschool become consumer-producers who shape the dominant discourses within this space. Each post is thus a microdiscourse that dialogically interacts with macrodiscourses, making them exemplars of mediated cultural participation. This photo essay demonstrates how 'identities are forged, confirmed, and celebrated . . . through shared expressive culture' (Thompson 2012, 57) by medical students on Reddit. The majority of the top posts on /r/medicalschool concern professional authority and can be understood as an attempt by medical students to make meaning of the process of professionalization and becoming a physician.

'Going viral'

Internet memes that 'go viral' – become widely disseminated and modified – are considered successful. The 'Surprised Pikachu' meme (andcallmeshirley 2019), which was created from a screen-capture of an episode of *Pokemon* (season 1, episode 10), follows a formula that is flexible in content: a scenario in which someone is surprised by a predictable outcome.

1. Left: The original 'Surprised Pikachu' template (KnowYourMeme 2018). Right: 'This is the last Pikachu [meme], I promise' (/u/BinaryPeach 2019). Note that the Pikachu's mouth has been modified to droop on one side, a common symptom and outcome of a stroke.

The title1 of image 1 alludes to the popularity and viral spread of the Surprised Pikachu meme on the web. In this particular meme, the set-up is a conversation between a patient and a physician in which the physician explains the importance of taking blood pressure medications. As construed by medical students, the predictable outcome is the patient being surprised at the outcome of suffering a stroke despite counseling.

While this could be construed as gallows humor, the comment 'stickied' to the top of the comments by a moderator indicates a different sort of message: 'plz understand that this is in the context of learning about strokes including risk factors such as medication noncompliance and the specific pattern of neurologic deficits that result from strokes so I promise you don't have to report this as making fun of stroke victims' (/u/Chilleostomy 2019). Comments range from acknowledgement that this is a subversive form of humor to stories of similar situations that happened to themselves or their family members.

1   Editors' note: the original capitalization and spelling of these titles has been preserved.

Challenges to professional authority

Frustration arising from physician-patient interactions is a dominant theme. For example, image 2, titled 'errday in Family Medicine clinic [meme]',2 voices how the creator is unlikely to go into family medicine because they do not want to deal with frustrations related to counseling patients on how to manage their illness. Comments on this image focus on patients' lack of understanding of their disease process, and resulting 'lifestyle modification non-compliance'; users report that patients do not make lifestyle modifications as suggested, refuse medication therapy, and opt for 'unconventional' interventions, such as eating a vegan diet or taking a cinnamon pill. As one user points out, this scenario is not unique to family medicine and occurs in many other specialties.

Post 2 follows the format of the 'Surprised Pikachu' meme but is a digital manipulation in which the original animated expression of surprise has been transposed onto a Pikachu plush doll. In addition to conveying an outcome, this variation says something about the patient who is depicted as overweight.

2   'Errday' is an intentional misspelling of 'everyday'.

Patient: Why can't you fix my diabetes?

Me: Meds can help, but it won't work without lifestyle changes.

Patient:

2. 'errday in Family Medicine clinic [meme]' (/u/premeddit 2019)

One of the comments on post 2, with 582 upvotes, evokes patients' defensiveness when physicians inform them that diabetes is best managed with medications in combination with lifestyle changes.

> 'That's interesting doc, but I have a couple of questions.'
> 'Of course.'
> 'First of all how fucking dare you.'
> 'Oh, I don't—'
> 'Second who do you think you are.' (/u/illaqueable 2019)

In addition to depicting patients as obstreperous, and hinting at frustration with counseling patients, the comment also suggests the diminishment of physicians' professional authority.
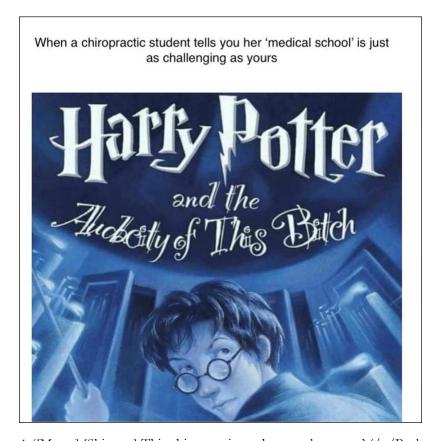
Post 3, '[Shitpost] Primary Care be like' (3.2k karma) (/u/Spire_Slayer_95 2019),[3] further illustrates medical students' perception of the decrease in physicians' professional authority when clinical knowledge is challenged by patients who go to the web to research their symptoms and conditions in an effort to be more educated, and thus, empowered in the clinical setting. In contrast to the post in image 2, this post does not disparage patients.

