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The Confluence of Social Media Post Variables and Pediatric Health Awareness

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Abstract

Principally, social media became a communication medium between viewers and physicians to educate and allow patients more involvement in health choices, eliminating the barrier of uninformed patients. Trishita Deb, a market researcher and industry consultant, calculated increasing healthcare professionals posting on Facebook from 70% in 2019 to 78% in 2023 as shown in Figure 4 (Deb, 2024). Primarily, the focus lies on pediatric healthcare because teenagers represent the largest group of social media users. However, previous research mainly considered adult demographics because teenagers are minors, and including them in research studies induces ethical issues. Accordingly, producing a gap in teen health promotional posts, with little regard to adolescents preferences. Thus, this content analysis and research study compared preferences of the industry formulating these posts versus those of teen viewers. The content analysis reviewed 100 Facebook and 100 TikTok posts on commonalities within posts' elements. The received attention of the post, in terms of likes, views, etc. determined posts' practicality through the return-on-investment method, developed by the Journal of Medical Internet Research, for future analysis. Identified elements and trends formulated survey questions, which underwent Institutional Review Board approval, and collected 81 responses. Essentially, the survey confirmed adolescent preferences on what proves credible to them in posts and would influence their health choices, hence these conclusions are applicable to future posts and amass the anticipated audience. Few concordances were found as most research was inapplicable in terms of dates, discussed health issues weren't ones teenagers wished to see, many included unhelpful sponsorships, among others. Conclusively, the researcher sought to identify the presence of alignment between available content on social

media versus teens preferences, and concluded little agreement since, as aforementioned, these opinions experienced no precedent study.

Key Words: teens, adolescents, social media, online posts, health promotion

Introduction: Context

Substantially, social media gradually became the mainstream form of disseminating medical information to benefit public awareness. Current population inclination towards social media decreased the precedent form of website publications. In return, the health industry utilizes social media platforms to increase the public's chance of exposure. According to Nimita Limaye, CEO of Nymro Clinical Consulting Services, and her colleague, 80% of social media users peruse platforms for medical information whilst 90% range between 18 and 24-year-olds dependent on social media in comparison to senior populations. Those two percentages originate from a total 74% of social media users in 2018 (Limaye & Saraogi, 2018, para. 2). Admittedly, these percentages increased especially after the COVID-19 pandemic when individuals had little access to medical care, so the majority favored internet searches relevant to their health concerns. Conjunctly, the perspective of medical organizations questions the ethicality, accuracy, and credibility of the posted information. Simultaneously, despite the large percentage referencing teenage users, few researchers have chosen to approach the inclusion of those demographics within their studies. Christine Tunkl, from the University Hospital Heidelberg's Department of Neurology, and her colleagues asserted, "The lack of public awareness about stroke has been reported as one of the major factors for prehospital delay and hence the belated medical treatment" (Tunkl et. al, 2023, para. 5). The lack Tunkl refers to occurred in Nepal which experiences a high rate of deaths caused by stroke because of improper and or delayed care. Predominantly, studies have proven the importance of social media in healthcare to benefit the public's knowledge, labeled as health promotion campaigns. Nonetheless, few have considered the variables composing social media posts that attract the attention of the public, specifically teen adolescents, and raise awareness. Generally, past and present health campaigns including the examples referenced above have all comprised only adult demographics, with few involving teenage participants. The attainment of a campaign's intended goals requires the delineation of the specific elements that project

credibility to the public, specifically teen adolescents, and engender willingness to follow the provided suggestions.

Literature Review

Essentially, social media incorporation in the medical industry raises public exposure to medical information, strengthens communication between physicians and patients, and allows patients active involvement in personal health decisions. The medical industry benefits because knowledgeable patients imply avoidance of court cases with discontented patients from malpractice. Patients who can advocate for their health prevent such escalations. Therefore, the health industry favors social media because of younger generations' disposition and more likely exposure to information through media platforms than hospital website publications. Specifically, Limaye and Saraogi identified patients' preferences to receive updates on the medicine and characteristics of the Covid-19 disease, with 60% of patients asserting they trust their physician's information (Limaye & Saraogi, 2018, para 2). Jiaqi Fu and her colleagues from Nanfang Hospital echo that statistic with an approximation of 4.62 billion social media users globally and an increase to 60% of the population, as users, after the calculation's conclusion in June 2023 (Fu et. al, 2023, p. 2). Congruously, the two statistics associated with youth and social media usage emphasize the need for accurate information that targets adolescent teens. As previously referenced, teenage demographics continue to be targeted by the health industry, but are overlooked by researchers who formulate the campaigns targeting them. Along similar lines, Internal Medicine News reported on the Swedish Medical Center Health Care Symposium of 2011. The group mainly discussed physician and patient communication through social media. One of the participants, Dr. Jennifer Dyer, a pediatric endocrinologist, observed her participants missed only 3 boluses (drug doses) and had hemoglobin levels at 9% compared to previous 9 or above absences and 11% hemoglobin (Otto, 2011, p. 1). Dr. Dyer forwent portal alerts and texted her patients about appointments based on their predilection. Notwithstanding the currency of the article, the statistics prove social media improves teen health when posts align with their interests. In other words, the consideration of adolescent preferences garners attention and influences their health in intended directions.

