SOCIAL MEDIA USE FOR RECRUITMENT OF SPANISH-SPEAKING PARTICIPANTS IN PREGNANCY LOSS RESEARCH

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Background: Miscarriage is the most common obstetric complication occurring in up to 40% of all pregnancies [1]. Hispanic women are underrepresented in miscarriage and genetic research [2]. Addressing health disparities has been identified as a cross-cutting topic in the NICHD's (National Institute of Child Health and Human Development) strategic priorities. However, factors leading to underrepresentation are poorly understood. Social media is utilized in health research recruitment given its cost-effectiveness, targeted outreach, and accessibility to broad geographical areas and diverse populations [3]. We hypothesize that social media can be used to increase research diversity within the Hispanic community.

Objective: The purpose of this study is 1) to evaluate whether the use of social media increases the enrollment of Spanish-speaking participants in the HOPE (Harnessing Opportunities for Pregnancy loss Exploration) research registry and 2) to identify what types of content Spanish-speaking individuals interacted with the most.

Materials and Methods:
This was a descriptive study that evaluated sixteen unique Spanish-language posts made from October 2023 to September 2024. As part of a supplement to an NIH-funded pregnancy loss study (NIH- R01HD105256), we improved the accessibility of our study to Spanish-speaking participants, adding Spanish language advertisement and study material. Content included captions and hashtags in Spanish. The three content categories were: HOPE recruitment flyers(6), other recruitment content(6), and pregnancy loss information(4). The primary outcome was the increase in Hispanic participant enrollment in the HOPE registry pre/post social media posting. The secondary outcome was content interaction metrics: likes, comments, accounts reached, hashtag clicks. Content comparisons were made using the t-test.

Results:
There was an 181% increase in enrollment in new Hispanic participants in the HOPE registry during the study period, from 44 to 124, with a total enrollment increase from 5.6% to 7.4% (Table 1). Across all Spanish-language posts, the content averaged 147 accounts reached, 7 likes, and 38 hashtag clicks per post — with 51 shares overall. Recruitment content received the most interactions, including likes, shares, hashtag clicks, and accounts reached. There was a trend toward significance for the following: Recruitment flyers reached more accounts than pregnancy loss information posts (p=0.10), and text-only posts had more hashtag clicks compared to image posts p=0.057) (Table 2).

Although not statistically significant, more accounts were reached with recruitment (154) versus pregnancy loss (128) content. Neither image- versus text-based posts (p=0.612) nor weekday versus weekend posting (p=0.521) produced significant differences in interactions (Table 2).

Conclusions:
Social media posting in Spanish increases the enrollment of Hispanic patients in our national registry study. Official recruitment flyers are the most effective content type in the recruitment for pregnancy loss studies. Hashtag elements in text posts versus image posts increase followers' interactions. However, our overall study enrollment of Hispanics is still suboptimal. Future research should consider expanded target outreach, increasing post frequency, and varying content to determine how these factors impact media engagement and recruitment diversity.

References:
1. Yu, N., et al., *Unexplained recurrent pregnancy loss: Novel causes and advanced treatment*. Journal of Reproductive Immunology, 2023;155.
2. Steinberg, J.R., et al. *Race and Ethnicity Reporting and Representation in Obstetrics and Gynecology Clinical Trials and Publications From 2007-2020*. JAMA Surg. 2023;158(2):181–190.
3. Oudat Q, Bakas T. *Merits and Pitfalls of Social Media as a Platform for Recruitment of Study Participants*. J Med Internet Res. 2023 Oct 11;25:e47705.

Table 1: HOPE Registry Enrollment of Hispanic/Latino Participants Ethnicity Before and After Social Media Posting

October 2023 (before posting)	44 enrolled / 786 total - 5.6%
September 2024 (posting for 1 year)	124 enrolled / 1679 total - 7.4%

Table 2: Comparison of Spanish-Language Content Engagement Strategies

Engagement Types	t-value	p-value
All Recruitment vs Pregnancy Loss Info (Accounts Reached)	1.427	0.176
Flyer vs Pregnancy Loss Info (Accounts Reached)	1.887	0.101
Text vs Image Posts		
Accounts Reached	-0.030	0.977
Hashtag Clicks	-2.432	0.057
Likes	0.531	0.612
Shares	-0.991	0.378
Weekday vs Weekend Posts		
Accounts Reached	-1.336	0.212
Hashtag Clicks	-0.110	0.914
Likes	0.659	0.521
Shares	-1.009	0.347