



# Cardiac Chest Pain: A Content Analysis on TikTok

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## INTRODUCTION

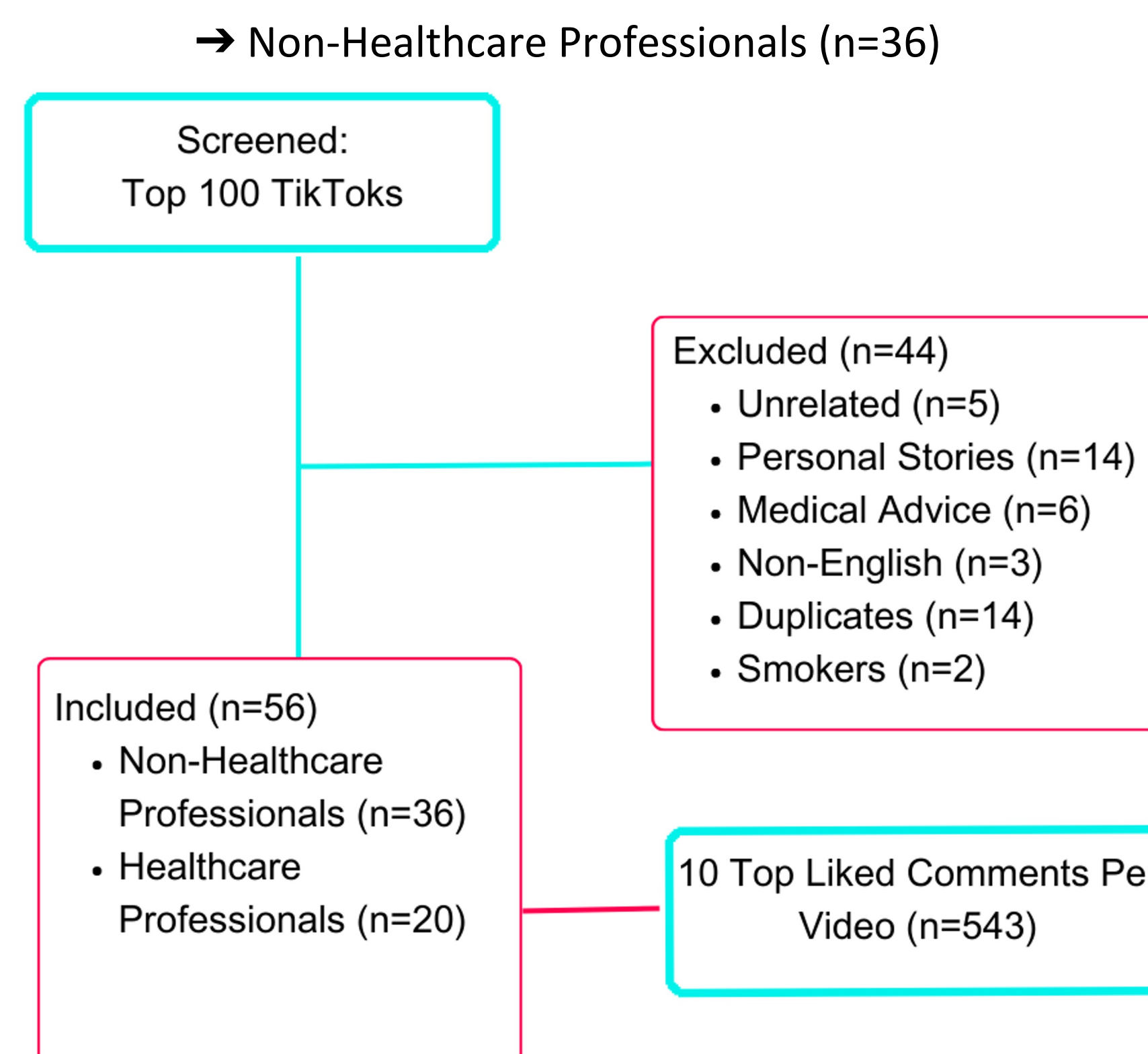
- Chest pain is a frequent and often harmless condition in adolescents. In children, it can have a wide range of etiologies, and the majority of times, underlying heart pathology is not to blame
- Cardiovascular chest pain and non-cardiac chest pain are the two primary categories of adolescent chest pain. Only about 1 - 4% of chest pain in children will be cardiac
- Despite its prevalence, non-cardiac chest pain in adolescents comprises 98% of complaints
- As of now, there have been no studies published regarding how adolescents and doctors evaluate the representation of cardiovascular disease on social media platforms such as TikTok. Thus, a research gap emerges for this study, which will explore this subject
- **The purpose of this study was to explore user engagement and response with TikToks regarding adolescents' cardiac chest pain created by both healthcare professionals and non-healthcare professionals on TikTok, while examining the quality of these videos**