Distinctly, research consistently proved inclusion of the intended groups characteristics or demographics equaled lucrative campaigns. In

Saudi Arabia, the *Journal of Blood Medicine* conducted a study on correlations between WhatsApp advertisements and willing blood donors; the team surveyed 150 participants on the optimal way of contact for blood donations (Hajiri et. al, 2021). The study evinced citizens' daily WhatsApp use increased chances of news exposure and thus number of donors. Yet, the same study in Brazil experienced disparate results with fewer donors (Hajirir et. al, 2021, para. 3). Concisely, the comparison of the two studies proves researchers must consider cultural perspectives and adolescent preferences with posts, though not explicitly stated. In other words, this study approaches that issue by inquiring teenage students about several facets of media posts and which they want proffered. Furthermore, the study conducted in Nepal by Tunkl and her associates conceded their study only posted information and estimated the number of people exposed. Admittedly, cost was not a limitation for their campaign since, "'Cost to reach 1,000 users' of 0.24 EUR and a 'Cost Per Click' of 0.01 EUR" (Tunkl et. al, 2023, para. 3). Particularly, the team never measured whether people's stroke awareness increased as predetermined which creates a gap. Consequently, the Journal of Medical Internet Research evaluated 276 papers to answer the question of measuring change after exposure. They define healthcare posts as utilitarian since users find health information viable. Additionally, they developed several monetary and non-monetary methods to measure value including "return-on-investment" where creators track if viewers return to the page several times (Ukoha & Stranieri, 2019, para. 23). In those cases, the creator assumes the page assisted or affected the viewer favorably. Generally, although not mentioned by the authors, likes or comments on a post gauge viewer satisfaction. In order to prove that assumption, this study also determines whether factors including number of likes, comments, etc. do draw in teenage viewers to that specific post. Thereupon, social media rules out cost issues and effective assimilation of patients into the health industry; but the gap remains in little consideration of the audience's priorities and relative change after exposure to health promotion campaigns. Considerably, the type or lack of posts alter public health and opinions. W. Douglas Evans from the Milken Institute of Public Health and his colleagues from other universities in the United States and Nigeria examined Nigerian perceptions of the Covid-19 vaccine. The team asserted HCPs or community leaders and physicians influenced Nigerian's willingness to receive the vaccine. HCPs advocating for the vaccine and their vaccination amalgamated an increase in vaccinated individuals. Through their social media campaign, the team discovered unwillingness

stemmed from little knowledge about the vaccine itself. High-income nations experienced the opposite simply because more leaders promoted and circulated information regarding the vaccine (Evans et. al, 2023, para. 5). Optimal views associated with the vaccine expanded because the campaign informed Nigerians. Consecutively, although the methodology omitted measuring changes in perception, a definite and justifiable change succeeded the campaign. Simply, their research proves social media steers population health in progressive direction with germane information to the target group. Though the emphasis is placed on germane information, individuals naturally search for issues concerning them, so this study also serves to identify which medical issues current teenagers wish to see more of. Hence, providing campaign creators with structures to focus on, in place of indefinite posts that garner little attention. Xieling Chen from the College of Economics at Jinan University and her colleagues support the earlier statement. After reviewing publications between 2008 and 2017 from the Web of Science (WoS) and Pubmed, they found growth of 18 publications in 2008 to 1030 publications in 2017 (Chen et. al, 2019, para. 19). To clarify, these publications are linked to the expansion of social media in medicine. Adjunctly, Chen published her research in 2019, and the number of publications likely increased by 2024. Thus proving the importance of social media to the field based on the number of current publications.Withal, social media involvement introduces the necessity to become familiar with patients on the other half of the spectrum and their absorption of shared information.

Concurrently, the growth of the health industry and acceptance of more patients generates less physician and appointment availability, hence the need for expedited contact and accessible information. To elaborate, the health industry experienced a trend with social media or internet usage for illness suggestions and curatives because of hospital appointment unavailability. The *Journal of Foot and Ankle Research* organized a study that surveyed orthopedic foot and ankle surgeons on their practice, social media usage, and social media opinions to consider the second spectrum. Main themes among the surgeons highlighted disinclination to post and share information despite their acknowledgement of social media's advantageousness. Conclusively, the consensus among the surgeons involves a busy schedule, fear of spreading misinformation, and breaching patient confidentiality (Salimy et. al, 2023, para. 3). Substantially, based on the findings of the team's research, if patient preferences are available to physicians, then the creation of boundaries would prompt more to share and allow media campaigns to serve as more viable sources. Analyzing

patient perspectives and distinguishing their dispositions then impacts physicians by specifying how to deliver information to pragmatically influence their patients' health. On the other hand, concerning the focus on adolescents who receive pediatric health, K Denecke, an assistant surgeon at the University of Leipzig with colleagues from Saudi Arabia, the United States, and other European nations voiced ethical controversies. Within Table 1, the team concluded many researchers tend to avoid studying adolescents directly because they are not of legal age to consent and may not clearly describe their conditions (Denecke et. al, 2015). Thence, researchers prefer adult demographics to avoid ethical implications, which creates another disparity in the field. Though that can be acquiesced with the involvement of an International Review Board (IRB) or consent forms signed by legal guardians as this specific study involves. Overall, researchers limit interaction with teen demographics and that implicates the health industry's abilities to properly communicate information to them. Inspecting available health promotion campaigns, their presentation of information is variegated. For instance, organizations or experts share information either through text or video format. Within those formats, some may be humorous and contain current social media trends like popular dances whilst sharing the information. Others are more formal and simply state the information they wish to share. This study attempts to clear the blurred lines on the usage of trends by explicitly asking adolescents whether they prefer to see trends or formality within medical posts. Isabella Vedel from the Department of Family Medicine at McGill University and her colleagues studied six nonprofit organizations for cancer promotion. Commonly, these organizations experienced ineffective campaigns because of improper information circulation, unidentified target groups, or the information was irrelevant or inapplicable to the target audience (Vedel et. al, 2020, para. 6). Distinctively, a gap lies in no common application towards the correct way to present health material addressing teens. Farah Abdul Razzak from the Department of Family Medicine and her colleagues at the American University of Beirut prove the impact of the previous gap during their analysis of Facebook and Twitter posts on the recognition of obesity as a chronic disease. Concisely, they analyzed 8,106 posts, and only 401 or 4.5% from obesity health organizations portrayed obesity as chronic (Razzak et. al, 2023, p. 1). Even though the other posts originated from health organizations, the presentation of the information did not share the same reality in attempts to appeal to viewers; since most have a provisional mindset on obesity as negligence. Leading to the research question that explores: What

components of a social media health promotion post attract teens' attention and influence their health based on the campaign's intentions? Data is limited to 14 to 18 year olds because the gap lies in adolescents, not other age groups. To guide physicians and organizations to improve their presentation of health instruction for efficacious results. A combination of survey research and content analysis, to study the industry's current incorporations and current teen preferences, answers the previous question. Ultimately, the two methods provide data for cross reference to determine the data's alignment or whether the health industry should implement changes. Regardless, subjectively, the produced data may not align based on the fact that few studies considered teen preferences.