3. '[Shitpost] Primary Care be like' (/u/Spire_Slayer_95 2019)

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3   'Shitposting' has several usages. It can be used to describe a post that demonstrates the author has
         invested little effort and has not been modified, or one that does not contribute to or even detracts
         from discourse through intentional derailment.

The image macro is an intentionally ironic digital manipulation of the original mug, which reads 'Please do not confuse your Google Search with my Medical Degree'. The image thus juxtaposes laypeople's use of Google's search engine with health professionals' use of *UpToDate* (https://www.uptodate.com), a searchable website that provides condensed versions of literature reviews and practice guidelines.

Indeed, within the comments, users report using *UpToDate* articles when asked to present on a topic by an attending physician. One user, /u/im_a_dr_not 2019, advises reading the sources on the bottom of an *UpToDate* page, writing that it's 'like going to a Wikipedia article and scrolling straight down to the sources'; this allows one to reference landmark studies on the topic, which suggests that one has conducted research instead of just reading a summary. Other commenters also tell stories of how they benefited by using *UpToDate*. An attending physician relays a story in which they used an *UpToDate* summary to order all of the tests prior to a referral, and the specialist told them, 'You just basically did my workup for me!' (220 karma) (/u/MikeGinnyMD 2019). Users also suggested using other sources for different specialties, such as *Orthobullets* for orthopedic surgery, and *EM wiki* for emergency medicine.

4. '[Meme] [Shitpost] This chiropractic student cracks me up' (/u/Byakugan360 2019)
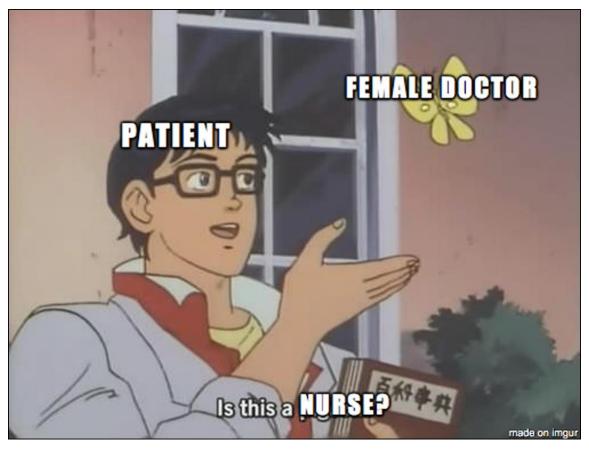
Users also expressed their perceptions of challenges to biomedical authority from other health care professionals, as evidenced in post 4, '[Meme] [Shitpost] This chiropractic student cracks me up' (4.1k karma) (/u/Byakugan360 2019). The meme, which is prefaced by text, uses the cover of *Harry Potter and the Order of the Phoenix* and even takes care to copy the style of the font in the manipulated image. The prefacing text and subsequent comments together reference how doctors and student doctors feel that physicians' authority, imagined as previously unchallenged, is being diminished by other professionals who also wish to lay claim to having specialized biomedical knowledge.

While the post only refers to chiropractors, the subsequent comments discuss negative interactions with other allied health professionals. A moderator's comment reflects the content of the comments resulting from this meme: 'how did this go from a chiropractice [*sic*] to a "dump on non-physician health professionals" thread. Everyone in the industry, nurses, PAs, pharmacists, physicians, etc. etc. has their own niche that they occupy and a role to play in patient care. Regardless of how you feel about the politics of it, we should be be [*sic*] mindful of not degrading or talking down to people who just chose to pursue a different path. This isn't okay' (karma hidden) (/u/holythesea 2019).