## METHODS

**Design:** Content Analysis

**Setting & Population:** TikTok; posts relating to cardiac chest pain

**Search Strategy:** Keyword search "sharp chest pain," under the "top" category. Videos separated into 2 categories by creator type:



**Variables:**

- Videos: User engagement (# of views, comments, likes, shares, & saves), Global Quality Scale (GQS), & creator type
- Comments: Similarity, self-diagnosis, intensity, frequency, & potential cause

**Data Analysis:** Descriptive statistics were used to evaluate video user engagement and the prevalence of the variables in the comments

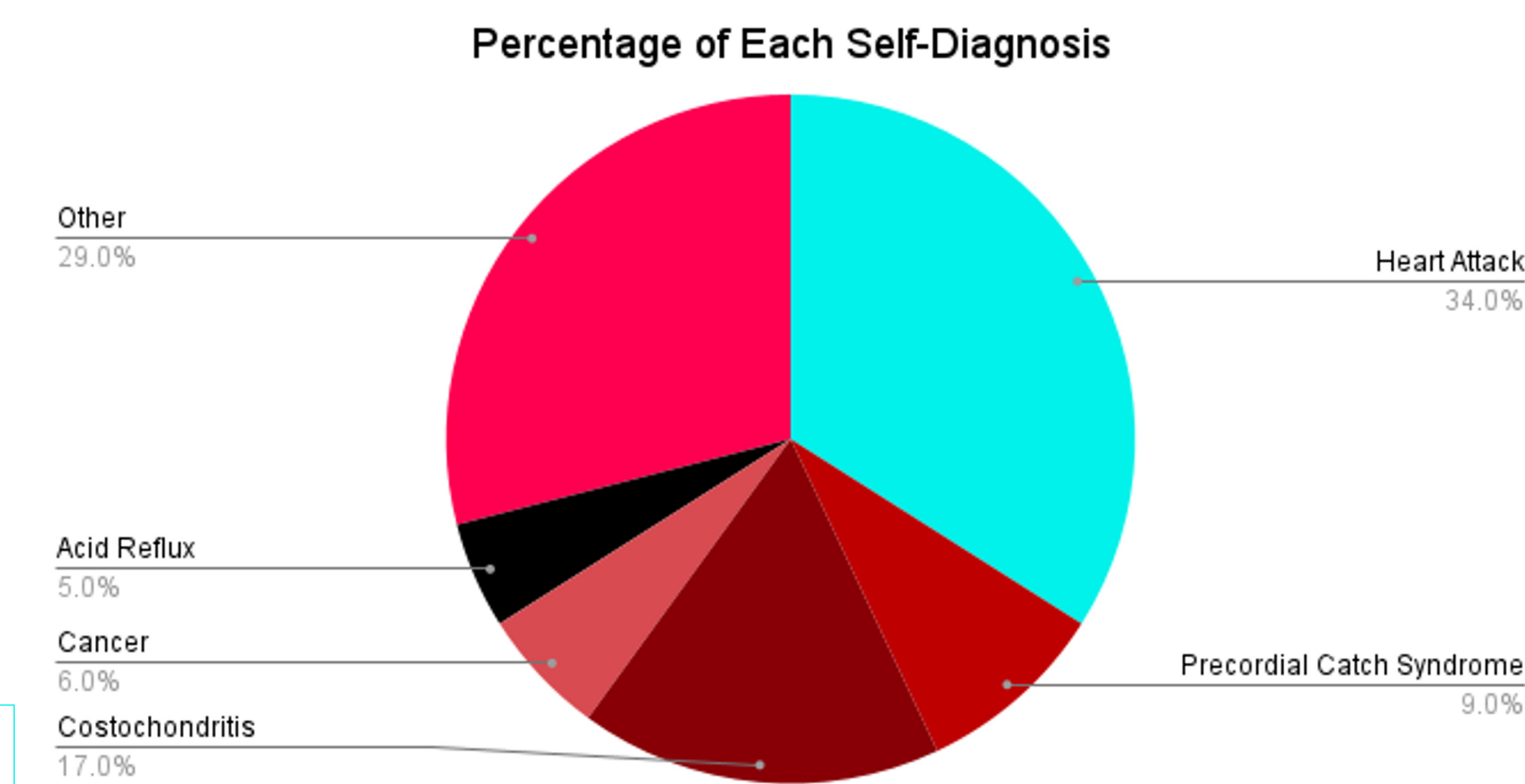