Methodology

Fundamentally, the study spans two methods, a content analysis identifying elements that content creators and organizations favor within current health promotion campaigns towards teens; followed by survey research of adolescent preferences towards the content of the campaigns that teens consider to influence them to follow the posts instruction. The content analysis produced quantitative data or percentages of each element to compare the commonality of components. Generally, the survey employed multiple choice questions, to avoid verbiage and participant disinterest, producing quantitative data. Open-ended questions permitted participants to share disparities overlooked by the researcher, in case of disregarded elements or ones presently unemployed by researchers, for qualitative data. Though some components including video versus text formats are obvious, none have measured the favorability of teens towards text or video, proving the need for comparison. Other elements encompass expert endorsement, popular trends, auditory versus visual learners, etc. In return, the content analysis determined the survey's paraphernalia because the survey involves components researchers presently use to determine whether they coordinate with teens' priorities. For instance, the variety of platforms dictates the available formats to share information, therefore the researcher considered that viewers find one platform more conducive or credible than another. Conjunctly, the survey questions participants on their favored platform for health-related inquiries. Essentially, the methods align with the research question because the content analysis reveals what the industry favors whilst the survey research establishes a learning style

that applies to most teens. The aggregate affirms whether the industry should reconsider current practices.

Regarding content analysis, the focus involves specific platforms, noting what each post employs, and extracting common themes among the posts. Atousa Ghahramani and her colleagues from the Victoria University Business School and Mitchell Institute for Education and Health Policy reviewed several campaigns and concluded, “Facebook and YouTube were used for intervention purposes to change health behavior. Twitter and Instagram were used more to observe the trend of changes in health behavior” (Ghahramani et. al, 2022, para. 4). Though the group concedes measurement of change after a campaign outside of social media is more viable, campaigns proved to influence populations (Ghahramani et. al, 2022, para. 7). Based on the data’s currency with publication in 2022, analyzing Facebook and TikTok, with TikTok’s popularity with teens, seemed optimal. Additionally, a study from the International Journal of Environmental Research and Public Health evaluated encouragement of constancy of medication intake through YouTube videos and asserted their creation of a completely new YouTube account before the research (Jawed & Zaim, 2023, para. 7). The researchers never explicitly stated why, but accounts without history prevent the bias of the results that may appear in tune with previous account history. In choosing the posts themselves, the researcher mainly depended on specific search terms that included all synonyms of adolescents, teenagers, etc. and specified pediatric medicine. In order to yield variegated results, medical issues were rarely dictated through the search terms, if only to research certain medical issues that had very few posts, to avoid bias towards certain medical issues. In short, other than dictating the search to adolescents and medicine, no other factors were included in the search to avoid bias. Hence, the researcher applied their conclusions and reviewed posts from Facebook and TikTok with new accounts on both platforms to avoid subjective results.

As previously mentioned, the code book for the content analysis mainly estimates the type and usage frequency of each element. Pertinently, some creators formally share health information whilst others include current popular dances or trends to entertain and inform the audience. Components of the content analysis were chosen after reviewing a set of posts.The content analysis dissects posts, between 2020 and 2024, into the health disorder considered, the audience, any bias from promotions, and the attention received in a spreadsheet. Essentially, the post’s popularity through the number of views, comments, likes, shares, and saves avow its practicality. An element's percentage of usage among

all the posts is calculated to affirm its favorability among creators. In terms of reliability, posts were chosen based on the credentials of the creator, as the researcher generally favored posts from academic sources or credited individuals in the medical field. To maintain consistency, posts were limited between dates of 2020 and 2024, originated from credited individuals, and explicitly targeted teen audiences in some manner. The accessibility of social media platforms, the researcher's inclusion of the search terms, and specific elements identified in the code book allow replicability. Correspondingly, most of the resulting posts are analyzed except posts from a creator already reviewed to avoid data partiality. Though, the analyzed posts include ones the search engine considers applicable to pediatric health, another researcher repeating the same study may receive different results based on the search engine; thus an account lacking history. Target groups are considered since demographics influence the reception of the information by the audience. In other words, properly identifying the target group manipulates the attention towards the post and the data. Consecutively, the survey questions compare two similar elements from the content analysis with an addendum of other questions. For example, one question asks "Do you prefer text or video format posts?" Pedagogy preferences are considered, whether participants are auditory or visual learners, to estimate a bias's existence. The survey in question was created through Google Forms because of the application's easy use, form distribution, and availability. Adjunctly, the finalized survey underwent an IRB board review with approval before its use. Any involved participants provided consent and all the forms remained anonymous. Following data collection, the most common answer from the participants versus the commonly used one in the industry finalized the conclusion. Overall, the content analysis points out existing elements, compares two similar elements through their percentage of use, and the survey then allows participants to choose between similar elements. Concluding with an observation on favored elements in the industry versus teen preferred elements.

Search Term	Post Date	Creator	Link to Post
Description	Audience	Health Issue	Text or Video
Use of Trends	Sponsors/Advertises	Number of Likes on Post	Number of Comments on Post
Number of Views	Number of Shares	Number of Saves	Notes

Results and Analysis

Content analysis and survey data were analyzed through percentage analysis of the zenithal elements with 100 Facebook posts, 100 TikTok posts, and 81 survey responses. Figure 1.1 provides the original data collection analysis codebooks and outturn samples. Generally, the analysis process identifies element repetition, the preponderance of an element among the entire group determines the favored ones. For the content analysis, around 10% of each category from both 100 post compendiums were analyzed separately. The categories include likes, views, comments, shares, saves, and the analysis spans the apical posts of each category. Certain posts repeated in multiple groups for scoring highly, therefore, some percentages repeated. Subsequently, the percentages of each element within those posts were compared to study trends. Nonetheless, the element comparison among the whole 100 post group is mediated conjointly. Equivalently, for the survey responses, the analysis utilized graphs procured from Google forms, though ancillary graphs were created for connected questions. Substantially, the highest rated factor within that question represents its favorability, and the final question allows teenager's to list elements based on their importance to the participant when determining credibility. The graphs below array the rest of the data for straightforward comparison of the mentioned elements. Figure 1.1 represents a section of the Facebook data collection, and figures 1.2 and 2.1 display analysis. Additionally, figures 1.3-1.7 include the Facebook data, figures 2.2-2.6 exhibit the TikTok data, and figure 3.1 displays survey data. The mode or most recurring of each element determined favorability.

