

Content is Life: The Power of Social Media to Improve Health among Latinos.

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ABSTRACT

The Latino communities in the United States have grown substantially, comprising approximately 19% of the total population in 2021. Despite this demographic shift, disparities persist in healthcare access and outcomes within the Hispanic communities, influenced by cultural differences, language barriers, and structural inequalities. The prevalence of type 2 diabetes among Hispanics in the United States is notably significant, with epidemiological studies revealing a higher prevalence compared to non-Hispanic whites. Furthermore, obesity, recognized as a significant epidemic in the United States, poses a considerable risk factor for type 2 diabetes among Hispanics, with a higher prevalence observed compared to non-Hispanic whites. The association among obesity, type 2 diabetes, and various health outcomes underscores the critical role of behavioral interventions in disease prevention.

Keywords: *Latinos, prevention, obesity, type 2 diabetes, social media, public health strategies, cost-effective*

Social media platforms have emerged as potent tools for health promotion and education within the Latino communities. With a sizable portion of Hispanics engaging with social media platforms daily, these platforms offer a means to disseminate evidence-based information, combat misinformation, and promote healthy behaviors. Leveraging social media interventions has shown promising results in positively influencing behaviors related to lifestyle modifications and metabolic indicators of chronic diseases among vulnerable populations. Integrating social media into public health strategies holds promise for addressing healthcare disparities and fostering health equity among Latinos. By harnessing the potential of social media platforms, healthcare professionals can enhance outreach efforts, improve healthcare access, and empower individuals to make informed decisions about their health. However, effective implementation requires cultural sensitivity, authenticity, and a deep understanding of the diverse needs and preferences within the Hispanic community.

This article delves into the confluence of social determinants of health, healthcare accessibility, and the prevalence of chronic diseases among the diverse Latino population, with a specific emphasis on type 2 diabetes and obesity. Furthermore, it scrutinizes the potential efficacy of social media platforms in mitigating the prevalence of these aforementioned health conditions. The author also provides insights into his experiences crafting educational content and underscores its significance in addressing health disparities within the Latino community. Lastly, rigorous assessment of social media interventions is imperative for enhancing strategies and optimizing their effectiveness in disease prevention and health promotion initiatives targeted towards this demographic cohort.

1. How many Latinos live in the USA?

Latinos are the second largest minority in the USA. One can argue that the term ‘minority’ no longer applies. There were 62.5 million Latinos in the United States in 2021, accounting for approximately 19% of the total U.S. population. In 1980, the population was only 14.8 million, and Hispanics comprised just 7% of the total U.S. population. Although

72% of Latinos are proficient in English overall, there are striking differences between foreign-born and US-born, the latter being 38% and the former 91%¹. This is important because we need to know how to target different population segments based on metrics to create impactful public health campaigns.

2. What is Latinos' experience in healthcare?

Given the cultural differences and language barriers, Latinos experience healthcare differently than non-Hispanic whites. Hispanic adults are less likely than other Americans to have seen a health care provider recently and to have a primary care provider. Seven in ten say they have seen a doctor or other health care provider in the past year, compared with 82% among Americans overall. They are less likely to have health insurance, and many of the adverse outcomes they experience are due to structural and work-related causes. At least forty percent of Hispanic adults identify communication challenges stemming from language or cultural disparities and preexisting medical conditions as significant contributing factors². 35% of Hispanic adults strongly or moderately prefer consulting a Spanish-speaking physician or healthcare provider for regular medical appointments. A more significant proportion (51%) indicated indifference regarding the language proficiency of their healthcare provider, while 13% expressed a preference against seeing a Spanish-speaking healthcare professional. Comparable sentiments are observed regarding the preference for consulting a Hispanic healthcare provider, with one-third of Hispanic adults expressing a preference for such professionals, 59% exhibiting indifference, and 7% expressing a preference against consulting Hispanic healthcare providers.