Another comment ran counter to the dominant discourse, stating, 'have some respect for other professionals. You don't know how hard they work and in the end it doesn't matter at all' (/u/drmed 2019); this was heavily downvoted, resulting in -105 karma. The thread was then 'locked' by the moderators as they turned off the commenting function for this post and deleted several existing comments without providing a reason.

The topic of professional authority is seen again in post 5, '[meme] When you've finally finished 6 years of uni and 5 years of specialisation' (4.5k karma) (/u/MorningredTimetravel 2019).[4] The template for this meme is a screen capture from a 1991 Japanese animated cartoon, *The Brave Fighter of Sun Fighbird* (太陽の勇者ファイバード, *Taiyō no Yūsha Faibādo*, Katsuyoshi Yatabe, dir.), in which the protagonist misidentifies a butterfly as a pigeon. In the image, and subsequent comments, female physicians and student doctors being misidentified as nurses is construed as sexism.

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4   The spelling and length of training indicates a context outside the United States or Canada.

5. '[meme] When you've finally finished 6 years of uni and 5 years of specialisation' (/u/MorningredTimetravel 2019)

A commenter describes an example of the sexism faced by women in medicine: 'During her [internal medicine] term, [my friend] was attached to an all-female team save for another medical student that was male. The attending physician was this 5'0 Sri Lankan lady with an accent. Almost all the elderly patients would hear her speak, nod, then turn to ask the male student questions about their treatment, thinking HE was the one in charge. Definitely put him in an awkward position' (784 karma) (/u/HappinyOnSteroids 2019). Many other comments discuss similar examples of what they call 'gender inequality'.

This meme clearly alludes to the hierarchical structure of medicine – nurses have less training and are therefore less qualified – and as shown in post 4, there is a lack of respect and recognition for how hard other allied health professionals work. It could be argued that the users unwittingly perpetuate such gender inequality by using this meme to convey frustrations with being identified as 'just a nurse', a field that is predominantly female.

Ontological insecurity

Users are concerned about the increasing encroachment of other health care professionals into fields that were traditionally considered the purview of the physician. Because doctors in training invest a significant amount of time and accrue significant debt,[5] there is an anxiety around being able to secure a job that will allow them to pay off their loans and live comfortably; encroachment is viewed as competition and thus a threat to their livelihood. Post 6 – '[Shitpost] Facts'[6] (/u/OmniaVinco 2018) – speaks to these financial concerns.

In 2018, New York University's (NYU) medical school announced that it would provide free tuition for all medical students. In this image macro, 'U.S. medical students' are also shocked and happy at the news, while 'Other U.S. medical schools' glower at the 'proposal'. In discussions on /r/medicalschool, students expressed that they felt trapped by indebtedness and the limited number of career options for those with traditionally 'pre-med' undergraduate degrees.

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5   In October 2017, the Association of American Medical Colleges (2018, 3) reported that 75 percent of medical students graduate with educational debt (median of $192,000), with the majority of it incurred during their medical training.

6   Unable to identify source template.

6. '[Shitpost] Facts' (/u/OmniaVinco 2018)

While NYU's move to waive tuition for all students could be seen as a step in reducing socioeconomic disparities amongst applicants, the move was mostly perceived as a public relations move on /r/medicalschool. One commenter asks how this will increase the competitiveness of NYU medical school admissions, which would then raise its already high position in the annual U.S. News and World Report ranking (163 karma) (/u/Timewinders 2018). Another writes, 'And just like that, the suicides of an MS4 [medical student, year 4] and a psych resident within weeks of each other fell completely out of the public eye' (503 karma) (/u/sakusendoori 2018).

The perception of being 'locked into medicine' and the prospect of having to pay down debt results in an ontological insecurity, which can manifest itself as burnout. Post 7, 'See it everyday I come into work, teasing me' (4.3k karma) (/u/oxymoron1629 2018), is an original creation

by the poster, who took a photo of a billboard using Snapchat and then used the in-app interface to 'respond' to it with the message 'Another day, another chance to quit'. As u/theixrs (2018) comments, 'I've paid for all 4 years of tuition at this point, it's WAY too late [to get out] now' (83 karma).