Search Term	Post Date	Creator	Link to Post	Description	Audience	Health Issue	Text or Video	Use of Trend	Sponsored /Advertisement	Number of Likes on Post	Number of Comments on Post	Number of Views	Number of Shares	Number of Saves (Times video was saved)
"Teen health"	September 12,2023	Karen Zaghiyan, MD (Colorectal surgeon), FASCRS	https://www.tiktok.com/@drkarenzaghiyan_official/video/7277959294165765419?_r=1&_t=8i3JqckatST	Discusses the symptoms and possibilites of teens having hemorrhoids since those are frequently seen in older age groups not teens.	Teens and parents of teens who developed hemorrhoids (the parents)	Development of Hemorrhoids	Video	No trend, just sharing information in a formal manner (in uniform)	Doesn't sponsor any company or product/service	168 likes	6 comments	14.6k views	24 shares	30 saves
"Teen health"	January 19, 2021	Visions Teens (mental health center)	https://www.tiktok.com/@visionsteen/video/6919678652787461382?_r=1&_t=8i3KUKoOQcY	One individual in a healthcare uniform and another individual list different signs of a mental health disorder in general.	Teens and parents of teens who developed hemorrhoids (the parents)	Mental health disorders	Video	Include a dance trend and a popular song in the post	Promotes their center by encouraging viewers to reach out to them for help	1.2M likes	6,837 comments	4.7M views	25 shares	36.7K saves

FIGURE 1.1

Facebook Posts				
Search Term	Pediatric health- 3	Teen health-3	Teen cardiac health-2	Teen health promotion- 1
Post Date	2020-10	2021-7	2022-26	2023-51
Health Issue	No health issue-1	Bipolar-1	Female Reproductive -1	Depression-2
Text or Video	Text-61	Video-39		
Use of Trend	No trend-85	Trend-15		
Sponsored/ Assignment	Not sponsoring/advertising-76	Sponsors/advertises-24		

FIGURE 1.2.

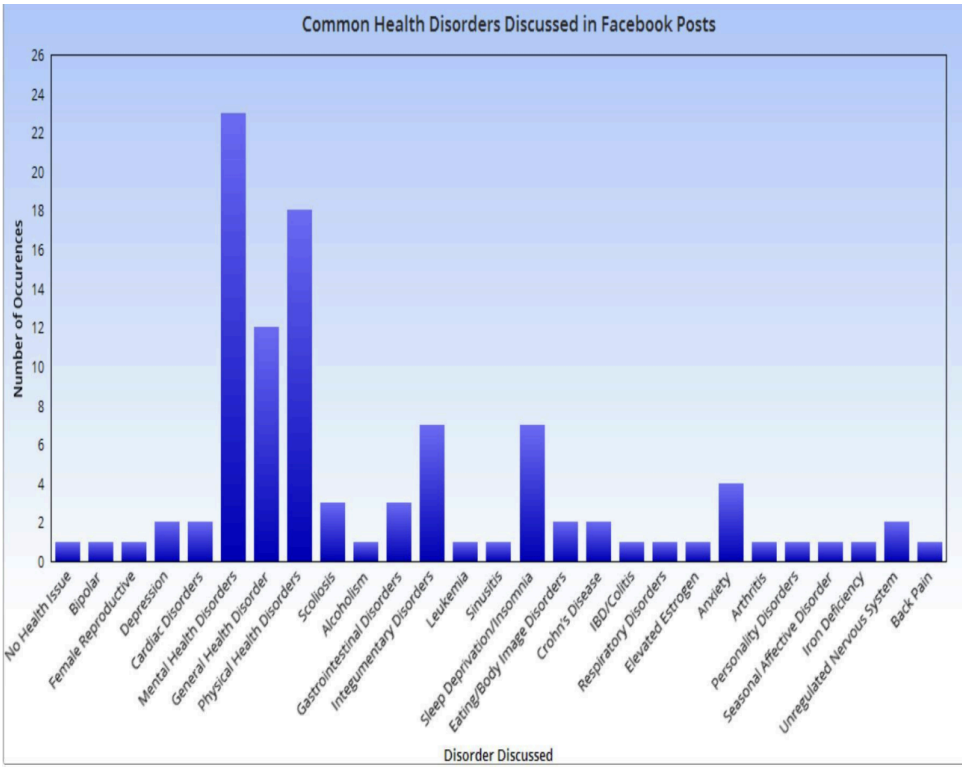
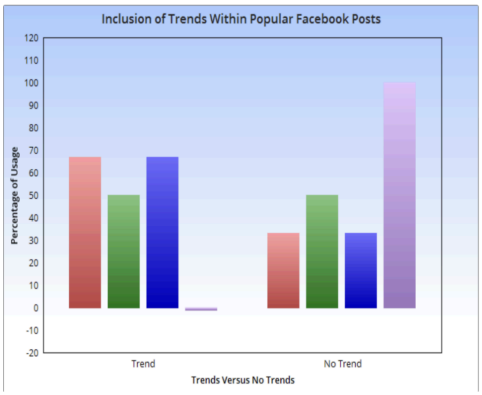
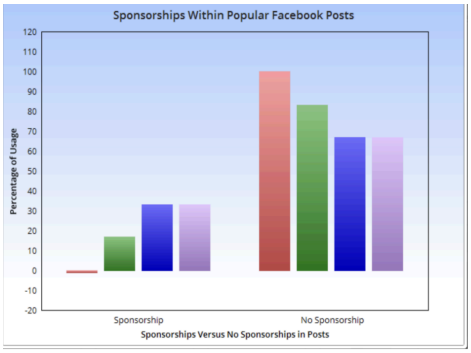