Despite Hispanic Americans comprising 19% of the total U.S. population, only 9% of healthcare practitioners and technicians nationwide are Hispanic, per a 2021 Pew Research Center analysis of federal government data. Furthermore, only 7% of all physicians and surgeons and 7% of registered nurses in the United States identify as Hispanic². Health status is influenced by myriad factors extending beyond conventional healthcare contexts. These encompass the spectrum of social determinants of health (SDH), from housing conditions and nutritional accessibility to educational opportunities. Scholarly discourse has posited that racial and ethnic minority groups contend with unfavorable social determinants of health, which in turn contribute to their diminished access to healthcare services. Disparities persist in healthcare treatment and outcomes among minority populations, even after adjustments for socioeconomic variables³. For instance, individuals within the Spanish-speaking Latino demographic exhibit a lower propensity compared to Caucasians to engage with healthcare services, including consultations with physicians or mental health professionals, as well as the receipt of preventative care measures such as mammography screenings or influenza vaccinations. These behaviors can inevitably lead to worse outcomes⁴.

3. What are the most prevalent conditions for Latinos in the USA that can be prevented with education?

To this reduction in healthcare access, we must add the accelerating factor that Hispanics are more prone to develop type 2 diabetes at an earlier age. Moreover, it is also known that similar trends are documented for hypertension and obesity. This 'disastrous triad' causes great suffering within the Latino community^{5, 6}.

The prevalence of type 2 diabetes among Hispanics in the United States is notably significant. According to recent epidemiological studies, Hispanics exhibit a higher prevalence of type 2 diabetes compared to non-Hispanic whites. Research conducted by the Centers for Disease Control and Prevention (CDC) indicates that approximately 12.5% of Hispanic adults in the United States have been diagnosed with type 2 diabetes. This prevalence is notably higher than that observed in non-Hispanic white adults, where the prevalence stands at approximately 7.5%⁷.

Similarly, data from the National Health and Nutrition Examination Survey (NHANES) corroborates these findings, suggesting a disproportionately higher prevalence of type 2 diabetes among Hispanic adults in the United States⁸. In the demographic of adults of Hispanic descent, individuals of Mexican origin exhibited the highest prevalence of type

2 diabetes at 14.4%, followed by those of Puerto Rican descent at 12.4%. Central and South Americans displayed a prevalence of 8.3%, while individuals of Cuban descent demonstrated 6.5%.

Education significantly influences the development of type 2 diabetes, with a discernible inverse relationship between educational attainment and the prevalence of diabetes. Research has suggested that individuals with lower levels of education exhibit a higher incidence of diabetes compared to those with higher academic qualifications. For instance, among adults with less than a high school diploma, approximately fifteen percent are diagnosed with diabetes, whereas only seven percent of individuals possessing a bachelor's degree or higher are affected by the condition⁹. However, it is important to note that correlation does not imply causation; various other social, economic, and health-related factors may also contribute to this observed relationship.

Moreover, data from 2017 underscores a notable discrepancy in educational attainment between Hispanic and non-Hispanic white (NHW) populations. Specifically, 72% of Hispanics attained a high school education or higher, contrasting with a higher proportion of 93.3% among NHWs. Similarly, a smaller percentage of Hispanics, approximately 15.3%, attained a bachelor's degree or higher compared to 35.6% of NHWs¹⁰.

Obesity is recognized as a significant epidemic in the United States and stands as one of the most consequential modifiable risk factors in the prevention of type 2 diabetes¹¹. Among various demographic groups, Hispanics exhibit a higher prevalence of obesity in comparison to NHW. The Hispanic Community Health Study/Study of Latinos (HCHS/SOL) further elucidates this relationship, revealing a linear correlation between body mass index (BMI) and the prevalence of diabetes. Specifically, individuals with a BMI below 25 exhibited a diabetes prevalence of 9.8%, while those classified as overweight (BMI 25–29) had a prevalence of 14.25%. Notably, obese individuals (BMI > 29) displayed the highest prevalence of diabetes, reaching 22.4%¹².

The association among obesity, type 2 diabetes, and various health outcomes shares a common etiology rooted in a robust behavioral component, whereby educational interventions can significantly influence the onset of risk factors associated with these metabolic conditions. One critical aspect of disease prevention is education. Furthermore, this bears even more importance concerning obesity, diabetes, and hypertension as they are considered conditions with vital behavioral components around nutrition, exercise, alcohol consumption, and medication adherence. However, to improve meaningful clinical outcomes, we must close the intention-behavior gap to successfully educate and induce positive behavior changes. The concept of the intention-behavior gap denotes the contradiction between an individual's intentions and subsequent actions. The likelihood of an individual translating their intentions into action may be influenced by various internal factors, such as beliefs, skills, and knowledge, as well as external factors, such as time, financial resources, and social support.