7. 'See it everyday I come into work, teasing me' (/u/oxymoron1629 2018)

Despite the negative sentiment in the actual content of the post, comments expressing the sentiment that students who choose medicine love what they're doing received positive karma. It could be that many of the users that upvoted the post did not go into the comments to express their desire to quit,[7] or that negative sentiments are only surface-level and exaggerated for humor. Post 8, 'Oof [meme]'[8] (3.3k karma) (/u/plantsandpremed 2019), and its comments follow this pattern, presenting a dual message.

8. 'Oof [meme]' (/u/plantsandpremed 2019)

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7   Posts can be upvoted from the main subreddit page without opening the separate webpage for the
        post, where comments can be seen.

8   'Oof' is an onomatopoetic word used when a user expresses empathy for someone in a difficult
        situation.

When an incoming medical student writes that 'Oof [meme]' and other similar memes are scary, one commenter responds with words of encouragement:

> So serious note [because] all the cynicism on this subreddit really freaked me out before starting medical school – [I'm] halfway through M1 [first year of medical school] and this shit is simultaneously the hardest and best thing I've done so far. Definitely tough but 1000% worth it. Being surrounded by a bunch of people who are fascinated by the same random stuff you're interested in is underrated. (/u/llamazingest 2019)

While this comment accrues 37 karma, two users dismiss the validity of /u/llamazingest's statement based on her level of training. A self-identified fourth-year responds, 'halfway through M1 – oh you sweet summer child' (68 karma) (/u/sy_al 2019), and a third-year resident (14 karma) (/u/SolarianXIII 2019) writes,

> 1000% you say? [First and second year] are not representative of what youll eventually be doing
> you get up when you want, study some flashcard then have time for exercise and hanging out
> you have not experienced clinical years yet
> 1000%?
> real talk

The comment with the highest karma count also follows this narrative: 'Unhelpful hint: It does not get better in intern year' (667 karma) (/u/blendedchaitea 2019). Another writes, 'That looks like how I felt 2.5 years into med school and looking at 5–6 more to go before it was all done – it felt permanent then – it will pass. That was 14 years ago' (57 karma) (/u/abyss 2019). Beyond polyphony, this comment tree suggests a hierarchy that permeates beyond simply attending physician, resident, and medical student: even medical students are stratified by their year of training. Even though this is a relatively anonymous forum, users replicate and enforce the hierarchy experienced 'in real life' in this digital space, through monitoring themselves and other users.

Conclusion

In this virtual social life on /r/medicalschool, medical students negotiate an understanding of what being a medical student is. This negotiation is heavily influenced by Reddit functions, like karma, as well as users' level of training. Because of the anonymous nature of this community, participants used their own vernacular, in the form of memes, to describe their experiences and to connect with others. Users with more experience in medicine tell their

stories, disseminating a narrative about the process of going through medical school. As the visibility of posts and comments are affected by voting patterns, consensus-based narratives and identities of this community emerge.

Many of these memes are highly upvoted without the poster providing context to the meme's origins or noting how subtle modifications to the original image change the meaning. This suggests that there is a general understanding within that group about what the original and modified images mean. The memes may require explanation to those outside the group; for example, a moderator explained to outsiders that the intention of 'This is the last Pikachu [meme], I promise', was not to make fun of stroke patients (/u/Chilleostomy 2019).

Milner (2012, 305) writes about 'pop as a launching point to the political', which is an apt description for how /r/medicalschool users engage in social commentary on issues that they find to be pertinent, such as physician interactions, professional authority, sexism, and financial pressures. This essay also foregrounds how polyphonic voices arise within the deeper discussions in the comment threads. Studying the top memes provides an opportunity for researchers to evaluate how major themes and topics are connected within the dominant discourses of a community.

About the authors

Ye Kyung Song is an MD-PhD student at the University of Texas Medical Branch at Galveston. This photo essay is an extension of her dissertation research on medical students' online expressions of burnout. Jerome Crowder is a medical and visual anthropologist whose research focuses on community engagement and individuals' experiences with the health care system. He is Associate Professor at the University of Texas Medical Branch at Galveston, in the Institute for Medical Humanities where he teaches both graduate and medical students. Crowder is the coauthor of *Visual Research* (Bloomsbury, 2013) and the coeditor of a forthcoming volume on anthropological data (Palgrave, 2019).

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