FIGURE 1.3



Red-In Terms of the Number of Likes
Green-In Terms of the Number of Comments
Blue- In Terms of the Number of Views
Purple- In Terms of the Number of Shares
Silver- In Terms of the Number of Saves

FIGURE 1.4



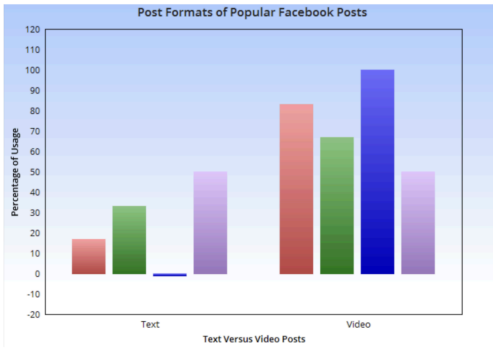


FIGURE 1.5 AND 1.6

TikTok Posts				
Search Term	Teen health-15	Teen physical health-2	Youth physical health tips-2	Teen physical health tips-18
Post Date	2020-7	2021-10	2022-18	2023-64
Health Issue	Hemorrhoids-1	Mental health-27	Eating disorders-3	Ankle sprains-1
Text or Video	Text-4	Video-96		
Use of Trend	No trend-65	Trend-35		
Sponsored/Assignment	No sponsorship/advertisement-90	Advertises/sponsors-10		