Comprehending the intention-behavior gap holds significance for healthcare professionals as it provides insights into patients' challenges when modifying their behaviors. This understanding facilitates the implementation of tailored strategies to address such obstacles and enhance adherence to a healthier lifestyle¹³. Unfortunately, this requires time and a multi-component team, which are only sometimes available outside clinical trials and academic centers. This highlights the potential for delivering medical education through social media, while also acknowledging the risks of misinformation and the challenge of ensuring content accuracy and credibility.

4. In what ways can we utilize social media platforms to disseminate educational resources effectively within the Latino community, aiming to mitigate the incidence of chronic degenerative diseases?

The author of this manuscript has leveraged social media platforms intensively over the past five years, reaching millions of people every month. This can be attributed to several key strategies: consistent posting schedules that keep

the audience engaged and informed, active social listening to identify and address common public health problems and emerging trends, and professional yet approachable language. By tailoring content to suit individuals from diverse backgrounds and varying literacy levels, the author ensures that complex health information is accessible and comprehensible to a broad audience. It is important to mention that this undertaking is time-consuming, and it is currently unclear if healthcare professionals with a busy schedule could reproduce this.

One positive aspect of social media is the number of people actively engaging and consuming information on various platforms. As per recent research, a sizable number of Latinos stroll social media daily. In the U.S., as indicated by Pew Research findings, YouTube emerged as the predominant online platform. Approximately eighty-three percent of U.S. adults acknowledge having utilized this video-based platform at some point. Moreover, although to a somewhat lesser extent, Facebook maintains a substantial presence within the online domain, with a significant majority of Americans (68%) reporting their engagement with this social media platform. Furthermore, nearly half of U.S. adults (47%) indicate their usage of Instagram.

Approximately sixty percent of Hispanic adults and fifty-seven percent of Asian adults acknowledge their utilization of Instagram, surpassing the corresponding shares among Black adults (46%) and White adults (43%). Notably, Hispanic adults exhibit a pronounced inclination towards using TikTok, with nearly half (49%) indicating their engagement with the platform, a figure exceeding that reported by Black adults (39%). Moreover, relatively minor proportions of Asian (29%) and White (28%) adults profess to use TikTok. Furthermore, fifty-four percent of Hispanic adults and fifty-one percent of Asian adults report their usage of WhatsApp. In contrast, only thirty-one percent of Black adults and even fewer White adults (20%) convey similar engagement with the platform¹⁴.

These notable figures serve as compelling indicators of the considerable potential for leveraging social media platforms in the context of public health engagement. These trends led the World Health Organization (WHO) to initiate the global eHealth strategy to foster promoting, advancing, and assessing initiatives encompassing these platforms¹⁵. Social media platforms have the potential to facilitate the promotion of healthy behaviors, which constitute the cornerstone for disease prevention for type 2 diabetes and obesity.

5. How can we effectively reach out to members of the Hispanic communities?

People of different ethnicities require a sense of familiarity and connection to consume information, which can easily be found on social media or streaming platforms. From a consumer perspective, as studied by Nielsen, the efficacy of engaging Hispanic communities hinges upon comprehending the intricate nuances within this diverse array of cultures. Cultural resonance, authenticity, and inclusivity are the cornerstones of fruitful interactions. Establishing trust requires deep insight into the community members and institutions prioritizing understanding yields the greatest impact, according to Nielsen's statistics¹⁶. While social media is considered acceptable and valid for various audiences and holds promise in promoting health equity among disadvantaged populations such as low-income, rural, and older adults, there is still inconsistent empirical evidence regarding its effectiveness in improving public health outcomes.

The COVID-19 pandemic highlighted the negative impact of social media, as it led to the widespread dissemination of misinformation, also known as an "infodemic." This false information significantly affected public attitudes and behaviors towards the virus and vaccines, contributing to vaccine hesitancy and refusal. The spread of misinformation worsened the pandemic by increasing the number of unvaccinated individuals. Factors such as cultural influences, high demand for information, ease of dissemination through social networks, and inadequate legal oversight have all contributed to this problem^{17, 18}. Acknowledging the challenges and issues associated with using social media, such as managing misinformation and disinformation, and ensuring compliance with user privacy protections, is essential. Also, by focusing on social media platforms as the main communications channel, there's a risk that this action could

restrict access to health information for those who are not connected through technology. Policymakers should establish clear guidelines to ensure best practices and measure the pros and cons of public health campaigns dispersed through social media¹⁹.