## RESULTS

### User Engagement:

Demographics (Videos)	Healthcare Professionals (n=20)	Non-Healthcare Professionals (n=36)	Overall (n=56)
# Of Views (mean & SD)	2416031.4 4289023.01	1789321.417 2378466.662	4205352.817 6667489.672
# Of Likes (mean & SD)	233139.3 438963.1053	362,800 529743.3243	595939.3 968706.4296
# Of Comments (mean & SD)	2592.7 4760.11109	4473.333 6451.647409	7066.033 11211.758499
# Of Shares (mean & SD)	7589.35 13145.08661	9646.611 15558.28241	17235.961 28703.36902
# Of Saves (mean & SD)	15639.7 30344.61276	24053.694 39422.86559	39693.394 69767.47835



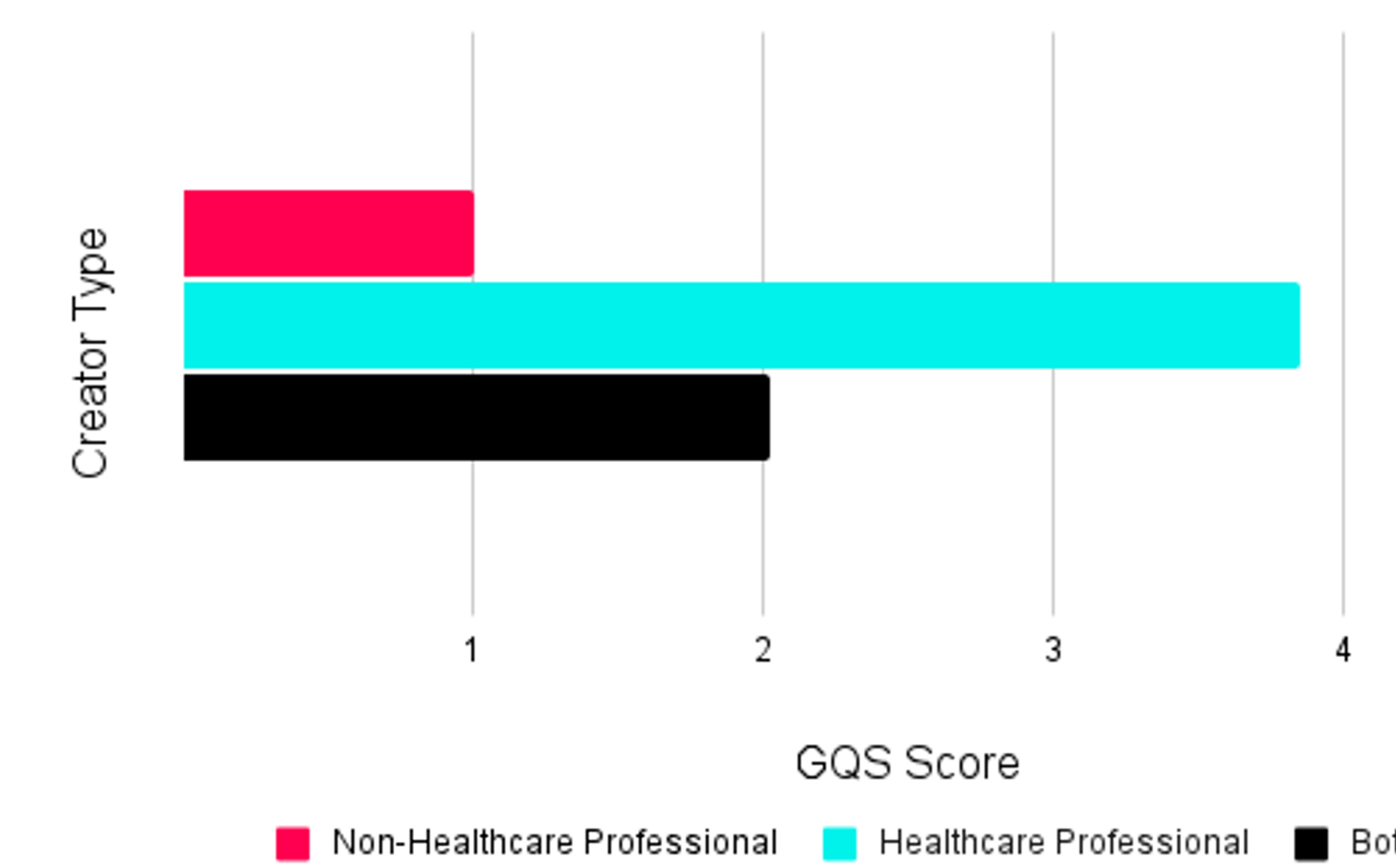
### Self-Diagnoses:



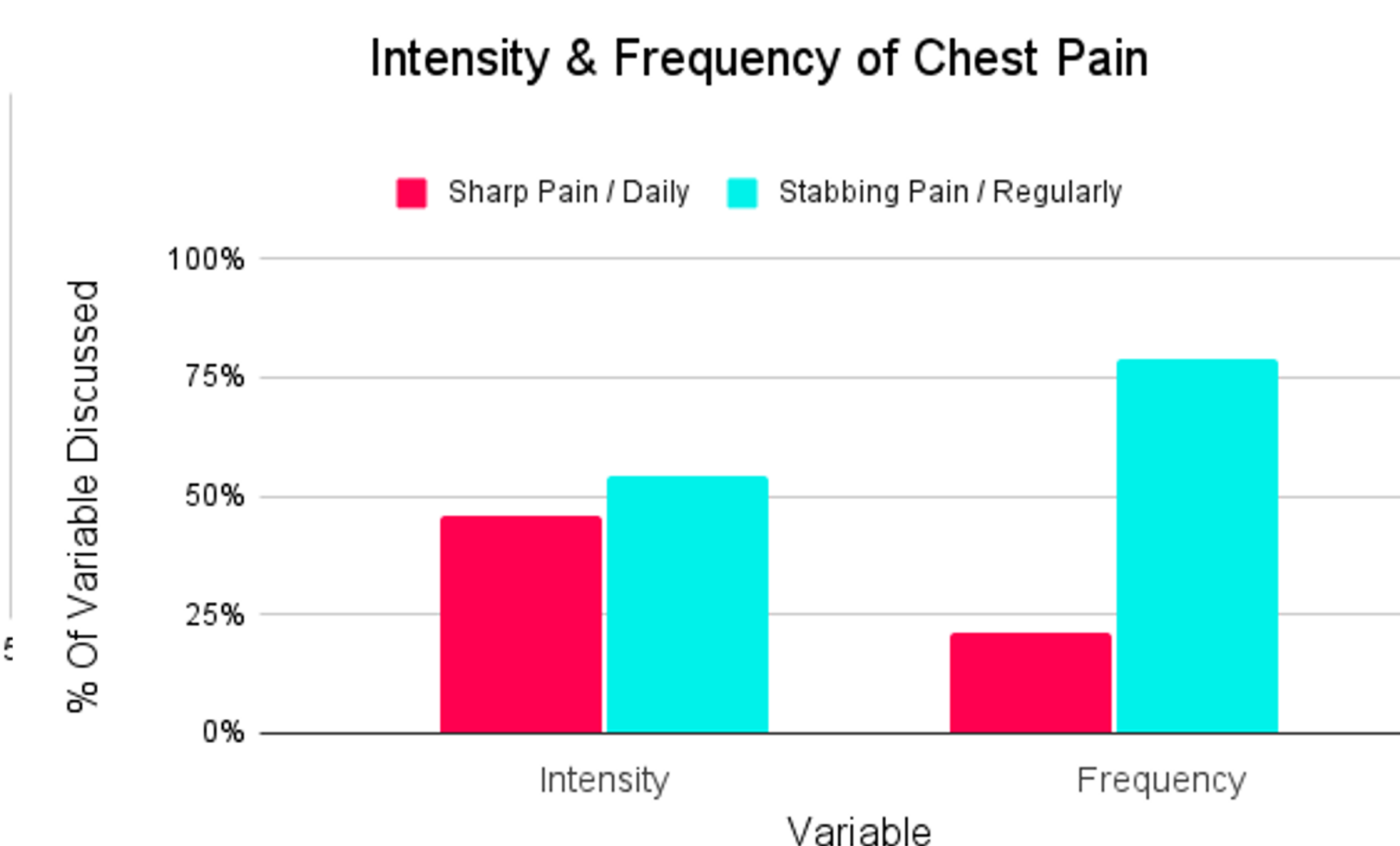
### Global Quality Scale (GQS) Scores:

Score	Global Score Description
1	Poor quality & flow, not at all useful for patients
2	Poor quality, some info covered but missing important topics, of very limited use to patients
3	Moderate quality, suboptimal flow, adequate important info covered, somewhat useful for patients
4	Good quality & flow, most important topics covered, useful for patients
5	Excellent quality & flow, very useful for patients

### GQS Score by Creator Type



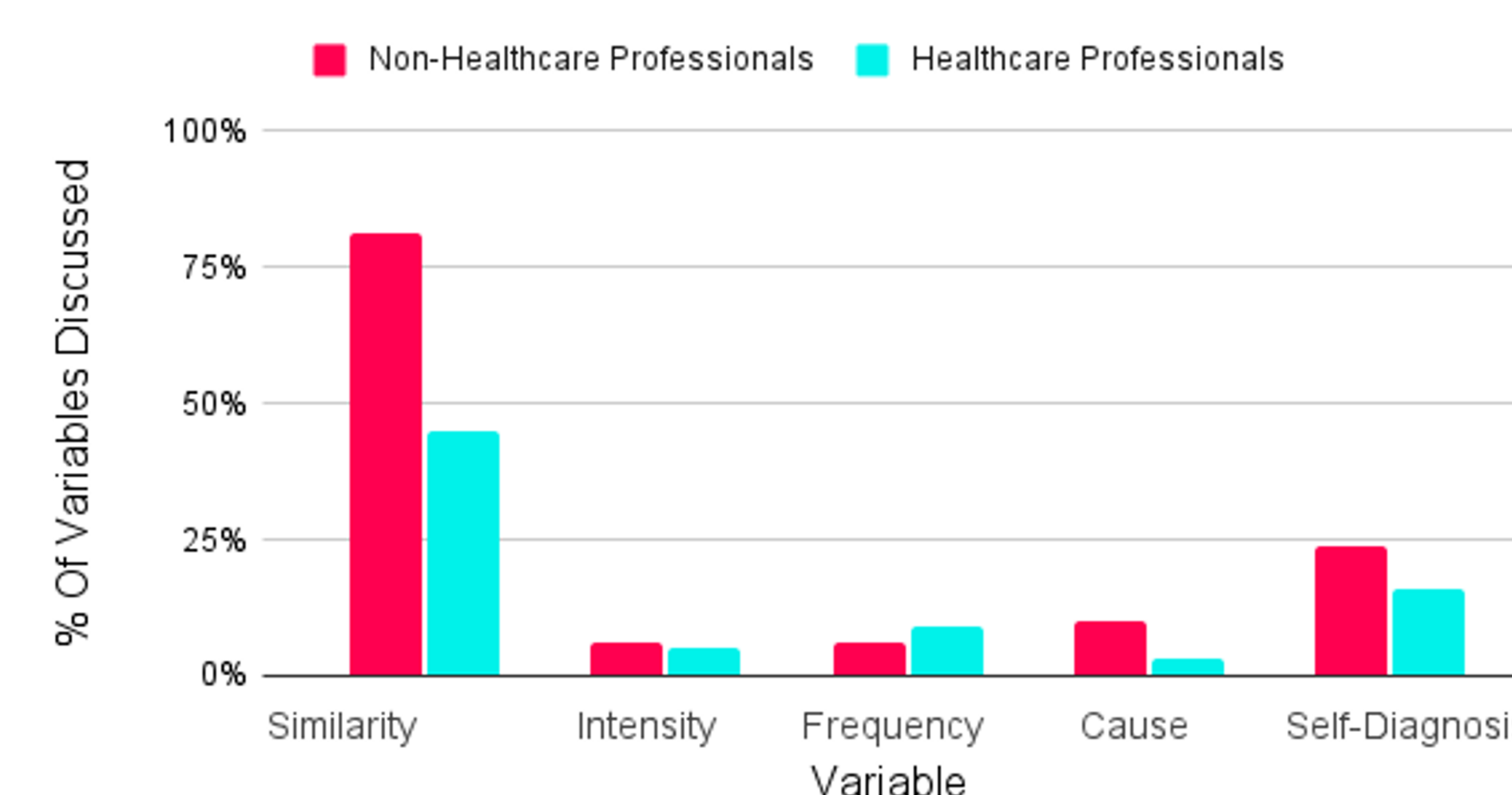
### Intensity & Frequency:



### Comments Analysis:

Variables	Examples of Keywords/Phrases
Similarity	TikTok is relatable, keywords: "same," "me," "me too," "not only one," "relatable," "I can relate."
Intensity of Chest Pain	Severity of chest pain: using the keywords "sharp," "stabbing," "burning," "sharp stab," "dull ache."
Frequency of Chest Pain	Frequency of chest pain, keywords: "once," "weekly," "monthly," "yearly."
Potential Causes	Assumed cause of chest pain, keywords "my anxiety," "gas," "poor diet," "no sleep," "stress."
Self-diagnosis	Self-diagnosis made, keywords: "have anxiety," "heart attack," "cancer," "acid reflux."

### Comment Analysis Variables



### Potential Causes:



## CONCLUSIONS

### Main Findings:

- Videos made by non-healthcare professionals had greater user engagement, however, they were of suboptimal or poor quality
- In comparison, videos made by healthcare professionals were of higher quality
- Similarity was the top most discussed variable in the comments of all videos
- Heart attacks and costochondritis were the most common self-diagnoses, and anxiety and stress were the top potential causes
- Most TikTok users reported the intensity of their chest pain as a stabbing pain and the frequency as regular

### Limitations:

- It is unclear how accurately the discussion of cardiac chest pain on TikTok depicts the experiences of adolescents
- It is unknown how the TikTok algorithm promotes videos, and therefore, it is uncertain why non-healthcare professionals' videos had more user engagement in comparison to healthcare professionals' videos

### Implications:

- Adolescents are advised to avoid consulting videos created by non-healthcare professionals as a source of education, based on the GQS scores for those videos
- As the number of shares for videos posted by non-healthcare professionals was higher than those by healthcare professionals, it's possible that more of the information available to adolescents regarding chest pain on TikTok is invalid
- Future studies could investigate adolescent chest pain in females vs. males

## ACKNOWLEDGEMENTS

- Thank you to my wonderful mentor, Reese Hyzer, for supporting and guiding me throughout this program.
- Thank you to my peers and all the program coordinators who led the weekly research workshops.
- Sincere gratitude to the SMAHRT program for offering me this opportunity

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