FIGURE 1.7

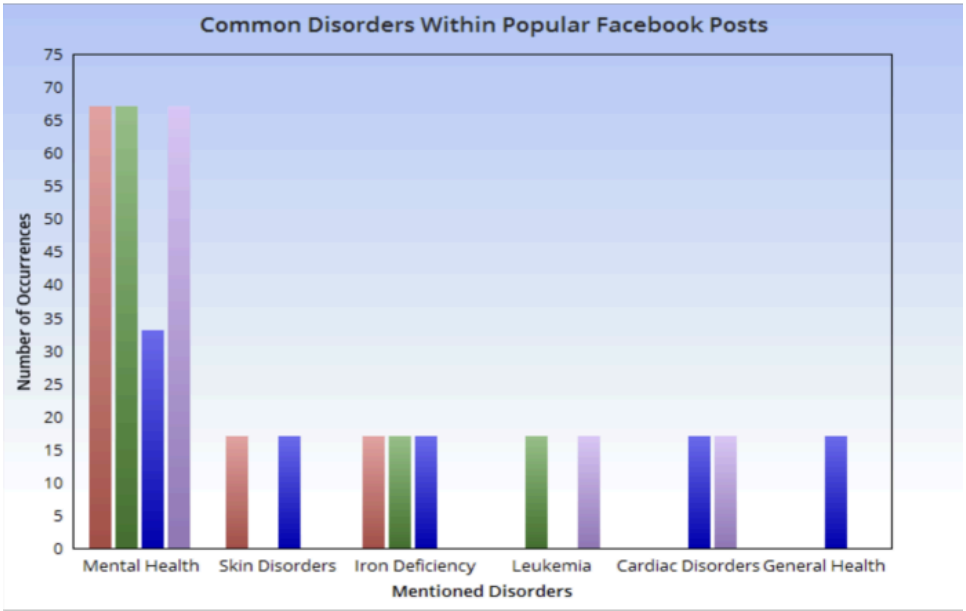


FIGURE 2.1

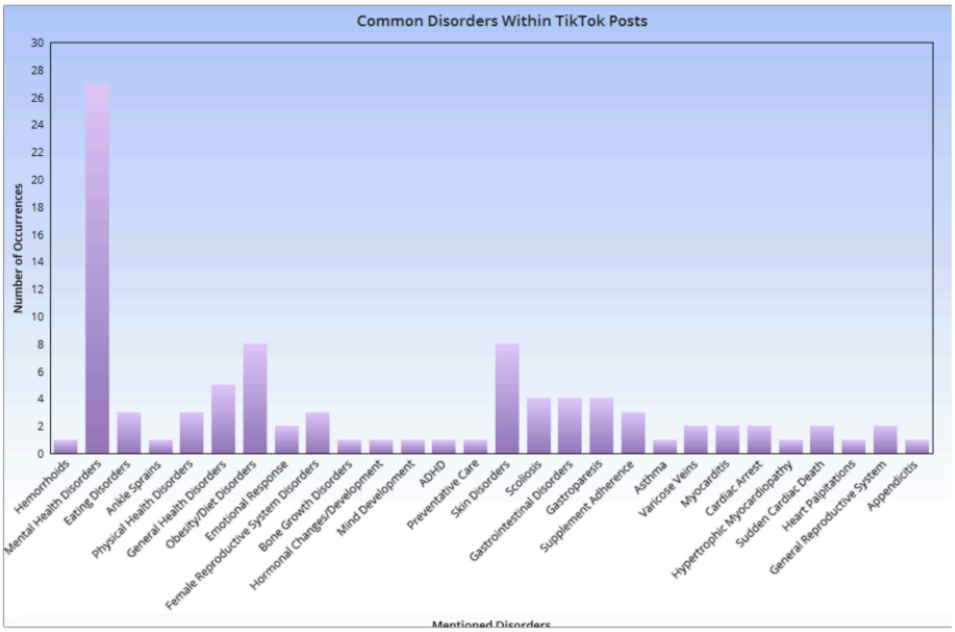


FIGURE 2.2

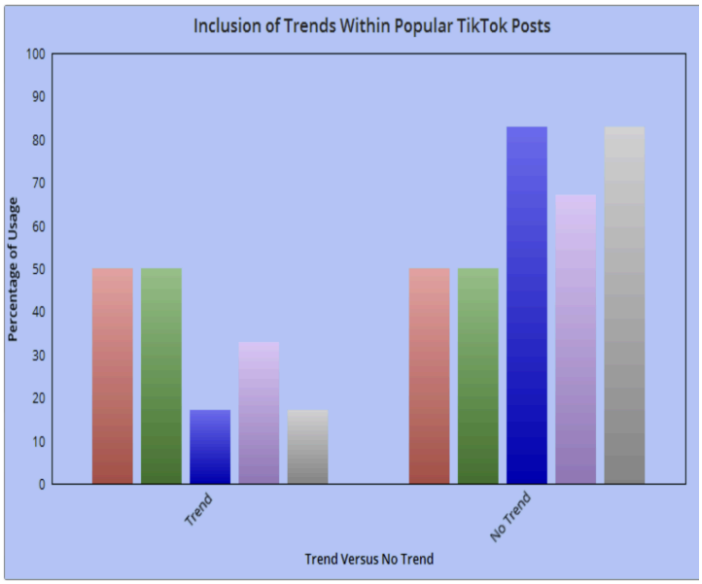
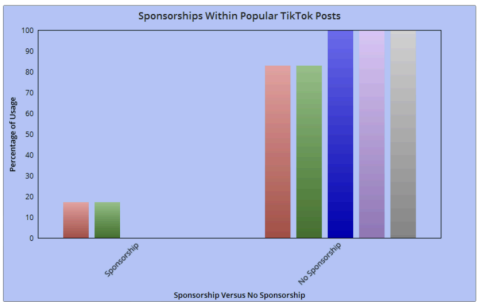


FIGURE 2.3



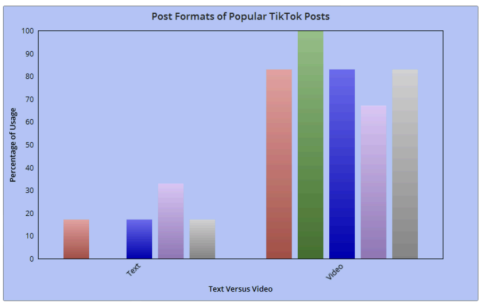
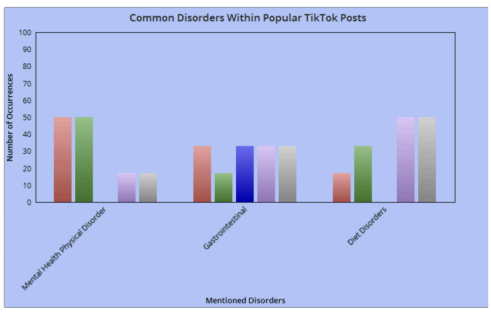


FIGURE 2.4 AND 2.5



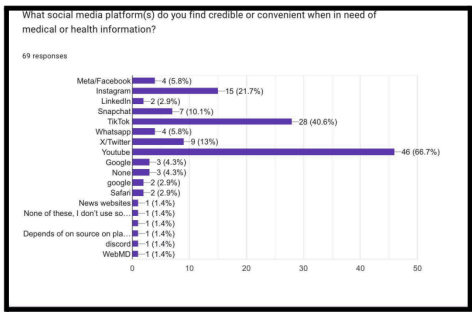


FIGURE 2.6 AND 3.1

Data Analysis

Date

Principaly, this research focused on posts spanning 2020 to 2024, yet most posts originated between 2022 and 2023; this trend was true among Facebook and TikTok. Particularly, since teen health became more

prioritized following the Covid-19 pandemic, specifically mental health. 77 Facebook posts and 82 TikTok posts were within 2022-2023, the remaining 41 posts from both groups within 2020-2021, and only 1 post from 2024. Admittedly, chosen posts were reviewed based on the search results order, and older posts did appear among the current ones, disproving any bias toward posts within a certain range that creates the trend above. Conjunctly, 31% of participants imputed that they preferred posts ranging from 2020 to the present. Though these are different applications, creators and medical institutions should consider that teenage viewers prefer current information since the residual 55% of participants specified posts past 2000 and 14% did not have any preference. 67.5% stated the date does not influence their choice to view the post but depends on the information shared. Yet, 70.4% expressed that currency influences credibility, and 82.7% of participants solely view recent posts. In short, either way, although this may be a tacit understanding, creators and medical institutions should consider the possibility of reviewing or reposting information within the circle of teen medicine because 86% requested information with currency despite their varying ranges. Additionally, 15% of survey participants mentioned the importance of the post's date when considering credibility in a free response question. Veraciously, during the data collection process, most posts were not in accordance with the research restrictions and could not be reviewed. Adjunctly, finding 100 posts proved difficult because many posts were too old to prove viable, meaning institutions should conduct more research regarding teens to gain attention as present research is often inapplicable without currency.

Trends

Essentially, trends were defined as presently popular audios, dances, or post formats during the release date of the post. Among all Facebook posts, 15% employed trends whilst 85% did not. Conversely, the posts with the most likes, views, shares, etc. provided different trends, this can be viewed in figure 1.4. In 2 out of the 4 groups, the occurrence of trends was higher, the third group tied, and the fourth group had no posts with trends. Conjunctly, 35% of all the TikTok posts utilized trends whilst 65% did not. For the most popular posts on TikTok, figure 2.3 exhibits an inclination towards no trends and an equivalence of trends versus no trends in the second group. Regardless that both platforms displayed favorability towards not using trends from the creator's perspective, TikTok retained more posts with trends likely because more teens

currently use the app and most trends are shared through TikTok nowadays. Leading to the gap between Facebook and TikTok. Concurrently, 55.6% of survey respondents had no preference towards medical posts with trends and 58% in the following question claimed trends lessened a posts' credibility. Contrastingly, 42% found posts employing trends appealing and 37% argued that trends do not lessen validity. Similarly, in a free-response question that allowed participants to rate what elements they found most important in determining reliability, only 2% mentioned trends in their ratings, and trends were on the least important end of their list. Few creators choose to include trends, popular posts often avoided trends, and a majority of teens find posts with trends to be less credible. Although respondents did not include why, posts with trends are favored less because they are not detailed; the creator may include short tips without explanation. For instance, a post by a creator named Dr. T (a clinical psychologist) utilized a trendy song related to the main message, but only garnered 7, 362 likes. Whereas, a similar post on mental health by Vision Teens (a mental health center) had 1.2 million likes as they listed several points about general mental health disorders whilst incorporating a trendy dance and audio. The difference between the two involves the amount of content, whilst both used trends, the Vision Teens post included more information rather than a couple bullets and that made the post more informative. Hence, teenagers lean towards posts without trends as the creators focus on the medical content instead of the trend. If creators do choose to include trends within their posts, avoiding elements that take away from the message or maintaining a focus on detailed information over the trend will promote the post in the eyes of teenage viewers. In short, since the majority of creators and survey respondents agree trends do not align with medical posts, this pattern should remain as both parties have coincided.