To fully harness the potential of social media in enhancing public health, it is important to effectively utilize these technological tools to develop scalable, culturally tailored health promotion programs and campaigns. Recently, the author, in conjunction with the American Heart Association, published a short video on Instagram explaining the new acronym RAPIDO (*rostro caído, alteración del equilibrio, pérdida de fuerza en un brazo, impedimento visual, dificultad para hablar, y obtener ayuda rápido*), which describes common stroke symptoms for early detection in Spanish. Only 58% of Hispanic adults residing in the United States demonstrate the ability to identify signs of stroke, a lower proportion compared to 64% among Black adults and 71% among white adults²⁰. Stroke ranks as the fifth-leading cause of mortality in the United States. Notably, it stands as the third-leading cause of death for Hispanic women and the fourth-leading cause for Hispanic men.

The RAPIDO campaign is the first time the AHA has conducted such a social media campaign to reach Latino communities. In conjunction, we were fortunate to have half a million plays, 3,300 shares, and an overall reach of 370,169 people, all with a 70-second video. This illustrates the potential of judicious social media utilization to expedite the distribution of evidence-based information. The fact that this video was shared more than 3,000 times reflects the need of Latinos to engage in meaningful medical education.

However, behavior change is more important than views and reach. Luckily, social media interventions have been proven to positively influence behaviors for better lifestyles and metabolic indicators of diseases such as obesity and type 2 diabetes. These low-cost, user-friendly interventions can reduce the burden of the abovementioned conditions by helping people increase their physical activity levels and reduce their sugar and saturated fat intake. They can also strengthen health professionals' counseling, empower patients to learn about their conditions, and promote equity in healthcare services. These interventions have succeeded in vulnerable populations, including low-income sectors, rural areas, and minority ethnic groups²¹. An examination of the evidence revealed that social media strategies targeting behavior improvement are linked to reduced glycosylated hemoglobin levels and enhanced quality of life.²²

In the year 2022, renowned actor Ryan Reynolds consented to document his colonoscopy procedure after losing a wager with his associate and business partner, Rob McElhenney. During the procedure, a polyp was discovered and subsequently excised. The dissemination of Reynolds' video served to raise awareness among millions of individuals²³. Given that colonoscopy, as a preventive measure, is associated with a 52% reduction in the relative risk of developing colon cancer and a 62% decrease in the risk of mortality attributable to the disease, such publicity holds significant value²⁴. This is particularly pertinent for colon cancer, which ranks as the second leading cause of cancer-related deaths in the United States²⁵.

It is important to acknowledge as mentioned before, that social media can also contribute to the spread of misinformation. In a study that analyzed 10,233 discussions related to statin usage, an artificial intelligence pipeline was used to categorize the conversations into 100 topics across six thematic clusters. These clusters included discussions on ketogenic diets, diabetes, supplements, and statins; adverse effects of statin usage; hesitancy towards statin therapy; evaluations of clinical trials; potential biases within the pharmaceutical industry regarding statins; and discussions about red yeast rice and statin therapy. The study found that a majority of these discussions conveyed either a neutral (66%) or negative (33%) sentiment. This is concerning as 33% negative sentiment towards an important medication like statins is substantial²⁶.

Throughout the pandemic, our society grappled with dual adversaries: the coronavirus itself and the pervasive spread of misinformation, termed the "infodemic" by Dr. Tedros, the Director-General of the World Health Organization. A comprehensive study undertook the examination of myriad sources disseminating misinformation pertaining to fundamental viral concepts, preventive measures, treatment modalities, and vaccine-related information. The investigation revealed that social media emerged as the predominant conduit for disseminating misinformation on these critical topics²⁷.

Conclusion

In light of the growing Latino population and persistent health disparities, leveraging social media for health promotion is essential. These platforms offer a cost-effective way to engage Latino communities, disseminate vital health information, and foster behavioral changes to combat type 2 diabetes and obesity. Culturally sensitive, evidence-based content can empower individuals to make informed health decisions and promote health equity. However, addressing challenges like misinformation and access disparities is crucial, necessitating collaboration among healthcare providers and public health officials. By prioritizing education and engagement, we can harness social media's potential to drive meaningful change and improve health outcomes for the Latino community.

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