Health Issue

As previously mentioned, the Covid-19 pandemic placed a spotlight on teen mental health, hence 23 out of 100 Facebook posts discussing mental health. Though the number seems low, the other health issues were quite variegated and most were only discussed once or twice as seen in figure 1.3. General physical health disorders, the second largest group, represented 18 out of 100 Facebook posts. With TikTok posts, figure 2.2 displays that 27 out of 100 posts discussed mental health, whilst 8 out of 100 discussed integumentary disorders. Admittedly, some recent facebook posts fitting the date range did not receive much attention in terms of likes

or views for instance; since most of these posts target parents regarding teen health and the app itself is not popular among teens. Regardless, the research process included the platform as a comparison medium and Ghahramani's research group mentioned it as a health intervention app. Notably, the chosen platforms corresponded with the answers of the survey respondents, in figure 3.1, who claimed they voted Youtube at 66.7%, TikTok at 40.6%, and Instagram at 21.7% out of all social media platforms, since the question was open-ended and they could vote any platforms they choose to avoid excluded platforms. The voting question itself concerned what apps teens designate for medical information, and the previous three platforms received the most votes. Originally, this research study incorporated YouTube, but it was eliminated because presently most content from TikTok is also posted on Youtube by creators accomplishing few differences in content. For health industries wishing to target teenage audiences, they will likely see more success in posting on the previously listed platforms in favor of platforms whose users are mainly parents of teenagers. This research did come across several posts that involved teen health, but mainly advised the parents rather than the teens themselves, and such posts seemed to have little prevalence or benefit. It is concurred that trends among teeangers consistently change, so routine research on platforms of preference can help direct the medical industry to platforms that carry the highest percentage of teens. Separately, within each 10% group from each category, mental health consistently scored the highest. For example, since some posts repeated in several categories because of popularity among viewers, the percentages of health issues repeated. With Facebook posts, figure 1.7 comprised mental health, skin disorders, iron deficiencies, leukemia, and cardiac disorders. Correspondingly, popular TikTok posts in figure 2.6 encompassed mental health, general physical disorders, and gastrointestinal disorders. 28% of survey respondents answered mental health when asked about health issues they research, 5% mentioned headaches, 6% mentioned skin disorders, and 64% searched for random or sports related physical pain, exercise tips, and medication intake. In comparing desired versus present content, Facebook contained 7 posts on sleep deprivation which has a slight relation, while TikTok had 3 posts on supplements and 1 post on ankle sprains. The researcher ensured no inclination with health issues based on the miscellaneous search terms as new search terms were used when there were no more fitting posts for the research or the same information was repeated. So the 100 posts are a slightly accurate microcosm of the entire search. Overall, in comparing the percentages

from the content analysis and survey, creators should focus on cited health issues as their provided content does not align with teen necessities.

Sponsorship

Explicitly, sponsorships were promotions or mentions of specific products, individuals, or institutions by a creator in the posts' duration. 24 Facebook posts had sponsorships or advertisements whilst 76 did not. Contrastingly, 10 TikTok posts included sponsorships whilst 90 did not. From the perspective of teen viewers, 51.9% did not prefer sponsorships but 46.9% did in certain cases, for example, a dermatologist acne product sponsorship. In spite of the earlier tie, 82.7% of participants agreed sponsorships make posts' less plausible if solely centered on advertisement versus factual information. To reference Hajiri's research, specifically the point on cultural discrepancies, creators should consider what products or ideals their teenage audience values when incorporating sponsorships. A trendy item or company in the United States, for instance, may not have the same value in another country; which returns to the idea of knowing who your audience is and how to properly target them. Many social media platforms like TikTok allow creators to include hashtags, so a campaign's ideas and promotions can be specified through the hashtags and the platform's database naturally attracts viewers based on their previous history. A complementary issue in the content analysis data involved a majority of posts including advertisements that emphasized the sponsorship and did not offer medical information; in return, no promotion of the viewers' medical knowledge occurred. Several survey participants asserted that sponsorships were not crucial in discerning credibility. Therefore, if creators wish to include sponsorships, imbibe the promotion in an addendum and center the majority of the post around medical instruction or supplementary health tips to garner attention.

Post Format

Concerning post format between Facebook and TikTok, the only choices included either video or text posts. Fundamentally, text posts consist of infographic posts or simply written text. Facebook incorporated 61 text and 39 video posts out of 100, though most text posts were simply infographics. With TikTok, there were only 4 text and 96 video posts as TikTok is mainly formatted for video. Concerning the popular post groups, figure 1.6 shows a trend of more video than text Facebook posts. Similarly, figure 2.5 displays more video than text TikTok posts. For the survey, out of 80 participants, 54 chose video, 48 preferred images or

infographics, and 42 answered simply text posts. In a supplementary question, participants were asked why they chose a certain format. 88.2% concluded images or text are preferred for quick reference of symptoms, and video for learning about a disorder in detail. A secondary question screened participants on learning preferences, 90.1% answered visual and 9.9% answered auditory which disproves partiality and reinforces the trend in the preference toward video. Although videos combine both audio and visuals, participants expressed that videos allowed for personal connections, and they include images with the "text" or audio providing proper explication. In other words, campaign formatters must consider the purpose of their campaign to determine the format. If they simply wish to educate viewers on one small matter or a new development, text is more viable, whilst more lengthy explications should remain as video formats.The data shows an equal split between preferring text versus video, moreover, both groups preference depends on the information they currently desire. In turn, consider the provision of more text formatted posts to satisfy the audience. To revert back to the creator standpoint, despite Facebook containing an acceptable number of text or infographic posts, those posts were generally insufficient, information wise, or often advertisements for clinics. Irrelevant information of the text posts disqualified them from the study and also caused difficult procurement, hence the lesser number of text posts from Facebook and TikTok. Predominantly, content creators currently have even spread in some platforms but not all, nonetheless this is understandable because text formats are not accessible on apps like TikTok. Nevertheless, adolescents necessitate the betterment of medical information provision within infographics; generally, medical texts online are sufficient enough for these purposes, but converting that information into social media posts guarantees accessibility to the public that spends more time on social media than medical websites. Medical institutions may experience more visitors if they properly educate the public and prove their efficacy compared to simply promoting their centers through advertisements regarding affordability.

Return-on-Investment

Previously, Ukoha and Stranieri defined the idea of return-on-investment in terms of calculating the influence of a post within social media instead of outside the app which proves more arduous. Thence, the following percentages prove why creators should integrate the data above to aid in the process of creating engaging content because the amount of attention

influences teens' to view posts. With views, 72.8% affirmed willingness to view posts increases if they retain a high view count. Likewise, 44.4% use view count to dictate reliability, though 51.9% claimed the opposite, a half split means considerable value to both margins. Identically, 56.8% view posts with many likes, but only 42% use likes for validity. Whilst 61.3% do not rely on shares to decide whether to view the post and equally 77.8% concurred shares do not dictate trustworthiness. 5.4% averred they do not accommodate saves in their decision and 71.6% stated saves do not impel credibility. Finally, 91.4% communicated they read comments, another 90.1% looked at creators' credentials, and 88.9% required posts from medical professionals for reliable posts. Otherwise, 63% will not trust the information whilst 21% researched or were skeptical of the information if the creator was not a medical professional. Concurrently, 44.4% credit a formal setting to reliability, and 49.4% in another question declared they would trust the creator more if they are in uniform. Furthermore, survey participants were asked to provide any other elements they assess for dependability in a post, to avoid eschewing elements, and all the participants either said no or repeated an element from the survey. A number of recent posts, especially from 2023, do not follow these patterns and are more informal in nature. Despite the sundry of these elements, the simple basics of providing background information and maintaining a professional setting orient reliability and attract adolescents.

Conclusion

Primarily, this research process identified and compared the preferences of creators regarding medical social media posts versus those of teen viewers. The new understanding revolves around whether social media creators are currently properly displaying medical information to influence adolescents into adhering to the provided medical advice based on what teenagers want. To summarize, most elements were generally displayed in accordance with teen preferences, yet some divergences did surface. For instance, over 50% of the participants chose image and text formats in favor of video posts because they can have more time to process the information compared to a video which quickly reviews information. Especially since 90.1% of the participants are visual learners who then obviously prefer text. Though TikTok is currently popular among teens, as 40.6% voted TikTok when in need of medical information, since the app does not promote text formats. Conversely, although Facebook promotes text formats, the app substantially retains advertisements for medical

centers. The previous argument centers around only one necessary change if institutions wish to continue communicating with teenagers through a medium their audience prefers.

Verily, the researcher did encounter limitations as the content analysis data was only gathered from two platforms and the survey responses were collected from one high school in a suburban area. Similar research projects may consider involving students from several high schools, it would be more optimal if those students were from different nations or backgrounds as well, to avoid cultural discrepancies or biases as previously discussed. Even if one high school is screened, researchers may consider separating the data based on age groups; that wasn't done in this study because the chosen elements received similar results among all 4 grades within the studied school. Moreover, some of the survey respondents left some answers blank which may have skewed the data, but that effect could not be studied without any excess data to input. Whilst subsuming Facebook in this research allowed heterogeneity, Facebook contained few medical posts targeting teen health because few use the platform, nonetheless TikTok and Facebook data was analogous. A second disparity was that TikTok supplied the number of times one post was saved, whilst Facebook did not. This factor was included for TikTok to provide a measure of the posts' value, individuals only save important posts for reference; nevertheless, this inclusion may have created an inconsistency within the data. Thus, the idea of introducing more social media platforms for conglomeration. As aforementioned, with Hajiri's team research, they experienced an obvious aperture in their data when conducting the same experiment in Saudi Arabia versus Brazil. The researcher deduced this may have been because Whatsapp (the app used in the research) was not as popular in one nation leading to data fluctuations. Uniformly, the same may occur here if introduced in other areas and to a motley of individuals.

Implications include applying the survey results to current social media posts for teens to capture attention because the survey explicitly questioned teenagers on their inclinations and factors influencing their compliance. Future research can employ this towards specific health issues or post elements and narrow down more factors to continue improving medical posts in a direction remodeling viewers habits for salubrity. For example, the student responses toward the inclusion of sponsorships can direct campaign creators on how to properly incorporate such sponsorships so viewers can still benefit from the information instead of just the advertisement. During the project introduction, many disclosed the

lack of medical information disproves social media as an answer bank. Even though a medical professional on social media is more accessible to them than contacting a professional in person. According to the American Cancer Society, around 5,290 diagnoses of cancer in teens occur each year in the United States ("Key Statistics For" 2024). For cancer cases, recognizing signs earlier drastically improves remission. Hence, social media posts can act as a medium for specialists to educate adolescents and parents to become aware of these signs with other health disorders as well. And that issue also references correctly targeting one's audience, as studies have been done on where the concentration of certain medical issues is higher and among what demographics. So addressing these small details may attract few viewers especially if the medical issue is more rare, but the entire point is to educate individuals encountering the medical disorder rather than simply accumulating likes. In doing so, one can apply the conclusions regarding post format, as survey respondents collectively agreed that each format corresponds to the type of message; whether introducing or detailing a medical disorder, for example. Ultimately, the melioration of social media creates a channel for individuals including teens to access medical information and eliminate the barriers that prevent individuals from becoming knowledgeable and involved in their own health.

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